

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

**FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

CODEXIS, INC.

(Exact name of Registrant as specified in its charter)

Delaware
*(State or other jurisdiction of
incorporation or organization)*

8731
*(Primary Standard Industrial
Classification Code Number)*

71-0872999
*(I.R.S. Employer
Identification Number)*

**200 Penobscot Drive, Redwood City, CA 94063
(650) 421-8100**

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

**Douglas T. Sheehy
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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(2)
Common Stock, \$0.0001 par value	\$100,000,000	\$7,130

- (1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933. Includes the offering price of additional shares that the underwriters have the option to purchase.
- (2) The registrant previously paid a registration fee of \$3,930 with a registration statement on Form S-1, File No. 333-150224, initially filed with the Commission on April 14, 2008. Pursuant to Rule 457(p) of the Securities Act of 1933, \$3,930 of the previously paid registration fee is offset against the registration fee otherwise due for this registration statement.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

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The information contained in this prospectus is not complete and may be changed. We and the selling stockholders may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we and the selling stockholders are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 28, 2009

Shares



Codexis, Inc.

Common Stock

Prior to this offering, there has been no public market for our common stock. We anticipate that the initial public offering price will be between \$ and \$ per share. We have applied to list our common stock on The Nasdaq Global Market under the symbol "CDXS."

We are selling shares of our common stock. The selling stockholders identified in this prospectus are offering an additional shares. We will not receive any of the proceeds from the sale of the shares being sold by the selling stockholders.

To the extent the underwriters sell more than shares of common stock, the underwriters have the option to purchase up to an additional shares from us, at the initial public offering price, less the underwriting discounts and commissions.

Investing in our common stock involves risks. See "[Risk Factors](#)" beginning on page 11.

	<u>Price to Public</u>	<u>Underwriting Discounts and Commissions</u>	<u>Proceeds to Codexis</u>	<u>Proceeds to Selling Stockholders</u>
Per Share	\$	\$	\$	\$
Total	\$	\$	\$	\$

Delivery of the shares of common stock will be made on or about , 2010.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Credit Suisse

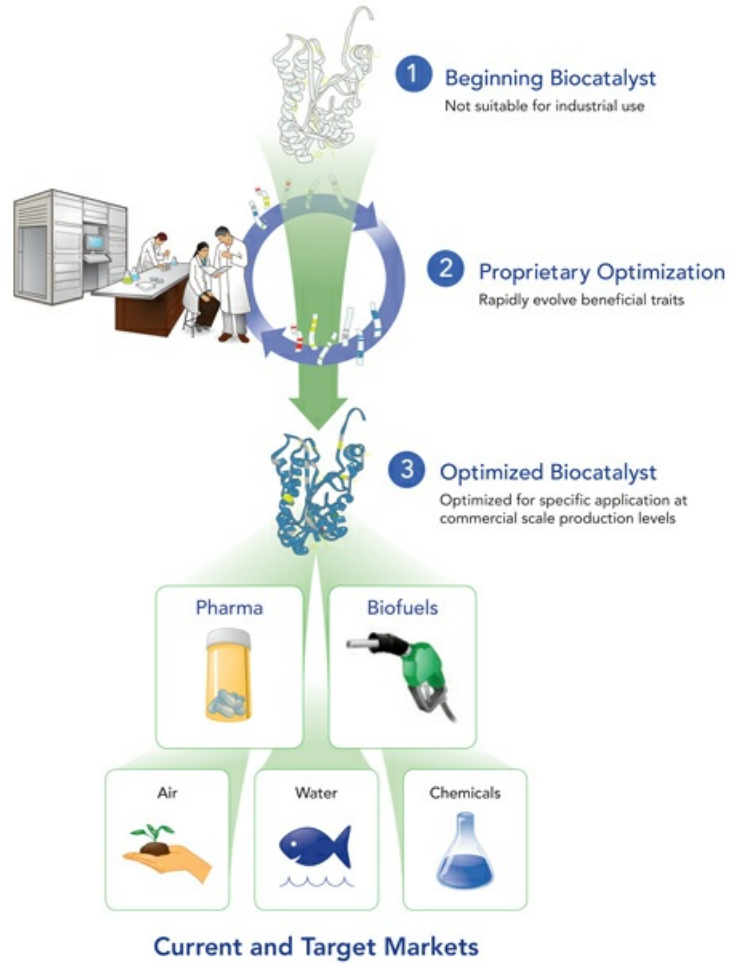
Goldman, Sachs & Co.

RBC Capital Markets

Pacific Crest Securities

The date of this prospectus is , 2010.

The Codexis Biocatalyst Solution



Biobased Solutions for the Low Carbon Economy

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You should rely only on the information contained in this prospectus. We, the selling stockholders and the underwriters have not authorized anyone to provide you with information different from that contained in this prospectus. We and the selling stockholders are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front cover of this prospectus, or such other dates as are stated in this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Dealer Prospectus Delivery Obligation

Until _____, 2010 (25 days after commencement of this offering), all dealers that buy, sell, or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information you should consider in making your investment decision. You should read this summary together with the more detailed information, including our financial statements and the related notes, appearing elsewhere in this prospectus. You should carefully consider, among other things, the matters discussed in "Risk Factors," before making an investment decision. Unless otherwise indicated herein, "Codexis, Inc.," "Codexis," "the Company," "we," "us" and "our" refer to Codexis, Inc. and its subsidiaries.

Our Company

Our proprietary technology platform enables the creation of optimized biocatalysts that make existing industrial processes faster, cleaner and more efficient than current methods and has the potential to make new industrial processes possible at commercial scale. We have commercialized our biocatalysts in the pharmaceutical industry and are developing biocatalysts for use in producing advanced biofuels under a multi-year research and development collaboration with Shell. We are also using our technology platform to pursue biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals.

Biocatalysts are enzymes or microbes that initiate or accelerate chemical reactions. Manufacturers have historically used naturally occurring biocatalysts to produce many goods used in everyday life. However, inherent limitations in naturally occurring biocatalysts have restricted their commercial use. Our proprietary technology platform is able to overcome many of these limitations, allowing us to evolve and optimize biocatalysts to perform specific and desired chemical reactions at commercial scale.

We have focused our biocatalyst development efforts on large and rapidly growing markets, including pharmaceuticals and advanced biofuels. We have enabled biocatalyst-based drug manufacturing processes at commercial scale and have delivered biocatalysts and drug products to some of the world's leading pharmaceutical companies, including Dr. Reddy's Laboratories Ltd., Merck & Co., Inc., Pfizer Inc. and Ranbaxy Laboratories Limited. In our research and development collaboration with Shell, we are developing biocatalysts for use in producing advanced biofuels from renewable sources of non-food plant materials, known as cellulosic biomass.

The Biocatalysis Opportunity — Industry Overview

Biocatalyst-enabled manufacturing processes may address a number of the drawbacks of conventional chemistry-based manufacturing. For example, unlike most chemistry-based manufacturing processes, biocatalysts can operate at or near room temperature and pressure, and often use manufacturing equipment that is less complex and expensive to build and operate. Biocatalyst-enabled processes can create products with the same or higher quality as chemistry-based manufacturing processes, while reducing the risks associated with extreme manufacturing environments and without generating the high volumes of waste, some of it hazardous to health and the environment, typically associated with conventional chemistry-based manufacturing processes.

In addition, due to concerns about the environment and the scarcity and security of supply of petroleum, there is an increasing interest in using cellulosic biomass as the feedstock for a variety of products, including advanced biofuels and other chemicals, as a replacement for petroleum. To date, conventional chemistry-based manufacturing approaches have not resulted in commercially viable processes for the conversion of cellulosic biomass to biofuels and other products. Biocatalysts have the potential to enable processes for the development of products, such as cellulose-derived biofuels, that cannot currently be manufactured using alternative techniques.

Despite their potentially significant advantages, biocatalysts have not achieved their full potential in industrial applications. Naturally occurring biocatalysts are often not stable enough to be used in industrial

settings, where conditions may differ significantly from those in the biocatalysts' natural environments. The activity and productivity of these biocatalysts is often too limited to be cost-effective in commercial scale manufacturing. In addition, the activity of natural biocatalysts is typically inhibited by the end product of the reactions they facilitate. This characteristic of natural biocatalysts, which is referred to as product inhibition, results in limited product yields in industrial settings. Moreover, for certain industrial applications, there are no known naturally occurring biocatalysts that catalyze the desired reaction.

Due to these limitations, other companies and researchers have tried to improve the performance of naturally occurring biocatalysts by directing their evolution through biotechnology techniques such as the random mutation of genes. However, to date, these techniques have had only limited success for a number of reasons. For example, random mutations of genes often result in decreased, not improved, performance and these alternative biotechnology techniques cannot effectively remove accumulated detrimental mutations. The end result is often an evolved biocatalyst with activity that reaches a plateau at a level that is insufficient for a commercial process. We believe there is a significant opportunity for novel technologies that can address the limitations of other biotechnology techniques and can substantially enhance the performance of biocatalysts in industrial settings.

Our Platform Technology

We believe that our proprietary technology platform can transform the industrial application of biocatalysts by improving their commercially relevant characteristics, such as stability, activity, product yield and tolerance to industrial conditions, while reducing product inhibition. In addition, our technology platform allows us to develop and optimize biocatalysts much more rapidly than is currently possible with alternative methods. Perhaps most importantly, we have demonstrated that our technology platform can enable the manufacture of products cost-effectively, at commercial scale and with significantly reduced environmental impact relative to conventional manufacturing processes.

Our proprietary technology platform uses advanced biotechnology methods, bioinformatics and years of accumulated know-how to significantly expedite the process of developing optimized biocatalysts. Key components of our technology platform include gene shuffling, whole genome shuffling, multiplexed gene SOEing, and proprietary bioinformatic software tools that allow us to identify and quantify the potential value of beneficial mutations and avoid detrimental mutations.

Our Target Markets and Solutions

Pharmaceuticals

Our technology platform enables us to deliver solutions to our customers in the pharmaceutical market by developing and delivering optimized biocatalysts that perform chemical transformations at a lower cost, and improve the efficiency and productivity of manufacturing processes. We provide value throughout the pharmaceutical product lifecycle, from preclinical development to clinical development and commercialization of products and the eventual transition from branded to generic products. Our technology platform allows us to provide benefits to our customers in a number of ways, including:

- reducing the use of raw materials and intermediate products;
- improving product yield;
- using water as a primary solvent;
- performing reactions at or near room temperature and pressure;
- eliminating the need for certain costly manufacturing equipment;
- reducing energy requirements;
- reducing the need for late-stage purification steps;

- eliminating multiple steps in the manufacturing process; and
- eliminating hazardous inputs and harmful emission by-products.

Early in the product lifecycle, customers can use our services to achieve speed to market and to reduce manufacturing costs. If a pharmaceutical company that has developed a patent-protected drug, known as an innovator, incorporates our products or processes into an FDA-approved product, we expect the innovator to continue to use these products or processes for the patent life of the approved drug.

After a product is launched, customers also use our services to reduce manufacturing costs. At this stage, changes in the manufacturing process originally approved by the FDA may require additional review. Typically, pharmaceutical companies will only seek FDA approval for a manufacturing change if there are substantial cost savings associated with the change. The cost savings associated with our products have led certain of our customers, such as Merck and Pfizer, to change their manufacturing processes for approved products and, if necessary, seek FDA approval of the new processes which incorporate our biocatalysts. Moreover, we believe these cost savings are attractive to generics manufacturers, who compete primarily on price.

Our products and services include our Codex Biocatalyst Panels, biocatalyst screening services, biocatalyst optimization services, biocatalysts and intermediates and active pharmaceutical ingredients, or APIs.

Biofuels

We believe that our technology platform will enable the development of biocatalysts that can be used to produce commercially viable, cellulose-derived biofuel alternatives to petroleum-based fuels. Since 2006, we have been engaged with Equilon Enterprises LLC dba Shell Oil Products US, which we refer to as Shell, in a research and development collaboration under which we are developing biocatalysts for use in producing advanced biofuels. Advanced biofuels are liquid transportation fuels derived from non-food biomass and which meet certain minimum carbon reduction criteria. Under the Energy Independence and Security Act of 2007, a minimum of 21 billion gallons of advanced biofuels must be sold in the United States by 2022. Our advanced biofuels program focuses on two primary elements: (1) developing biocatalysts to convert cellulosic biomass into sugars; and (2) converting these sugars into two advanced biofuels, cellulosic ethanol and biohydrocarbon diesel. For the first element, we have used our technology platform to improve our cellulase and other biocatalysts. For the second element, we have developed a biocatalyst that converts sugars to diesel fuel, and are working on improving ethanol-producing yeast. We are using our technology platform to develop biocatalysts that we believe will:

- increase the rate at which cellulosic biomass is converted into biofuels;
- increase the yield of biofuels produced from cellulosic biomass;
- eliminate the need to use food resources for the production of biofuels;
- provide producers with more flexibility in designing processes to convert cellulosic biomass to biofuels, thereby reducing the costs associated with building and operating biofuel production facilities; and
- enable the production of new types of cellulosic biofuels that could be alternatives to petroleum-based fuels.

Under our research and development collaboration with Shell, Shell will have the right, but not the obligation, to commercialize any technology that we develop in our biofuels program. If Shell commercializes our biofuels technology, we will collect a royalty for every gallon of fuel that Shell produces using our technology. If Shell chooses to commercialize any biofuels products developed through our collaboration, we believe that the combination of our technology platform with Shell's proven project development capabilities and resources could enable a biofuels solution that extends from the conversion of cellulosic biomass into biofuels to delivery and distribution of refined biofuels to consumers at the pump.

Additional Bioindustrial Opportunities

We believe that our technology platform, together with the knowledge and experience gained from our efforts in the pharmaceutical market and in our biofuels development program, will allow us to capitalize on opportunities in other bioindustrial markets, including carbon management, water treatment and chemicals. Depending on the market, we may pursue collaborations with industry leaders to allow us to leverage their competitive strengths and resources in pursuit of these opportunities.

Our Business Model

Our business model allows us to simultaneously pursue multiple commercial opportunities across a number of major markets. Our business model has resulted in a diversified revenue stream that is predictable over the near term with significant growth potential, while allowing us to share risk with and leverage the capabilities of our collaborators. Our business model includes the following key elements:

- *Targeting Multiple Major and Growing Markets.* We currently use our technology platform to produce biocatalysts that are used at commercial scale in the pharmaceutical market. Through our collaboration with Shell, we are developing biocatalysts for use in producing commercially viable biofuels from cellulosic biomass. We also believe that we can use our technology platform to deliver biocatalyst-enabled solutions to other bioindustrial markets, including carbon management, water treatment and chemicals.
- *Capital-Efficient Collaborations with Industry Leaders.* We have adopted a business model that leverages our collaborators' engineering, manufacturing and commercial expertise, their distribution infrastructure and their ability to fund commercial scale production facilities. For instance, in the pharmaceuticals market, our supply relationship with Arch enables us to bring intermediates and/or APIs for branded pharmaceutical products to market with very limited additional capital. In addition, if we are able to develop biocatalysts that enable the commercial production of biofuels derived from cellulosic biomass and Shell decides to commercialize products based on this technology, we would need to rely on Shell, or other parties selected by Shell, to design and build the commercial scale fuel production facilities and to distribute the final fuel product.
- *Diversified Revenue Base.* We are generating a revenue stream that is diversified across distinct industries, which should mitigate our exposure to cyclical downturns or fluctuations in any one market. In 2008, our revenues were derived from the pharmaceuticals and biofuels markets, and consisted primarily of collaborative research and development revenues and product sales. We are pursuing biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals that, if successful, will allow us to further diversify our revenues.
- *Visible and Predictable Revenues.* Based on our existing arrangements, we believe that the revenues from both our biofuels and pharmaceutical businesses should be predictable over the near term. We receive bi-monthly payments from Shell that are based on the number of funded FTEs that work on our research collaboration with Shell. The number of funded FTEs that work on the program, and the payments from Shell for these FTEs, are specified in our collaborative research agreement, subject to Shell's ability to increase or reduce the number of FTEs under certain conditions over time. Because we allow our pharmaceutical customers to achieve significant cost savings in their manufacturing processes, historically they have continued using our biocatalysts once they have begun using our biocatalyst-enabled process.

Strategy

Our objective is to be the leading provider of optimized biocatalyst-enabled solutions across a wide range of industries. Key elements of our strategy are as follows:

- *Become a leading biocatalyst supplier to the advanced biofuels market.* Our primary development efforts are focused on producing biocatalysts that can enable Shell to become a global leader in the advanced biofuels market. We continue to build upon our milestone-driven, multi-year research and development collaboration with Shell as we advance our efforts to produce biofuels from cellulosic biomass cost-effectively at commercial scale. Because of our success to date, Shell has expanded our collaboration twice, which we believe positions us to be a key contributor to their overall biofuels strategy.
- *Expand into new bioindustrial markets.* We are actively pursuing opportunities in other bioindustrial markets, including through self-funded research in carbon management and the pursuit of funded collaborations in carbon management, water treatment and chemicals. We have the right to use the intellectual property developed in our collaboration with Shell in fields outside of fuels and related products. We intend to leverage this and other intellectual property and our technology platform to develop products in our other target markets.
- *Continue growing our pharmaceutical business.* We intend to pursue new collaborations in the pharmaceutical industry to integrate our products and services more deeply into drug development and manufacturing processes for clinical stage and commercially approved pharmaceutical products. As part of that effort, we will continue to aggressively market our Codex Biocatalyst Panels to pharmaceutical companies to demonstrate the capabilities of our technology platform.
- *Secure access to additional production capacity.* To increase our biocatalyst manufacturing capacity and establish secondary supply sources, we are working to establish long-term supply contracts with contract manufacturers and are evaluating whether to invest in our own manufacturing capabilities. We may also opportunistically seek to secure specialty manufacturing assets and expand existing relationships for the supply of our biocatalysts and key pharmaceutical intermediates and APIs. For example, in August 2008, we entered into an expanded supply relationship with Arch for the manufacture of intermediates and APIs for specified pharmaceutical products.
- *Expand our business and technology platform through the addition of new technologies, products or businesses.* In the past, we have expanded our business by acquiring companies with synergistic business plans and licensing new technology. We will continue to evaluate opportunities to acquire or license new technologies, products or businesses that complement or expand our capabilities, including in the carbon management, water treatment and chemical markets. In addition, we intend to continue to advance our technology platform by investing in our research and development capabilities to allow us to more rapidly identify and develop products and pursue new market opportunities.

Corporate Information

We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc. We commenced independent operations in March 2002, after licensing core enabling technology from Maxygen. As of September 30, 2009, Maxygen beneficially owned approximately 21.6% of our common stock. Our other investors include industry leaders such as Shell, Chevron Corporation, Pfizer and The General Electric Company. Our principal executive offices are located at 200 Penobscot Drive, Redwood City, CA 94063, and our telephone number is (650) 421-8100. Our website address is www.codexis.com. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be part of this prospectus.

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Our logo, “Codexis,” “Codex” and “Codex Biocatalyst Panel” and other trademarks or service marks of Codexis, Inc. appearing in this prospectus are the property of Codexis, Inc. This prospectus contains additional trade names, trademarks and service marks of other companies. We do not intend our use or display of other companies’ trade names, trademarks or service marks to imply relationships with, or endorsement or sponsorship of us by, these other companies.

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	The Offering
Common stock offered by Codexis	shares (or shares if the underwriters exercise their option to purchase additional shares in full).
Common stock offered by the selling stockholders	shares.
Common stock to be outstanding after this offering	shares (or shares if the underwriters exercise their option to purchase additional shares in full).
Proposed Nasdaq Global Market symbol	“CDXS”
Use of proceeds	We intend to use the net proceeds from this offering for working capital and other general corporate purposes, including the costs associated with being a public company. We may also use a portion of the net proceeds to acquire other businesses, products or technologies, and to increase our internal biocatalyst production capacity. However, we do not have agreements or commitments for any specific acquisitions at this time. We will not receive any proceeds from the sale of shares by the selling stockholders. Please see “Use of Proceeds.”
Risk factors	See “Risk Factors” starting on page 11 of this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.
The number of shares of common stock to be outstanding after this offering is based on 41,599,768 shares outstanding as of September 30, 2009 and excludes:	
<ul style="list-style-type: none">• 10,962,854 shares of common stock issuable upon the exercise of options outstanding as of September 30, 2009 at a weighted average exercise price of \$3.25 per share;• 491,513 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2009 at a weighted average exercise price of \$3.95 per share; and• shares of common stock reserved for issuance under our 2010 Equity Incentive Award Plan, which will become effective in connection with the consummation of this offering (plus an additional 3,226,648 shares of common stock reserved for future grant or issuance under our 2002 Stock Plan as of September 30, 2009, which shares will be added to the shares to be reserved under our 2010 Equity Incentive Award Plan upon the effectiveness of the 2010 Equity Incentive Award Plan).	
Except as otherwise indicated, all information in this prospectus assumes:	
<ul style="list-style-type: none">• the conversion of all of our outstanding shares of preferred stock into 37,624,216 shares of common stock in connection with the consummation of this offering and the related conversion of all outstanding preferred stock warrants into common stock warrants;• no exercise of the underwriters’ option to purchase additional shares;• an amendment to certain of our preferred stock financing documents prior to the consummation of this offering; and• the filing of our amended and restated certificate of incorporation, which will occur in connection with the consummation of this offering.	

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We refer to our Series A, Series B, Series C, Series D, Series E and Series F preferred stock collectively as “redeemable convertible preferred stock” for financial reporting purposes and in the financial tables included in this prospectus, as more fully explained in Note 2 to our consolidated financial statements. In other parts of this prospectus, we refer to our Series A, Series B, Series C, Series D, Series E and Series F preferred stock collectively as “preferred stock.”

Summary Consolidated Financial Data

The following table sets forth a summary of our historical consolidated financial data for the periods ended or as of the dates indicated. We have derived the consolidated statements of operations data for the years ended December 31, 2006, 2007 and 2008 from our audited consolidated financial statements appearing elsewhere in this prospectus. We have derived the consolidated statements of operations data for the nine months ended September 30, 2008 and 2009 and the consolidated balance sheet data as of September 30, 2009 from our unaudited financial statements appearing elsewhere in this prospectus. You should read this table together with our consolidated financial statements and the accompanying notes, "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing elsewhere in this prospectus. The unaudited interim financial statements have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to state fairly our financial position as of September 30, 2009 and results of operations and cash flows for the nine months ended September 30, 2008 and 2009. The summary consolidated financial data in this section is not intended to replace our consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

The following table also sets forth summary unaudited pro forma and pro forma as adjusted consolidated financial data, which gives effect to the transactions described in the footnotes to the table. The unaudited pro forma and pro forma as adjusted consolidated financial data is presented for informational purposes only and does not purport to represent what our consolidated results of operations or financial position actually would have been had the transactions reflected occurred on the dates indicated or to project our financial condition as of any future date or results of operations for any future period.

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
(in thousands, except per share amounts)					
Consolidated Statements of Operations Data:					
Revenues:					
Product	\$ 2,544	\$ 11,418	\$ 16,860	\$ 10,777	\$ 13,401
Related party collaborative research and development	863	8,481	30,239	18,174	43,963
Collaborative research and development	8,403	4,733	3,062	2,678	1,295
Government grants	317	701	317	251	11
Total revenues	<u>12,127</u>	<u>25,333</u>	<u>50,478</u>	<u>31,880</u>	<u>58,670</u>
Costs and operating expenses:					
Cost of product revenues	1,806	8,319	13,188	7,922	11,886
Research and development	17,257	35,644	45,554	33,250	39,486
Selling, general and administrative	11,880	19,713	35,709	28,300	20,939
Total costs and operating expenses	<u>30,943</u>	<u>63,676</u>	<u>94,451</u>	<u>69,472</u>	<u>72,311</u>
Loss from operations	(18,816)	(38,343)	(43,973)	(37,592)	(13,641)
Interest income	742	1,491	1,538	1,435	141
Interest expense and other, net	(724)	(2,533)	(2,365)	(2,517)	(1,530)
Loss before provision (benefit) for income taxes	(18,798)	(39,385)	(44,800)	(38,674)	(15,030)
Provision (benefit) for income taxes	(127)	(408)	327	126	79
Net loss	<u>\$(18,671)</u>	<u>\$(38,977)</u>	<u>\$(45,127)</u>	<u>\$(38,800)</u>	<u>\$(15,109)</u>
Net loss per share of common stock, basic and diluted	<u>\$ (10.99)</u>	<u>\$ (15.53)</u>	<u>\$ (12.64)</u>	<u>\$ (11.02)</u>	<u>\$ (3.86)</u>
Weighted average common shares used in computing net loss per share of common stock, basic and diluted	1,699	2,510	3,570	3,521	3,917
Net loss used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)(1)			<u>\$(45,230)</u>		<u>\$(14,760)</u>
Pro forma net loss per share of common stock, basic and diluted (unaudited)(1)			<u>\$ (1.26)</u>		<u>\$ (0.37)</u>
Weighted average common shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)(1)			35,900		39,684

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- (1) Net loss used in computing pro forma basic and diluted net loss per share of common stock, pro forma basic and diluted net loss per share of common stock and number of weighted average common shares used in computing pro forma basic and diluted net loss per share of common stock in the table above give effect to the automatic conversion of all of our outstanding redeemable convertible preferred stock into common stock upon the closing of this offering as if such conversion had occurred at the beginning of each period or upon issuance, if later.

	September 30, 2009		
	Actual	Pro Forma(1) (in thousands)	Pro Forma As Adjusted(2)(3)
Consolidated Balance Sheet Data:			
Cash, cash equivalents and marketable securities	\$ 55,962	\$ 55,962	
Working capital	28,061	29,792	
Total assets	93,207	93,207	
Redeemable convertible preferred stock warrant liability	1,731	—	
Current and long-term financing obligations	9,505	9,505	
Redeemable convertible preferred stock	177,746	—	
Stockholders' (deficit) equity	(140,893)	38,584	

- (1) The pro forma consolidated balance sheet data gives effect to (i) conversion of all of our outstanding shares of redeemable convertible preferred stock into shares of common stock, and (ii) conversion of all of our warrants for redeemable convertible preferred stock into warrants for common stock and the related reclassification of redeemable convertible preferred stock warrant liability to stockholders' equity upon the completion of this offering.
- (2) The pro forma as adjusted consolidated balance sheet data gives effect to the sale of _____ shares of common stock in this offering at an assumed initial public offering price of \$ _____ per share (the midpoint of the price range set forth on the cover page of this prospectus), after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.
- (3) Each \$1.00 increase or decrease in the assumed initial public offering price of \$ _____ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase or decrease, as applicable, our pro forma as adjusted cash, cash equivalents and marketable securities, working capital, total assets and stockholders' equity by approximately \$ _____ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors, as well as the other information in this prospectus, before deciding whether to invest in shares of our common stock. The occurrence of any of the events described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the trading price of our common stock may decline and you may lose all or part of your investment.

Risks Relating to Our Business and Strategy

We have a limited operating history, which may make it difficult to evaluate our current business and predict our future performance.

Our company has been in existence since early 2002. From 2002 until 2005, our operations focused on organizing and staffing our company and developing our technology platform. In 2005, we recognized our first revenues from product sales. Since 2005, we have continued to generate revenues, but because our revenue growth has occurred in recent periods, our limited operating history may make it difficult to evaluate our current business and predict our future performance. Any assessments of our current business and predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history. We have encountered and will continue to encounter risks and difficulties frequently experienced by growing companies in rapidly changing industries. If we do not address these risks successfully, our business will be harmed.

Our quarterly operating results may fluctuate in the future. As a result, we may fail to meet or exceed the expectations of research analysts or investors, which could cause our stock price to decline.

Our financial condition and operating results have varied significantly in the past and may continue to fluctuate from quarter to quarter and year to year in the future due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations include the following factors, as well as other factors described elsewhere in this prospectus:

- our ability to achieve or maintain profitability;
- actions that could cause us to lose any of our rights under our license from Maxygen;
- our relationships with and dependence on collaborators in our principal markets;
- our dependence on Shell for the development and commercialization of biofuels;
- the feasibility of producing and commercializing biofuels derived from cellulose;
- our dependence on a limited number of customers;
- our dependence on a limited number of contract manufacturers of our biocatalysts and suppliers for our pharmaceutical intermediates and APIs;
- our ability to manage our growth;
- our pharmaceutical customers' abilities to incorporate our biocatalysts into their manufacturing processes;
- the outcomes of clinical trials conducted by our innovator customers;
- our ability to develop and successfully commercialize new products for the pharmaceuticals market;
- the effect of consolidation in the pharmaceutical industry on demand for our products;
- our ability to commercialize our technology in other bioindustrial markets;
- our ability to maintain license rights for commercial scale expression systems for cellulases;

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- fluctuations in the price of and demand for petroleum-based fuels;
- the availability of non-food renewable cellulosic biomass sources;
- reductions or changes to existing fuel regulations and policies;
- the existence of government subsidies or regulation with respect to carbon dioxide emissions;
- our potential need for additional licenses from Maxygen to pursue certain future business opportunities in the chemical market;
- our ability to obtain and maintain governmental grants;
- risks associated with the international aspects of our business;
- our ability to integrate any businesses we may acquire with our business;
- potential issues related to our ability to accurately report our financial results in a timely manner;
- our dependence on, and the need to attract and retain, key management and other personnel;
- our ability to obtain, protect and enforce our intellectual property rights;
- our ability to prevent the theft or misappropriation of our biocatalysts, the genes that code for our biocatalysts, know-how or technologies;
- potential advantages that our competitors and potential competitors may have in securing funding or developing products;
- our ability to obtain additional capital that may be necessary to expand our business;
- business interruptions such as earthquakes and other natural disasters;
- public concerns about the ethical, legal and social ramifications of genetically engineered products and processes;
- our ability to comply with laws and regulations;
- our ability to properly handle and dispose of hazardous materials used in our business;
- potential product liability claims; and
- our ability to use our net operating loss carryforwards to offset future taxable income.

Due to the various factors mentioned above, and others, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

We have a history of net losses, and we may not achieve or maintain profitability.

We have incurred net losses since our inception, including losses of \$18.7 million, \$39.0 million and \$45.1 million in 2006, 2007 and 2008, respectively, and \$15.1 million for the nine months ended September 30, 2009. As of September 30, 2009, we had an accumulated deficit of \$154.4 million. We expect to incur losses and negative cash flow from operating activities for the foreseeable future. To date, we have derived a substantial portion of our revenues from research and development agreements with our collaborators and expect to derive a substantial portion of our revenues from these sources for the foreseeable future. If we are unable to extend our existing agreements or enter into new agreements upon the expiration or termination of our existing agreements, our revenues could be adversely affected. In addition, some of our collaboration agreements provide for milestone payments and future royalty payments, the payment of which are uncertain as they are dependent on our and our collaborators' abilities and willingness to successfully develop and commercialize products. We expect to spend significant amounts to fund the development of additional pharmaceutical and potential bioindustrial products, including biofuels. As a result, we expect that our expenses will exceed revenues for the foreseeable future.

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and we do not expect to achieve profitability during this period, if ever. If we fail to achieve profitability, or if the time required to achieve profitability is longer than we anticipate, we may not be able to continue our business. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

In each of the last two audits of our consolidated financial statements, we and our independent registered public accounting firm have identified a material weakness and other deficiencies in our internal control over financial reporting. If we fail to remediate the deficiencies in our control environment or are unable to implement and maintain effective internal control over financial reporting in the future, the accuracy and timeliness of our financial reporting may be adversely affected.

We have not performed an evaluation of our internal control over financial reporting, such as required by Section 404 of the Sarbanes-Oxley Act, nor have we engaged our independent registered public accounting firm to perform an audit of our internal control over financial reporting as of any balance sheet date or for any period reported in our financial statements. Had we performed such an evaluation or had our independent registered public accounting firm performed an audit of our internal control over financial reporting, control deficiencies, including material weaknesses and significant deficiencies, in addition to those discussed below, may have been identified.

Solely in connection with the audit of our consolidated financial statements for 2005, 2006 and 2007, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of a company's annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness comprised (i) our lack of policies and procedures, with the associated internal controls, to appropriately address complex, non-routine transactions and (ii) the lack of a sufficient number of qualified personnel to timely account for such transactions in accordance with U.S. generally accepted accounting principles. We and our independent registered public accounting firm identified the following issues during the audit, which collectively gave rise to the conclusion that we had an underlying material weakness: (i) inadequate policies to address the increasingly complex revenue arrangements that we enter into; (ii) failure to correctly and timely identify all data required to evaluate the accounting impact of stock option grants and to recognize all requirements under applicable accounting standards; (iii) accounting issues that arose in connection with two acquisitions; (iv) improper recording of foreign currency cumulative translation adjustments; and (v) failure to effectively track and value inventory. These deficiencies in the design and operation of our internal controls resulted in the recording of numerous audit adjustments, and significantly delayed our financial statement close process, for the three year period ended December 31, 2007.

Solely in connection with the audit of our consolidated financial statements for 2008, we and our independent registered public accounting firm identified a material weakness and two significant deficiencies in our internal control over financial reporting. The material weakness related to an inadequately designed process to analyze and reconcile certain accounts and the failure of supervisors or business unit managers to review the analysis prepared for certain accounts. We and our independent registered public accounting firm identified the following issues during the audit, which collectively gave rise to the conclusion that we had an underlying material weakness: (i) duplicative accrual relating to legal expenses in our accounting records; (ii) incorrect inputs relating to the Black-Scholes calculation of fair value of non-employee stock options and warrants; (iii) under accrual of expenses for tax consulting work; (iv) incorrect input of costs eligible for reimbursement under a license agreement; (v) errors in the valuation of inventory; and (vi) failure to accrue penalties associated with foreign filing requirements. We and our independent registered public accounting firm also identified two significant deficiencies in our internal control over financial reporting relating to (i) misapplication of U.S. generally accepted accounting principles and (ii) an ineffective contract compliance process. The material weakness and significant deficiencies resulted in the recording of numerous audit adjustments.

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We have not yet been able to remediate the deficiencies identified in these audits. However, we have taken numerous steps and plan to take additional significant steps intended to address the underlying causes of the material weaknesses and significant deficiencies in the immediate future, primarily through the development and implementation of formal policies, improved processes and documented procedures, the retention of third-party experts and contractors, and the hiring of additional accounting and finance personnel with technical accounting, inventory accounting and financial reporting experience. We do not know the specific timeframe needed to remediate all of the control deficiencies underlying these material weaknesses and significant deficiencies. In addition, we may incur significant incremental costs associated with this remediation, primarily due to the procurement, implementation and validation of robust accounting and financial reporting systems, the hiring of additional finance and accounting personnel and the continued use of third-party experts and contractors.

If we fail to enhance our internal control over financial reporting to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act, we may be unable to accurately report our financial results, or report them within the timeframes required by law or exchange regulations. In addition, while we currently rely on a third-party contractor to assist us in the preparation of our financial statements, we intend for our internal accounting and finance groups to handle our financial reporting obligations upon becoming a reporting company. We may encounter difficulties as we reduce our reliance on this contractor, which could impact our ability to timely and accurately prepare our financial statements. We cannot assure you that we will be able to remediate all of the control deficiencies underlying our existing material weaknesses or significant deficiencies in a timely manner, if at all, or that in the future additional material weaknesses or significant deficiencies will not exist or otherwise be discovered, a risk that is significantly increased in light of the complexity of our business and multinational operations, and the emerging need for complex inter-subsidiary transactions. If our efforts to remediate these control deficiencies are not successful or if other deficiencies occur, our ability to accurately and timely report our financial position, results of operations or cash flows could be impaired, which could result in late filings of our annual and quarterly reports under the Securities Exchange Act of 1934, as amended, restatements of our consolidated financial statements, a decline in our stock price, suspension or delisting of our common stock by The Nasdaq Global Market, or other material adverse effects on our business, reputation, results of operations, financial condition or liquidity.

If we lose our intellectual property rights licensed from Maxygen, we may be unable to continue our business.

We have licensed core enabling intellectual property rights and technology from Maxygen, Inc., or Maxygen, under our March 2002 license agreement with Maxygen, which was subsequently amended in September 2002, October 2002 and August 2006. Under the terms of the license agreement, we are obligated, among other things, to pay Maxygen a significant percentage of certain types of consideration we receive in connection with our biofuels research and development collaboration with Shell. As a result of consideration received in connection with this collaboration, we were obligated to pay Maxygen \$7.8 million, \$1.0 million and \$4.2 million for 2007 and 2008 and for the nine months ended September 30, 2009, respectively.

We rely heavily on the technology licensed to us by Maxygen and third parties under the Maxygen license. This technology includes advanced biotechnology methods, bioinformatics and years of accumulated know-how to develop the biocatalysts that are central to our business. Certain technologies sublicensed to us from Maxygen are owned by third parties, and our use of these technologies may be restricted by Maxygen's agreements with those third parties. Maxygen has the right to terminate our rights under the license with respect to fuels, but not with respect to chemicals or pharmaceuticals, if we breach our royalty obligations to Maxygen and do not cure such breach within 60 days after we receive notice of the breach. In addition, as part of the license we received from Maxygen, Maxygen assigned or sublicensed to us several license agreements between Maxygen and third parties, including an agreement with one of

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our competitors, Novozymes A/S, or Novozymes. These third party agreements may restrict our use of the licensed technology. If we breach one of these third party agreements and fail to cure such breach within the time period specified in such third party agreement, Maxygen has the right to terminate our license with respect to the subject matter covered by the applicable third party agreement. Maxygen also has the right to terminate our license with respect to any family of related patent applications if we fail to pay our share of costs for obtaining and maintaining a patent licensed to us by Maxygen more than three times within any three-year period. In addition, Maxygen has the first right to control prosecution, maintenance and enforcement of certain licensed intellectual property rights. If Maxygen is acquired by a third party or transfers to a third party some or all of the intellectual property rights that we have licensed, the acquirer may choose not to enforce the intellectual property rights on which our business relies, or may seek to enforce those rights ineffectively and have them invalidated, and our ability to develop and expand our business may be adversely impacted. Any termination of our license agreement with Maxygen or any of the rights licensed to us by third parties through Maxygen, or any loss of our intellectual property rights as a result of ineffective enforcement of such rights, would have a material adverse impact on our financial condition, results of operations and growth prospects and could prevent us from continuing our business.

The license agreement with Maxygen, the related sublicenses to third party technologies and the third party agreements assigned to us under the Maxygen agreement, and the interplay between those agreements, are highly complex. For example, the agreements rely on highly technical definitions and delineate permitted and restricted activities. As a result of this complexity, the agreements may be subject to differing interpretations by the counterparties that could lead to disputes or litigation, including for alleged breaches or claims that our products or activities are not covered by the scope of the licenses. If Maxygen or a third party were to make such a contention and we were unable to reach agreement on the meaning or scope of the licenses, we could be subject to litigation. Any such litigation may divert management time from focusing on business operations and could cause us to spend significant amounts of money. If such litigation were to be decided adversely to us, we could: lose our rights to utilize the subject intellectual property in our business; be forced to stop selling or using our products or processes that use the subject intellectual property; be required to obtain a license to use the subject intellectual property, which license may not be available on commercially reasonable terms, or at all; be forced to redesign those products or processes that use the subject intellectual property, which may result in significant cost or delay to us, or which could be technically infeasible; or be required to pay monetary damages.

Under our license with Maxygen, there are limitations on our ability to enforce Maxygen's patents to which we hold a license, which could have a material adverse effect on our business.

Under our agreement with Maxygen, Maxygen has the first right to enforce many of the patents that we have licensed, particularly those directly related to gene shuffling technology. If Maxygen declines to enforce these patent rights, we can enforce these rights after a delay of up to six months, or Maxygen can deny us the ability to enforce if Maxygen concludes that such enforcement may have a material adverse impact on Maxygen or one or more other licensees of Maxygen's technology. Some portions of the technology licensed to us by Maxygen are owned by third parties that retain the right to enforce the patents. If Maxygen or these third parties fail to enforce their patent rights, our business could be materially adversely affected. Maxygen also has the right to control the defense of patent infringement claims made by third parties alleging infringement related to gene shuffling technology. If Maxygen does not provide a timely and adequate defense to these claims, we could be forced to stop using the licensed technology, redesign our products and/or obtain a license from the party claiming infringement, which may not be available on commercially reasonable terms or at all. If Maxygen were to become acquired or controlled by a competitor of ours or a third party who is not willing to work with us on the same terms or commit the same resources as Maxygen, our business could be harmed.

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We are dependent on our collaborators, and our failure to successfully manage these relationships could prevent us from developing and commercializing many of our products and achieving or sustaining profitability.

Our ability to maintain and manage collaborations in our markets is fundamental to the success of our business. We currently have license agreements, research and development agreements, supply agreements and/or distribution agreements with various collaborators. We may have limited or no control over the amount or timing of resources that any collaborator is able or willing to devote to our partnered products or collaborative efforts. Any of our collaborators may fail to perform their obligations as expected. These collaborators may breach or terminate their agreements with us or otherwise fail to conduct their collaborative activities successfully and in a timely manner. Further, our collaborators may not develop products arising out of our collaborative arrangements or devote sufficient resources to the development, manufacture, marketing, or sale of these products. Moreover, disagreements with a collaborator could develop and any conflict with a collaborator could reduce our ability to enter into future collaboration agreements and negatively impact our relationships with one or more existing collaborators. If any of these events occur, or if we fail to maintain our agreements with our collaborators, we may not be able to commercialize our existing and potential products, grow our business, or generate sufficient revenues to support our operations. Our collaboration opportunities could be harmed if:

- we do not achieve our research and development objectives under our collaboration agreements in a timely manner or at all;
- we develop products and processes or enter into additional collaborations that conflict with the business objectives of our other collaborators;
- we disagree with our collaborators as to rights to intellectual property we develop, or their research programs or commercialization activities;
- we are unable to manage multiple simultaneous collaborations;
- our collaborators become competitors of ours or enter into agreements with our competitors;
- our collaborators become unable or less willing to expend their resources on research and development or commercialization efforts due to general market conditions, their financial condition or other circumstances beyond our control; or
- consolidation in our target markets limits the number of potential collaborators.

Additionally, our business could be negatively impacted if any of our collaborators or suppliers undergoes a change of control or were to otherwise assign the rights or obligations under any of our agreements. For example, under our license agreement with Shell, Shell may assign the agreement without our consent in connection with a change of control. If Shell or any of our other collaborators were to assign these agreements to a competitor of ours or to a third party who is not willing to work with us on the same terms or commit the same resources as the current collaborator, our business and prospects could be harmed.

Our future success is heavily dependent on our collaborative research agreement with Shell.

Our current business plan for biofuels is heavily dependent on our collaborative research agreement with Shell, which will continue to be critical to researching and developing successful biocatalysts for producing biofuel products. Shell's efforts in commercializing those products profitably will be critical to the success of our business plan for biofuels. If we are unable to successfully execute on the development of products for Shell, our ability to expand into other bioindustrial areas may be significantly impaired, which will materially and adversely affect our ability to grow our business.

We cannot control the financial resources Shell devotes to our programs under the collaborative research agreement. Currently, we receive bi-monthly payments from Shell that are based on the number of

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full time employee equivalents, or FTEs, that work on our research collaboration with Shell. The number of FTEs that work on the program, and the payments from Shell for these FTEs, are specified in our collaborative research agreement. Until November 1, 2010, Shell has the right to reduce the number of funded FTEs under the collaborative research agreement by up to FTEs following 60 days' advance written notice. After November 1, 2010, Shell has the right to further reduce the number of funded FTEs, with any one reduction not to exceed funded FTEs, following advance written notice. The required notice period ranges from 30 to 270 days, so the earliest an FTE reduction could take place would be December 2, 2010. Following any such reduction, Shell is subject to a standstill period of between 90 and 360 days during which period Shell cannot provide notice of any further FTE reductions. The notice and standstill periods are dependent on the number of funded FTEs reduced, with the length of notice and standstill periods increasing commensurate with the number of FTEs reduced. Any such reduction would have a material adverse impact on our revenues and business plan for biofuels. Moreover, disputes may arise between us and Shell, which could delay the programs on which we are working or could prevent the commercialization of products developed under our research and development collaboration. If that were to occur, we may have to use funds, personnel, equipment, facilities and other resources that we have not budgeted to undertake certain activities on our own. Disagreements with Shell could also result in expensive arbitration or litigation, which may not be resolved in our favor. Performance issues, program delay or termination or unbudgeted use of our resources may have a material adverse effect on our business and financial condition. Even if we successfully develop commercially viable technologies, our ability to derive revenues from those technologies will be dependent upon Shell's willingness and ability to commercialize them. Shell has the right, but not the obligation, to commercialize these technologies. If Shell decides to commercialize our technology, we would need to rely on Shell, or other parties selected by Shell, to design, finance and construct commercial scale biofuel facilities, and operate commercial scale facilities at costs that are competitive with traditional petroleum-based fuels and other alternative fuel technologies that may be developed. Shell could merge with or be acquired by another company or experience financial or other setbacks unrelated to our research collaboration agreement that could adversely affect us.

We have agreed to work exclusively with Shell until November 2012 in the field of converting cellulosic biomass into fermentable sugars that are used in the production of fuels and related products as well as the conversion of these sugars into fuels and related products. However, Shell is not required to work exclusively with us, and could develop or pursue alternative technologies that it decides to use for commercialization purposes instead of the technology developed under our collaborative research agreement with Shell. For example, Shell is currently working with Virent Energy Systems to develop a thermo-chemical approach to developing biogasoline. Even if Shell decides to commercialize products based on our technologies, they have no obligation to purchase their biocatalyst supply from us. If Shell does not pursue the commercialization of any cellulosic sugars, biofuels or related products that may be developed under our collaborative research agreement, our exclusive arrangement would prevent us from licensing any technology developed under the collaboration for the patent life of such technology, which could place us at a significant competitive disadvantage in the biofuels market.

We cannot guarantee that our relationship with Shell will continue. After November 1, 2010, Shell can terminate its collaborative research agreement with us for any or no reason by providing us with nine months' notice. Each party also has the right to terminate the license agreement and the collaborative research agreement in the case of an uncured breach by the other party, and to terminate the collaborative research agreement if that party believes the other party has assigned the collaborative research agreement to a direct competitor of the terminating party. If our collaboration with Shell were to fail, we would likely need to find another collaborator to provide the financial assistance and infrastructure necessary for us to develop and commercialize our products and execute our strategy with respect to biofuels. Failure to maintain this relationship would have a material adverse effect on our business, financial condition and prospects.

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The success of our cellulosic ethanol program may be dependent on the performance of other parties.

In connection with our research and development collaboration with Shell, we entered into a multi-party collaborative research and license agreement with Iogen Energy Corporation, or Iogen, and Shell in July 2009, which is focused on developing technology to convert cellulosic biomass to ethanol for commercial scale production. Either Shell or Iogen may fail to perform their obligations under this collaboration, may breach or terminate the collaboration agreement or otherwise fail to conduct their collaborative activities successfully and in a timely manner. Further, they may not devote sufficient resources to the development of technology to convert cellulosic biomass to ethanol or may fail to develop the technology altogether. Moreover, disagreements or conflicts amongst the parties could develop and could negatively impact our development efforts or our relationships with Shell and Iogen. If any of these events occur, or if we fail to maintain this collaboration with Shell and Iogen, we may be unable to develop technology for use in the production of cellulosic ethanol at commercial scale, which would have an adverse impact on our ability to grow our business. In addition, the collaborative research and license agreement with Iogen and Shell terminates in the event (i) our separate license agreements with Shell terminate or (ii) Iogen's separate technology license agreement with Shell terminates. In addition, Shell can terminate the collaborative research and license agreement for any or no reason by providing us and Iogen with 30 days notice. Any unilateral action by Shell to terminate either its separate license agreements with us or Iogen will prevent any further research and development activities under the multi-party collaboration. As a result, our ability to pursue research and development activities relating to the conversion of cellulosic biomass and our biofuels programs may be adversely impacted.

Production and commercialization of biofuels derived from cellulose may not be feasible.

We are developing biocatalysts for use in producing two advanced biofuels, cellulosic ethanol and biohydrocarbon diesel, as part of our research and development collaboration with Shell. However, production and commercialization of cellulosic biofuels may not be feasible for a variety of reasons. For example, the development of technology for converting sugar derived from non-food renewable biomass sources into a commercially viable biofuel is still in its early stages, and we do not know whether this can be done commercially or at all. To date, there has been limited private and government funding for research and development in advanced biofuels relative to the scope of the challenges presented by this development effort. Furthermore, there have been only a few well-directed public policies emphasizing investment in the research and development of, and providing incentives for the commercialization of and transition to, biofuels.

As of the date of this prospectus, we believe that there are no commercial scale cellulosic biofuel production plants in operation. There can be no assurance that anyone will be able or willing to develop and operate biofuel production plants at commercial scale or that any biofuel facilities can be profitable.

Additionally, different biocatalysts may need to be developed for use in different geographic locations to convert the cellulosic biomass available in each locale into sugars that can be used in the production of these biofuels. This will make the development of biofuels derived from cellulose more challenging and expensive.

Moreover, substantial development of infrastructure will be required for the ethanol market to grow. Areas requiring expansion include, but are not limited to, additional rail capacity, additional storage facilities for ethanol, increases in truck fleets capable of transporting ethanol within localized markets, expansion of refining and blending facilities to handle ethanol, and growth in the fleet of end user vehicles capable of using ethanol blends. Substantial investments required for infrastructure changes and expansions may not be made on a timely basis or at all. Any delay or failure in making the changes to or expansion of infrastructure could harm demand or prices for ethanol and impose additional costs that would hinder its commercialization.

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Finally, if existing tax credits, subsidies and other incentives in the United States and foreign markets are phased out or reduced, the overall cost of commercialization of cellulosic biofuels will increase.

We are dependent on a limited number of customers.

Our current revenues are derived from a limited number of key customers. For the year ended December 31, 2008, our top five customers accounted for 79% of our total revenues, with Shell alone accounting for 60% of our total revenues. For the nine months ended September 30, 2009, our top five customers accounted for 90% of our total revenues, with Shell accounting for 75% of our total revenues. We expect a limited number of customers to continue to account for a significant portion of our revenues for the foreseeable future. This customer concentration increases the risk of quarterly fluctuations in our revenues and operating results. The loss or reduction of business from one or a combination of our significant customers could materially adversely affect our revenues, financial condition and results of operations.

Our dependence on contract manufacturers for biocatalyst production exposes our business to risks.

We have limited internal capacity to manufacture biocatalysts and are unable to do so for commercial scale production. As a result, we are dependent upon the performance and capacity of third party manufacturers for the commercial scale manufacturing of our biocatalysts.

We rely on two primary contract manufacturers, CPC Biotech srl, or CPC, and Lactosan GmbH & Co. KG, or Lactosan, to manufacture substantially all of the commercial biocatalysts used in our pharmaceutical business. Our pharmaceutical business, therefore, faces risks of difficulties with, and interruptions in, performance by these contract manufacturers, the occurrence of which could adversely impact the availability, launch and/or sales of our enzymes in the future. We have qualified other contract manufacturers to manufacture biocatalysts for our pharmaceutical business, but we do not have agreements or commitments with such contract manufacturers at this time. The failure of any manufacturers that we may use to supply manufactured product on a timely basis or at all, or to manufacture our biocatalysts in compliance with our specifications or applicable quality requirements or in volumes sufficient to meet demand would adversely affect our ability to sell pharmaceutical products, could harm our relationships with our collaborators or customers and could negatively affect our revenues and operating results. For example, in 2008, we were required to secure an alternative source of certain biocatalysts when viruses infected one of our contract manufacturer's facilities. If this or any similar event disrupts the operations of any of our suppliers in the future, we may be forced to secure alternative sources of supply, which may be unavailable on commercially acceptable terms, cause delays in our ability to deliver products to our customers, increase our costs and decrease our profit margins.

We do not currently have a long-term supply contract with CPC, Lactosan or any other contract manufacturers, which are under no obligation to manufacture our biocatalysts and could elect to discontinue their manufacture at any time. If we require additional manufacturing capacity and are unable to obtain it in sufficient quantity, we may not be able to increase our pharmaceutical sales, or we may be required to make substantial capital investments to build that capacity or to contract with other manufacturers on terms that may be less favorable than the terms we currently have with CPC or Lactosan. If we choose to build our own additional manufacturing capacity, it could take a year or longer before our facility is able to produce commercial volumes of our biocatalysts. In addition, if we contract with other manufacturers, we may experience delays of several months in qualifying them, which could harm our relationships with our collaborators or customers and could negatively affect our revenues or operating results.

We are working to establish long-term supply contracts with contract manufacturers and are evaluating whether to invest in our own manufacturing capabilities. However, we cannot guarantee that we will be able to enter into long-term supply contracts on commercially reasonable terms, or at all, or to

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acquire, develop or contract for internal manufacturing capabilities. Any resources we expend on acquiring or building internal manufacturing capabilities could be at the expense of other potentially more profitable opportunities.

We are primarily dependent on contract manufacturers to manufacture our pharmaceutical products.

We currently rely on a small number of contract manufacturers to manufacture all of our pharmaceutical intermediates and APIs. In particular, in August 2008, we entered into a series of agreements that significantly broadened our relationship with Arch, which serves as our exclusive supplier for certain intermediates and APIs, including atorvastatin and all intermediates used to manufacture atorvastatin.

Our pharmaceutical business may face risks of difficulties with, and interruptions in, performance by Arch, or any other contract manufacturer that we rely on to manufacture our intermediates and APIs, the occurrence of which could adversely impact the availability, launch and/or sales of our products in the future. Because we rely on Arch to supply us exclusively with certain intermediates and APIs, the failure of Arch to supply our products on a timely basis or at all, or to manufacture our products in compliance with our specifications or applicable quality requirements, which may include current Good Manufacturing Practices, or cGMP, or to manufacture these products in volumes sufficient to meet demand would adversely affect our ability to commercialize these products and could lead to lost sales and lost customer confidence and would negatively affect our revenues and operating results. If for any reason Arch is unable to meet our volume requirements, or if either we or Arch terminates our relationship prematurely pursuant to the terms of our agreements, we will need to contract with other suppliers. We may experience delays in contracting with other suppliers, or we may not be able to contract with other suppliers on commercially reasonable terms or at all. We will not have enough capacity to meet our current demand projections if we are faced with any such delay or inability to contract with other suppliers, which could adversely affect our ability to commercialize these products and could harm our relationships with our customers.

We also rely, to a lesser extent, on other contract manufacturers to supply other pharmaceutical intermediates. The failure of these manufacturers to supply intermediates, or to manufacture products in compliance with our specifications or in sufficient volumes, would have negative effects on our revenues and operating results.

We rely on Arch to market our products in certain regions, and Arch may not be able to effectively market our products.

Pursuant to our arrangements with Arch, Arch manufactures certain of our intermediates and APIs that we then sell in the United States, India, Europe, Canada and Israel, with Arch as our marketing partner in those countries. In the rest of the world, Arch will market and sell certain of our products, but we have agreed with Arch that, if Arch's sales of our products exceed a certain dollar threshold in any one year in these territories, we will re-evaluate the payment structure for these sales and which party will continue to sell products in these territories. We must therefore rely on Arch for their financial resources and their marketing expertise for the commercialization of our products in these regions. We cannot control Arch's level of activity or expenditure relating to the marketing of our products relative to the rest of their products or marketing efforts. Arch may fail to effectively market our products in these regions. Conflicting priorities, competing demands or other factors that we cannot control, and of which we may not be aware, may cause Arch to deemphasize our products. If we are unable to effectively leverage Arch's marketing capabilities or Arch does not successfully promote our products in the designated territories as our sole marketing partner, this could harm our business, our revenues and operating results, and our ability to bring our products to the marketplace.

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We may continue to encounter difficulties managing our growth, which could adversely affect our business.

Our business has grown rapidly and we expect this growth to continue. Overall, we have grown from approximately 40 employees at the end of 2002 to approximately 300 employees as of September 30, 2009. Currently, we are working simultaneously on multiple projects targeting several markets. Furthermore, we are conducting our business across several countries, including activities in the United States, India, Japan, Singapore, Austria, France, Germany, Hungary and Italy. These diversified, global operations place increased demands on our limited resources and require us to substantially expand the capabilities of our administrative and operational resources and to attract, train, manage and retain qualified management, technicians, scientists and other personnel. As our operations expand domestically and internationally, we will need to continue to manage multiple locations and additional relationships with various customers, collaborators, suppliers and other third parties. Our ability to manage our operations, growth, and various projects effectively will require us to make additional investments in our infrastructure to continue to improve our operational, financial and management controls and our reporting systems and procedures and to attract and retain sufficient numbers of talented employees, which we may be unable to do effectively. As a result, we may be unable to manage our expenses in the future, which may negatively impact our gross margins or operating margins in any particular quarter. In addition, we may not be able to successfully improve our management information and control systems, including our internal control over financial reporting, to a level necessary to manage our growth and to remediate the existing material weaknesses and significant deficiencies in our internal control over financial reporting that were identified in our last two audits, and we may discover additional deficiencies in existing systems and controls that we may not be able to remediate in an efficient or timely manner.

Our business could be adversely affected if pharmaceutical customers do not incorporate our biocatalysts into their manufacturing processes.

Historically, pharmaceutical companies have been reluctant to use biocatalysts in the manufacture of their intermediates or APIs because naturally occurring biocatalysts were not economically viable for production at commercial scale. For example, naturally occurring biocatalysts are often not stable enough to be used in industrial settings. Additionally, the activity and productivity of these biocatalysts are often too limited to be effective in commercial scale manufacturing and often result in incomplete reactions and insufficient product yields. Although our biocatalysts have been developed to address shortcomings of naturally occurring biocatalysts, we may still encounter reluctance by pharmaceutical companies to adopt processes that use our biocatalysts. If customers decide not to adopt processes using our biocatalysts over other methods of producing the intermediates or APIs for their drugs, our revenues and prospects will be negatively impacted.

Moreover, we believe that the lower manufacturing costs enabled by our technology platform is one of the principal reasons pharmaceutical companies have purchased and will continue to purchase our biocatalysts and optimization services. If we are unable to maintain the cost advantages provided by our technology platform, customers may be less willing to purchase our products and services, which would also negatively impact our revenues. In addition, we may be unable to reach agreement on pricing or other terms with potential customers, which may adversely impact our ability to grow our business.

Our business could be adversely affected if the clinical trials being conducted by our innovator customers fail or if the processes used by those customers to manufacture their final pharmaceutical products fail to be approved.

Our biocatalysts are used in the manufacture of intermediates and APIs which are then used in the manufacture of final pharmaceutical products by our existing and potential customers who sell branded drugs, which we refer to as innovators. These pharmaceutical products must be approved by the FDA in the

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United States and similar regulatory bodies in other markets prior to commercialization. If these customers experience adverse events in their clinical trials, fail to receive regulatory approval for the drugs, or decide for business or other reasons to discontinue their clinical trials or drug development activities, our revenues and prospects will be negatively impacted. For example, one of our customers that incorporated our biocatalysts in the manufacturing process for a drug candidate suspended its development efforts during clinical trials. As a result, we were unable to realize a potential long-term revenue stream that would otherwise be associated with a commercialized product. The process of producing these drugs, and their generic equivalents, is also subject to regulation by the FDA in the United States and equivalent regulatory bodies in other markets. If any pharmaceutical process that uses our biocatalysts does not receive approval by the appropriate regulatory body or if customers decide not to pursue approval, our business could be adversely affected.

If we are unable to develop and commercialize new products for the pharmaceutical market, our business and prospects will be harmed.

We have launched several new intermediates and APIs for generic drugs, including Singulair and Cymbalta, in markets in which they are not patent protected, and plan to launch these same products in various other markets once the patent protection for each product in those other markets expires. In addition, we plan to launch other new intermediates and APIs in the future. These efforts are subject to numerous risks, including the following:

- we may be unable to successfully develop the biocatalysts or manufacturing processes for our intermediates and APIs in a timely and cost-effective manner, if at all;
- we may face difficulties in transferring the developed technologies to Arch, or other contract manufacturers that we may use, for commercial scale production;
- Arch, or other contract manufacturers that we may use, may be unable to scale their manufacturing operations to meet the demand for these products and we may be unable to secure additional manufacturing capacity;
- generics manufacturers may not be willing to purchase these products from us on favorable terms, if at all;
- we may face product liability litigation, unexpected safety or efficacy concerns and product recalls or withdrawals;
- changes in laws or regulations relating to the pharmaceutical industry could cause us to incur increased costs of compliance or otherwise harm our business;
- negative publicity may affect doctor or patient confidence in the products;
- we may face pressure from existing or new competitive products; and
- we may face pricing pressures from existing or new competitors, some of which may benefit from government subsidies or other incentives in their local markets.

In addition, our innovator customers may view us as competitors and be less willing to do business with us. Moreover, we may be subject to claims alleging that our pharmaceutical products violate the patent or other intellectual property rights of third parties, particularly in connection with any generic products on which the patent covering the branded drug is expiring. These claims could give rise to litigation, which may be costly and time-consuming and could divert management's attention. If we are unsuccessful in our defense of any such claims, we may lose our right to develop or manufacture the products, be required to pay monetary damages, or be required to enter into license agreements and pay

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substantial royalties. If one or more of these risks were to materialize, our future business, results of operations and financial condition could be materially adversely affected, and we may be unable to grow our business.

Consolidation in the pharmaceutical industry could adversely impact our business.

There has been significant consolidation in the pharmaceutical industry, including the recent mergers of Pfizer Inc. and Wyeth, Merck and Schering-Plough Corporation and F. Hoffman-La Roche Ltd. and Genentech Inc., and the acquisition of several generics businesses by Novartis AG, and this consolidation may continue in the future. When pharmaceutical companies merge, they often rationalize their product portfolios by eliminating competing product programs, resulting in fewer drug programs for certain target indications. As a result of this consolidation, there are fewer potential pharmaceutical customers and fewer drug development programs that could utilize our products and services to enhance drug manufacturing processes. For example, the consolidation of two pharmaceutical companies may lead the acquiring company to suspend or terminate development programs for certain product candidates for which we may have been providing or had the opportunity to provide biocatalysts, intermediates or APIs. This would lead to diminished demand for our products and services, which could adversely impact our business.

If we are unable to successfully commercialize our technology in other bioindustrial markets, we may be unable to grow our business.

In addition to biofuels, we expect to invest a significant amount of our future research and development efforts in other bioindustrial markets, including carbon management, water treatment and chemicals. Because we do not currently and may never possess the resources necessary to independently develop and commercialize all of the potential products that may result from our technologies, our ability to succeed in these target markets will likely depend on our ability to enter into collaboration agreements to develop and commercialize potential products. We intend to pursue such additional collaborations, but may be unable to do so on terms satisfactory to us, or at all. Even if we are able to enter into collaborations in one or more of these areas, the collaborations may be unsuccessful. Moreover, because we have limited financial and managerial resources, we will be required to prioritize our application of resources to particular development and commercialization efforts. Any resources we expend on one or more of these efforts could be at the expense of other potentially profitable opportunities. If we focus our efforts and resources on one or more of these areas and they do not lead to commercially viable products, our revenues, financial condition and results of operations could be adversely affected.

If we are unable to maintain license rights to a commercial scale expression system for enzymes that convert cellulosic biomass to sugars, our business may be materially adversely affected.

We entered into a license agreement with Dyadic International, Inc. and its affiliate, or Dyadic, in November 2008 to obtain access to an expression system that is capable of producing the necessary biocatalysts for the commercialization of cellulosic biofuels. Under the license agreement with Dyadic, we obtained a non-exclusive license under intellectual property rights of Dyadic relating to Dyadic's proprietary fungal expression technology for the production of enzymes. We also obtained access to specified materials of Dyadic relating to such Dyadic technology. Our license is sublicenseable to Shell in the field of biofuels. Dyadic has the right to terminate our licenses under the license agreement if we challenge the validity of any of the patents licensed under the license agreement and for various other reasons. Our licenses, and access to such materials of Dyadic, under the license agreement will terminate as a result of any termination of the license agreement other than due to Dyadic's material breach. If we are unable to maintain these rights on commercially reasonable terms or if the license agreement is terminated for any reason, we will need to buy or license this type of expression system from another party or develop this type of expression system ourselves, which may be difficult, costly and time consuming, in part

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because of the broad, existing intellectual property rights owned by Danisco A/S, Novozymes and others. If any of these events occur, our business may be materially adversely affected.

Fluctuations in the price of and demand for petroleum-based fuels may reduce demand for biofuels.

Biofuels are anticipated to be marketed as an alternative to petroleum-based fuels. Therefore, if the price of oil falls, any revenues that we generate from biofuel products could decline, and we may be unable to produce products that are a commercially viable alternative to petroleum-based fuels. Additionally, demand for liquid transportation fuels, including biofuels, may decrease due to economic conditions or otherwise.

The royalties that we may earn under our agreements with Shell are indexed to the price of oil and generally increase as the price of oil increases. However, the index is set based on average prices between November 2007 and the date of first commercial sale. Therefore, if prices fall, our revenues would be negatively impacted.

Our approach to the biofuels markets may be limited by the availability or cost of non-food renewable cellulosic biomass sources.

Our approach to the biofuels markets will be dependent on the availability and price of the cellulosic biomass that will be used to produce biofuels derived from cellulose. If the availability of cellulosic biomass decreases or its price increases, this may reduce the royalties that we collect from Shell and have a material adverse effect on our financial condition and operating results. At certain levels, prices may make these products uneconomical to use and produce.

The price and availability of cellulosic biomass may be influenced by general economic, market and regulatory factors. These factors include weather conditions, farming decisions, government policies and subsidies with respect to agriculture and international trade, and global demand and supply. The significance and relative impact of these factors on the price of cellulosic biomass is difficult to predict, especially without knowing what types of cellulosic biomass materials we may need to use.

Reductions or changes to existing fuel regulations and policies may present technical, regulatory and economic barriers, all of which may significantly reduce demand for biofuels.

The market for biofuels is heavily influenced by foreign, federal, state and local government regulations and policies concerning the petroleum industry. For example, in 2007, the U.S. Congress passed an alternative fuels mandate that currently calls for 13 billion gallons of liquid transportation fuels sold in 2010 to come from alternative sources, including biofuels, a mandate that grows to 36 billion gallons by 2022. Of this amount, a minimum of 21 billion gallons must be advanced biofuels. In the United States and in a number of other countries, these regulations and policies have been modified in the past and may be modified again in the future. Any reduction in mandated requirements for fuel alternatives and additives to gasoline may cause demand for biofuels to decline and deter investment in the research and development of biofuels. Market uncertainty regarding future policies may also affect our ability to develop new biofuels products or to license our technologies to third parties. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our biofuels business, financial condition and operating results. Our other potential bioindustrial products may be subject to additional regulations.

If governmental incentives or other actions targeted at limiting carbon emissions are not adopted, a broad market for carbon management solutions may not develop.

Our strategy with respect to carbon management, although still in the research phase, would likely require an expansion of the market for the management of carbon dioxide emissions prior to us being able to recognize significant revenues from our research and continuing expenditures of resources. The

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development of a significant market will likely depend on the adoption of government subsidies or other government regulation requiring companies to limit their carbon emissions. In the absence of such additional government subsidies or regulation, this market may not expand and we would not be able to generate significant revenues from our carbon management operations.

We may need additional licenses from Maxygen to pursue certain future business opportunities in the chemicals market.

Under our license agreement with Maxygen, we obtained exclusive rights to manufacture certain types of chemicals for specified purposes within particular fields. Should we desire to work on any chemicals that are outside the scope of these license rights, we may need to seek additional rights from Maxygen. Maxygen has no obligation to grant such rights to us and may choose not to license such rights to us on favorable terms, if at all. If we are unable to obtain rights to those additional areas, we may not be able to develop products or services or pursue collaborations in those areas, which could limit our ability to expand into the chemicals market.

Our government grants are subject to uncertainty, which could harm our business and results of operations.

We have received various government grants to complement and enhance our own resources. We may seek to obtain government grants and subsidies in the future to offset all or a portion of the costs of building additional manufacturing facilities and research and development activities. We cannot be certain that we will be able to secure any such government grants or subsidies. Any of our existing grants or new grants that we may obtain may be terminated, modified or recovered by the granting governmental body under certain conditions.

We may also be subject to audits by government agencies as part of routine audits of our activities funded by our government grants. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards. Funds available under grants must be applied by us toward the research and development programs specified by the granting agencies, rather than for all of our programs generally. If any of our costs are found to be allocated improperly, the costs may not be reimbursed and any costs already reimbursed may have to be refunded. Accordingly, an audit could result in an adjustment to our revenues and results of operations.

We face risks associated with our international business.

Significant portions of our operations are conducted outside of the United States and we expect to continue to have significant foreign operations in the foreseeable future. International business operations are subject to a variety of risks, including:

- changes in or interpretations of foreign regulations that may adversely affect our ability to sell our products or repatriate profits to the United States;
- the imposition of tariffs;
- the imposition of limitations on, or increase of, withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;
- the imposition of limitations on genetically-engineered products or processes and the production or sale of those products or processes in foreign countries;
- currency exchange rate fluctuations;
- uncertainties relating to foreign laws and legal proceedings including tax and exchange control laws;

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- the availability of government subsidies or other incentives that benefit competitors in their local markets that are not available to us;
- economic or political instability in foreign countries;
- difficulties in staffing and managing foreign operations; and
- the need to comply with a variety of U.S. laws applicable to the conduct of overseas operations, including export control laws and the Foreign Corrupt Practices Act.

We manufacture many of our pharmaceutical intermediates in India, which has stringent local regulations that make it difficult for money earned in India to be taken out of the country without being subject to Indian taxes. While our Indian subsidiary can make use of some of the funds we earn in India, these regulations may limit the amount of profits we can repatriate from operations in India.

If we engage in any acquisitions, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

We have made acquisitions in the past, and if appropriate opportunities become available, we expect to acquire additional businesses, assets, technologies, or products to enhance our business in the future. In connection with any future acquisitions, we could:

- issue additional equity securities which would dilute our current stockholders;
- incur substantial debt to fund the acquisitions; or
- assume significant liabilities.

Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs and other liabilities, diversion of management's attention from our core businesses, adverse effects on existing business relationships with current and/or prospective collaborators, customers and/or suppliers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. We do not have extensive experience in managing the integration process and we may not be able to successfully integrate any businesses, assets, products, technologies, or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. The integration process could divert management time from focusing on operating our business, result in a decline in employee morale and cause retention issues to arise from changes in compensation, reporting relationships, future prospects or the direction of the business. Acquisitions may also require us to record goodwill and non-amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges, incur amortization expenses related to certain intangible assets, and incur large and immediate write offs and restructuring and other related expenses, all of which could harm our operating results and financial condition. In addition, we may acquire companies that have insufficient internal financial controls, which could impair our ability to integrate the acquired company and adversely impact our financial reporting. If we fail in our integration efforts with respect to any of our acquisitions and are unable to efficiently operate as a combined organization, our business and financial condition may be adversely affected.

We must rely on our suppliers, contract manufacturers and customers to deliver timely and accurate information in order to accurately report our financial results in the time frame and manner required by law.

We need to receive timely, accurate and complete information from a number of third parties in order to accurately report our financial results on a timely basis. We rely on third parties that sell our pharmaceutical products that are manufactured using our biocatalysts to provide us with complete and accurate information regarding revenues, costs of revenues and payments owed to us on a timely basis. In

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addition, we rely on suppliers and certain contract manufacturers, including Arch, to provide us with timely and accurate information regarding our inventories and manufacturing cost information, and we rely on current and former collaborators to provide us with product sales and cost saving information in connection with royalties owed to us. Any failure to receive timely information from one or more of these third parties could require that we estimate a greater portion of our revenues and other operating performance metrics for the period, which could cause our reported financial results to be incorrect. Moreover, if the information that we receive is not accurate, our financial statements may be materially incorrect and may require restatement, and we may not receive the full amount of revenues that we are entitled to under these arrangements. Although we typically have audit rights with these parties, performing such an audit could be harmful to our collaborative relationships, expensive and time consuming and may not be sufficient to reveal any discrepancies in a timeframe consistent with our reporting requirements.

If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel, it could delay our product development programs, harm our research and development efforts, and we may be unable to pursue collaborations or develop our own products.

Our business involves complex, global operations across a variety of markets and requires a management team and employee workforce that is knowledgeable in the many areas in which we operate. The loss of any key members of our management, including our Chief Executive Officer, Alan Shaw, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products for our target markets and entering into collaborations or licensing arrangements to execute on our business strategy. In addition, the loss of any key scientific staff, or the failure to attract or retain other key scientific employees, could prevent us from developing and commercializing our products for our target markets and entering into collaborations or licensing arrangements to execute on our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, particularly in the biofuels area, or due to the availability of personnel with the qualifications or experience necessary for our biofuels business. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our collaborators and customers in a timely fashion or to support our internal research and development programs. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled scientists. Competition for experienced scientists and other technical personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. All of our employees are at-will employees, which means that either the employee or we may terminate their employment at any time.

Our planned activities will require additional expertise in specific industries and areas applicable to the products and processes developed through our technology platform or acquired through strategic or other transactions, especially in the end markets that we seek to penetrate. These activities will require the addition of new personnel, and the development of additional expertise by existing personnel. The inability to attract personnel with appropriate skills or to develop the necessary expertise could impair our ability to grow our business. Additionally, we would be in breach of our collaborative research agreement with Shell if we fail to maintain a specified number of personnel.

Our ability to compete may decline if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights through costly litigation or administrative proceedings.

Our success depends in part on our ability to obtain patents and maintain adequate protection of our intellectual property for our technologies and products and potential products in the United States and other countries. We have adopted a strategy of seeking patent protection in the United States and in foreign countries with respect to certain of the technologies used in or relating to our products and processes. As

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such, as of September 30, 2009, we owned or had licensed rights to approximately 235 issued patents and approximately 280 pending patent applications in the United States and in various foreign jurisdictions. Of the licensed patents and patent applications, most are owned by Maxygen and exclusively licensed to us for use with respect to certain products for specified purposes within certain fields. However, some of these patents will expire as early as 2014. As of September 30, 2009, we owned approximately 35 issued patents and approximately 110 pending patent applications in the United States and in various foreign jurisdictions. These patents and patent applications are directed to our enabling technologies and to our methods and products which support our business in the pharmaceuticals and bioindustrials markets. We intend to continue to apply for patents relating to our technologies, methods and products as we deem appropriate.

Numerous patents in our portfolio involve complex legal and factual questions and, therefore, enforceability cannot be predicted with any certainty. Issued patents and patents issuing from pending applications may be challenged, invalidated, or circumvented. Moreover, third parties could practice our inventions in territories where we do not have patent protection. Such third parties may then try to import products made using our inventions into the United States or other territories. Additional uncertainty may result from potential passage of patent reform legislation by the United States Congress, legal precedent as handed down by the United States Federal Circuit and Supreme Court as they determine legal issues concerning the scope and construction of patent claims and inconsistent interpretation of patent laws by the lower courts. Accordingly, we cannot ensure that any of our pending patent applications will result in issued patents, or even if issued, predict the breadth of the claims upheld in our and other companies' patents. Given that the degree of future protection for our proprietary rights is uncertain, we cannot ensure that: (i) we were the first to make the inventions covered by each of our pending applications, (ii) we were the first to file patent applications for these inventions, and (iii) the proprietary technologies we develop will be patentable.

In addition, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our intellectual property is difficult, and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, particularly in certain foreign countries where the local laws may not protect our proprietary rights as fully as in the United States. If competitors are able to use our technology, our ability to compete effectively could be harmed. Moreover, others may independently develop and obtain patents for technologies that are similar to or superior to our technologies. If that happens, we may need to license these technologies, and we may not be able to obtain licenses on reasonable terms, if at all, which could cause harm to our business.

Our commercial success also depends in part on not infringing patents and proprietary rights of third parties, and not breaching any licenses or other agreements that we have entered into with regard to our technologies, products and business. We cannot ensure that patents have not been issued to third parties that could block our ability to obtain patents or to operate as we would like. There may be patents in some countries that, if valid, may block our ability to commercialize products in those countries if we are unsuccessful in circumventing or acquiring the rights to these patents. There also may be claims in patent applications filed in some countries that, if granted and valid, may also block our ability to commercialize products or processes in these countries if we are unable to circumvent or license them.

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The biotechnology industry is characterized by frequent and extensive litigation regarding patents and other intellectual property rights, and we believe that the various bioindustrial markets will also be characterized by this type of litigation. Many biotechnology companies have employed intellectual property litigation as a way to gain a competitive advantage. Our involvement in litigation, interferences, opposition proceedings or other intellectual property proceedings inside and outside of the United States, to defend our intellectual property rights or as a result of alleged infringement of the rights of others, may divert management time from focusing on business operations and could cause us to spend significant amounts of money. Any potential intellectual property litigation also could force us to do one or more of the following:

- stop selling, incorporating or using our products that use the subject intellectual property;
- obtain from the third party asserting its intellectual property rights a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all; or
- redesign those products or processes that use any allegedly infringing technology, which may result in significant cost or delay to us, or which could be technically infeasible.

We are aware of a significant number of patents and patent applications relating to aspects of our technologies filed by, and issued to, third parties. We cannot assure you that if this third party intellectual property is asserted against us that we would ultimately prevail.

If any of our competitors have filed patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in interference proceedings declared by the relevant patent regulatory agency to determine priority of invention and, thus, the right to the patents for these inventions in the United States. These proceedings could result in substantial cost to us even if the outcome is favorable. Even if successful, an interference may result in loss of certain claims. Any litigation or proceedings could divert our management's time and efforts. Even unsuccessful claims could result in significant legal fees and other expenses, diversion of management time, and disruption in our business. Uncertainties resulting from initiation and continuation of any patent or related litigation could harm our ability to compete.

We may not be able to enforce our intellectual property rights throughout the world.

The laws of some foreign countries, including India, where we manufacture pharmaceutical intermediates and APIs through contract manufacturers, do not protect intellectual property rights to the same extent as the laws of the United States. Many companies have encountered significant problems in protecting and defending intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology and/or bioindustrials technologies. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate.

If our biocatalysts, or the genes that code for our biocatalysts, are stolen, misappropriated or reverse engineered, others could use these biocatalysts or genes to produce competing products.

Third parties, including our contract manufacturers, customers and those involved in shipping our biocatalysts often have custody or control of our biocatalysts. If our biocatalysts, or the genes that code for our biocatalysts, were stolen, misappropriated or reverse engineered, they could be used by other parties who may be able to reproduce these biocatalysts for their own commercial gain. If this were to occur, it would be difficult for us to challenge this type of use, especially in countries with limited intellectual property protection.

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Confidentiality agreements with employees and others may not adequately prevent disclosures of trade secrets and other proprietary information.

We rely in part on trade secret protection to protect our confidential and proprietary information and processes. However, trade secrets are difficult to protect. We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, our proprietary information may be disclosed, third parties could reverse engineer our biocatalysts and others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

Competitors and potential competitors who have greater resources and experience than we do may develop products and technologies that make ours obsolete or may use their greater resources to gain market share at our expense.

The biocatalysis industry and each of our target markets are characterized by rapid technological change. Our future success will depend on our ability to maintain a competitive position with respect to technological advances. We are aware that other companies, including Verenum Corporation (formed by the merger of Diversa Corporation and Celunol Corporation), Royal DSM N.V., or DSM, Danisco/Genencor, Novozymes and E.I. Du Pont De Nemours and Company, or DuPont, have alternative methods for obtaining and generating genetic diversity or use mutagenesis techniques to produce genetic diversity. Academic institutions such as the California Institute of Technology, the Max Planck Institute and the Center for Fundamental and Applied Molecular Evolution (FAME), a jointly sponsored initiative between Emory University and Georgia Institute of Technology, are also working in this field. Technological development by others may result in our products and technologies, as well as products developed by our customers using our biocatalysts, becoming obsolete.

We face intense competition in the pharmaceuticals market. There are a number of companies who compete with us throughout the various stages of a pharmaceutical product's lifecycle. Many large pharmaceutical companies have internal capabilities to develop and manufacture intermediates and APIs. These companies include many of our large innovator and generic pharmaceutical customers, such as Merck, Pfizer and Teva Pharmaceutical Industries Ltd. There are also many large, well-established fine chemical manufacturing companies, such as DSM, BASF Corporation and Lonza Group Ltd, that compete to supply pharmaceutical intermediates and APIs to our customers. We also face increasing competition from generic pharmaceutical manufacturers in low cost centers such as India and China.

In addition to competition from companies manufacturing APIs and intermediates, we face competition from companies that sell biocatalysts for use in the pharmaceutical market. There is competition from large industrial enzyme companies, such as Novozymes and Amano Enzyme Inc., whose industrial enzymes (for detergents, for example) are occasionally used in pharmaceutical processes. There is also competition in this area from several small companies with product offerings comprised primarily of naturally occurring biocatalysts or that offer biocatalyst optimization services.

We expect the biofuels industry to be extremely competitive, with competition coming from ethanol producers as well as other providers of alternative and renewable fuels. Significant competitors include companies such as: Novozymes, which has partnered with a number of companies and organizations on a regional basis to develop or produce biofuels, and recently opened a biofuel demonstration plant with

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Inbicon A/S of Denmark; Danisco/Genencor, which has formed a joint venture with DuPont, called DuPont Danisco Cellulosic Ethanol, or DDCE, and is marketing a line of cellulases to convert biomass into sugar; DSM, which received a grant from the U.S. Department of Energy to be the lead partner in a technical consortium including Abengoa Bioenergy New Technologies, and is developing cost-effective enzyme technologies; Mascoma Corporation, which has entered into a feedstock processing and lignin supply agreement with Chevron Technology Ventures, a division of Chevron U.S.A., Inc.; and Verenium, which has entered into a research and development collaboration with BP, p.l.c and formed a joint venture with BP called Vercipia Biofuels to develop a commercial scale cellulosic ethanol facility. In addition, other companies are attempting to develop non-ethanol biofuels. DuPont has announced plans to develop and market biobutanol through Butamax Advanced Biofuels LLC, a joint venture with BP, and Virent Energy Systems Inc. is collaborating with Shell to develop thermochemical catalytic routes to produce biogasoline directly from sugars. Range Fuels Inc. is also focused on developing non-biocatalytic thermochemical processes to convert cellulosic biomass into fuels, and Coskata, Inc. is developing a hybrid thermochemical-biocatalytic process to produce ethanol from a variety of feedstocks. Some or all of these competitors or other competitors, as well as academic, research and government institutions, are developing or may develop technologies for, and are competing or may compete with us in, the production of alternative fuels or biofuels.

As we pursue opportunities in other bioindustrial markets, we expect to face competition from numerous companies focusing on developing biocatalytic and other solutions for these markets, including a number of the companies described above.

Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to and/or are less expensive than other products on the market. Many of our competitors have substantially greater production, financial, research and development, personnel and marketing resources than we do. In addition, certain of our competitors may also benefit from local government subsidies and other incentives that are not available to us. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, which could lead to litigation.

In addition, various governments have recently announced a number of spending programs focused on the development of clean technology, including alternatives to petroleum-based fuels and the reduction of carbon emissions, two of our target markets. Such spending programs could lead to increased funding for our competitors or the rapid increase in the number of competitors within those markets.

Our limited resources relative to many of our competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and market share, adversely affect our results of operations and financial position, and prevent us from obtaining or maintaining profitability.

We may need substantial additional capital in the future in order to expand our business.

Our future capital requirements may be substantial, particularly as we continue to develop our business and expand our biocatalyst discovery and development process. Although we believe that, based on our current level of operations and anticipated growth, our existing cash, cash equivalents and marketable securities will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements for at least the next 12 months, we may need additional capital if our current plans and assumptions change. Our need for additional capital will depend on many factors, including the

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financial success of our pharmaceutical business, whether we are successful in obtaining payments from customers, whether we can enter into additional collaborations, the progress and scope of our collaborative and independent research and development projects performed by us and our collaborators, the effect of any acquisitions of other businesses or technologies that we may make in the future, whether we decide to develop an internal manufacturing capability, and the filing, prosecution and enforcement of patent claims.

If our capital resources are insufficient to meet our capital requirements, and we are unable to enter into or maintain collaborations with partners that are able or willing to fund our development efforts or commercialize any products that we develop or enable, we will have to raise additional funds to continue the development of our technology and products and complete the commercialization of products, if any, resulting from our technologies. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. If we were permitted to raise additional debt financing, we may be subject to restrictive covenants that limit our ability to conduct our business. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and continue to incur losses, our ability to fund our operations, take advantage of strategic opportunities, develop products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate research or development programs or the commercialization of products resulting from our technologies, curtail or cease operations or obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we will not be able to successfully execute our business plan or continue our business.

The terms of our loan and security agreement with General Electric Capital Corporation and Oxford Finance Corporation may restrict our ability to engage in certain transactions.

In September 2007, we entered into a loan and security agreement with General Electric Capital Corporation, or GE Capital, and Oxford Finance Corporation, or Oxford. Pursuant to the terms of the loan and security agreement, we cannot engage in certain transactions, including disposing of certain assets, transferring capital to foreign subsidiaries, incurring additional indebtedness, declaring dividends, acquiring or merging with another entity or leasing additional real property unless certain conditions are met or unless we receive prior approval of GE Capital and Oxford. If GE Capital and Oxford do not consent to any of these actions that we desire to take, we could be prohibited from engaging in transactions which could be beneficial to our business and our stockholders.

Business interruptions could delay us in the process of developing our products and could disrupt our sales.

Our headquarters is located in the San Francisco Bay Area near known earthquake fault zones and is vulnerable to significant damage from earthquakes. We are also vulnerable to other types of natural disasters and other events that could disrupt our operations, such as riot, civil disturbances, war, terrorist acts, flood, infections in our laboratory or production facilities or those of our contract manufacturers and other events beyond our control. We do not have a detailed disaster recovery plan. In addition, we do not carry insurance for earthquakes and we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our cash flows and success as an overall business. Furthermore, Shell may terminate our collaborative research agreement if a force majeure event interrupts our collaboration activities for more than ninety days.

Ethical, legal and social concerns about genetically engineered products and processes could limit or prevent the use of our products, processes, and technologies and limit our revenues.

Some of our products and processes are genetically engineered or involve the use of genetically engineered products or genetic engineering technologies. If we and/or our collaborators are not able to

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overcome the ethical, legal, and social concerns relating to genetic engineering, our products and processes may not be accepted. Any of the risks discussed below could result in increased expenses, delays, or other impediments to our programs or the public acceptance and commercialization of products and processes dependent on our technologies or inventions. Our ability to develop and commercialize one or more of our technologies, products, or processes could be limited by the following factors:

- public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and genetically engineered products and processes, which could influence public acceptance of our technologies, products and processes;
- public attitudes regarding, and potential changes to laws governing ownership of genetic material, which could harm our intellectual property rights with respect to our genetic material and discourage collaborators from supporting, developing, or commercializing our products, processes and technologies; and
- governmental reaction to negative publicity concerning genetically modified organisms, which could result in greater government regulation of genetic research and derivative products.

The subject of genetically modified organisms has received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically altered products.

The biocatalysts that we develop have significantly enhanced characteristics compared to those found in naturally occurring enzymes or microbes. While we produce our biocatalysts only for use in a controlled industrial environment, the release of such biocatalysts into uncontrolled environments could have unintended consequences. Any adverse effect resulting from such a release could have a material adverse effect on our business and financial condition, and we may have exposure to liability for any resulting harm.

Compliance with stringent laws and regulations may be time consuming and costly, which could adversely affect the commercialization of our biofuels products.

Any biofuels developed using our technologies will need to meet a significant number of regulations and standards, including regulations imposed by the U.S. Department of Transportation, the U.S. Environmental Protection Agency, various state agencies and others. Any failure to comply, or delays in compliance, with the various existing and evolving industry regulations and standards could prevent or delay the commercialization of any biofuels developed using our technologies and subject us to fines and other penalties.

We use hazardous materials in our business and we must comply with environmental laws and regulations. Any claims relating to improper handling, storage or disposal of these materials or noncompliance of applicable laws and regulations could be time consuming and costly and could adversely affect our business and results of operations.

Our research and development processes involve the use of hazardous materials, including chemical, radioactive, and biological materials. Our operations also produce hazardous waste. We cannot eliminate entirely the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state, and local laws and regulations govern the use, manufacture, storage, handling and disposal of, and human exposure to, these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. Although we believe that our activities conform in all material respects with environmental laws, there can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present, or

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future laws could result in the imposition of fines, third party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production, or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws could become more stringent over time imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business.

We may be sued for product liability.

The design, development, manufacture and sale of our products involve an inherent risk of product liability claims and the associated adverse publicity. We may be named directly in product liability suits relating to drugs that are produced using our biocatalysts or that incorporate our intermediates and APIs. These claims could be brought by various parties, including customers who are purchasing products directly from us, other companies who purchase products from our customers or by the end users of the drugs. We could also be named as co-parties in product liability suits that are brought against our contract manufacturers who manufacture our pharmaceutical intermediates and APIs, such as Arch. Insurance coverage is expensive and may be difficult to obtain, and may not be available in the future on acceptable terms, or at all. We cannot assure you that our contract manufacturers will have adequate insurance coverage to cover against potential claims. In addition, although we currently maintain product liability insurance for our products in amounts we believe to be commercially reasonable, if the coverage limits of these insurance policies are not adequate, a claim brought against us, whether covered by insurance or not, could have a material adverse effect on our business, results of operations, financial condition and cash flows. This insurance may not provide adequate coverage against potential losses, and if claims or losses exceed our liability insurance coverage, we may go out of business. Moreover, we have agreed to indemnify some of our customers for certain claims that may arise out of the use of our products, which could expose us to significant liabilities.

Our ability to use our net operating loss carryforwards to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the Internal Revenue Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating loss carryforwards, or NOLs, to offset future taxable income. If the Internal Revenue Service challenges our analysis that our existing NOLs are not subject to limitations arising from previous ownership changes, or if we undergo an ownership change in connection with or after this public offering, our ability to utilize NOLs could be limited by Section 382 of the Internal Revenue Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Internal Revenue Code. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. For these reasons, we may not be able to utilize a material portion of the NOLs reflected on our balance sheet, even if we attain profitability.

Risks Relating to this Offering

We are subject to anti-takeover provisions in our certificate of incorporation and bylaws and under Delaware law that could delay or prevent an acquisition of our company, even if the acquisition would be beneficial to our stockholders.

Provisions in our amended and restated certificate of incorporation and our bylaws, both of which will become effective upon the completion of this offering, may delay or prevent an acquisition of us. Among other things, our amended and restated certificate of incorporation and bylaws will provide for a board of directors which is divided into three classes, with staggered three-year terms and will provide that all

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stockholder action must be effected at a duly called meeting of the stockholders and not by a consent in writing, and will further provide that only our board of directors, the chairman of the board of directors, our chief executive officers or president may call a special meeting of the stockholders. These provisions may also frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management team. Furthermore, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits, with some exceptions, stockholders owning in excess of 15% of our outstanding voting stock from merging or combining with us. Finally, our charter documents establish advanced notice requirements for nominations for election to our board of directors and for proposing matters that can be acted upon at stockholder meetings. Although we believe these provisions together provide for an opportunity to receive higher bids by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer to acquire our company may be considered beneficial by some stockholders.

Concentration of ownership among our existing officers, directors and principal stockholders may prevent other stockholders from influencing significant corporate decisions and depress our stock price.

When this offering is completed, our officers, directors and existing stockholders who hold at least 5% of our stock will together control approximately % of our outstanding common stock. As of September 30, 2009, Maxygen, Shell and Biomedical Sciences Investment Fund Pte Ltd beneficially owned approximately 21.6%, 20% and 12.1% of our common stock, respectively. If these officers, directors, and principal stockholders or a group of our principal stockholders act together, they will be able to exert a significant degree of influence over our management and affairs and control matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. The interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. For instance, officers, directors, and principal stockholders, acting together, could cause us to enter into transactions or agreements that we would not otherwise consider. Similarly, this concentration of ownership may have the effect of delaying or preventing a change in control of our company otherwise favored by our other stockholders. This concentration of ownership could depress our stock price.

Our share price may be volatile and you may be unable to sell your shares at or above the offering price.

The initial public offering price for our shares will be determined by negotiations between us and representatives of the underwriters and may not be indicative of prices that will prevail in the trading market. The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- the position of our cash, cash equivalents and marketable securities;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate;
- announcements of technological innovations by us, our collaborators or our competitors;
- announcements by us, our collaborators or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- any changes in Shell's biofuels strategy or timelines, or in our relationship with Shell, including any decision by Shell to terminate our collaboration or reduce the number of FTEs funded by Shell under our collaborative research agreement;

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- any changes in our relationship with Maxygen, or any events that impact, or are perceived to impact, the rights we have licensed from Maxygen;
- announcements regarding pharmaceutical products manufactured using our biocatalysts, intermediates and APIs;
- the entry into, modification or termination of collaborative arrangements;
- additions or losses of customers;
- additions or departures of key management or scientific personnel;
- competition from existing products or new products that may emerge;
- issuance of new or updated research reports by securities or industry analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- changes in existing laws, regulations and policies applicable to our business and products, including the National Renewable Fuel Standard program, and the adoption or failure to adopt carbon emissions regulation;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us or our stockholders;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- general market conditions in our industry; and
- general economic and market conditions, including the recent financial crisis.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock. If the market price of shares of our common stock after this offering does not exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

A significant portion of our total outstanding shares of common stock is restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. As of September 30, 2009, our three largest stockholders beneficially own, collectively, approximately 54% of our outstanding common stock. If one or more of them were to sell a substantial portion of the shares they hold, it could cause our stock price to decline. Based on shares outstanding as of September 30, 2009, upon completion of this offering, we will have outstanding shares of common stock, assuming no exercise of the

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underwriters' option to purchase additional shares. This includes the _____ shares that we and the selling stockholders are selling in this offering. Of the remaining shares, _____ shares of common stock will be subject to a 180-day contractual lock-up with the underwriters, and _____ shares of common stock will be subject to a 180-day contractual lock-up with us.

In addition, as of September 30, 2009, there were _____ shares subject to outstanding options that will become eligible for sale in the public market to the extent permitted by any applicable vesting requirements, the lock-up agreements and Rules 144 and 701 under the Securities Act of 1933, as amended. Moreover, after this offering, holders of an aggregate of approximately _____ shares of our common stock, will have rights, subject to some conditions, to require us to file registration statements covering their shares and to include their shares in registration statements that we may file for ourselves or other stockholders. Holders of an aggregate of approximately _____ additional shares of our common stock as of September 30, 2009, will have rights, subject to some conditions, to include their shares in registration statements that we may file for ourselves or other stockholders.

We also intend to register all _____ shares of common stock that we may issue under our 2010 Equity Incentive Award Plan. Once we register these shares, they can be freely sold in the public market upon issuance and once vested, subject to the 180-day lock-up periods under the lock-up agreements described in the "Underwriting" section of this prospectus.

No public market for our common stock currently exists and an active trading market may not develop or be sustained following this offering.

Prior to this offering, there has been no public market for our common stock. An active trading market may not develop following the completion of this offering or, if developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair market value of your shares. An inactive market may also impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock, our stock price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price will be substantially higher than the tangible book value per share of shares of our common stock based on the total value of our tangible assets less our total liabilities immediately following this offering. Therefore, if you purchase shares of our common stock in this offering, you will experience immediate and substantial dilution of approximately \$ _____ per share in the price you pay for shares of our common stock as compared to its tangible book value, assuming an initial public offering price of \$ _____ per share. To the extent outstanding options and warrants to purchase shares of common stock are exercised, there will be further dilution. For further information on this calculation, see "Dilution" elsewhere in this prospectus.

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We have broad discretion in the use of net proceeds from this offering and may not use them effectively.

Although we currently intend to use the net proceeds from this offering in the manner described in “Use of Proceeds” elsewhere in this prospectus, we will have broad discretion in the application of the net proceeds. Our failure to apply these net proceeds effectively could affect our ability to continue to develop and sell our products and grow our business, which could cause the value of your investment to decline.

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

We have never operated as a stand-alone public company. As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act, as well as related rules implemented by the Securities and Exchange Commission and The Nasdaq Stock Market, imposes various requirements on public companies. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these rules and regulations to make it more expensive for us to maintain director and officer liability insurance.

In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, commencing in 2011, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. We may not be able to remediate the material weakness in our internal control over financial reporting prior to the time of this testing. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management time on compliance-related issues. We will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we are unable to remediate the material weakness in our internal control over financial reporting in a timely manner, our stock price could decline, and we could face sanctions, delisting or investigations by The Nasdaq Global Market, or other material effects on our business, reputation, results of operations, financial condition or liquidity.

We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment.

The terms of our loan and security agreement with GE Capital and Oxford currently prohibit us from paying cash dividends on our common stock. In addition, we do not anticipate paying cash dividends in the future. As a result, only appreciation of the price of our common stock, which may never occur, will provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock.

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. The forward-looking statements are contained principally in the sections entitled “Prospectus Summary,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and “Business.” These statements relate to future events or our future financial or operational performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. These risks and uncertainties are contained principally in the section entitled “Risk Factors.”

Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential,” or the negative of those terms, and similar expressions and comparable terminology intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this prospectus and, except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this prospectus.

This prospectus also contains estimates and other information concerning our current and target markets that are based on industry publications, surveys and forecasts, including those generated by IMS Health, Datamonitor and the U.S. Energy Information Administration. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to these estimates and information. These industry publications, surveys and forecasts generally indicate that their information has been obtained from sources believed to be reliable. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk Factors.” These and other factors could cause actual results to differ materially from those expressed in these publications, surveys and forecasts.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately \$ million from the sale of shares of common stock offered in this offering and the selling stockholders will receive net proceeds of approximately \$ million from the sale of shares of common stock offered in this offering, based on an assumed initial public offering price of \$ per share (the mid-point of the price range set forth on the cover page of this prospectus) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and the selling stockholders. A \$1.00 increase (decrease) in the assumed initial public offering price of \$ per share would increase (decrease) the net proceeds to us from this offering by \$ million and increase (decrease) the net proceeds to the selling stockholders by \$ million, assuming that the number of shares offered by us and the selling stockholders, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us and the selling stockholders. If the underwriters exercise their option to purchase additional shares in full, we estimate that our net proceeds will be approximately \$ million.

We intend to use the net proceeds of this offering, together with existing cash and cash equivalents, to fund working capital and other general corporate purposes, including the costs associated with being a public company. We may also use a portion of the net proceeds to acquire other businesses, products or technologies, and to increase our internal biocatalyst production capacity. We do not have agreements or commitments for any specific acquisitions at this time.

The expected use of net proceeds of this offering represents our current intentions based upon our present plan and business conditions. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. Accordingly, we will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the net proceeds of this offering.

Until we use the net proceeds of this offering, we intend to invest the net proceeds in short-term, interest-bearing, investment-grade securities. We cannot predict whether the net proceeds invested will yield a favorable return.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock, and currently do not plan to declare dividends on shares of our common stock in the foreseeable future. In addition, the terms of our loan and security agreement with General Electric Capital Corporation and Oxford Finance Corporation currently prohibit us from paying cash dividends on our common stock. We expect to retain our future earnings, if any, for use in the operation and expansion of our business. In addition, in certain circumstances, we are prohibited by various borrowing arrangements from paying cash dividends without the prior written consent of the lenders. Subject to the foregoing, the payment of cash dividends in the future, if any, will be at the discretion of our board of directors and will depend upon such factors as earnings levels, capital requirements, our overall financial condition and any other factors deemed relevant by our board of directors.

CAPITALIZATION

The following table sets forth our cash, cash equivalents and marketable securities and our capitalization as of September 30, 2009:

- on an actual basis;
- on a pro forma basis to reflect:
 - the filing of a restated certificate of incorporation to authorize _____ shares of common stock and _____ shares of undesignated preferred stock;
 - the conversion of all of our outstanding shares of redeemable convertible preferred stock into 37,624,216 shares of common stock and the related conversion of all outstanding redeemable convertible preferred stock warrants to common stock warrants;
 - the reclassification of the redeemable convertible preferred stock warrant liability to stockholders' equity upon the completion of this offering; and
- on a pro forma as adjusted basis to reflect the pro forma adjustments described above and our receipt of the estimated net proceeds from this offering, based on an assumed initial public offering of _____ shares at a price of \$ _____ per share (the mid-point of the price range set forth on the cover page of this prospectus) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and the accompanying notes appearing elsewhere in this prospectus.

	As of September 30, 2009		
	Actual	Pro Forma (unaudited)	Pro Forma As Adjusted
	(in thousands, except share data)		
Cash, cash equivalents and marketable securities	\$ 55,962	\$ 55,962	\$ _____
Redeemable convertible preferred stock warrant liability	\$ 1,731	\$ —	\$ _____
Financing obligations, net of current portion	3,412	3,412	_____
Redeemable convertible preferred stock, \$0.0001 par value per share; 39,204,886 shares authorized, 37,563,610 shares issued and outstanding, actual; no shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	177,746	—	_____
Stockholders' equity (deficit):			
Preferred stock, \$0.0001 par value per share; no shares authorized, issued and outstanding, actual; _____ shares authorized, no shares issued and outstanding, pro forma; _____ shares authorized, no shares issued and outstanding, pro forma as adjusted	—	—	_____
Common stock, \$0.0001 par value per share; 68,000,000 shares authorized; 3,975,552 issued and outstanding, actual; _____ shares authorized, 41,599,768 shares issued and outstanding, pro forma; _____ shares authorized, _____ shares issued and outstanding, pro forma as adjusted	—	4	_____
Additional paid-in capital	13,324	192,797	_____
Accumulated other comprehensive income	211	211	_____
Accumulated deficit	(154,428)	(154,428)	_____
Total stockholders' equity (deficit)	(140,893)	38,584	_____
Total capitalization	\$ 41,996	\$ 41,996	\$ _____

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Each \$1.00 increase or decrease in the assumed initial public offering price of \$ per share (the mid-point of the price range set forth on the cover page of this prospectus) would increase or decrease, as applicable, our pro forma as adjusted cash, cash equivalents and marketable securities, additional paid-in capital and stockholders' equity by approximately \$ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The number of shares of common stock shown as issued and outstanding in the table is based on the number of shares of our common stock outstanding as of September 30, 2009 and excludes:

- 10,962,854 shares of common stock issuable upon the exercise of options outstanding as of September 30, 2009 at a weighted average exercise price of \$3.25 per share;
- 491,513 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2009 at a weighted average exercise price of \$3.95 per share; and
- shares of our common stock reserved for future issuance under our 2010 Equity Incentive Award Plan, which will become effective in connection with the consummation of this offering (including 3,226,648 shares of common stock reserved for future grant or issuance under our 2002 Stock Plan as of September 30, 2009, which shares will be added to the shares to be reserved under our 2010 Equity Incentive Award Plan upon the effectiveness of the 2010 Equity Incentive Award Plan).

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

Our pro forma net tangible book value at September 30, 2009 was \$34.2 million, or \$0.82 per share of common stock. Pro forma net tangible book value per share represents total tangible assets less total liabilities (which includes the reclassification of redeemable convertible preferred stock warrant liability into additional paid-in capital upon the conversion of outstanding shares of preferred stock underlying warrants into shares of common stock), divided by the number of outstanding shares of common stock on September 30, 2009, after giving effect to the conversion of all outstanding shares of preferred stock into shares of common stock as if the conversion occurred on September 30, 2009. Our pro forma as adjusted net tangible book value at September 30, 2009, after giving effect to the sale by us of _____ shares of common stock in this offering at an assumed initial public offering price of \$ _____ per share (the mid-point of the price range set forth on the cover page of this prospectus) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, would have been approximately \$ _____ million, or \$ _____ per share. This represents an immediate increase in pro forma as adjusted net tangible book value of \$ _____ per share to existing stockholders and an immediate dilution of \$ _____ per share to new investors, or approximately _____ % of the assumed initial public offering price of \$ _____ per share. The following table illustrates this per share dilution:

Assumed initial public offering price per share	\$
Pro forma net tangible book value per share at September 30, 2009	\$ 0.82
Increase in pro forma net tangible book value per share attributable to this offering	_____
Pro forma as adjusted net tangible book value per share after this offering	_____
Dilution per share to new investors	\$ _____

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ _____ per share (the mid-point of the price range set forth on the cover page of this prospectus) would increase (decrease) our pro forma as adjusted net tangible book value by \$ _____ million, the pro forma as adjusted net tangible book value per share by \$ _____ per share and the dilution in the pro forma net tangible book value to new investors in this offering by \$ _____ per share, assuming the number of shares offered by us, as set forth on the cover pages of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The following table shows, as of September 30, 2009, the number of shares of common stock purchased from us, the total consideration paid to us and the average price paid per share by existing stockholders and by new investors purchasing common stock in this offering at an assumed initial public offering price of \$ _____ per share, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	\$	%	\$
New investors					
Total		100.0%	\$	100.0%	\$

A \$1.00 increase (decrease) in the assumed initial public offering price of \$ _____ per share (the mid-point of the price range set forth on the cover page of this prospectus) would increase (decrease) total consideration paid by new investors, total consideration paid by all stockholders and the average price per

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share paid by all stockholders by \$, \$ and \$, respectively, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discount and estimated offering expenses payable by us.

The sale of shares of our common stock to be sold by the selling stockholders in this offering will reduce the number of shares of our common stock held by existing stockholders to , or % of the total shares outstanding, and will increase the number of shares of our common stock held by new investors to , or % of the total shares of our common stock outstanding.

The discussion and tables in this section regarding dilution are based on 41,599,768 shares of common stock issued and outstanding as of September 30, 2009 which reflects the automatic conversion of all of our preferred stock into an aggregate of 37,624,216 shares of our common stock, and excludes:

- shares of common stock issuable upon the exercise of 10,962,854 options outstanding at a weighted average exercise price of \$3.25 per share;
- shares of common stock issuable upon exercise of 491,513 warrants outstanding at a weighted average exercise price of \$3.95 per share; and
- shares of common stock reserved for issuance under our 2010 Equity Incentive Award Plan, which will become effective upon the completion of this offering (plus an additional 3,226,648 shares of common stock reserved for future grant or issuance under our 2002 Stock Plan as of September 30, 2009, which shares will be added to the shares to be reserved under our 2010 Equity Incentive Award Plan upon the effectiveness of the 2010 Equity Incentive Award Plan).

If the underwriters exercise their option to purchase additional shares in full, the following will occur:

- the number of shares of our common stock held by existing stockholders would decrease to approximately % of the total number of shares of our common stock outstanding after this offering; and
- the number of shares of our common stock held by new investors would increase to approximately % of the total number of shares of our common stock outstanding after this offering.

To the extent that outstanding options or warrants are exercised, you will experience further dilution. If all of our outstanding options and warrants were exercised, our pro forma net tangible book value as of September 30, 2009 would have been \$71.8 million, or \$1.35 per share, and the pro forma, as adjusted net tangible book value after this offering would have been \$ million, or \$ per share, causing dilution to new investors of \$ per share.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read together with our consolidated financial statements and accompanying notes and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” appearing elsewhere in this prospectus. The selected consolidated financial data in this section is not intended to replace our consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

We derived the consolidated statements of operations data for 2006, 2007 and 2008 and the consolidated balance sheets data as of December 31, 2007 and 2008 from our audited consolidated financial statements appearing elsewhere in this prospectus. The consolidated statement of operations data for 2004 and 2005 and the consolidated balance sheets data as of December 31, 2004, 2005 and 2006 have been derived from our audited consolidated financial statements not included in this prospectus. The consolidated statements of operations data for the nine months ended September 30, 2008 and 2009 and the consolidated balance sheet data as of September 30, 2009 are derived from our unaudited consolidated financial statements appearing elsewhere in this prospectus. The unaudited interim financial statements have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to state fairly our financial position as of September 30, 2009 and results of operations and cash flows for the nine months ended September 30, 2008 and 2009. Operating results for the nine months ended September 30, 2009 are not necessarily indicative of the results that may be expected for the year ended December 31, 2009. The data should be read in conjunction with the consolidated financial statements, related notes, and other financial information included herein.

	Years Ended December 31,					Nine Months Ended September 30,	
	2004	2005	2006	2007	2008	2008	2009
	(in thousands, except per share amounts)						
Consolidated Statements of Operations Data:							
Revenues:							
Product	\$ —	\$ 2,265	\$ 2,544	\$ 11,418	\$ 16,860	\$ 10,777	\$ 13,401
Related party collaborative research and development	—	—	863	8,481	30,239	18,174	43,963
Collaborative research and development	4,873	9,363	8,403	4,733	3,062	2,678	1,295
Government grants	—	156	317	701	317	251	11
Total revenues	4,873	11,784	12,127	25,333	50,478	31,880	58,670
Costs and operating expenses:							
Cost of product revenues	—	2,233	1,806	8,319	13,188	7,922	11,886
Research and development	12,891	12,839	17,257	35,644	45,554	33,250	39,486
Selling, general and administrative	5,187	7,891	11,880	19,713	35,709	28,300	20,939
Total costs and operating expenses	18,078	22,963	30,943	63,676	94,451	69,472	72,311
Loss from operations	(13,205)	(11,179)	(18,816)	(38,343)	(43,973)	(37,592)	(13,641)
Interest income	240	245	742	1,491	1,538	1,435	141
Interest expense and other, net	(128)	(413)	(724)	(2,533)	(2,365)	(2,517)	(1,530)
Loss before provision (benefit) for income taxes	(13,093)	(11,347)	(18,798)	(39,385)	(44,800)	(38,674)	(15,030)
Provision (benefit) for income taxes	—	243	(127)	(408)	327	126	79
Net loss	(13,093)	(11,590)	(18,671)	(38,977)	(45,127)	(38,800)	(15,109)
Accretion of redeemable convertible preferred stock(1)	(1,250)	—	—	—	—	—	—
Net loss attributable to common stockholders	<u>\$(14,343)</u>	<u>\$(11,590)</u>	<u>\$(18,671)</u>	<u>\$(38,977)</u>	<u>\$(45,127)</u>	<u>\$(38,800)</u>	<u>\$(15,109)</u>
Net loss attributable to common stockholders per share of common stock, basic and diluted(2)	\$ (13.38)	\$ (7.69)	\$ (10.99)	\$ (15.53)	\$ (12.64)	\$ (11.02)	\$ (3.86)
Weighted average common shares used in computing net loss per share of common stock, basic and diluted(2)	1,072	1,508	1,699	2,510	3,570	3,521	3,917
Net loss used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)(2)					<u>\$(45,230)</u>		<u>\$(14,760)</u>
Pro forma net loss per share of common stock, basic and diluted (unaudited)(2)					<u>\$ (1.26)</u>		<u>\$ (0.37)</u>
Weighted average common shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)(2)					35,900		39,684

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- (1) During 2004, we recorded accretion to increase the redeemable convertible preferred stock to its redemption value due to the voting majority held by a certain stockholder which could effect a liquidation of the redeemable convertible preferred stock, pursuant to EITF Topic D-98 (incorporated in Accounting Standards Codification, or ASC, Topic 480, *Distinguishing Liabilities from Equity*). In 2005, the probability of the liquidation of the redeemable convertible preferred stock was reduced and accordingly we no longer recorded the related accretion subsequent to December 31, 2004.
- (2) Net loss used in computing pro forma basic and diluted net loss per share of common stock, pro forma basic and diluted net loss per share of common stock and the number of weighted average common shares used in computing the pro forma basic and diluted net loss per share of common stock in the table above give effect to the automatic conversion of all of our outstanding redeemable convertible preferred stock into common stock upon the closing of this offering as if such conversion had occurred at the beginning of each period or upon issuance, if later.

	<u>2004</u>	<u>2005</u>	<u>December 31,</u>		<u>2008</u>	<u>September 30,</u>
			<u>2006</u>	<u>2007</u>		<u>2009</u>
			(in thousands)			
Consolidated Balance Sheets Data:						
Cash, cash equivalents and marketable securities	\$ 16,734	\$ 7,005	\$ 32,246	\$ 84,070	\$ 37,130	\$ 55,962
Working capital	12,837	2,781	22,972	60,732	5,933	28,061
Total assets	23,276	21,380	46,659	113,541	70,882	93,207
Current and long-term financing obligations	2,306	4,017	4,073	17,407	13,348	9,505
Redeemable convertible preferred stock	27,779	37,750	77,513	132,746	132,746	177,746
Total stockholders' deficit	(12,984)	(34,774)	(52,766)	(87,468)	(129,124)	(140,893)

**MANAGEMENT'S DISCUSSION AND ANALYSIS OF
FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes that appear elsewhere in this prospectus. In addition to historical financial information, the following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those discussed below. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this prospectus, particularly in "Risk Factors."

Overview

Our proprietary technology platform enables the creation of optimized biocatalysts that make existing industrial processes faster, cleaner and more efficient than current methods and has the potential to make new industrial processes possible on a commercial scale. We have commercialized our biocatalysts in the pharmaceutical industry and are developing biocatalysts for use in producing advanced biofuels under a multi-year research and development collaboration with Shell. We are also using our technology platform to pursue biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals.

We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc. In March 2002, we licensed from Maxygen core enabling technology and commenced operations. From 2002 until 2005, our operations focused on organizing and staffing our company and developing our technology platform. In 2005, we recognized our first revenues from product sales to the pharmaceutical industry. In 2006, we entered into our initial research and development collaboration with Equilon Enterprises LLC dba Shell Oil Products US, or Shell, an affiliate of Royal Dutch Shell plc, in the biofuels market.

To date, we have generated revenues primarily from collaborative research and development funding, pharmaceutical product sales and government grants. Over the last three fiscal years, revenues grew from \$12.1 million in 2006 to \$25.3 million in 2007 and again to \$50.5 million in 2008. In the nine months ended September 30, 2009, our total revenues grew to \$58.7 million from \$31.9 million for the comparable period in 2008, which represents an 84% increase. Most of our revenues since inception have been derived from collaborative research and development arrangements, which accounted for 76%, 52% and 66% of our revenues in 2006, 2007 and 2008, respectively, and 77% of our revenues in the nine months ended September 30, 2009. Related party collaborative research and development received from Shell accounted for 33% and 60% of our revenues in 2007 and 2008, respectively, and 75% of our revenues in the nine months ended September 30, 2009. Our product sales have grown over the last three years, from \$2.5 million in 2006 to \$16.9 million in 2008. Notwithstanding our revenue growth, we have continued to experience significant losses as we have invested heavily in research and development and administrative infrastructure in connection with growth in our business. As of September 30, 2009, we had an accumulated deficit of \$154.4 million. We incurred net losses of \$18.7 million, \$39.0 million, \$45.1 million and \$15.1 million in 2006, 2007, 2008 and the nine months ended September 30, 2009, respectively. In light of the growth in market acceptance of our products and services to date, we currently intend to increase our investment in research and development, such that we do not expect to achieve profitability prior to at least 2011.

We targeted the pharmaceutical industry as the first market for our products and services. In this market, we have historically entered into collaborations, which have involved complex service and intellectual property agreements under which we research and develop optimized biocatalysts for innovator pharmaceutical companies in connection with their drug development efforts. In these collaborations, we typically receive revenues in the form of one or more of the following: up-front payments, milestone

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payments, payments based upon the number of full-time employee equivalents, or FTEs, engaged in related research and development activities and licensing fees and royalties.

Our pharmaceutical product offerings include biocatalysts, pharmaceutical intermediates, active pharmaceutical ingredients, or APIs, and Codex Biocatalyst Panels. Our pharmaceutical customers incorporate our biocatalysts into the manufacturing processes used to produce their drugs. Our intermediates are complex chemical substances that have been manufactured by, or on behalf of, us using our biocatalysts. Drug manufacturers use intermediates to produce the APIs used in their drugs. We believe that major pharmaceutical manufacturers are increasingly willing to outsource portions of their own internal manufacturing and to purchase intermediates that are difficult or expensive to manufacture. Our Codex Biocatalyst Panels are plates embedded with genetically diverse variants of our proprietary biocatalysts, which allow our customers to screen our biocatalysts for desired activity that is applicable to a particular pharmaceutical manufacturing process. We view our Codex Biocatalyst Panels, which we began selling in 2007, as a way to build early and broad awareness of the power and utility of our technology platform. We plan to increase our efforts to expand use of our Codex Biocatalyst Panels among our current and potential customers.

Our pharmaceutical service offerings include screening and optimization services. We use our screening services to test our customers' pharmaceutical materials against our existing libraries of biocatalysts to determine whether our existing biocatalysts produce any desired activities. We then use our optimization services to improve the performance of these biocatalysts to meet customer requirements. We also use our optimization services to improve biocatalysts identified by our customers through their use of our Codex Biocatalyst Panels. The use of our panels, as well as these services, has led to sales of biocatalysts to our pharmaceutical customers.

We provide our biocatalysts, Codex Biocatalyst Panels, screening and optimization services and intermediates to our innovator customers and provide intermediates to our generics customers. We have also launched several new intermediates and APIs for the generic equivalents of branded pharmaceutical products, including Singulair and Cymbalta, in markets where these products are not subject to patent protection, and intend to sell these same intermediates and APIs for use in other markets when the patent protection for each product expires. We sell our products primarily to pharmaceutical manufacturers through our small direct sales and business development force in the United States and Europe.

In the biofuels market, we entered into a research agreement with Shell in 2006. The goal of this collaboration was to develop biocatalysts to break down renewable sources of non-food plant materials, known as cellulosic biomass, and convert them to fuels. In connection with this collaboration, we received up-front payments, research and development service payments and a milestone payment.

Based on the success of this initial collaboration, in 2007, we entered into a new, expanded multi-year research and development collaboration with Shell to develop biocatalysts to convert cellulosic biomass into fermentable sugars that are used in the production of fuels and related products and to convert these sugars into fuels and related products. We received an up-front fee and are currently receiving FTE payments under this collaboration. This up-front fee is refundable under certain conditions, such as a change in control in which we are acquired by a competitor of Shell. This refundability lapses ratably over a five-year period beginning on November 1, 2007, on a straight-line basis. In 2009, we agreed to devote to the research collaboration FTEs by March 2009, which are required to be funded by Shell at an annual base rate per FTE of \$ for FTEs located in the United States, and \$ for FTEs located in Hungary. These annual base rates per FTE are subject to annual increases of each subsequent year of the collaboration. Until November 1, 2010, Shell has the right to reduce the number of funded FTEs under the collaborative research agreement by up to FTEs following 60 days' advance written notice. After November 1, 2010, Shell has the right to further reduce the number of funded FTEs, with any one reduction not to exceed funded FTEs, following advance written notice. The required notice period ranges from 30 to 270 days, so the earliest an FTE reduction could take place would be December 2, 2010. Following any

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such reduction, Shell is subject to a standstill period of between 90 and 360 days during which period Shell cannot provide notice of any further FTE reductions. The notice and standstill periods are dependent on the number of funded FTEs reduced, with the length of notice and standstill periods increasing commensurate with the number of FTEs reduced.

We are also eligible for milestone payments of up to \$ over the remaining term of the agreement, contingent upon the achievement of certain technical goals beginning in 2009, and a milestone payment of \$ upon achievement of certain commercial goals. For the nine months ended September 30, 2009, we have met or exceeded each of our technical goals under the collaborative research agreement by the applicable deadlines and have earned a milestone payment of \$0.5 million. In the fourth quarter of 2009, we became entitled to receive an additional \$ million in milestone payments linked to achievement of technical goals. Shell will also be required to pay us a royalty per gallon with respect to certain products manufactured using our technology platform, including liquid fuels, fuel additives and lubricants, if Shell or any of its licensees manufactures such products. With respect to cellulosic biomass converted into sugars, Shell agreed to pay us a royalty per gallon of fuel product made from those sugars. With respect to sugars converted into fuel, Shell agreed to pay us a separate royalty per gallon of fuel product. We may be entitled to receive one or both of these royalties depending on whether Shell uses our technology to commercialize one or both of these steps.

Under our research and development collaboration with Shell, we retain ownership of all intellectual property we develop, other than patent rights related to certain fuel innovations, and Shell will have an exclusive license to such intellectual property we develop. We have agreed to work exclusively with Shell until November 2012 to convert cellulosic biomass into fermentable sugars that are used in the production of fuels and related products and to convert these sugars into fuels and related products. However, Shell is not required to work exclusively with us, and could develop or pursue alternative technologies that it decides to use for commercialization purposes instead of any technology developed under our collaborative research agreement. Even if Shell decides to commercialize products based on our technologies, they have no obligation to purchase their biocatalyst supply from us. If Shell chooses to commercialize any biofuels products developed through our collaboration, we believe that the combination of our technology platform with Shell's proven project development capabilities and resources could enable a biofuels solution that extends from the conversion of cellulosic biomass into biofuels to delivery and distribution of refined biofuels to consumers at the pump.

One element of our collaboration with Shell relates to the development of cellulosic ethanol. In connection with our collaboration with Shell, we entered into a multi-party collaborative research and license agreement with Iogen Energy Corporation, or Iogen, and Shell in July 2009, which is focused on the conversion of cellulosic biomass to ethanol for commercial scale production. Iogen has agreed to pay us a royalty per gallon with respect to certain fuel products, which include liquid fuels, fuel additives and lubricants, that are covered by inventions jointly made by us and Iogen, but that are solely owned by Iogen. We will be entitled to collect royalties from Shell or Iogen for any use of our biofuels technology by Shell or Iogen. Shell can choose to commercialize cellulosic ethanol manufactured using our technology independently, or in collaboration with Iogen.

Under the terms of our license agreement with Maxygen, we are obligated to pay Maxygen a significant portion of certain types of consideration we receive in connection with our biofuels research and development, including our collaboration with Shell. The actual fees payable to Maxygen will depend on the amount, timing and type of consideration we receive, including payments from the sale of our equity securities to Shell and payments in connection with the sale of fuel products made with a biocatalyst developed using the licensed technology and/or research and development activities.

If we directly commercialize an energy product that is made using any biocatalyst developed from the technology licensed from Maxygen, we will owe Maxygen a 2% royalty on our net sales of the energy product and on amounts received from any sublicensee or third party for the use of the energy product, to

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the extent that we utilize such energy product to provide services to such sublicensee or third party. If we sublicense our rights under the license agreement to a third party for the development and commercialization of an energy product, we will owe Maxygen 20% of all consideration we receive from any sublicensee. Specifically, we will owe Maxygen fees in connection with consideration we receive in the form of (1) up-front option and/or license fees, (2) FTE funding for biofuels research, (3) milestone payments, (4) payments from the sale of our equity securities and (5) payments in connection with the commercialization of energy products made with a biocatalyst developed using the licensed technology.

In the case of consideration received from the sale of our equity securities to Shell, we are obligated to pay Maxygen 20% of any excess paid above \$3.97 per share, the price per share of our Series D preferred stock. With regard to FTE funding, we are only obligated to pay Maxygen to the extent the consideration received exceeds a specified amount, which was initially \$ per year starting in November 2006, but is adjusted annually by . We are also obligated to reimburse up to 20% of the costs incurred by Maxygen related to the prosecution and maintenance of the patents licensed from Maxygen relating to our core technology. Further, in the event that any subsidiary or affiliate of ours develops and/or sells any energy applications using the Maxygen technology, we are obligated to transfer to Maxygen a percentage of the value of the subsidiary or affiliate that is attributable to the Maxygen technology and give Maxygen an option to acquire a percentage of the other consideration that we invest in such affiliate or subsidiary.

In connection with all consideration received from Shell relating to our biofuels research and development collaboration, we were obligated to pay Maxygen \$7.8 million and \$1.0 million for 2007 and 2008, respectively, of which \$ and \$, respectively, were payments owed to Maxygen in connection with Shell's FTE funding. For the nine months ended September 30, 2008 and 2009, we were obligated to pay Maxygen \$0.6 million and \$4.2 million, respectively, of which \$ and \$, respectively, were payments owed to Maxygen in connection with Shell's FTE funding. The payments relating to FTE funding were less than 5% of the total FTE payments we received from Shell in those periods.

Our strategy for collaborative arrangements is to retain substantial participation in the future economic value of our technology while receiving current cash payments to offset research and development costs and working capital needs. These agreements are complex and have multiple elements that cover a variety of present and future activities. In addition, certain elements of these agreements are intrinsically difficult to separate and treat as separate units for accounting purposes, especially exclusivity payments. Consequently, we expect to recognize these exclusivity payments over the term of the exclusivity period.

We have limited internal manufacturing capacity at our headquarters in Redwood City, California. We expect to rely on third-party manufacturers for commercial production of our biocatalysts for the foreseeable future. Our in-house manufacturing is dedicated to producing both our Codex Biocatalyst Panels and biocatalysts for use by our customers in pilot scale production. We also supply initial commercial quantities of biocatalysts for use by our collaborators to produce pharmaceutical intermediates and manufacture biocatalysts that we sell.

We rely on two primary contract manufacturers, CPC Biotech srl, or CPC, and Lactosan GmbH & Co. KG, or Lactosan, to manufacture substantially all of the commercial biocatalysts used in our pharmaceutical business. We have qualified other contract manufacturers, but we do not currently use them for any of our supply commitments. In addition, we contract with other suppliers in Austria, Germany, Italy and India. Since 2006, Arch Pharmed Labs Limited, or Arch, of Mumbai, India has manufactured all of our commercialized drug-related products for sale to generic API manufacturers. We are party to a number of agreements with Arch that govern the commercialization of various current and future products for supply into the generic and innovator marketplaces.

We continue to evaluate whether to develop internal capabilities to manufacture biocatalysts at commercial scale. To increase our biocatalyst manufacturing capacity, we may invest in our own manufacturing capabilities through the construction of additional manufacturing facilities. The factors we will consider in deciding whether to expand our internal manufacturing capabilities include the costs and

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impact on our cash flow associated with developing and maintaining such capabilities, the time required to develop such capabilities, potential locations for manufacturing sites, including proximity to existing customers, taxes associated with manufacturing activities and local incentives.

Our revenue stream is diversified across various industries, which should mitigate our exposure to cyclical downturns or fluctuations in any one market. Revenues during 2008 and the nine months ended September 30, 2009 were derived from the pharmaceuticals and biofuels markets, and consisted of collaborative research and development revenues, product sales and government grants, which are separately identified in our consolidated statements of operations. Based on our existing arrangements, we believe that revenues from both our pharmaceutical and biofuels customers should be predictable over the near term. The revenues that we expect to recognize from our collaborative research agreement with Shell should provide a high degree of visibility into our aggregate revenues for the foreseeable future.

We actively seek contract manufacturers who are willing to invest in capital equipment to manufacture our products at commercial scale. As a result, we are heavily dependent on the availability of manufacturing capacity at, and the reliability of, our contract manufacturers. We also pursue collaborations with industry leaders that allow us to leverage our collaborators' engineering, manufacturing and commercial expertise, their distribution infrastructure and their ability to fund commercial scale production facilities. We believe that, if our collaborators choose to utilize our technology to commercialize new products, we expect our collaborators will finance, build and operate the larger, more expensive facilities for the intermediate or end products in our markets, which will allow us to expand into new markets without having to finance or operate large industrial facilities.

Revenues and Operating Expenses

Revenues

Our revenues are comprised of collaborative research and development revenues, product revenues and government grants.

- Collaborative research and development revenues include license, technology access and exclusivity fees, FTE payments, milestones, royalties, and optimization and screening fees. We report our collaborative research and development revenues under two categories consisting of revenues (i) from related parties and (ii) from all other collaborators. Related party collaborative research and development revenues consist of revenues from Shell.
- Product revenues consist of sales of biocatalysts, intermediates and Codex Biocatalyst Panels.
- Government grants consist of payments from government entities. The terms of these grants generally provide us with cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Historically, we have received government grants from Germany and the United States and expect to receive additional grants from other governments in the future.

Cost of Product Revenues

Cost of product revenues includes both internal and third-party fixed and variable costs including amortization of purchased technology, materials and supplies, labor, facilities and other overhead costs associated with our product revenues.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects as well as partner-funded collaborative research and development activities. These costs include license and royalty fees payable to Maxygen for consideration that we receive in connection with our biofuels collaboration, our direct and research-related overhead expenses, which include salaries and other personnel-related expenses,

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facility costs, supplies, depreciation of facilities, and laboratory equipment, as well as research consultants and the cost of funding research at universities and other research institutions, and are expensed as incurred. License and royalty fees payable to Maxygen may fluctuate depending on the timing and type of consideration received from Shell in connection with our biofuels research and development collaboration. Costs to acquire technologies that are utilized in research and development and that have no alternative future use are expensed when incurred. Our research and development efforts devoted to our internal product and process development projects increased significantly in 2007, 2008 and the nine months ended September 30, 2009, from 31 projects in 2006 to 46, 47 and 62 projects, respectively. Our internal research and development projects are typically completed in 12 to 24 months, and generally the costs associated with any single internal project during these periods were not material.

To approximate research and development expenses by funded category, we estimate, based on FTE efforts, the percentage of research and development efforts, as measured in hours incurred. The number of hours expended in each category is divided by the total number of hours expended on all categories of research and development with the resulting fractions then multiplied by the total cost of research and development effort, with the products then added to project-specific external costs. In the case where a collaborator is sharing the research and development costs, the expenses for that project are allocated proportionately between the collaborative projects funded by third parties and internal projects. We believe that presenting our research and development expenses in these categories will provide our investors with meaningful information on how our resources are being used.

The following table presents our approximate research and development expenses by funding category (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
Collaborative research and development(1)	\$ 4,150	\$ 10,920	\$ 17,368	\$ 10,894	\$ 28,554
Grants	25	384	155	113	—
Internal projects	13,082	24,340	28,031	22,243	10,932
Total research and development expenses	<u>\$ 17,257</u>	<u>\$ 35,644</u>	<u>\$ 45,554</u>	<u>\$ 33,250</u>	<u>\$ 39,486</u>

- (1) Research and development expenses related to collaborative projects funded by related and other third parties are less than the reported revenues due to the recognition of revenues from the amortization of non-refundable up-front payments.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist of compensation expenses (including stock-based compensation), hiring and training costs, consulting and service provider expenses (including patent counsel related costs), marketing costs, occupancy-related costs, depreciation and amortization expenses and travel and relocation expenses.

Critical Accounting Policies and Estimates

The consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States and include our accounts and the accounts of our wholly-owned subsidiaries. The preparation of our consolidated financial statements requires our management to make estimates, assumptions, and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the applicable periods. Management bases its estimates, assumptions and judgments on historical experience and on various other factors that are believed to be

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reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our consolidated financial statements, which, in turn, could change the results from those reported. Our management evaluates its estimates, assumptions and judgments on an ongoing basis.

The critical accounting policies requiring estimates, assumptions, and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue Recognition

When evaluating multiple element arrangements, we consider whether the components of each arrangement represent separate units of accounting. Application of the standard requires subjective determinations and requires management to make judgments about the fair values of each individual element and whether it is separable from other aspects of the contractual relationship. Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer, and whether there is objective and reliable evidence of the fair value of the undelivered items. Consideration received is allocated among the separate units of accounting based on their respective fair values. Applicable revenue recognition criteria are then applied to each of the units.

Revenues are recognized when the four basic revenue recognition criteria are met: (1) persuasive evidence of an arrangement exists; (2) products have been delivered, transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured.

Our primary sources of revenues consist of collaborative research and development agreements, product revenues and government grants. Collaborative research and development agreements typically provide us with multiple revenue streams, including up-front fees for licensing, exclusivity and technology access, fees for FTE services and the potential to earn milestone payments upon achievement of contractual criteria and royalty fees based on future product sales or cost savings by our customers.

For each source of collaborative research and development revenues, product revenues and grant revenues, we apply the above revenue recognition criteria in the following manner:

- Up-front fees received in connection with collaborative research and development agreements, including license fees, technology access fees and exclusivity fees, are deferred upon receipt, are not considered a separate unit of accounting and are recognized as revenues over the relevant performance periods under the agreements, as discussed below.
- Revenues related to FTE services are recognized as research services are performed over the related performance periods for each contract. We are required to perform research and development activities as specified in each respective agreement. The payments received are not refundable and are based on a contractual reimbursement rate per FTE working on the project. When up-front payments are combined with FTE services in a single unit of accounting, we recognize the up-front payments using the proportionate performance method of revenue recognition based upon the actual amount of research and development labor hours incurred relative to the amount of the total expected labor hours to be incurred by us, up to the amount of cash received. In cases where the planned levels of research services fluctuate substantially over the research term, we are required to make estimates of the total hours required to perform our obligations. Research and development expenses related to FTE services under the collaborative research and development agreements approximate the research funding over the term of the respective agreements.
- Revenues related to milestones that are determined to be substantive and at risk at the inception of the arrangement are recognized upon achievement of the milestone event and when collectability is reasonably assured. Milestone payments are triggered either by the results of our research efforts or by events external to us, such as our collaboration partner achieving a revenue target. Fees

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associated with milestones for which performance was not at risk at the inception of the arrangement or that are determined not to be substantive are accounted for in the same manner as the up-front fees, provided collectability is reasonably assured.

- We recognize revenues from royalties based on licensees' sales of products using our technologies. Royalties are recognized as earned in accordance with the contract terms when royalties from licensees can be reasonably estimated and collectability is reasonably assured.
- Product revenues are recognized once passage of title and risk of loss has occurred and contractually specified acceptance criteria have been met, provided all other revenue recognition criteria have also been met. Product revenues consist of sales of biocatalysts, intermediates and APIs, and Codex Biocatalyst Panels. Cost of product revenues includes both internal and third party fixed and variable costs including amortization of purchased technology, materials and supplies, labor, facilities and other overhead costs associated with our product revenues.
- We license mutually agreed upon third party technology for use in our research and development collaboration with Shell. We record the license payments to research and development expense and offset related reimbursements received from Shell. Payments made by Shell to us are direct reimbursements of our costs. We account for these direct reimbursable costs as a net amount, whereby no expenses or revenues are recorded for the costs reimbursed by Shell. For any payments not reimbursed by Shell, we will recognize these as expenses in the statement of operations. We elected to present the reimbursement from Shell as a component of our research and development expense since presenting the receipt of payment from Shell as revenues does not reflect the substance of the arrangement.
- We receive payments from government entities in the form of government grants. Government grants are agreements that generally provide us with cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Revenues from government grants are recognized in the period during which the related costs are incurred, provided that the conditions under which the government grants were provided have been met and we have only perfunctory obligations outstanding.
- Shipping and handling costs charged to customers are recorded as revenues. Shipping costs are included in our cost of product revenues. Such charges were not significant in any of the periods presented.

Stock-Based Compensation

Prior to January 1, 2006, we accounted for stock-based employee compensation arrangements using the intrinsic value method required at the time. Under the intrinsic value method, compensation expense for employees is based on the intrinsic value of the option, determined as the excess, if any, of the fair value of the common stock over the exercise price of the option on the date of grant. Historically, our stock options have been granted with exercise prices at or above the estimated fair value of our common stock on the date of grant.

Effective January 1, 2006, we began recognizing compensation expense related to share-based transactions, including the awarding of employee stock options, based on the estimated fair value of the awards granted. We adopted this fair value method using the prospective transition method, as options granted prior to January 1, 2006 were measured using the minimum value method for the pro forma disclosures previously required. In accordance with the prospective transition method, we continued to account for non-vested employee share-based awards outstanding at the date of adoption using the intrinsic value method. All awards granted, modified or settled after January 1, 2006 have been accounted for using the fair value method.

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We account for stock options issued to non-employees based on their estimated fair value determined using the Black-Scholes option-pricing model. The fair value of the options granted to non-employees is remeasured as they vest, and the resulting increase in value, if any, is recognized as expense during the period the related services are rendered.

The following table summarizes the options granted from January 2008 through the date of this prospectus with their exercise prices, the fair value of the underlying common stock, and the intrinsic value per share, if any:

Date of Issuance	Number of Shares Subject to Options Granted	Exercise Price per Share	Fair Value of Common Stock per Share	Intrinsic Value
January 29, 2008	1,095,550	\$ 7.00	\$ 6.25	\$ (0.75)
May 22, 2008	250,000	7.90	7.90	—
September 25, 2008(1)	10,000	4.57	7.19	2.62
September 25, 2008	750,012	7.19	7.19	—
June 2, 2009	1,683,000	4.97	4.97	—
August 5, 2009	376,495	4.93	4.93	—
November 9, 2009	891,750	6.06	6.06	—
	<u>5,056,807</u>			

- (1) The exercise price of this stock option was the then-current fair value of our common stock when the employee joined our company, but such stock option was not issued until September 25, 2008, when the fair value of our common stock had increased to \$7.19 per share. The stock option was subsequently cancelled, unexercised, shortly after grant when the employee left our company.

Significant Factors, Assumptions and Methodologies Used in Determining Fair Value

We have estimated the fair value of our stock option grants on or after January 1, 2006 using the Black-Scholes option-pricing model. We calculate the estimated volatility rate based on selected companies in similar markets, due to a lack of historical information regarding the volatility of our stock price. We will continue to analyze the historical stock price volatility assumption as more historical data for our common stock becomes available. Due to our limited history of grant activity, we calculate the expected life of options granted to employees using the “simplified method” permitted by the SEC as the average of the total contractual term of the option and its vesting period. The risk-free rate assumption was based on U.S. Treasury instruments whose terms were consistent with the terms of our stock options. The expected dividend assumption was based on our history and expectation of dividend payouts. The fair value of the stock options granted was based on the following assumptions:

	Years ended December 31,		Nine months ended September 30,	
	2007	2008	2008	2009
Weighted-average expected term (years)	6.0	6.1	6.1	6.1
Weighted-average expected volatility	48%	57%	57%	75%
Weighted-average risk-free interest rates	4.3%	3.2%	3.2%	2.5%
Expected dividend yield	0.0%	0.0%	0.0%	0.0%

As a result of our Black-Scholes fair value calculations and the allocation of value to the vesting periods using the straight-line vesting attribution method, we recognized a total of \$64,000 in stock-based

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compensation expense during 2006, of which \$32,000 was attributable to employee stock options and \$32,000 was attributable to non-employee stock options. Of these amounts, \$61,000 was recorded as a selling, general and administrative expense while \$3,000 was recorded as a research and development expense. We recognized a total of \$1.3 million in stock-based compensation expense during 2007, of which \$1.0 million was attributable to employee stock options and \$0.2 million was attributable to non-employee stock options. Of these amounts, \$0.8 million was recorded as a selling, general and administrative expense while \$0.5 million was recorded as a research and development expense. We recognized a total of \$3.5 million in stock-based compensation expense during 2008, of which \$3.2 million was attributable to employee stock options and \$0.3 million was attributable to non-employee stock options. Of these amounts, \$2.0 million was recorded as general and administrative expense while \$1.5 million was recorded as a research and development expense. In the nine months ended September 30, 2008 and 2009, we recognized a total of \$2.4 million and \$3.2 million in stock-based compensation expense, respectively, of which \$2.1 million and \$3.1 million, respectively, was attributable to employee stock options and \$0.3 million and \$0.1 million, respectively, was attributable to non-employee stock options. Of this total amount for the nine months ended September 30, 2008 and 2009, \$1.4 million and \$1.6 million, respectively, was recorded as a selling, general and administrative expense, while \$1.0 million and \$1.6 million, respectively, was recorded as a research and development expense.

Common Stock Valuations

The fair values of the common stock underlying our stock options were estimated contemporaneously by our board of directors with input from management based upon several factors, including progress and milestones attained in our business, projected sales and earnings for multiple future periods, and the probabilities of various financing and liquidation events, including winding up and dissolution. In determining the fair market value of our common stock as of the date of each option grant, our board of directors made a reasonable estimate of the then current value of our common stock. In the absence of a public trading market for our common stock, our board of directors was required to estimate the fair value of our common stock. Our board of directors considered numerous objective and subjective factors in determining the fair value of our common stock at each option grant date, including but not limited to the following factors: (i) prices of preferred stock issued by us primarily to outside investors in arm's-length transactions, and the rights, preferences and privileges of the preferred stock relative to the common stock; (ii) our performance and the status of research and product development efforts; (iii) our stage of development and business strategy; and (iv) the likelihood of achieving a liquidity event for the shares of common stock underlying these stock options, such as an initial public offering or sale of our company, given then-prevailing market conditions.

All stock options were granted with exercise prices at or above the then-current fair market value of our common stock as determined by our board of directors, other than an option for 10,000 shares that was cancelled, unexercised, shortly after grant. We believe that the determinations of the value of our common stock were fair and reasonable at the time they were made. The board of directors utilized methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the AICPA Practice Guide.

For our contemporaneous and retrospective valuations performed between December 2006 and September 2009 the board of directors used the probability-weighted expected return method, or the PWERM, which is consistent with the allocation methods outlined in the AICPA Practice Guide. The PWERM analyzes the returns afforded to common equity holders under multiple future scenarios. Under the PWERM, share value is based upon the probability-weighted present value of expected future net cash flows (distributions to shareholders), considering each of the possible future events and giving consideration for the rights and preferences of each share class. The PWERM requires a five step process: (i) for each possible future event, standard valuation methodologies, such as the application of revenues and earnings multiples from a relevant peer group, are used

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to estimate a range of future distribution values over a range of event dates; (ii) for each combination of value and date, the value is allocated between the share classes; (iii) the expected return for each class is then discounted back to the present; (iv) the probability for each possible event is estimated; and (v) the probability-weighted return, expressed in terms of a per-share value, is determined for each class. Although this method is complex to implement, the board of directors believes that this method's forward-looking analysis of potential future outcomes makes it the most suitable for this analysis.

The PWERM-derived fair value calculated at each valuation date was then allocated to the shares of redeemable and/or convertible preferred stock, warrants to purchase shares of preferred stock, and common stock, using a contingent claim methodology. This methodology treats the various components of our capital structure as a series of call options on the proceeds expected from the sale of the company or the liquidation of our assets at some future date. The anticipated timing of a liquidity event utilized in these valuations was based on the then-current plans and estimates of our board of directors and management regarding the likely success of an initial public offering. Estimates of the volatility of our stock were based on the limited information available on the volatility of the capital stock of comparable publicly-traded companies.

We granted stock options with exercise prices between \$4.93 and \$6.06 per share during 2009. We granted stock options with exercise prices between \$4.57 and \$7.90 per share during 2008. No single event caused the valuation of our common stock to increase or decrease from January 2008 to September 2009; rather, it has been a combination of the following factors that led to the changes in the fair value of the underlying common stock:

January 2008: In January 2008, we appointed a new President for Codexis Pharmaceuticals, opened a new European facility in Hungary and introduced a new product. Also, our board of directors selected investment banks to act as managing underwriters for a potential initial public offering of our stock. As a result of these events, on January 29, 2008, the fair value of our common stock was estimated to be \$6.25 per share.

February 2008 to May 2008: In April 2008, we filed a registration statement on Form S-1 with the SEC for a potential initial public offering of our common stock. As a result, on May 22, 2008, the estimated fair value of our common stock increased to \$7.90 per share.

May 2008 to June 2008: In June, we entered into two new collaborative research agreements to provide our Codex Biocatalyst Panels and screening services. As a result, on June 30, 2008, the estimated fair value of our common stock increased to \$8.10 per share.

July 2008 to September 2008: In September 2008, we determined market conditions had deteriorated and volatility had increased and we filed to withdraw our registration statement on Form S-1 with the SEC. We deemed the probability of an initial public offering to have significantly decreased in the near term. We also announced an expansion of our agreement with Arch. However, due primarily to the conditions in the equity markets which had led to the withdrawal of our earlier registration statement, as of September 25, 2008, the estimated fair value of our common stock decreased to \$7.19 per share.

October 2008 to December 2008: In November, we announced a technology license agreement with Dyadic International. We also began discussions with Shell and other potential investors regarding a Series F preferred stock financing. Due to prevailing market conditions, we determined it was highly unlikely that an initial public offering would be consummated in 2009. As a result of such conditions, on December 31, 2008, the estimated fair value of our common stock decreased to \$5.42 per share.

January 2009 to March 2009: In March 2009, we completed the first closing of our Series F preferred stock financing, led by Shell, raising \$30.0 million. We also expanded our amended and restated collaborative research agreement with Shell. Despite these events, because of the conditions in the equity markets, as of March 31, 2009, the estimated fair value of our common stock decreased to \$4.96 per share.

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April 2009 to July 2009: In May 2009, we appointed a Senior Vice President of Research and Development and a Chief Science Officer. We announced an agreement with F. Hoffman-La Roche Ltd., or Roche, under which Roche will purchase our Codex Biocatalyst Panels. We raised \$15.0 million through additional closings of sales of our Series F preferred stock. Although revenues were up 105% for the first seven months of 2009 compared to 2008, we were still recording losses during this period. As a result of the dilutive effect from having additional potential common shares as compared to the prior valuation, the estimated fair value of our common stock decreased to \$4.93 per share.

August 2009 to September 2009: In August 2009, we underwent certain restructuring activities which included closing our German facility and relocating operations into other facilities. By late August 2009, conditions in the equity markets had improved and continued to improve into September 2009. Based on these events, on September 29, 2009, the estimated fair value of our common stock increased to \$6.06 per share.

Estimation of Fair Value of Warrants to Purchase Preferred Stock

Our outstanding warrants to purchase shares of our preferred stock are required to be classified as current liabilities and to be adjusted to their fair value at the end of each reporting period. Warrants issued in connection with debt arrangements resulted in an aggregate expense of \$0.2 million and \$1.3 million attributable to an increase in the fair value of the warrant liability recognized in interest expense and other, net in the consolidated statements of operations during 2006 and 2007, respectively. For the year ended December 31, 2008, a gain of \$0.1 million was recognized in interest expense and other, net as a result of warrant liability measurement. During the nine months ended September 30, 2008 and 2009, losses of \$0.6 million and \$0.3 million, respectively, were recognized in interest expense and other, net due to the warrant liability remeasurement. Upon the closing of this initial public offering and the conversion of the underlying preferred stock to common stock, all outstanding warrants to purchase shares of preferred stock will automatically convert into warrants to purchase shares of our common stock. The then-current aggregate fair value of these warrants will be reclassified from liabilities to additional paid-in capital, a component of stockholders' equity, and we will cease to record any related periodic fair value adjustments. Accordingly, we estimated the fair value of these warrants on an "as-if converted" basis at the respective balance sheet dates using the Black-Scholes option pricing model, the remaining contractual term of the warrant, risk-free interest rates and expected dividends on and expected volatility of the price of the underlying common stock. These estimates, especially the market value of the underlying common stock and the expected volatility, are highly judgmental and could differ materially in the future.

Impairment of Goodwill and Intangible Assets and Other Long-lived Assets

We assess impairment of long-lived assets, including goodwill, on at least an annual basis and test long-lived assets for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset; significant adverse changes in the business climate or legal factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; or current expectation that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life.

Recoverability is assessed based on the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset. An impairment loss is recognized in the consolidated statements of operations when the carrying amount is not recoverable and exceeds fair value, which is determined on a discounted cash flow basis.

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We make estimates and judgments about future undiscounted cash flows and fair value. Although our cash flow forecasts are based on assumptions that are consistent with our plans, there is significant exercise of judgment involved in determining the cash flows attributable to a long-lived asset over its estimated remaining useful life. Our estimates of anticipated future cash flows could be reduced significantly in the future. As a result, the carrying amount of our long-lived assets could be reduced through impairment charges in the future. Changes in estimated future cash flows could also result in a shortening of estimated useful life of long-lived assets including intangibles for depreciation and amortization purposes.

Income Tax Provision

We use the liability method of accounting for income taxes, whereby deferred tax assets or liability account balances are calculated at the balance sheet date using current tax laws and rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are provided when necessary to reduce deferred tax assets to the amount that will more likely than not be realized.

We must make certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of tax credits, benefits and deductions and in the calculation of certain tax assets and liabilities, which arise from differences in the timing of recognition of revenues and expenses for tax and financial statement purposes. Significant changes to these estimates may result in an increase or decrease to our tax provision in a subsequent period.

In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some portion or all of the deferred tax assets will be realized on a jurisdiction by jurisdiction basis. The ultimate realization of deferred tax assets is dependent upon the generation of taxable income in the future. We have recorded a deferred tax asset in jurisdictions where ultimate realization of deferred tax assets is more likely than not to occur.

We make estimates and judgments about our future taxable income that are based on assumptions that are consistent with our plans and estimates. Should the actual amounts differ from our estimates, the amount of our valuation allowance could be materially impacted. Any adjustment to the deferred tax asset valuation allowance would be recorded in the income statement for the periods in which the adjustment is determined to be required.

On January 1, 2007, we adopted the Financial Accounting Standards Board, or FASB, standard for accounting for uncertainty in income taxes. The revised standard, now codified under the "Income Taxes Topic in the FASB Accounting Standards Codification" clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to estimate and measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. It is inherently difficult and subjective to estimate such amounts, as this requires us to determine the probability of various possible outcomes. We consider many factors when evaluating and estimating our tax positions and tax benefits, which may require periodic adjustments and may not accurately anticipate actual outcomes.

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Results of Operations

Nine Months Ended September 30, 2008 and 2009

The following table shows the amounts and percentage relationships of the listed items from our unaudited consolidated statements of operations for the periods presented, showing period-over-period changes (in thousands, except for percentages).

	Nine Months Ended		\$ Change	% Change
	2008	September 30, 2009		
Revenues:				
Product	\$ 10,777	\$ 13,401	\$ 2,624	24%
Related party collaborative research and development	18,174	43,963	25,789	142
Collaborative research and development	2,678	1,295	(1,383)	(52)
Government grants	251	11	(240)	(96)
Total revenues	<u>31,880</u>	<u>58,670</u>	<u>26,790</u>	<u>84</u>
Costs and operating expenses:				
Cost of product revenues	7,922	11,886	3,964	50
Research and development	33,250	39,486	6,236	19
Selling, general and administrative	28,300	20,939	(7,361)	(26)
Total costs and operating expenses	<u>69,472</u>	<u>72,311</u>	<u>2,839</u>	<u>4</u>
Loss from operations	(37,592)	(13,641)	23,951	(64)
Interest income	1,435	141	(1,294)	(90)
Interest expense and other, net	(2,517)	(1,530)	987	(39)
Loss before provision for income taxes	(38,674)	(15,030)	23,644	(61)
Provision for income taxes	126	79	(47)	(37)
Net loss	<u>\$(38,800)</u>	<u>\$(15,109)</u>	<u>\$23,691</u>	<u>(61)%</u>

Revenues. Revenues increased \$26.8 million, or 84%, from \$31.9 million in the nine months ended September 30, 2008 to \$58.7 million in the nine months ended September 30, 2009, primarily due to increases in revenues from related party collaborative research and development projects and product sales.

Product revenues increased \$2.6 million, or 24%, from \$10.8 million in the nine months ended September 30, 2008 to \$13.4 million in the nine months ended September 30, 2009. This increase was primarily due to an increase in product sales to a pharmaceutical customer during the nine months ended September 30, 2009.

Related party collaborative research and development revenues increased \$25.8 million, or 142%, from \$18.2 million in the nine months ended September 30, 2008 to \$44.0 million in the nine months ended September 30, 2009. This increase was due to the increase in the number of FTEs engaged in our expanded research and development collaboration with Shell. The expansion of this collaboration resulted in an increase in the number of contractual FTEs used during the period from an average of in the nine months ended September 30, 2008 to an average of in the nine months ended September 30, 2009.

Collaborative research and development revenues decreased \$1.4 million, or 52%, from \$2.7 million in the nine months ended September 30, 2008 to \$1.3 million in the nine months ended September 30, 2009. This decrease was primarily due to the reallocation of our research resources after the completion of certain collaborative research and development projects to related party collaborative research and development projects.

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Government grant revenues decreased \$0.2 million, or 96%, from \$0.3 million in the nine months ended September 30, 2008 to \$11,000 in the nine months ended September 30, 2009.

Our top five customers accounted for 76% and 90% of our total revenues in the nine months ended September 30, 2008 and 2009, respectively. In the nine months ended September 30, 2008, Shell accounted for 57% of our total revenues. In the nine months ended September 30, 2009, Shell accounted for 75% of our total revenues.

Customers in the Americas accounted for 69% and 82% of our revenues, and customers outside the Americas accounted for 31% and 18% of our revenues, in the nine months ended September 30, 2008 and 2009, respectively. Revenues for the nine months ended September 30, 2008 and 2009 by geography were as follows (in thousands, except percentages):

	Nine Months Ended September 30,		\$ Change	% Change
	2008	2009		
Americas(1)	\$22,017	\$48,110	\$26,093	119%
Europe	5,934	6,146	212	4
Asia	3,929	4,414	485	12
International	9,863	10,560	697	7
Total	<u>\$31,880</u>	<u>\$58,670</u>	<u>\$26,790</u>	<u>84%</u>

(1) Primarily United States.

Cost of Product Revenues. Cost of product revenues was \$7.9 million for the nine months ended September 30, 2008, compared to \$11.9 million in the nine months ended September 30, 2009, an increase of \$4.0 million. The increase was primarily attributable to product sales. Cost of product revenues as a percentage of product revenues increased from 74% in the nine months ended September 30, 2008 to 89% in the nine months ended September 30, 2009, primarily due to write downs of \$1.4 million of inventory items, as well as a change in sales mix towards lower margin product sales during the nine months ended September 30, 2009. Inventory write downs included excess and obsolete inventories and the impact of the rationalization of our product offerings in connection with the closure of our facility in Germany.

Research and Development. Research and development expenses were \$33.3 million in the nine months ended September 30, 2008, compared to \$39.5 million in the nine months ended September 30, 2009, an increase of \$6.2 million or 19%. The increase was primarily due to increased royalty fees paid to Maxygen of \$3.7 million, most of which was related to Shell's increased equity investment in our company, and the remainder of which reflected the increase in FTEs. In addition, the increase was due to compensation (including stock-based compensation) and benefits of \$2.5 million attributable to an increase in employee headcount in our research and development functions, and depreciation and amortization expense of \$1.1 million due to expanded facilities and capital equipment. These costs were offset by reductions in supplies, consultants and other costs of \$1.1 million. Research and development expenses included stock-based compensation expense of \$1.0 million and \$1.6 million during the nine months ended September 30, 2008 and 2009, respectively.

Selling, General and Administrative. Selling, general and administrative expenses were \$28.3 million for the nine months ended September 30, 2008, compared to \$20.9 million for the nine months ended September 30, 2009, a decrease of \$7.4 million or 26%. The decrease was primarily due to a \$3.6 million write off in 2008 of deferred initial public offering costs. We also incurred lower costs for consultants, contractors and outside advisory services of \$1.7 million, and travel and recruiting-related expenses decreased by \$0.9 million. Selling, general and administrative expenses included stock-based compensation expense of \$1.3 million and \$1.6 million during the nine months ended September 30, 2008 and 2009, respectively.

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Interest Income. Interest income was \$1.4 million in the nine months ended September 30, 2008 compared to \$0.1 million in the nine months ended September 30, 2009, a decrease of \$1.3 million, or 90%. The decrease resulted from higher average cash, cash equivalents and marketable securities balances on hand and higher average interest rates during the first nine months of 2008 compared to the first nine months of 2009.

Interest Expense and Other, Net. Interest expense and other, net was \$2.5 million in the nine months ended September 30, 2008, compared to \$1.5 million in the nine months ended September 30, 2009, a decrease of \$1.0 million or 39%. Interest expense and other, net in the nine months ended September 30, 2009 included the increase in the fair value of our redeemable convertible preferred stock warrants of \$0.3 million, and a decrease in interest expense of \$0.5 million due to the reduced debt obligation on the General Electric Capital Corporation / Oxford Finance Corporation loan, which we refer to as the GE Capital Loan, due to scheduled principal payments on these obligations. Interest expense and other, net in the nine months ended September 30, 2008 included the increase in the fair value of the redeemable convertible preferred stock warrants of \$0.6 million, and higher interest expense due to higher debt obligations on the GE Capital Loan.

Provision for Income Taxes. The tax provision for the nine months ended September 30, 2008 and 2009 primarily consisted of foreign taxes withheld at source on royalties earned overseas and other taxes attributable to foreign operations.

Restructuring Charges. In 2009, our board of directors approved and committed to plans to reduce our cost structure, which included a relocation of our operations in Germany to facilities in the United States and in Singapore, a rationalization of our product offerings, closure of the facility in Germany and employee terminations in Germany and the United States. We expensed \$0.2 million in employee severance and benefits and \$0.5 million related to inventory write downs, for a total of \$0.8 million. These costs were included in cost of product revenues in the consolidated statements of operations. As of September 30, 2009, \$0.6 million related to these expenses has been paid or charged off and the remaining \$0.2 million is recorded in other accrued liabilities on the consolidated balance sheet. We anticipate total costs of the plans to be approximately \$1.4 million, with substantially all of the remaining \$0.6 million (related to lease termination and employee severance and benefits) expected to be incurred by December 31, 2009.

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Years Ended December 31, 2007 and 2008

The following table shows the amounts and percentage relationships of the listed items from our consolidated statements of operations for the periods presented, showing period-over-period changes (in thousands, except percentages).

	2007	2008	\$ Change	% Change
Revenues:				
Product	\$ 11,418	\$ 16,860	\$ 5,442	48%
Related party collaborative research and development	8,481	30,239	21,758	257
Collaborative research and development	4,733	3,062	(1,671)	(35)
Government grants	701	317	(384)	(55)
Total revenues	25,333	50,478	25,145	99
Costs and operating expenses:				
Cost of product revenues	8,319	13,188	4,869	59
Research and development	35,644	45,554	9,910	28
Selling, general and administrative	19,713	35,709	15,996	81
Total costs and operating expenses	63,676	94,451	30,775	48
Loss from operations	(38,343)	(43,973)	(5,630)	15
Interest income	1,491	1,538	47	3
Interest expense and other, net	(2,533)	(2,365)	168	(7)
Loss before provision (benefit) for income taxes	(39,385)	(44,800)	(5,415)	14
Provision (benefit) for income taxes	(408)	327	735	NM
Net loss	<u>\$(38,977)</u>	<u>\$(45,127)</u>	<u>\$ (6,150)</u>	<u>16%</u>

NM = not meaningful

Revenues. From 2007 to 2008, revenues increased \$25.1 million, or 99%, from \$25.3 million to \$50.5 million due primarily to increases in revenues from related party collaborative research and development projects and product sales.

Product revenues increased \$5.4 million, or 48%, from \$11.4 million in 2007 to \$16.9 million in 2008. This increase was primarily due to a \$4.4 million increase in sales of intermediates which began in the first quarter of 2008, and a \$1.1 million increase in biocatalyst sales.

Related party collaborative research and development revenues increased \$21.8 million, or 257%, from \$8.5 million in 2007 to \$30.2 million in 2008. This increase was due to the expansion of the research and development collaboration with Shell that took place during 2008. The expansion of this collaboration resulted in an increase in the number of contractual FTEs used during the year from an average of in 2007 to an average of in 2008.

Collaborative research and development revenues decreased \$1.7 million, or 35%, from \$4.7 million in 2007 to \$3.1 million in 2008. This decrease was primarily due to a \$2.4 million decrease as a result of completion of collaboration projects with two pharmaceutical customers during 2007, partially offset by a \$0.7 million increase as a result of optimization services delivered to one pharmaceutical customer and additional royalties received from another pharmaceutical customer.

Government grant revenues decreased \$0.4 million, or 55%, from \$0.7 million in 2007 to \$0.3 million in 2008. This decrease was primarily due to the completion of a grant received from the National Institutes of Health at the end of 2007.

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Our top five customers accounted for 65% and 79% of total revenues for 2007 and 2008, respectively. In 2007, Shell accounted for 33% of our total revenues and Pfizer accounted for 13% of our total revenues. In 2008, Shell accounted for 60% of our total revenues and no other customer accounted for more than 10% of our total revenues.

Customers in the Americas accounted for 59% and 70% of revenues and customers outside the Americas accounted for 41% and 30% of revenues in 2007 and 2008, respectively. Revenues for 2007 and 2008 by geography were as follows (in thousands, except for percentages):

	2007	2008	\$ Change	% Change
Americas(1)	\$15,010	\$35,166	\$20,156	134%
Europe	4,005	8,165	4,160	104
Asia	6,318	7,147	829	13
International	10,323	15,312	4,989	48
Total	\$25,333	\$50,478	\$25,145	99%

(1) Primarily United States.

Cost of Product Revenues. Cost of product revenues was \$8.3 million for 2007 compared to \$13.2 million in 2008, an increase of \$4.9 million or 59%. The increase was primarily attributable to the 48% increase in product sales. In addition, cost of product revenues as a percentage of product revenues increased from approximately 73% in 2007 to 78% in 2008 due to a change in sales mix towards lower margin product sales in 2008.

Research and Development. Research and development expenses increased from \$35.6 million for 2007 to \$45.6 million for 2008, an increase of \$9.9 million or 28%. The increase was primarily due to increased compensation (including stock-based compensation) and benefits of \$10.5 million attributable to a 27% increase in employee headcount in our research and development functions, higher expenses incurred for lab supplies, outside services and consultants of \$4.2 million, higher occupancy related costs of \$1.3 million and depreciation and amortization expense of \$1.4 million. These increases were partially offset by a \$7.0 million decrease in fees payable to Maxygen in connection with the receipt of an up-front payment during 2007 related to our research and development collaboration with Shell. Research and development expenses included stock-based compensation expense of \$0.5 million and \$1.5 million during 2007 and 2008, respectively.

Selling, General and Administrative. Selling, general and administrative expenses increased from \$19.7 million for 2007 to \$35.7 million for 2008, an increase of \$16.0 million or 81%. The increase was primarily due to increased compensation (including stock-based compensation) of \$3.4 million attributable to a 45% increase in our employee headcount, primarily related to our accounting, legal, information technology and sales departments. In addition, we incurred higher costs during 2008 for consultants and outside advisory services, including \$4.0 million as we prepared to become a public company and \$2.4 million in patent protection costs. Also, in 2008, we expensed \$3.6 million in initial public offering costs which had been deferred until the initial public offering was withdrawn in September 2008. Restructuring charges included in selling, general and administrative expenses in 2008 were \$2.0 million. Expenses related to promotional marketing materials and travel increased \$0.8 million. Selling, general and administrative expenses included stock-based compensation expense of \$0.8 million and \$2.0 million during 2007 and 2008, respectively.

Interest Income. Interest income was \$1.5 million in both 2007 and 2008.

Interest Expense and Other, Net. Interest expense and other, net was \$2.5 million in 2007 compared to \$2.4 million in 2008, or a decrease of \$0.2 million or 7%. Interest expense and other, net in 2007 included a \$1.3 million expense related to the increase in the fair value of our Series D redeemable

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convertible preferred stock warrants. The increase in interest expense in 2008 was \$1.2 million and was related to the outstanding principal on the GE Capital Loan that was drawn in September 2007.

Provision (Benefit) for Income Taxes. The tax provision for 2008 primarily consisted of foreign tax withheld at source on royalties earned overseas and other taxes attributable to foreign operations. The tax benefit for 2007 primarily consisted of benefit from reductions in deferred tax liabilities that had originated in a business acquisition, offset by foreign tax withheld at source on royalties earned overseas and other taxes attributable to foreign operations.

Restructuring Charges. In 2008, our board of directors approved and committed to plans to reduce our cost structure. The restructuring plan applied to employees and facilities worldwide. We expensed \$1.1 million for facilities, \$0.6 million for employees and \$0.2 million in other costs associated with the closure of the Pasadena site for a total of \$2.0 million in the year ended December 31, 2008. Restructuring expense was included in general and administrative expenses in the consolidated statements of operations. As of December 31, 2008, \$0.4 million has been paid and the remaining expenses are recorded on the consolidated balance sheet in other accrued liabilities for \$0.8 million and in other long-term liabilities for \$0.7 million. During the nine months ended September 30, 2009, \$1.3 million was paid, and \$0.1 million was reversed as reduction of general and administrative expense due to a change in estimated costs of restructuring. The amounts included in other accrual liabilities on the consolidated balance sheet as of September 30, 2009 under this restructuring plan were \$0.1 million.

Years Ended December 31, 2006 and 2007

The following table shows the amounts and percentage relationships of the listed items from our consolidated statements of operations for the periods presented, showing period-over-period changes (in thousands, except percentages).

	<u>2006</u>	<u>2007</u>	<u>\$ Change</u>	<u>% Change</u>
Revenues:				
Product	\$ 2,544	\$ 11,418	\$ 8,874	349%
Related party collaborative research and development	863	8,481	7,618	883
Collaborative research and development	8,403	4,733	(3,670)	(44)
Government grants	317	701	384	121
Total revenues	<u>12,127</u>	<u>25,333</u>	<u>13,206</u>	<u>109</u>
Costs and operating expenses:				
Cost of product revenues	1,806	8,319	6,513	361
Research and development	17,257	35,644	18,387	107
Selling, general and administrative	11,880	19,713	7,833	66
Total costs and operating expenses	<u>30,943</u>	<u>63,676</u>	<u>32,733</u>	<u>106</u>
Loss from operations	(18,816)	(38,343)	(19,527)	104
Interest income	742	1,491	749	101
Interest expense and other, net	(724)	(2,533)	(1,809)	250
Loss before income tax benefit	(18,798)	(39,385)	(20,587)	110
Income tax benefit	(127)	(408)	(281)	221
Net loss	<u>\$(18,671)</u>	<u>\$(38,977)</u>	<u>\$(20,306)</u>	<u>109%</u>

Revenues. From 2006 to 2007, revenues increased \$13.2 million, or 109%, from \$12.1 million to \$25.3 million due primarily to increases in revenues from related party collaborative research and development projects and product sales.

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Product revenues increased \$8.9 million, or 349%, from \$2.5 million to \$11.4 million in 2006 and 2007, respectively. This increase was primarily due to a \$4.2 million increase in sales of our ATS-8 intermediate to manufacturers of generic atorvastatin, \$1.7 million of additional sales from our new BioCatalytics subsidiary, and a \$2.9 million increase in sales of our other biocatalyst and intermediate products.

Related party collaborative research and development revenues increased \$7.6 million, or 883%, from \$0.9 million to \$8.5 million in 2006 and 2007, respectively. This increase was primarily due to the expanded research and development collaboration with Shell.

Collaborative research and development revenues decreased \$3.7 million, or 44%, from \$8.4 million to \$4.7 million in 2006 and 2007, respectively. This decrease was primarily due to the reallocation of research and development resources to related party collaborative research and development projects.

Government grant revenues increased \$0.4 million, or 121%, from \$0.3 million to \$0.7 million in 2006 and 2007, respectively. This increase was due to a \$0.3 million grant received from the National Institutes of Health and an additional \$0.1 million grant received from the German government.

Our top five customers accounted for 71% and 65% of total revenues for 2006 and 2007, respectively. In 2006, Pfizer accounted for 36% of our revenues and Schering-Plough accounted for 11% of our revenues. In 2007, Shell accounted for 33% of our revenues and Pfizer accounted for 13% of our revenues.

Customers in the Americas accounted for 65% and 59% of revenues, and customers outside the Americas accounted for 35% and 41% of revenues, in 2006 and 2007, respectively. Revenues for 2006 and 2007 by geography were as follows (in thousands, except for percentages):

	<u>2006</u>	<u>2007</u>	<u>\$ Change</u>	<u>% Change</u>
Americas(1)	\$ 7,933	\$15,010	\$ 7,077	89%
Europe	2,491	4,005	1,514	61
Asia	1,703	6,318	4,615	271
International	4,194	10,323	6,129	146
Total	<u>\$12,127</u>	<u>\$25,333</u>	<u>\$13,206</u>	<u>109%</u>

(1) Primarily United States.

Cost of Product Revenues. Cost of product revenues was \$1.8 million for 2006 compared to \$8.3 million in 2007, an increase of \$6.5 million, or 361%. The increase was primarily attributable to the increase in product sales of \$8.9 million, an increase in amortization of intangible assets of \$0.1 million and an inventory fair value adjustment related to our BioCatalytics acquisition of \$0.2 million. Cost of product revenues as a percentage of product revenues increased from 71% in 2006 to 73% in 2007.

Research and Development. Research and development expenses were \$17.3 million in 2006 compared to \$35.6 million in 2007, an increase of \$18.4 million, or 107%. The increase was primarily due to increased royalty costs of \$7.3 million due to Maxygen in connection with amounts received from Shell relating to our biofuels research and development collaboration, and increased compensation (including stock-based compensation) benefits, hiring and training costs of \$6.8 million attributable to an increase in employee headcount in our research and development functions. Also reflecting this increased research activity were higher expenses incurred for lab supplies, outside services and consultants of \$2.2 million, plus higher occupancy related costs of \$0.9 million and depreciation and amortization expense of \$0.4 million. Travel and relocation expenses were also higher by \$0.8 million as our research functions expanded in Europe and Asia. Professional and advisory fees also increased by \$0.6 million. Included in the above amounts were \$3.5 million of additional research and development expenses that we incurred after opening our new research facility in Singapore in October 2007. Research and development expenses included stock-based compensation expense of \$3,000 and \$0.5 million during 2006 and 2007, respectively.

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Selling, General and Administrative. Selling, general and administrative expenses were \$11.9 million for 2006, compared to \$19.7 million for 2007, an increase of \$7.8 million, or 66%. The increase was primarily due to increased compensation (including stock-based compensation) of \$2.8 million attributable to higher employee headcount. We incurred higher costs for consultants and outside advisory services of \$1.5 million as we prepared to become a public company, including consulting costs associated with preparation for Sarbanes-Oxley compliance. We also incurred higher professional fees of \$1.0 million in 2007 mainly for legal costs connected with negotiating our collaboration agreements and other contracts during the year. Expenses related to promotional marketing materials and travel increased \$0.6 million. Selling, general and administrative expenses included stock-based compensation expense of \$0.1 million and \$0.8 million during 2006 and 2007, respectively.

Interest Income. Interest income was \$0.7 million in 2006 compared to \$1.5 million in 2007, an increase of \$0.7 million, or 101%. The increase resulted from the higher average cash and investment balances on hand during 2007 compared to 2006. These higher cash and investment balances resulted from cash received in connection with the issuance of the Series E preferred stock, as well as from the \$20.0 million up-front payment made by Shell when we entered into our five-year research and development collaboration.

Interest Expense and Other, Net. Interest expense and other, net was \$0.7 million in 2006, compared to \$2.5 million in 2007, an increase of \$1.8 million, or 250%. Interest expense and other, net in 2007 included the increase in the fair value of our Series D redeemable convertible preferred stock warrants, which resulted in \$1.3 million of expense, interest expense on our outstanding financing obligations, and losses from foreign currency transactions.

Income Tax Benefit. The income tax benefit for 2006 and 2007 primarily consisted of benefit from reductions in deferred tax liabilities that had originated in a business acquisition, offset by foreign tax withheld at source on royalties earned overseas and other taxes attributable to foreign operations.

Liquidity and Capital Resources

Since inception, we have funded our operations through the sale of equity securities, borrowings under financing arrangements, collaborative research and development revenues, product sales and government grants. As of September 30, 2009, our cash, cash equivalents and marketable securities totaled \$56.0 million. In addition, we have \$0.7 million of restricted cash primarily related to letters of credit.

Operating Activities

We have historically experienced negative cash flow from operations as we continue to invest in our infrastructure and our technology platform, and expand our business. Our cash flows from operations will continue to be affected principally by the extent to which we increase our headcount, primarily in research and development, in order to grow our business. The timing of hiring of skilled research and development personnel in particular affects cash flows as there is a lag between the hiring of research and development personnel and the generation of collaboration or product revenues and cash flows from those personnel. Our primary source of cash flows from operating activities is cash receipts from our customers. Our largest uses of cash from operating activities are for employee related expenditures, rent payments, inventory purchases to support our revenue growth and non-payroll research and development costs, which include payments made to Maxygen in connection with our biofuels research and development collaboration with Shell. In light of the growth in market acceptance of our products and services to date, we do not expect to achieve profitability prior to at least 2011.

Our operating activities in the nine months ended September 30, 2009 used cash in the amount of \$15.5 million, primarily as a result of our net loss of \$15.1 million, decreases in deferred revenues of \$4.4 million primarily as a result of continuing recognition of up-front exclusivity fees we received from

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Shell in 2007, and decreases in accounts payable and accrued liabilities of \$3.2 million arising from the timing of payments to vendors. We also had net non-cash charges of \$8.6 million, comprised primarily of \$3.7 million in depreciation and amortization of property and equipment, \$3.2 million in stock-based compensation expense, \$0.7 million in amortization of intangible assets and \$0.3 million related to the increase in the fair value of the redeemable convertible preferred stock warrants during the period.

Our operating activities used cash in the amount of \$36.3 million in 2008, primarily due to our net loss of \$45.1 million, an increase in inventories of \$1.4 million, a decrease in a related party payable of \$7.4 million, and offset by increases in accounts payable of \$4.9 million and accrued liabilities of \$5.3 million. These changes resulted primarily from the significant growth in our business, the timing of shipments and payments to vendors, including related parties, and our efforts to manage and monitor the balances of trade receivables. We also had net non-cash charges of \$7.8 million, comprised primarily of \$3.7 million in depreciation and amortization of property and equipment, \$0.9 million in amortization of intangible assets, \$3.5 million in stock-based compensation expense, and \$0.5 million for amortization of debt discount.

Our operating activities used cash in the amount of \$6.5 million in 2007, primarily due to our net loss of \$39.0 million and an increase in accounts receivable of \$3.1 million, partially offset by an increase in deferred revenues of \$16.4 million, and an increase in accounts payable and accrued liabilities of \$14.2 million. These changes resulted primarily from the significant growth in our business, the timing of shipments and payments to vendors, our efforts to manage and monitor the balances of trade receivables, and the increase in deferred revenues due to the timing of revenue recognition under our revenue recognition policy. We also had net non-cash charges of \$6.3 million, comprised primarily of \$2.1 million in depreciation and amortization of property and equipment, \$1.2 million in amortization of intangible assets and deferred costs, \$1.3 million in stock-based compensation expense, \$1.3 million related to the increase in the fair value of the redeemable convertible preferred stock warrants, and \$0.5 million expense related to preferred stock issued in exchange for services.

Based on our current level of operations and anticipated growth, we believe that our existing cash, cash equivalents and marketable securities, will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements for at least the next 12 months.

Investing Activities

In the nine months ended September 30, 2009, our investing activities used cash of \$24.7 million, primarily for the net purchases of \$18.4 million of marketable securities, and \$6.5 million of capital expenditures. These capital expenditures consisted primarily of laboratory equipment purchases and leasehold improvements in our laboratories.

Our investing activities provided cash of \$7.1 million in 2008, primarily from the net proceeds from the sale and maturities of marketable securities of \$14.3 million, reduced by purchases of property and equipment of \$8.5 million, and a decrease in restricted cash of \$1.3 million. Restricted cash reduced by \$0.8 million on payment of purchase consideration to a former shareholder of BioCatalytics and by \$0.6 million on expiration of a letter of credit relating to a facility lease.

Our investing activities used cash of \$39.2 million in 2007, primarily from net purchases of marketable securities of \$28.5 million, the purchase of property and equipment of \$8.2 million to support the growth in our business, the \$1.3 million increase in restricted cash and net payments of \$1.2 million for the BioCatalytics acquisition. The capital expenditures consisted primarily of laboratory equipment, computer and test equipment, and software purchases.

We expect our capital expenditures to be approximately \$12.0 million for 2010. We are evaluating alternatives to manufacture biocatalysts at commercial scale. In the event we decide to build additional manufacturing facilities to manufacture biocatalysts at commercial scale, our capital expenditures will increase. We may be able to obtain government subsidies to offset all or a portion of the costs of building such facilities. In the future, we will continue to make laboratory equipment purchases to support our increasing research and development efforts and growth strategy.

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Financing Activities

In the nine months ended September 30, 2009, our financing activities provided \$41.1 million in cash, primarily from the issuance and sale of 5.3 million shares of Series F preferred stock for \$45.0 million, partially offset by \$4.0 million in principal payments on our financing obligations. Subsequently, in November 2009, we issued 0.2 million additional shares of Series F preferred stock for \$2.0 million.

Through our subsidiary, Jülich Fine Chemicals GmbH, we had a loan denominated in Euros with a German bank. The loan had a balance of 511,000 Euros (approximately \$746,000 based on the Euro to U.S. dollar conversion at September 30, 2009) outstanding as of that date. In November 2009, in connection with the closure of our German operations, this balance was repaid.

Our financing activities used \$3.9 million in cash during 2008, primarily from the \$4.3 million in principal payments on our financing obligations, partially offset by \$0.4 million in proceeds from the exercise of employee stock options.

Our financing activities provided cash of \$68.4 million in 2007. The primary source of these funds was the issuance and sale of 6.1 million shares of Series E preferred stock and the exercise of warrants to purchase 0.4 million shares of Series D preferred stock, for an aggregate net consideration of \$54.8 million from various investors. In September 2007, we borrowed a net amount of \$14.8 million under the GE Capital Loan. The GE Capital Loan and security agreement provides for \$15.0 million in borrowings, is secured by substantially all of our assets with the exception of intellectual property, and bears interest at 9.4% per annum. The loan is to be repaid over 42 months from the date of funding, through monthly cash payments of principal and interest following six months of interest only payments. As of September 30, 2009, we had financing obligations of \$9.5 million. The GE Capital Loan agreement contains financial and non-financial covenants. At December 31, 2008 and September 30, 2009, we were either in compliance with the covenants of the loan and security agreement, or obtained from the lenders a waiver of noncompliance.

Contractual Obligations and Commitments

The following summarizes the future commitments arising from our contractual obligations at December 31, 2008 (in thousands):

	<u>Total</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013 and beyond</u>
Loans payable(1)	\$ 15,769	\$ 6,351	\$ 5,975	\$ 3,443	\$ —	\$ —
Capital leases(1)	78	45	33	—	—	—
Operating leases	9,097	3,058	2,935	1,545	1,213	346
Total	<u>\$ 24,944</u>	<u>\$ 9,454</u>	<u>\$ 8,943</u>	<u>\$ 4,988</u>	<u>\$ 1,213</u>	<u>\$ 346</u>

(1) Amounts include interest on obligations.

The table above reflects only payment obligations that are fixed and determinable. Our commitments for operating leases primarily relates to our leased facilities in Redwood City, California, and Jülich, Germany. In connection with the plans approved and committed to by our board of directors during 2009 to reduce our cost structure, we intend to close our facility in Jülich, Germany. In this regard, we anticipate we will incur lease termination costs of \$0.4 million by December 31, 2009.

In February 2006, Jülich Fine Chemicals GmbH entered into a line of credit agreement with a German bank, to be used for both equipment purchases and working capital requirements in the amount of \$184,000. Prior to its acquisition, Jülich Fine Chemicals GmbH had entered a line of credit with a German bank, to be used for both equipment purchases and working capital requirements. No balances were outstanding on these lines of credit at December 31, 2008, and they were cancelled during 2009.

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Off-Balance Sheet Arrangements

As of September 30, 2009, we have no off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K as promulgated by the SEC.

Recent Accounting Pronouncements

In June 2009, the FASB issued Statement of Financial Accounting Standard, or SFAS, No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles — A Replacement of FASB Statement No. 162*, or SFAS 168. SFAS 168, which is incorporated in Accounting Standards Codification, or ASC, Topic 105, *Generally Accepted Accounting Principles*, identifies the ASC as the authoritative source of generally accepted accounting principles in the United States. Rules and interpretive releases of the SEC under federal securities laws are also sources of authoritative generally accepted accounting principles for SEC registrants. We adopted the provisions of the authoritative accounting guidance for the interim reporting period ended September 30, 2009 and included references to the ASC within our consolidated financial statements. The adoption had no impact on our consolidated results of operations or financial position.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*, or SFAS 157, which is incorporated in ASC Topic 820, *Fair Value Measurements and Disclosures*. SFAS 157 defines fair value, establishes a framework for measuring fair value and requires additional disclosures about fair value measurements. In February 2008, the FASB issued FASB Staff Position, or FSP, FAS 157-1, *Application of FASB Statement No. 157 to FASB Statement No. 13 and Other Pronouncements that Address Fair Value Measurements for Purpose of Lease Classification or Measurement under Statement 13*, which is incorporated in ASC Topic 820, which amends SFAS 157 to exclude accounting pronouncements that address fair value measurements for purposes of lease classification or measurement under SFAS No. 13, *Accounting for Leases*. In February 2008, the FASB also issued FSP SFAS No. 157-2, *Effective Date of FASB Statement No. 157*, which is incorporated in ASC Topic 820, which delays the effective date of SFAS 157 until the first quarter of 2009 for all non-financial assets and non-financial liabilities, except for items that are recognized or disclosed at fair value in the consolidated financial statements on a recurring basis, at least annually. SFAS 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements. In April 2009, the FASB further issued FSP SFAS No. 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly*, or FSP SFAS 157-4, which is incorporated in ASC Topic 820. FSP SFAS 157-4 is effective for interim and annual periods ending after June 15, 2009, with early adoption permitted. We adopted SFAS 157 and such adoption did not have a significant impact on our consolidated financial statements.

In December 2007, the FASB ratified EITF Issue No. 07-1, *Accounting for Collaborative Agreements*, or EITF 07-1, which defines collaborative agreements as contractual arrangements that involve a joint operating activity. EITF 07-1, which is incorporated in ASC Topic 808, *Collaborative Agreements*, states that these arrangements involve two or more parties who are both active participants in the activity and that are exposed to significant risks and rewards dependent on the commercial success of the activity. EITF 07-1 provides that a company should report the effects of adoption as a change in accounting principle through retrospective application to all periods. Furthermore, it requires the parties to determine who is the principal party of the arrangement, and therefore which party must report the revenues and expenses under the collaboration arrangement, as well as specific additional disclosures in the parties' financial statements. EITF 07-1 is effective for periods beginning after December 15, 2008. We adopted EITF 07-1 on January 1, 2009. The adoption did not have a significant effect on our consolidated results of operations or financial position.

In May 2009, the FASB issued SFAS No. 165, *Subsequent Events*, or SFAS 165, which is incorporated in ASC Topic 855, *Subsequent Events*. The standard establishes general standards of

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accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. Although there is new terminology, the standard is based on the same principles as those that are currently exist in the auditing standards. The standard, which includes a new required disclosure of the date through which an entity has evaluated subsequent events, is effective for interim or annual periods ending after June 15, 2009. We adopted the provisions of this authoritative guidance in the nine month period ended September 30, 2009. The adoption had no impact on our consolidated results of operations or financial position.

In October 2009, the FASB issued Accounting Standards Update, or ASU, 2009-13, which amends ASC Topic 605 *Revenue Recognition*, to require companies to allocate revenues in multiple-element arrangements based on an element's estimated selling price if vendor-specific or other third-party evidence of value is not available. ASU 2009-13 is effective beginning January 1, 2011. Earlier application is permitted. We are currently evaluating both the timing and the impact of the pending adoption of the ASU on our consolidated financial statements.

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Sensitivity

We had unrestricted cash, cash equivalents and marketable securities totaling \$84.1 million, \$37.1 million and \$56.0 million at December 31, 2007 and 2008 and September 30, 2009, respectively. These amounts were invested primarily in money market funds, corporate debt obligations, U.S. government-sponsored enterprise securities, and U.S. Treasury securities and are held for working capital purposes. We do not enter into investments for trading or speculative purposes. We believe we do not have material exposure to changes in fair value as a result of changes in interest rates. Declines in interest rates, however, will reduce future investment income. If overall interest rates fell by 10% in 2008 and the nine months ended September 30, 2009, our interest income would have declined by approximately \$0.1 million and \$11,000, respectively, assuming consistent investment levels.

The terms of our GE Capital Loan provide for a fixed rate of interest, and therefore is not subject to fluctuations in market interest rates.

Foreign Currency Risk

Our operations include manufacturing and sales activities in the United States, Austria, France, Germany, Italy, Japan and India, as well as research activities in countries outside the United States, including Singapore, Germany and Hungary. As we expand internationally, our results of operations and cash flows will become increasingly subject to fluctuations due to changes in foreign currency exchange rates. For example, we purchase materials for, and pay employees at, our research facility in Singapore in Singapore dollars. In addition, we purchase products for resale in the United States from foreign companies and have agreed to pay them in currencies other than the U.S. dollar. As a result, our expenses and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. In periods when the U.S. dollar declines in value as compared to the foreign currencies in which we incur expenses, our foreign-currency based expenses increase when translated into U.S. dollars. Although it is possible to do so, we have not hedged our foreign currency since the exposure has not been material to our historical operating results. Although substantially all of our sales are denominated in U.S. dollars, future fluctuations in the value of the U.S. dollar may affect the price competitiveness of our products outside the United States. The effect of a 10% adverse change in exchange rates on foreign denominated receivables as of December 31, 2008 and September 30, 2009, would have been a \$0.3 million and \$0.4 million foreign exchange loss recognized as a component of interest expense and other, net in our consolidated statement of operations. We may consider hedging our foreign currency as we continue to expand internationally.

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Controls and Procedures

We have not performed an evaluation of our internal control over financial reporting, such as required by Section 404 of the Sarbanes-Oxley Act, nor have we engaged our independent registered public accounting firm to perform an audit of our internal control over financial reporting as of any balance sheet date or for any period reported in our financial statements. Had we performed such an evaluation or had our independent registered public accounting firm performed an audit of our internal control over financial reporting, control deficiencies, including material weaknesses and significant deficiencies, in addition to those discussed below, may have been identified.

Solely in connection with the audit of our consolidated financial statements for 2005, 2006 and 2007, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of a company's annual or interim financial statements will not be prevented or detected on a timely basis.

The material weakness comprised (i) our lack of policies and procedures, with the associated internal controls, to appropriately address complex, non-routine transactions and (ii) the lack of a sufficient number of qualified personnel to timely account for such transactions in accordance with U.S. generally accepted accounting principles.

We and our independent registered public accounting firm identified the following issues during the audit, which collectively gave rise to the conclusion that we had an underlying material weakness:

- inadequate policies to address the increasingly complex revenue arrangements that we enter into;
- failure to correctly and timely identify all data required to evaluate the accounting impact of stock option grants and to recognize all requirements under applicable accounting standards;
- accounting issues that arose in connection with two acquisitions;
- improper recording of foreign currency cumulative translation adjustments; and
- failure to effectively track and value inventory.

These deficiencies in the design and operation of our internal controls resulted in the recording of numerous audit adjustments, and significantly delayed our financial statement close process, for the three year period ended December 31, 2007.

Solely in connection with the audit of our consolidated financial statements for 2008, we and our independent registered public accounting firm identified a material weakness and two significant deficiencies in our internal control over financial reporting. The material weakness related to an inadequately designed process to analyze and reconcile certain accounts and the failure of supervisors or business unit managers to review the analysis prepared for certain accounts. We and our independent registered public accounting firm identified the following issues during the audit, which collectively gave rise to the conclusion that we had an underlying material weakness:

- duplicative accrual relating to legal expenses in our accounting records;
- incorrect inputs relating to the Black-Scholes calculation of fair value of non-employee stock options and warrants;
- under accrual of expenses for tax consulting work;
- incorrect input of costs eligible for reimbursement under a license agreement;
- errors in the valuation of inventory; and
- failure to accrue penalties associated with foreign filing requirements.

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We and our independent registered public accounting firm also identified two significant deficiencies in our internal control over financial reporting relating to (i) misapplication of U.S. generally accepted accounting principles and (ii) an ineffective contract compliance process. The material weakness and significant deficiencies resulted in the recording of numerous audit adjustments.

Notwithstanding the material weaknesses described above, we have performed additional analyses and other procedures to enable management to conclude that our consolidated financial statements included in this filing were prepared in accordance with U.S. generally accepted accounting principles.

We have not yet been able to remediate the deficiencies identified in these audits. However, we have taken numerous steps and plan to take additional significant steps intended to address the underlying causes of the material weaknesses and significant deficiencies in the immediate future, primarily through the development and implementation of formal policies, improved processes and documented procedures, the retention of third-party experts and contractors, and the hiring of additional accounting and finance personnel with technical accounting, inventory accounting and financial reporting experience. The actions that we have taken are subject to ongoing senior management review, as well as audit committee oversight. We do not know the specific timeframe needed to remediate all of the control deficiencies underlying these material weaknesses and significant deficiencies. In addition, we may incur significant incremental costs associated with this remediation, primarily due to the procurement, implementation and validation of robust accounting and financial reporting systems, the hiring of additional finance and accounting personnel and the continued use of third-party experts and contractors to assist us.

If we fail to enhance our internal control over financial reporting to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act, we may be unable to accurately report our financial results, or report them within the timeframes required by law or exchange regulations. We will be required to meet the requirements of Section 404 of the Sarbanes-Oxley Act beginning with our fiscal year ending December 31, 2011.

BUSINESS

Company Overview

Our proprietary technology platform enables the creation of optimized biocatalysts that make existing industrial processes faster, cleaner and more efficient than current methods and has the potential to make new industrial processes possible at commercial scale. We have commercialized our biocatalysts in the pharmaceutical industry and are developing biocatalysts for use in producing advanced biofuels under a multi-year research and development collaboration with Shell. We are also using our technology platform to pursue biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals.

Biocatalysts are enzymes or microbes that initiate or accelerate chemical reactions. Manufacturers have historically used naturally occurring biocatalysts to produce many goods used in everyday life. However, inherent limitations in naturally occurring biocatalysts have restricted their commercial use. Our proprietary technology platform is able to overcome many of these limitations, allowing us to evolve and optimize biocatalysts to perform specific and desired chemical reactions at commercial scale.

We have focused our biocatalyst development efforts on large and rapidly growing markets, including pharmaceuticals and advanced biofuels. We have enabled biocatalyst-based drug manufacturing processes at commercial scale and have delivered biocatalysts, intermediates and active pharmaceutical ingredients, or APIs, to some of the world's leading pharmaceutical companies, including Dr. Reddy's Laboratories Ltd., Merck & Co., Inc., Pfizer Inc. and Ranbaxy Laboratories Limited. In our collaboration with Shell, we are developing biocatalysts for use in producing advanced biofuels from renewable sources of non-food plant materials, known as cellulosic biomass.

We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc. We commenced independent operations in March 2002, after licensing from Maxygen core enabling technology. As of September 30, 2009, Maxygen beneficially owned approximately 21.6% of our common stock. Our other investors include industry leaders such as Shell, Chevron Corporation, Pfizer and The General Electric Company.

Biocatalyst Opportunity

Biocatalyst-enabled manufacturing processes may address a number of the drawbacks of conventional chemistry-based manufacturing. For example, unlike most chemistry-based manufacturing processes, biocatalysts can operate at or near room temperature and pressure, and often use manufacturing equipment that is less complex and expensive to build and operate. Biocatalyst-enabled processes can create products with the same or higher quality as chemistry-based manufacturing processes, while reducing risks associated with extreme manufacturing environments and without generating the high volumes of waste, some of it hazardous to health and the environment, typically associated with conventional chemistry-based manufacturing processes.

In addition, due to concerns about the environment and the scarcity and security of supply of petroleum, there is an increasing interest in using cellulosic biomass as the feedstock for a variety of products, including advanced biofuels and other chemicals as a replacement for petroleum. To date, conventional chemistry-based manufacturing approaches have not resulted in commercially viable processes for the conversion of cellulosic biomass to biofuels and other products. Biocatalysts have the potential to enable processes for the development of products, such as cellulose-derived biofuels, that cannot currently be manufactured using alternative techniques.

Despite their potentially significant advantages, biocatalysts have not achieved their full potential in industrial applications. Naturally occurring biocatalysts are often not stable enough to be used in industrial

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settings, where conditions may differ significantly from those in the biocatalysts' natural environments. The activity and productivity of these biocatalysts is often too limited to be cost-effective in commercial scale manufacturing. In addition, the activity of natural biocatalysts is typically inhibited by the end product of the reactions they facilitate. This characteristic of natural biocatalysts, which is referred to as product inhibition, results in limited product yields in industrial settings. Moreover, for certain industrial applications, there are no known naturally occurring biocatalysts that catalyze the desired reaction.

Due to these limitations, other companies and researchers have tried to improve the performance of naturally occurring biocatalysts by directing their evolution through biotechnology techniques such as the random mutation of genes. However, to date, these techniques have had only limited success for a number of reasons. For example, random mutations of genes often result in decreased, not improved, performance and these alternative biotechnology techniques cannot effectively remove accumulated detrimental mutations. The end result is often an evolved biocatalyst with activity that reaches a plateau at a level that is insufficient for a commercial process. We believe there is a significant opportunity for novel technologies that can address the limitations of other biotechnology techniques and can substantially enhance the performance of biocatalysts in industrial settings.

Our Platform Technology

We believe that our proprietary technology platform can transform the industrial application of biocatalysts by improving their commercially relevant characteristics, such as stability, activity, product yield and tolerance to industrial conditions, while reducing product inhibition. In addition, our technology platform allows us to develop and optimize biocatalysts much more rapidly than is currently possible with alternative methods. Perhaps most importantly, we have demonstrated that our technology platform can enable the manufacture of products cost-effectively, at commercial scale and with significantly reduced environmental impact relative to conventional manufacturing processes.

Our proprietary technology platform uses advanced biotechnology methods, bioinformatics and years of accumulated know-how to significantly expedite the process of developing optimized biocatalysts. Key components of our technology platform include gene shuffling, whole genome shuffling, multiplexed gene SOEing, and proprietary bioinformatic software tools that allow us to identify and quantify the potential value of beneficial mutations and avoid detrimental mutations.

Application in Pharmaceuticals

In the pharmaceutical market, our technology platform has significantly improved commercial scale drug manufacturing processes. Our customers have benefited from our processes and products through:

- reduced costs, including capital and operating costs;
- simplified production processes;
- decreased environmental impact; and
- increased efficiency and product yield.

For example, we have used our technology platform to develop four biocatalysts that enabled significant improvements in the manufacturing processes for key intermediates used in the production of atorvastatin, which is the active pharmaceutical ingredient, or API, in Lipitor, the world's best-selling prescription drug. Manufacturers have historically used a complex, expensive, capital intensive and hazardous chemistry-based process to produce these intermediates, called ATS-5 and ATS-8. As a result, they have long sought alternate ways to make the drug, including through biocatalysts-enabled processes. However, none of the naturally occurring enzymes that we tested showed the required activity and stability necessary for their manufacture. We first developed a new two step process using three optimized

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biocatalysts for the production of ATS-5, which Pfizer purchases as their starting material to make atorvastatin. Using our technology platform, we:

- significantly improved the activity and stability of all three biocatalysts, including increasing the performance of one of them, which previously showed only 0.25% of the required activity and stability, by approximately 4,000 times;
- eliminated the need for a costly purification step due to the high purity of the product that is generated by our process, resulting in additional cost savings; and
- obtained higher yields than the alternative conventional chemical processes for ATS-5.

We received a Presidential Green Chemistry Challenge Award from the United States Environmental Protection Agency for the development of our biocatalytic manufacturing process for ATS-5.

The next key isolated intermediate for atorvastatin is ATS-8, which we supply to manufacturers of generic atorvastatin. We replaced the second of three steps in the manufacture of ATS-8 with a biocatalytic reaction. Using our technology platform, we:

- significantly improved the activity and stability of the fourth biocatalyst to enable the process;
- replaced a step that previously required temperatures below -70 degrees Celsius and used hazardous agents with a benign biocatalytic step that runs at or near room temperature, eliminating the need for expensive and energy intensive cryogenic equipment; and
- obtained higher purity product, eliminating the need for a yield-reducing ATS-8 purification step.

For both ATS-5 and ATS-8, we greatly reduced the waste generated by the conventional chemistry-based processes and generated a biodegradable waste from two of the steps.

Application in Biofuels and Other Bioindustrial Markets

We are also using our technology platform to develop biocatalysts for use in producing advanced biofuels that currently cannot be manufactured cost-effectively at commercial scale. Advanced biofuels are liquid transportation fuels derived from non-food biomass and which meet certain minimum carbon reduction criteria. As part of our research and development collaboration with Shell, we have used our technology platform to:

- improve the sugar production of our cellulase biocatalysts, which are used to convert cellulosic biomass to sugar;
- enable our cellulase biocatalysts to operate in a wider range of operating conditions; and
- develop a microbe that converts cellulosic biomass-derived sugar to diesel fuel, which is secreted out of the cell.

In addition, we are using our technology platform to improve the yields from our ethanol-producing yeast.

We are also using our technology platform to develop biocatalysts to optimize the process of removing carbon dioxide from flue gases in coal-fired energy generation plants. Our biocatalysts improve the effectiveness of a range of solvents, including amine solvents, which is one of the leading potential technologies to remove carbon dioxide from flue gas. In the laboratory, these biocatalysts have exhibited increased tolerance for flue stack-type operating conditions, though not yet at target commercial levels. We also intend to use our technology platform to pursue biocatalyst solutions in other bioindustrial markets, including water treatment and chemicals.

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Our Business Model

Our business model allows us to simultaneously pursue multiple commercial opportunities across a number of major markets. Our business model has resulted in a diversified revenue stream that is predictable over the near term and has a significant growth potential, while allowing us to share risk with and leverage the capabilities of our collaborators. Our business model includes the following key elements:

Targeting Multiple Major and Growing Markets. We currently use our technology platform to produce biocatalysts that are used at commercial scale in the pharmaceutical market. Through our collaboration with Shell, we are developing biocatalysts for use in producing commercially viable biofuels from cellulosic biomass. We also believe that we can use our technology platform to deliver biocatalyst-enabled solutions to other bioindustrial markets, including carbon management, water treatment and chemicals.

Capital-Efficient Collaborations with Industry Leaders. We have adopted a business model that leverages our collaborators' engineering, manufacturing and commercial expertise, their distribution infrastructure and their ability to fund commercial scale production facilities. For instance, in the pharmaceuticals market, our supply relationship with Arch enables us to bring intermediates and/or APIs for branded pharmaceutical products to market with very limited additional capital. In addition, if we are able to develop biocatalysts that enable the commercial production of biofuels derived from cellulosic biomass and Shell decides to commercialize products based on this technology, we would need to rely on Shell, or other parties selected by Shell, to design and build the commercial scale fuel production facilities and to distribute the final fuel product.

Diversified Revenue Base. We are generating a revenue stream that is diversified across distinct industries, which should mitigate our exposure to cyclical downturns or fluctuations in any one market. In 2008, our revenues were derived from the pharmaceuticals and biofuels markets, and consisted primarily of collaborative research and development revenues and product sales. We are pursuing biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals, that if successful, will allow us to further diversify our revenues.

Visible and Predictable Revenues. Based on our existing arrangements, we believe that the revenues from both our biofuels and pharmaceutical businesses should be predictable over the near term. We receive bi-monthly payments from Shell that are based on the number of funded FTEs that work on our research collaboration with Shell. The number of funded FTEs that work on the program, and the payments from Shell for these FTEs, are specified in our collaborative research agreement, subject to Shell's ability to increase or reduce the number of FTEs under certain conditions over time. Because we allow our pharmaceutical customers to achieve significant cost savings in their manufacturing processes, historically they have continued using our biocatalysts once they have begun using our biocatalyst-enabled process.

Our Strategy

Our objective is to be the leading provider of optimized biocatalyst-enabled solutions across a wide range of industries. Key elements of our strategy are as follows:

Become a leading biocatalyst supplier to the advanced biofuels market. Our primary development efforts are focused on producing biocatalysts that can enable Shell to become a global leader in the advanced biofuels market. We continue to build upon our milestone-driven, multi-year collaboration with Shell as we advance our efforts to produce biofuels from cellulosic biomass cost-effectively at commercial scale. Because of our success to date, Shell has expanded our research and development collaboration twice, which we believe positions us to be a key contributor to their overall biofuels strategy.

Expand into new bioindustrial markets. We are actively pursuing opportunities in other bioindustrial markets, including through self-funded research in carbon management and the pursuit of funded collaborations in carbon management, water treatment and chemicals. We have the right to use the

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intellectual property developed in our collaboration with Shell in fields outside of fuels and related products. We intend to leverage this and other intellectual property and our technology platform to develop products in our other target markets.

Continue growing our pharmaceutical business. We intend to pursue new collaborations in the pharmaceutical industry to integrate our products and services more deeply into drug development and manufacturing processes for clinical stage and commercially approved pharmaceutical products. As part of that effort, we will continue to aggressively market our Codex Biocatalyst Panels to pharmaceutical companies to demonstrate the capabilities of our technology platform.

Secure access to additional production capacity. To increase our biocatalyst manufacturing capacity and establish secondary supply sources, we are working to establish long-term supply contracts with contract manufacturers and are evaluating whether to invest in our own manufacturing capabilities. We may also opportunistically seek to secure specialty manufacturing assets and expand existing relationships for the supply of our biocatalysts and key pharmaceutical APIs and intermediates. For example, in August 2008, we entered into an expanded supply relationship with Arch for the manufacture of intermediates and APIs for specified pharmaceutical products.

Expand our business and technology platform through the addition of new technologies, products or businesses. In the past, we have expanded our business by acquiring companies with synergistic business plans and licensing new technology. We will continue to evaluate opportunities to acquire or license new technologies, products or businesses that complement or expand our capabilities, including in the carbon management, water treatment and chemical markets. In addition, we intend to continue to advance our technology platform by investing in our research and development capabilities to allow us to more rapidly identify and develop products and pursue new market opportunities.

Our Pharmaceutical Business

Our Opportunity in the Pharmaceutical Market

The pharmaceutical industry represents a significant market opportunity for us. In 2008, according to IMS Health, global spending on prescription drugs was \$773 billion. Pharmaceutical companies are now under significant competitive pressure both to reduce costs and increase the speed to market for their products. To meet these pressures, they are seeking manufacturing processes for their new products and existing drugs that reduce overall costs, simplify production and increase efficiency and product yield, while not affecting drug safety and efficacy. In addition, for products whose patents have expired, the importance of cost reduction is even higher, as the pharmaceutical manufacturers which had developed those patent-protected drugs, known as innovators, compete with generics manufacturers.

The pharmaceutical product lifecycle begins with the discovery of new chemical entities and continues through preclinical and clinical development, product launch and, ultimately, patent expiration and the transition from branded to generic products. As innovators develop, produce and then market products, manufacturing priorities and processes evolve. Historically, innovators have focused on production cost reduction in the later stages of clinical development but have been reluctant to make process changes after a product has been launched. However, as pressures to reduce costs have increased, innovators have pursued cost reduction measures much earlier in the pharmaceutical product lifecycle and are increasingly looking for opportunities to improve their operating margins, including making manufacturing process changes for marketed products if these changes can result in significant cost reductions. As a result, innovators are investing in new technologies to improve their manufacturing productivity and efficiency or outsourcing the manufacture of their intermediates and APIs.

Another strategy innovators can use to reduce costs is to adopt manufacturing processes that obviate the need for costly purification of their intermediates or APIs. For example, the chemical structure of many small molecule drugs has two or more configurations, similar to a person's left and right hands. While the

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two or more configurations have the same chemical structures, there can be differences in their therapeutic safety and efficacy profiles. To avoid developing a drug containing configurations with detrimental effects, pharmaceutical companies are increasingly seeking to introduce new drugs containing only the desired configuration. Manufacturing the pure configurations via conventional chemistry-based processes is rarely possible in a cost-effective manner at commercial scale. These conventional chemistry-based processes typically require late-stage purification steps that reduce product yield and can significantly increase costs. Because of the high costs associated with these purification steps, significant opportunities exist for alternatives that can produce pure configurations using more efficient and less costly methods.

Generics manufacturers are also increasingly pursuing opportunities to reduce costs. The rise in patent expirations, as well as support by some governments for lower-cost alternatives to branded drugs, have led to strong growth in the generics industry. According to Datamonitor, generic competition is expected to eliminate \$117 billion from top innovators' worldwide sales between 2008 and 2014 as approximately three dozen drugs are expected to lose patent protection. In addition, according to IMS Health, generics products account for 64% of the total pharmaceutical market in the United States. However, because generics manufacturers compete primarily on price, they are even more cost sensitive than innovators. Lower manufacturing costs for intermediates and APIs is the key factor that helps generics companies compete and win market share. Prior to the expiration of patents on a branded drug, generics manufacturers also have significant opportunities to commercialize the generic equivalents of branded drugs in the markets which do not provide effective patent protection.

Our Solution for the Pharmaceutical Market

Our technology platform enables us to deliver solutions to our customers in the pharmaceutical market by developing and delivering optimized biocatalysts that perform chemical transformations at a lower cost, and improve the efficiency and productivity of manufacturing processes. We provide value throughout the pharmaceutical product lifecycle. Our technology platform allows us to provide benefits to our customers in a number of ways, including:

- reducing the use of raw materials and intermediate products;
- improving product yield;
- using water as a primary solvent;
- performing reactions at or near room temperature and pressure;
- eliminating the need for certain costly manufacturing equipment;
- reducing energy requirements;
- reducing the need for late-stage purification steps;
- eliminating multiple steps in the manufacturing process; and
- eliminating hazardous inputs and harmful emission by-products.

Early in the product lifecycle, customers can use our services to achieve speed to market and to reduce manufacturing costs. If an innovator incorporates our products or processes into an FDA-approved product, we expect the innovator to continue to use these products or processes for the patent life of the approved drug.

After a product is launched, customers also use our services to reduce manufacturing costs. At this stage, changes in the manufacturing process originally approved by the FDA may require additional review. Typically, pharmaceutical companies will only seek FDA approval for a manufacturing change if there are substantial cost savings associated with the change. The cost savings associated with our products have led certain of our customers, such as Merck and Pfizer, to change their manufacturing processes for

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approved products and, if necessary, seek FDA approval of the new processes which incorporate our biocatalysts. Moreover, we believe these cost savings are attractive to generics manufacturers, who compete primarily on price.

Products and Services

Codex Biocatalyst Panels. We sell Codex Biocatalyst Panels to customers who are engaged in both drug development and the marketing of approved drugs to allow them to screen and identify possible biocatalytic manufacturing processes for their drug candidates and their marketed products. Our Codex Biocatalyst Panels are plates embedded with genetically diverse variants of our proprietary biocatalysts, which allow our customers to determine whether a biocatalyst produces a desired activity that is applicable to a particular process.

For compounds that are in development, our Codex Biocatalyst Panels:

- allow innovators to rapidly and inexpensively screen and identify possible biocatalytic manufacturing processes for many of their drug candidates in-house, without the risks of disclosing the composition of their proprietary molecules before they have received patent protection; and
- generate data that we can use to rapidly optimize biocatalysts for a particular reaction, if necessary, reducing the time required to generate a manufacturing process capable of supporting clinical trials with inexpensively produced, pure drugs.

We believe that our Codex Biocatalyst Panels have helped us build early and broad awareness of the power and utility of our technology platform, and will increasingly lead to sales of our biocatalyst optimization services and biocatalysts, as well as intermediates and APIs made using our biocatalysts. We currently have over ten customers for our panels, including leading pharmaceutical companies such as F. Hoffman-La Roche Ltd., GlaxoSmithKline plc, Merck, Novartis and Pfizer. If our customers incorporate a biocatalytic manufacturing process early in a product's lifecycle, they can reduce their manufacturing costs throughout that lifecycle, while we, in turn, could realize a long term revenue stream resulting from the use of our biocatalysts during that time. In addition, our Codex Biocatalyst Panels are increasingly used by our customers to evaluate the feasibility of changing the manufacturing process for their marketed products to a biocatalyst-enabled process.

Biocatalyst screening services. If a customer prefers, rather than subscribing to our Codex Biocatalyst Panels to use for their own screening, they can send us their materials to test against our existing libraries of biocatalysts. If we detect desired activity in a specific biocatalyst, we can supply the customer with this biocatalyst or perform optimization services to improve the performance of the biocatalyst.

Our screening services:

- allow innovators to rapidly and inexpensively screen and identify possible biocatalytic manufacturing processes through access to our extensive biocatalyst libraries; and
- generate data that we can use to rapidly optimize biocatalysts for a particular reaction, if necessary, reducing the time required to generate a manufacturing process capable of supporting the customers' particular needs, ranging from small quantities for clinical trials to full commercial production, in all cases providing inexpensively produced, pure drugs.

We have provided screening services to numerous innovator and generic pharmaceutical manufacturers.

Biocatalyst optimization services. We work with our customers throughout the pharmaceutical product lifecycle to customize proprietary biocatalysts, resulting in optimized biocatalysts that have been evolved specifically to perform a desired process according to a highly selective set of specifications.

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Our biocatalyst optimization services:

- allow innovators to improve the manufacturing process as their drug candidates progress through preclinical and clinical development, deferring or reducing the need for significant manufacturing investment until the likelihood of commercial success is more certain; and
- enable manufacturing processes that are highly efficient, inexpensive, require relatively little energy, reduce the need for hazardous reagents, and reduce waste. For example, our activities with Pfizer have included developing an optimized biocatalytic manufacturing process for a key intermediate that eliminates three chemical steps.

Biocatalysts. We supply varying quantities of our proprietary biocatalysts to pharmaceutical companies, from small to moderate quantities while they are optimizing their production processes, to larger quantities during later-stage clinical development and commercial scale drug production.

Our biocatalysts:

- enable innovators to manufacture products more efficiently during preclinical and clinical development using optimized biocatalytic processes, with relatively low investment;
- eliminate the need for innovators to invest in the development of complex chemical synthesis routes during the development stage;
- allow innovators to achieve higher product purity during the development stage prior to investing in expensive late-stage clinical trials;
- reduce the risk of adverse effects arising from product impurities;
- allow the removal of entire steps from synthetic chemical production routes during commercial scale production, reducing raw material costs, energy requirements and the need for capital expenditures; and
- decrease the manufacturing costs for our customers.

Intermediates and APIs. We can supply our customers intermediates and APIs made using our biocatalysts throughout the drug lifecycle.

Our supply of intermediates has the following uses and benefits:

- lowers capital investment for innovators through outsourcing of manufacturing; and
- provides a source of less expensive, more pure products to innovator and generics manufacturers.

In the innovator market, we are currently supplying Pfizer with an intermediate in the manufacture of Lipitor. We have also developed biocatalysts for use in the manufacture of certain generic intermediates and APIs by various companies, including Arch and Teva Pharmaceutical Industries Ltd., or Teva. In addition, we have launched and are marketing several new intermediates and APIs for the generic equivalents of branded pharmaceutical products, including Singulair and Cymbalta, for sale in markets where innovators have not sought patent protection for their products and intend to sell these same intermediates and APIs for use in markets where innovators have sought patent protection when the patent protection for each product expires.

Our Biofuels Business

Industry Overview — Need for Petroleum Replacement

The world's economy is heavily dependent on petroleum. However, economic, political and environmental concerns surrounding petroleum have increased the desire to find renewable alternatives to this limited commodity.

- *Increasing demand for petroleum.* While the United States, Europe and Japan have historically been the major consumers of petroleum, developing economies such as India and China are experiencing tremendous levels of economic growth. In 2008, China and India alone saw GDP growth rates estimated at 9.0% and 7.4%, respectively. This economic growth has created new sources of demand for petroleum, with China and India's combined share growing from 10% of the world's total energy consumption in 1990 to 19% in 2006 and forecasted to grow to 28% of the world's energy consumption by 2030.
- *Dependence on imported petroleum.* According to the U.S. Energy Information Administration, or EIA, in 2008, the top five net oil exporting countries in the world were Saudi Arabia, Russia, the United Arab Emirates, Iran and Kuwait. The political and economic instability in some of these countries and their surrounding regions adds further uncertainty to the supply of oil. As a result, countries that have been net importers of oil are beginning to pursue approaches that provide for greater independence from these suppliers.
- *Expense of developing new petroleum reserves.* The cost to replace known reserves is increasing significantly. Petroleum companies are now developing fields in the deep waters of the Gulf of Mexico and in the tar sands in Canada that previously would have not been economically attractive to exploit.
- *Rising and volatile petroleum prices.* According to the EIA, worldwide petroleum prices in dollars have risen 213% and fluctuated significantly over the last ten years, from \$25.01 per barrel at the beginning of December 1999, to \$78.39 per barrel at the start of December 2009. In addition to rising prices, petroleum pricing has been highly volatile with significant price spikes over time, including prices reaching a record high of \$145.31 per barrel in July 2008.
- *Limited supply of petroleum.* Growth in demand for petroleum has outpaced growth in supply. The supply growth has come mostly from non-OPEC producing countries. However, this growth is expected to flatten. While OPEC producing countries may have the reserves, political instability in these regions has hindered their ability to increase production levels.

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- *Environmental concerns and regulatory initiatives.* Environmental concerns over the by-products of petroleum consumption, including greenhouse gas emissions, have led to a global search for alternative solutions to the world's growing fuel needs. For example, the American Clean Energy and Security Act, otherwise known as the Waxman-Markey climate and energy bill, seeks to mandate, among other things, emission cuts and permits for emissions in certain regulated industries. In addition, in December 2009, government representatives from all over the world convened at the United Nations Framework Convention on Climate Change in Copenhagen, Denmark with the goal of creating a global climate change protocol to follow the Kyoto Protocol.

Industry Challenges and Opportunities

According to the EIA, global petroleum demand in 2008 was 86 million barrels per day; historically 45% of this demand has been refined into liquid transportation fuels for use in automobiles. There is enormous potential to replace a substantial portion of petroleum-based liquid transportation fuels with high-quality, energy-rich fuels produced through biocatalyst-enabled transformation of renewable cellulosic biomass sources. For instance, the U.S. Congress passed the Energy Independence and Security Act of 2007, an alternative fuels mandate that calls for 13 billion gallons of liquid transportation fuels sold in 2010 to come from alternative sources, including biofuels, a mandate that grows to 36 billion gallons by 2022. This mandate requires that of the 36 billion gallons, 21 billion gallons must be advanced biofuels. First generation biofuels manufacturers use biocatalysts to produce biofuels from food-based biomass and plant oils, such as ethanol and biodiesel. However, fuels produced from these sources do not provide an optimal solution to the petroleum dependence problem for a number of reasons, including:

- high exposure to rising commodity and energy prices;
- potential for increases in food and animal feed prices resulting from the diversion of food crops, such as corn and soybeans, to fuel production;
- ethical issues associated with diverting food crops and fertile acreage to fuel production; and
- only a modest reduction in carbon dioxide generation due to the energy inefficiency of producing biofuels from food crops.

Because of the limitations of first generation biofuels, many companies are now working to make fuels from cellulosic biomass rather than from food-based biomass. Cellulosic biomass is found in virtually all plant material, including sustainable non-food crops such as switch grass and wood chips, and agricultural plant wastes such as corn stover and sugar cane bagasse. Cellulosic biomass is comprised of, among other things, cellulose and hemicellulose, which are long chains of six and five carbon sugars, respectively, that are linked together. To access these sugars, biofuels producers typically utilize heat and chemicals to pretreat these cellulosic materials through a variety of processes that expose the hemicellulose and cellulose. Once exposed, these long chains can be broken down into individual sugar units which can be transformed into fuels.

While fuels produced from cellulosic biomass would represent significant advances over first generation biofuels, there have been several challenges in their development. These challenges include converting cellulose and hemicellulose into sugar, which is a more complicated process than converting corn starch and sugar cane into sugar. In addition, biomass sources vary greatly by plant species and geographic region. One of the challenges of advanced biofuels is developing a technology that can convert the great variety of biomass sources found throughout the world to fermentable sugars. Moreover, the yeast that are currently used to convert corn starch and sugar cane into ethanol typically are not capable of converting the different types of sugars that are produced from cellulosic biomass into ethanol. Solving these challenges will require cellulosic biofuels manufacturers to develop innovative, robust biocatalysts that will have greater product yield and be more cost-effective, and will react quickly and continually under industrial conditions. To date, no companies have successfully done this economically and at commercial scale.

Our Solutions for the Biofuels Market

We believe that our technology platform will enable the development of biocatalysts that can be used to produce commercially viable, cellulose-derived biofuel alternatives to petroleum-based fuels. Since 2006, we have been engaged with Shell in a research and development collaboration under which we are developing biocatalysts for use in producing advanced biofuels. Our advanced biofuels program focuses on two primary elements: (1) developing biocatalysts to convert cellulosic biomass into sugars; and (2) converting these sugars into two advanced biofuels, cellulosic ethanol and biohydrocarbon diesel. For the first element, we have used our technology platform to improve our cellulase and other biocatalysts. For the second element, we have developed a biocatalyst that converts sugars to diesel fuel, and are working on improving ethanol-producing yeast. We are using our technology platform to develop biocatalysts that we believe will:

- increase the rate at which cellulosic biomass is converted into biofuels;
- increase the yield of biofuels produced from cellulosic biomass;
- eliminate the need to use food resources for the production of biofuels;
- provide producers with more flexibility in designing processes to convert cellulosic biomass to biofuels, thereby reducing the costs associated with building and operating biofuel production facilities; and
- enable the production of new types of cellulosic biofuels that could be alternatives to petroleum-based fuels.

Under our research and development collaboration with Shell, Shell will have the right, but not the obligation, to commercialize any technology that we develop in our biofuels program. If Shell commercializes our biofuels technology, we will collect a royalty for every gallon of fuel that Shell produces using our technology. If Shell chooses to commercialize any biofuels products developed through our collaboration, we believe that the combination of our technology platform with Shell's proven product development capabilities and resources could enable a biofuels solution that extends from the conversion of cellulosic biomass into biofuels to delivery and distribution of refined biofuels to consumers at the pump.

Sugar Platform

As part of our biofuels research and development collaboration with Shell, we are using our technology platform to develop a suite of cellulases and other biocatalysts to convert cellulosic biomass to sugar, which we sometimes refer to as our sugar platform. One of the goals of our sugar platform is to improve the performance and operational range of cellulases and other biocatalysts so that they cost-effectively function in industrial conditions. For example, we have developed several of our cellulase biocatalysts that now function at temperature and acidity levels that we believe are close to the commercial production targets specified under the collaborative research agreement. The benefit of increasing the operational range of the cellulases is to provide maximum flexibility in the design and function of the facility that is used to produce cellulose-derived sugars, thus decreasing the costs of production and lowering the cost of the end product to make it competitive with petroleum-based fuels.

Another goal of our sugar platform is to increase the rate and extent of conversion of cellulosic biomass to fermentable sugars. The more rapidly and efficiently that biocatalysts convert cellulose and hemicellulose to sugars, the less expensive the biomass conversion process will be to operate. We are developing our biocatalysts to produce more sugar per unit volume. For example, we have developed cellulase biocatalysts that we believe produce twice as much sugar from pre-treated cellulosic biomass in half the time as leading commercially available products under target industrial conditions. We believe faster sugar production from our biocatalysts will lower capital costs and production costs and result in lower-cost sugar to convert to an end fuel product.

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We are developing a library of cellulases that have the potential to convert a wide variety of cellulosic biomass sources into fermentable sugars. The cellulosic biomass that we expect will be used to produce advanced biofuels is highly variable from region to region and can change over time. To optimize the local and seasonal conversion of biomass to fermentable sugars, we expect to use technology similar to our Codex Biocatalyst Panel of cellulases that Shell can use to customize the biocatalysts that they use at each advanced biofuel production facility. This technical innovation may ultimately make our sugar platform feedstock agnostic. In addition, we licensed a commercial-scale enzyme production system from Dyadic in 2008 that we expect will enable the cost-effective production of the high-performing biocatalysts that we are developing for Shell. We believe that the combination of our high-performing cellulases and other biocatalysts, the feedstock flexibility that we expect our Codex Biocatalyst Panels will provide, plus the ability to produce these biocatalysts cost-effectively at commercial scale will enable us to develop a scalable, global sugar platform that will provide a competitive advantage in the advanced biofuels market.

Cellulosic Ethanol

The goal of our cellulosic ethanol program is to develop commercial yeast that rapidly produces high levels of ethanol from cellulose-derived sugars. Cellulosic biomass produces several types of sugars, including glucose, xylose and arabinose. Xylose is typically found in sugars derived from cellulosic biomass and is not converted by the yeast currently used in today's first generation ethanol production. Therefore, it is important to develop yeast that can convert xylose and other sugars into ethanol. Using a number of our core technologies, including whole genome shuffling and cellular engineering, we are working with a variety of active industrial and laboratory yeast strains to develop a xylose-utilizing yeast strain that converts most of these sugars to ethanol, which should result in greater ethanol production and lower capital and ethanol production costs.

Biohydrocarbon Diesel

We have made significant advancements in our biohydrocarbon diesel fuel program, which is focused on converting cellulose-derived sugar into a fungible diesel blending stock. Based on our testing to date, our biocatalysts rapidly produce high quantities of fuel product per unit volume, which has the potential to reduce production costs and increase the efficiency and productivity of the biohydrocarbon manufacturing process. Our biohydrocarbon program has several additional advantages that could lower the production costs of diesel fuel. Our diesel-producing microbe secretes the diesel molecule from the cell, which then separates from the media in which the cell lives and grows. As a result, our production system can be run continuously without having to stop fuel production to harvest the fuel and purify the fuel product. We believe that many other comparable diesel-producing systems must isolate the fuel-producing cells, break-open the cells to release the fuel and purify the fuel from the resulting mixture, which significantly increase production costs for the end fuel product. In addition, we believe that the biohydrocarbon fuel product that we develop will be able to be blended directly into existing diesel fuel with little or no additional processing at a refinery, which would further lower production costs. In contrast, existing biodiesel fuel that is derived from plant oils must be chemically modified before they are suitable for use as diesel components. These chemical modifications involve processing steps before such fuel is ready for use, which adds to the cost of producing the fuel. In addition, other advanced biofuel programs aimed at producing diesel alternatives require extensive and difficult hydrogenation reactions, which are expensive and require capital intensive facilities that are not widely available.

In contrast to biodiesel produced from plant oils, we expect that the diesel fuel that we develop will be compatible with the existing transportation infrastructure, including distribution systems. A new fuel that works in existing engines and fuel production and distribution systems will not require additional investment in infrastructure to deploy this new technology. As discussed above, we believe that the diesel fuel that we develop will be capable of being blended in conventional petrochemical refineries that are

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widely used across the globe. This production flexibility should reduce structural barriers to adoption of the molecule as a wide-spread petroleum alternative.

Additional Bioindustrial Opportunities

We believe that our technology platform, together with the knowledge and experience gained from our efforts in the pharmaceutical market and in our biofuels development program, will allow us to capitalize on opportunities in other bioindustrial markets, including carbon management, water treatment and chemicals. Depending on the market, we may pursue collaborations with industry leaders to allow us to leverage their competitive strengths and resources in pursuit of these opportunities.

Carbon Management

During the 20th century, global surface temperature increased 0.74 ± 0.18 degrees Celsius. In 2007, the Intergovernmental Panel on Climate Change concluded that most of this temperature increase was due to increasing concentrations of greenhouse gases, including carbon dioxide, which resulted from human activity. The consensus of the world scientific community is that continued climate change during this century will harm the global environment in unpredictable and potentially catastrophic ways. While a number of critics contest these conclusions, the global pressure to reduce carbon dioxide emissions is dramatic and increasing. Emissions continue to rise, even as the global demand for regulation grows. According to the EIA, the global emission level of carbon dioxide is projected to rise from 29 billion metric tons in 2006 to 33 billion metric tons in 2015 and 40 billion metric tons in 2030. Of the approximately seven billion tons of carbon dioxide equivalents emitted by the United States each year, approximately 40% is produced by the electric power industry. Furthermore, the share of global carbon dioxide emissions by the electric power industry could potentially increase in the future as growing demand for power increases alongside a growing population. By 2030, the EIA estimates, China and India will account for 34% of the world's carbon dioxide emissions, driven largely by their use of coal in generating electricity. The need for a viable method to manage these growing carbon dioxide emissions represents a significant opportunity.

In the carbon management market, we are seeking to apply our technology platform to the management of carbon dioxide emissions from stationary point sources such as coal-fired power plants. As part of this effort, in December 2009, we entered into an exclusive joint development agreement with CO₂ Solution Inc. under which we will combine our biocatalyst-enabled technology platform with CO₂ Solution's proprietary enzymatic methods for the efficient capture of carbon dioxide from coal-fired power plants and other large sources of carbon dioxide emissions. We believe our biocatalysts have the potential to enhance the effectiveness of CO₂ Solution's carbon capture processes in harsh industrial conditions.

To further our efforts in the carbon management market, we have filed provisional patent applications relating to biocatalysts that we believe may optimize the process of removing carbon dioxide from flue gases. These biocatalysts improve the effectiveness of amine solvents, one of the leading potential technologies to remove carbon dioxide from flue gas. A major drawback of amine solvent technologies is the additional "parasitic" energy required to operate them. Based on initial models, we believe that our biocatalysts may reduce this parasitic energy loss by up to 35%. In the laboratory, these biocatalysts have also exhibited increased tolerance for flue stack-type operating conditions, though not yet at target commercial levels. Although our research is in its early stages, we believe that it may be possible to cost-effectively utilize biocatalyst-enabled solutions to separate carbon dioxide from other exhaust gases and direct them to separate sequestration mechanisms.

Water Treatment

Water treatment is another example of a potential major market opportunity for novel biocatalyst-enabled solutions. According to a United Nations study published in March 2007, approximately 80% of all diseases in the developing world are caused by unsafe water and poor sanitation. In addition, industrial

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manufacturing operations and municipal water usage generate large quantities of waste water, which must be treated in order to avoid contamination of our fresh water resources and our oceans. There are many sources and types of water pollution, and when different types of pollution mix together it presents complex and challenging remediation problems downstream.

The market for biocatalysts in water treatment is in a very early stage of development. However, new interest in biocatalyst-enabled solutions in water treatment has been sparked in part by concerns about possible contamination of drinking water from industrial and other sources. For example, a U.S. government report released in 2006 examined the potential of biocatalysts in the treatment of groundwater and drinking water in both civilian and military applications. The report concluded that biocatalyst-embedded water filters held significant promise for the treatment of agents, pesticides, or other chemical contaminants in drinking water systems, as well as for the decontamination of pipes and other equipment with contaminant residue. We believe that there are also opportunities for biocatalyst-enabled solutions to treat municipal wastewater streams.

Chemicals

There are also significant market opportunities in the chemical industry for companies that can help reduce or eliminate petroleum dependency, as well as costly and wasteful manufacturing processes. For example, according to the EIA, in 2008, approximately 214 million barrels of petroleum were used in petrochemical feedstocks.

We believe that fermentable sugars produced from cellulosic biomass may serve as an alternate source of carbon for use in the manufacture of many chemicals. This potential market may provide an opportunity to leverage our funded work with Shell into a separate business in the non-fuels chemicals industry. Our license agreement with Shell permits us to use technology developed for Shell outside of the field of fuels and lubricants. In addition, our technology platform could be applied to develop biocatalysts for the conversion of sugar or other feedstocks, rather than petroleum-derived hydrocarbons, into commercially important chemicals. We have rights to pursue a number of chemical market opportunities under our license agreement with Maxygen. To pursue certain other opportunities in the chemicals market, we will need to license additional rights from Maxygen.

Strategic Collaborations

Our strategic collaborations allow us to expand into new markets and to service our existing customers, while operating our business with maximum capital efficiency. By collaborating with companies such as Arch and Shell, we are able to leverage both our technology platform and our collaborators' strengths in production and distribution. This allows us to focus our capital on key areas such as research and development.

Arch

We are collaborating with Arch Pharmed Labs Limited, or Arch, of Mumbai, India in the manufacture and sale of intermediates and APIs produced using our biocatalyst-enabled processes. Arch has extensive expertise in chemical process development and scale-up, and is a leading producer of intermediates and generic APIs in India.

We were previously party to agreements with Arch pursuant to which Arch manufactured and supplied ATS-8 for us and on our behalf and which we paid Arch a percentage of the profits we earned on our sales of ATS-8. In August 2008, with the exception of the Master Services Agreement with Arch entered into as of August 1, 2006, we simultaneously terminated all of our existing agreements with Arch and entered into a series of new agreements with Arch, significantly expanding the relationship between the parties. These new agreements include a biocatalyst license and development agreement, a biocatalyst supply agreement, product supply and marketing agreements, and various ancillary agreements, which we

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refer to as the Arch Agreements. Under the terms of the Arch Agreements, we are developing and supplying certain biocatalysts to Arch for use in the manufacture of atorvastatin, azetidiones, montelukast, duloxetine and phenylephrine, and intermediates in their manufacture, which we refer to as the Collaboration Products. We granted Arch the exclusive right to use these biocatalysts to manufacture the Collaboration Products, except for duloxetine and intermediates used in its manufacture, for which we granted Arch a non-exclusive right. Arch agreed to manufacture and supply the Collaboration Products exclusively for and on behalf of us, except that Arch retained the right to supply atorvastatin to one customer under a prior agreement between Arch and that customer. We agreed to obtain all Collaboration Products, other than duloxetine and intermediates used in its manufacture, exclusively from Arch. We have sales and marketing arrangements with Arch in various countries.

Each party can terminate the Arch Agreements after ten years by providing the other party with three years' prior written notice beginning at year seven of the Arch Agreements. Each party also has the right to terminate the Arch Agreements or convert the exclusive rights in the Arch Agreements to non-exclusive rights in their entirety or on a product-by-product basis in the case of certain material breaches by the other party either immediately or if such breach is uncured within 45 days, depending on the nature of the breach. Additionally, if certain economic and tax assumptions render performance under the Arch Agreements economically unviable, each party can terminate the Arch Agreements upon three years' notice at any time during the term of the Arch Agreements.

We plan to enter into additional agreements with Arch to manufacture additional intermediates and APIs, including the manufacture of products for innovator customers.

Shell and Other Biofuels Partners

We collaborate with Equilon Enterprises LLC dba Shell Oil Products US, or Shell, to develop commercially viable fuels from cellulosic biomass. If Shell chooses to commercialize any biofuels products developed through our collaboration, we believe that the combination of our technology platform with Shell's proven project development capabilities and resources could enable a biofuels solution, from converting cellulosic biomass into biofuels that extends to delivering and distributing refined biofuels to consumers at the pump.

Shell purchased approximately \$3.0 million of our Series D preferred stock in November 2006, approximately \$30.5 million of our Series E preferred stock in November 2007 and approximately \$30.0 million of our Series F preferred stock in March 2009. In addition, in November 2007, Shell exercised a warrant issued in November 2006 to purchase 428,571 shares of our Series D preferred stock for \$3.0 million.

In November 2006, we entered into a research agreement and a license agreement with Shell. After exceeding targets related to biocatalyst performance under the research agreement, we entered into a new research and development collaboration under a five year amended and restated collaborative research agreement in November 2007, which was amended further in March 2009. Under the terms of the amended and restated collaborative research agreement, we agreed to use our proprietary technology platform to discover and develop biocatalysts for use in converting cellulosic biomass into biofuels and related products. We received an up-front payment of \$20 million in 2007 upon signing the amended and restated collaborative research agreement. We have agreed to work exclusively with Shell until November 2012 to convert cellulosic biomass into fermentable sugars that are used in the production of fuels and related products and to convert these sugars into fuels and related products. However, Shell is not required to work exclusively with us, and could develop or pursue alternative technologies that it decides to use for commercialization purposes instead of any technology developed under our collaborative research agreement with Shell. Even if Shell decides to commercialize products based on our technologies, they have no obligation to purchase their biocatalyst supply from us. The up-front fee is refundable under certain conditions, such as a change in control in which we are acquired by a competitor of Shell. This refundability lapses ratably on a straight-line basis over a five-year period which started in November 2007 and which ends in November 2012.

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In 2009, we agreed to devote to the research and development collaboration FTEs by March 2009, which are required to be funded by Shell at an annual base rate per FTE of \$ for FTEs located in the United States, and \$ for FTEs located in Hungary. These annual base rates per FTE are subject to annual increases of each subsequent year of the collaboration. Until November 1, 2010, Shell has the right to reduce the number of funded FTEs under the collaborative research agreement by up to FTEs following 60 days' advance written notice. After November 1, 2010, Shell has the right to further reduce the number of funded FTEs, with any one reduction not to exceed funded FTEs, following advance written notice. The required notice period ranges from 30 to 270 days, so the earliest an FTE reduction could take place would be December 2, 2010. Following any such reduction, Shell is subject to a standstill period of between 90 and 360 days during which period Shell cannot provide notice of any further FTE reductions. The notice and standstill periods are dependent on the number of funded FTEs reduced, with the length of notice and standstill periods increasing commensurate with the number of FTEs reduced. To date, Shell has not reduced the number of funded FTEs. We are also eligible for milestone payments of up to \$ over the remaining term of the agreement, contingent upon the achievement of certain technical goals beginning in 2009, and a milestone payment of \$ upon achievement of certain commercial goals. Our technical goals have included filing patent applications relating to our development program, and matching predetermined benchmarks for the production of sugars from pre-treated cellulosic biomass using our cellulases and the production of a biohydrocarbon diesel component for sugar derived from cellulosic biomass. We have met or exceeded each of our milestones to date. We believe that several of our cellulase biocatalysts now function at temperatures and acidity levels that are close to the commercial targets. We also believe that our cellulase biocatalysts produce twice as much sugar from pre-treated cellulosic biomass as leading commercially available products under target industrial conditions.

Shell can terminate the amended and restated collaborative research agreement after November 1, 2010, for any or no reason by providing us with at least nine months' notice. We will have the right to terminate the amended and restated collaborative research agreement upon 90 days' notice if Shell decides to fund less than a certain number of our FTEs in the performance of activities under the amended and restated collaborative research agreement and provided certain other conditions are met. Each party also has the right to terminate the amended and restated collaborative research agreement in the case of a breach by the other party if such breach is uncured within 60 days. Each party also can terminate the amended and restated collaborative research agreement if such party believes the other party has assigned the amended and restated collaborative research agreement to a direct competitor of such party in the field of converting cellulosic biomass into fermentable sugars that can be converted into fuels and related products.

Under our agreements with Shell, we retain ownership of all intellectual property we develop, other than patent rights related to certain fuel innovations, and Shell will have an exclusive license to such intellectual property we develop. If we acquire or license technology from third parties for the purpose of these research activities, we will own or control such intellectual property while Shell will be granted a license in its field of use for research and commercial use consistent with the licenses granted to Shell, under the license agreements.

In November 2006, we also entered into a license agreement with Shell, which was amended and restated in November 2007, and further amended in March 2009. Under the terms of the amended and restated license agreement, we granted to Shell, a worldwide, exclusive, royalty-bearing license, including the right to grant sublicenses, to manufacture, have manufactured, use, sell, offer for sale and import any product covered by our patents or which utilizes our technology for use in the field of converting cellulosic biomass into biofuels and related products. The patents and technology licensed include our then existing patent rights and technology and patent rights and technology developed or acquired during performance of the research agreement, in each case related to converting cellulosic biomass into biofuels and related products. We additionally granted Shell royalty-free licenses which allow Shell to manufacture or have manufactured biocatalysts developed under the research agreement solely for the purposes of using such biocatalysts in the

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manufacture of products for use in the field of converting cellulosic biomass into biofuels and related products, such licenses to be used only in accordance with the royalty-bearing license described above. These royalty-free licenses are (i) an exclusive license under the patents and technology related to converting cellulosic biomass into biofuels and related products and developed or acquired by during performance of the research agreement and (ii) a non-exclusive license to patents and technology controlled by us that are necessary or useful for converting cellulosic biomass into biofuels and related products.

Shell will be required to pay us a royalty per gallon with respect to certain fuel products manufactured using our technology platform, including liquid fuels, fuel additives and lubricants, if Shell or any of its licensees manufactures such products. The applicable fuel products are those products which are covered by patents or utilize technology related to converting cellulosic biomass into biofuels and related products that were either developed or acquired during performance of the research agreement or are controlled by us and necessary or useful for such purpose. With respect to cellulosic biomass converted into sugars, Shell agreed to pay us a royalty per gallon of fuel product made from those sugars. With respect to sugars converted into fuel, Shell agreed to pay us a separate royalty per gallon of fuel product made from those sugars. We may be entitled to receive one or both of these royalties depending on whether Shell uses our technology to commercialize one or both of these steps.

Shell can terminate the amended and restated license agreement for any or no reason by providing us with six months notice. If Shell terminates the license agreement, Shell will no longer have the right to use any of our biofuels technology. Each party also has the right to terminate the amended and restated license agreement in the case of a breach by the other party if such breach is uncured within 60 days. The duration of the license agreement differs for each of the fields of use covered by the license agreement, but for each field of use it continues until the later of (i) 20 years after the first sale of product licensed under the agreement in the field of use or (ii) expiration of the last to expire patents covering products licensed under the agreement in the field of use that were either developed or acquired during performance of the research agreement or are controlled by us and necessary or useful for such purpose.

One element of our collaboration with Shell relates to the development of cellulosic ethanol. In connection with our collaboration with Shell, we entered into a collaborative research and license agreement with Iogen Energy Corporation, or Iogen, and Shell in July 2009. Under the collaborative research and license agreement with Iogen and Shell, we agreed to collaborate with Iogen and Shell to develop technology relating to the conversion of cellulosic biomass to ethanol and to implement this technology at commercial scale. We and Iogen will jointly own any inventions arising under the research activities pursuant to the collaborative research and license agreement, except that inventions relating to one party's core technology will be solely owned by that party and licensed to the other party. Inventions that we own under the collaborative research and license agreement are subject to the licenses granted by us to Shell, as well as the payments from Shell to us, under our other agreements with Shell. Iogen has agreed to pay us a royalty per gallon with respect to certain fuel products, which include liquid fuels, fuel additives and lubricants, that are covered by inventions jointly made by us and Iogen, but that are solely owned by Iogen. We will be entitled to collect royalties from Shell for any use of our biofuels technology by Shell or Iogen. Shell can choose to commercialize cellulosic ethanol manufactured using our technology independently, or in collaboration with Iogen.

The term of the collaborative research and license agreement with Iogen and Shell shall continue until expiration or termination of our license agreement with Shell or of Iogen's technology license agreement with Shell. Shell can terminate the collaborative research and license agreement for any or no reason by providing us and Iogen with 30 days notice. Each party also has the right to terminate the collaborative research and license agreement in the case of breach by another party if that breach is uncured within 60 days.

We have acquired access to a fungal expression system that is capable of producing biocatalysts at commercial scale through a license agreement with Dyadic International, Inc. and its affiliate, or Dyadic, in November 2008. Under the license agreement with Dyadic, we obtained a non-exclusive license relating to

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Dyadic's proprietary fungal expression technology for the production of biocatalysts. We also obtained access to specified materials of Dyadic relating to this Dyadic technology. Our license is sublicenseable to Shell in the field of biofuels. Each party agreed that neither it nor its affiliates or sublicensees will assert any claim of infringement of any patent covering improvements to the Dyadic materials that were made by that party or its affiliates or sublicensees against the other party, or its affiliates, sublicensees, successors, distributors, or customers. We agreed to pay Dyadic certain license issuance fees, milestone payments, and fees based on volume of product manufactured using this Dyadic technology. We have the right to terminate the license agreement at will upon notice after payment of the license issuance fees. Either party has the right to terminate the license agreement for a material breach of the other party that is uncured within a period of time after notice. Dyadic has the right to terminate our licenses under the license agreement if we challenge the validity of any of the patents licensed under the license agreement. Our licenses, and access to Dyadic's materials, under the license agreement will terminate as a result of any termination of the license agreement other than due to Dyadic's material breach.

Technology

We are innovators in the directed evolution of enzymes and microbes to enable industrial biocatalytic reactions and fermentations via biocatalyst engineering, metabolic pathway engineering and fermentation microbe improvement. Our technology platform has enabled commercially viable products and processes for the manufacture of pharmaceutical intermediates, and we are in the process of applying our technology platform in connection with the development of biofuels.

Our approach to developing commercially viable biocatalytic processes begins by conceptually designing the most economically practical manufacturing process for a targeted product. We then develop optimized biocatalysts to enable that process design, using our directed evolution technology, including screening and validating biocatalysts under relevant conditions. Typical design criteria include stability in the desired reaction conditions, biocatalyst activity and productivity (yield), ease of product isolation, product purity and cost. Alternative approaches to biocatalytic process development typically involve designing and engineering the biocatalytic processes around shortcomings of available biocatalysts, including, for example, biocatalyst immobilization (for stability and/or reuse), special equipment and costly product isolation and purification methods. We circumvent the need for these types of costly process design features by optimizing the biocatalyst for fitness in the desired process environment. As a result, we enable and develop cost-efficient processes that typically are relatively simple to run in conventional manufacturing equipment. This also allows for the efficient technical transfer of our process to our manufacturing partners.

The successful embodiment of our technology platform in commercial manufacturing processes requires well-integrated expertise in a number of technical disciplines. In addition to those directly involved in practicing our directed evolution technologies, such as molecular biology, enzymology, microbiology, cellular engineering, metabolic engineering, bioinformatics, biochemistry, and high throughput analytical chemistry, our process development projects also involve integrated expertise in organic chemistry, chemical process development, chemical engineering, fermentation process development, and fermentation engineering. Our tightly integrated, multi-disciplinary approach to biocatalyst and process development is a critical success factor for our company.

Enzyme Optimization Overview

The enzyme optimization process starts by identifying genes that code for enzymes known to have the general type of catalytic reactivity for a desired chemical reaction. Typically, we identify gene sequences in published databases and then synthesize candidate genes having those sequences. Using a variety of biotechnology tools, we diversify these genes by introducing mutations, giving rise to changes in the enzymes for which they encode. The methods for diversifying these genes, and types of diversity being tested, often vary over the course of a biocatalyst optimization program. For finding initial diversity,

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methods typically include random mutagenesis and site-directed (included structure-guided) mutagenesis. We also test mutational variations that distinguish related enzymes among different organisms. Once we have identified potentially beneficial mutations, we test combinations of these mutations in libraries made using our proprietary gene recombination methodologies, gene shuffling and multiplexed gene SOEing.

With our proprietary gene shuffling methodology, we generate libraries of genes that have random combinations of the mutations we are testing. The pool of genes is used to transform host cells, which entails introducing the various genes, one each, into host cells. These cells are then segregated and grown into colonies. Cells from individual colonies are cultured in high throughput to produce the enzyme encoded by the shuffled gene in those cells. The enzymes are then screened in high throughput using test conditions relevant to the desired process. The screening results identify individual shuffled genes that produce improved enzymes having combinations of beneficial mutations and weed out enzymes having detrimental ones. Using different test conditions and/or different analytical methods, we can identify variant enzymes that exhibit various improved performance characteristics, such as stability, activity and selectivity, under conditions relevant to the desired chemical process.

In the next step in our optimization process, we use our proprietary software tool, ProSAR, to analyze protein sequence-activity relationships. We initially licensed ProSAR from Maxygen and further developed and customized ProSAR to address our specific needs. ProSAR aids in identifying specific gene and enzyme mutations that are beneficial, neutral or detrimental with respect to the desired performance characteristics. Earlier directed evolution methods did not separately evaluate individual mutations in libraries of variants which carry multiple mutations, where beneficial and detrimental performance characteristics may be mixed in an individual gene or enzyme. Capitalizing on the advent of inexpensive gene sequencing, we are able to determine which particular mutations are present in the genes and proteins we have screened. Our ProSAR bioinformatics software relates the screening results to the mutations and ranks the individual mutations with regard to their degree of benefit or detriment, relative to whichever process parameter(s) the screening tested. Using that information, we can bias the pool of mutational diversity in the next iteration to further the accumulation of beneficial diversity and cancel out detrimental diversity in the individual genes in the resulting shuffled library. The ProSAR results also help us develop ideas about new diversity to test. ProSAR, combined with efficient gene synthesis and high quality library generation methods, has led to a significant increase in the efficiency and speed of enzyme improvement and optimization.

In another step of our optimization process, we take the best variants we have identified and prepare enough of each to test in the desired chemical process at laboratory scale, for in-process confirmation. This optimization routine is done iteratively, typically adding new diversity to the pool in each iteration. The gene that codes for the best performing enzyme in one iteration is used as the starting gene for the next iteration of shuffling and screening. As the enzymes improve over these iterations, the screening conditions are made increasingly more stringent. In this way, enzyme biocatalysts are rapidly optimized until all in-process performance requirements have been achieved and the economic objectives for the desired process have been met.

Multiplexed gene SOEing is our new proprietary methodology for rapidly generating gene variants. Using multiplexed gene SOEing, we rapidly generate collections of individual gene variants that have predetermined, as opposed to random, combinations of mutations we are testing. It is based on a biotechnology technique, which we refer to as SOEing, or Splicing by Overlap Extension, generally used to make a hybrid, or spliced, gene from fragments of two genes and/or to introduce a specific mutation into a splice between fragments of one gene. We have automated the process to robotically make, in parallel, one hundred to several hundred variants, each with a predetermined combination of the mutations we are testing. The variants are introduced into host cells, and the encoded enzyme is produced and screened in high throughput, as described above.

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Using multiplexed gene SOEing, we can test many mutations and combinations thereof in parallel, and because the mutation incorporation is controlled and predetermined before screening, as opposed to random incorporation and selection after screening, the resulting data set can be more optimal for ProSAR analysis.

We believe using multiplexed gene SOEing to quickly survey many mutations, followed by ProSAR-driven shuffling of beneficial mutations, is a particularly effective approach, providing rapid gains in enzyme performance.

Codex Biocatalyst Panels

Our Codex Biocatalyst Panels were initially developed to speed our own internal process for identifying enzymes with desired characteristics for further optimization. Each Codex Biocatalyst Panel is comprised of variants of one or more enzymes that catalyze one type of a generally useful chemical reaction. We assemble, on one or more microtiter sample plates, variants of a parent enzyme that we pre-optimize for stability in industrial chemical processes and for ready manufacturability. The variants are diversified to react to a variety of chemical structures that are susceptible to that type of chemical reaction.

Either we or our innovator pharmaceutical customers use the Codex Biocatalyst Panels to screen a new chemical structure against the assembled variants to rapidly identify variants that react with the new chemical structure. For some new structures, a variant on the panel could enable production of the desired product. We can also analyze the data from the panel screen using ProSAR to identify the mutations that are beneficial for the reaction of the new structure and further optimize the enzyme as needed using the enzyme optimization techniques described above. In cases where a customer wishes to screen a proprietary new chemical structure itself, we can produce a custom panel of new variants on a sample plate produced by multiplexed gene SOEing.

We may also use our Codex Biocatalyst Panels in our bioindustrial programs. In our biofuels research and development collaboration with Shell, we are developing a library of cellulases that have the potential to convert a wide variety of cellulosic biomass sources into fermentable sugars. The cellulosic biomass that we expect will be used to produce advanced biofuels is highly variable from region to region and can change over time. To optimize the local and seasonal conversion of cellulosic biomass to fermentable sugars, we expect to produce a Codex Biocatalyst Panel of cellulases that we or Shell can use to customize the biocatalysts that Shell uses at each advanced biofuel production facility. This technical innovation may ultimately make our sugar platform feedstock agnostic. Similarly, there is regional variation in coal. We may develop a Codex Biocatalyst Panel that we or our customers can use to tailor our carbon capture biocatalysts to the specific characteristics of the coal used in each energy facility that adopts our carbon capture technology.

Microbe Optimization using Gene Optimization

For fermentation microbes, we enhance metabolic pathways by using gene optimization to improve the production and/or productivity of one or more enzymes in a series of *in vivo* reactions that make a desired product. We optimize the gene/enzyme as described above using either *in vitro* or *in vivo* screening. For fermentation applications, the microbes containing the improved gene(s) are directly evaluated in laboratory scale fermenters.

The metabolic pathway may naturally exist in the microbe, but productivity and/or selectivity improvements are needed to economically produce more of the desired natural product and/or less of an undesired by-product. We can also introduce a new metabolic pathway to produce a desired product using our gene shuffling technology in combination with synthetic biology, a type of metabolic engineering in which new genes are introduced into a microbe.

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We are using our gene/enzyme optimization methodologies in our biofuels program to optimize fermentation microbes, including optimization of:

- native and introduced (non-native) cellulase genes for increased productivity in our cellulase production microbes;
- an introduced (non-native) pathway in yeast for the conversion of xylose, a cellulose-derived sugar, to ethanol; and
- an introduced (non-native) pathway in a microbe for the production of our biohydrocarbon fuel molecule.

Microbe Optimization using Whole Genome Shuffling

In addition to our gene optimization technology for enzymes, we have another complimentary technology in our platform for the optimization of fermentation microbes called Whole Genome Shuffling. Whole Genome Shuffling allows us to improve the performance of a fermentation microbe by shuffling unidentified mutations in unidentified genes across the genome. We start with a diversity of mutational variants of a fermentation organism, generated by conventional means such as random mutagenesis. Our Whole Genome Shuffling involves introducing the entire genome of two or more such cells into a single cell, in which the genetic machinery of the combined cell recombines, or shuffles, the genomes. In one method, this is accomplished by protoplast fusion, in which the cell walls are removed to leave the cells' contents contained only by their cell membranes. The cell membranes of these protoplasts in the diverse population are induced to fuse together into fusants containing the genome of two or more of the parent cells. From these fusants, we regenerate normal cells, each with one copy of a hybridized genome. Microbial colonies are then grown and screened for their performance in the fermentative production of the desired product. This process can be repeated, including with the introduction of new mutations, until the desired performance in the fermentation process is achieved. One of our collaborators is operating a fermentation process for a generic pharmaceutical product using microbes we developed by Whole Genome Shuffling.

We are using our Whole Genome Shuffling technology in our biofuels program to optimize fermentation microbes, including optimization of:

- enzyme production hosts for increased production of cellulase enzymes;
- ethanol-producing yeasts for improved xylose utilization, ethanol productivity, and tolerance to higher ethanol concentrations; and
- our biohydrocarbon producing strain for increased productivity.

Metabolic Engineering and Synthetic Biology

In addition to our proprietary enzyme and microbe optimization technologies, we have built expert capabilities in a suite of new metabolic engineering technologies for the development and optimization of fermentation microbes. These technologies are generally applicable to our pathway and strain engineering programs. Genomics, transcriptomics, proteomics and metabolomics all provide more in-depth analyses of the metabolic functioning of fermentation microbes, and differences between variants, to guide further improvements. In many cases, these analyses help to identify enzymes that need to be modified (removed, increased, stabilized, or otherwise modified) in order to increase the overall productivity and performance of the strain.

Synthetic biology involves the design, synthesis and introduction of new genetic programming to organisms for new biological functions. This field has rapidly developed in recent years as DNA synthesis and sequencing costs have rapidly dropped. Using synthetic biology, we are taking advantage of the exploding publicly available gene and genome sequence information in our gene and metabolic pathway

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optimization projects. This information is being leveraged by our ProSAR software and multiplexed gene SOEing methodologies. For example, we use synthetic biology in our biofuels program to introduce non-native pathways for xylose utilization and for biohydrocarbon production and to optimize these pathways.

License Agreement with Maxygen

In March 2002, we licensed from Maxygen core enabling technology. The license agreement was amended in September 2002, October 2002 and August 2006.

Under the terms of this license agreement, Maxygen granted us a worldwide, exclusive, license, with a right to sublicense, under certain Maxygen intellectual property related to the use of shuffling technology in a variety of fields of use. This license includes the right to develop, make, have made, use, import, have imported, offer for sale, sell, otherwise commercialize or distribute biocatalysts for the manufacture of generic and branded pharmaceuticals, certain classes of chemicals and certain applications related to energy and biofuels. Under the license agreement, Maxygen also provided us with certain biological materials to facilitate use of the gene shuffling technology. We can use the licensed Maxygen shuffling technology in a wide variety of organisms including algae, bacteria, cyanobacteria, fungi and yeasts, but we are restricted from using the technology in land plants. Our license is exclusive with respect to bacteria, yeast and fungi, but is nonexclusive with respect to algae and cyanobacteria. The Maxygen license extends for the lifetime of the patents included in the Maxygen intellectual property plus an additional 50 years for any know-how or materials included in the license agreement, unless earlier terminated.

The license agreement also specifically excludes us from certain activities. Under the terms of this license agreement, our license is subject to certain third-party rights in the Maxygen shuffling technology and we cannot utilize the licensed Maxygen shuffling technology for drug discovery or for the manufacture of protein-based therapeutics, such as antibodies.

Under the terms of our license agreement with Maxygen, we are obligated to pay Maxygen a significant portion of certain types of consideration we receive in connection with our biofuels research and development, including our collaboration with Shell. The actual fees payable to Maxygen will depend on the amount, timing and type of consideration we receive, including payments from the sale of our equity securities to Shell and payments in connection with the sale of fuel products made with a biocatalyst developed using the licensed technology and/or research and development activities.

If we directly commercialize an energy product that is made using any biocatalyst developed from the technology licensed from Maxygen, we will owe Maxygen a 2% royalty on our net sales of the energy product and on amounts received from any sublicense or third party for the use of the energy product, to the extent that we utilize such energy product to provide services to such sublicense or third party. If we sublicense our rights under the license agreement to a third party for the development and commercialization of an energy product, we will owe Maxygen 20% of all consideration we receive from any sublicensee. Specifically, we will owe Maxygen fees in connection with consideration we receive in the form of (1) up-front option and/or license fees, (2) FTE funding for biofuels research, (3) milestone payments, (4) payments from the sale of our equity securities and (5) payments in connection with the commercialization of energy products made with a biocatalyst developed using the licensed technology.

In the case of consideration received from the sale of our equity securities to Shell, we are obligated to pay Maxygen 20% of any excess paid above \$3.97 per share, the price per share of our Series D preferred stock. With regard to FTE funding, we are only obligated to pay Maxygen to the extent the consideration received exceeds a specified amount, which was initially \$ per year starting in November 2006, but is adjusted annually . We are also obligated to reimburse up to 20% of the costs incurred by Maxygen related to the prosecution and maintenance of the patents licensed from Maxygen relating to our core technology. Further, in the event that any subsidiary or affiliate of ours develops and/or sells any energy applications using the Maxygen technology, we are obligated to transfer to Maxygen a percentage

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of the value of the subsidiary or affiliate that is attributable to the Maxygen technology and give Maxygen an option to acquire a percentage of the other consideration that we invest in such affiliate or subsidiary.

In connection with all consideration received from Shell relating to our biofuels research and development collaboration, we were obligated to pay Maxygen \$7.8 million and \$1.0 million for 2007 and 2008, respectively, of which \$ and \$, respectively, were payments owed to Maxygen in connection with Shell's FTE funding. For the nine months ended September 30, 2008 and 2009, we were obligated to pay Maxygen \$0.6 million and \$4.2 million, respectively, of which \$ and \$, respectively, were payments owed to Maxygen in connection with Shell's FTE funding. The payments relating to FTE funding were less than 5% of the total FTE payments we received from Shell in those periods.

Maxygen granted Novo Nordisk A/S certain rights under its intellectual property on September 17, 1997. This grant was later amended and these rights were later assigned by Novo Nordisk to Novozymes A/S and by Maxygen to us. Under this license, Maxygen granted exclusive rights to Novozymes that are outside the field of use licensed to us by Maxygen. Maxygen also granted certain rights to Novozymes co-exclusively in other fields that could overlap with certain fields we are pursuing under our license, including biofuels. At a minimum, we enjoy co-exclusive rights in such fields and have sufficient rights for our collaborations and partnerships. Novozymes did not receive a license to all of the rights we are using in biofuels applications and which we believe are critical to pursuing such applications.

In exchange for this license, we issued a total of 999,000 shares of common stock and six million shares of Series A preferred stock to Maxygen. As of September 30, 2009, Maxygen beneficially owned approximately 21.6% of our common stock.

Intellectual Property

Our success depends in large part on our proprietary products and technology under which we seek protection from patent, copyright, trademark and trade secret laws. Such protection is also maintained using confidential disclosure agreements. Protection of our technologies is important for us to offer our customers and partners proprietary services and products unavailable from our competitors, and to exclude our competitors from practicing technology that we have developed or exclusively licensed from other parties. For example, our ability to supply innovator pharmaceutical manufacturers depends on our ability to supply proprietary enzymes or methods for making pharmaceutical intermediates or APIs that are not available from our competitors. Likewise, in the generic pharmaceutical area, proprietary protection, through patent, trade secret or other protection of our biocatalysts and methods of producing a pharmaceutical product is important for us and our customers to maintain a lower cost production advantage over competitors. If competitors in our industry have access to the same technology, our competitive position may be adversely affected. As of September 30, 2009, we owned or had licensed rights to approximately 235 issued patents and approximately 280 pending patent applications in the United States and in various foreign jurisdictions. Of the licensed patents and patent applications, most are owned by Maxygen and exclusively licensed to us for use in certain fields. These licensed patents and patent applications cover both enabling technologies, as well as patents covering products or methods of producing products. Our licenses to such patents allow us to freely practice the licensed inventions, subject only to the terms of these licenses. The issued patents covering the fundamental shuffling technologies have terms ending as late as 2019. As of September 30, 2009, we owned approximately 35 issued patents and approximately 110 pending patent applications in the United States and in various foreign jurisdictions. These patents and patent applications are directed to our enabling technologies and specific methods and products which support our business in the pharmaceutical and bioindustrial markets. In particular, some of our patents and patent applications are directed to intermediates and processes for the production of pharmaceuticals such as atorvastatin, montelukast and azetidinone compounds. Our U.S. issued patents directed to our enabling technologies have terms that expire from year 2021 to 2024. We continue to file new patent applications, for which terms generally extend 20 years from the filing date in the United States.

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We will continue to file and prosecute patent applications and maintain trade secrets as is consistent with our business plan in an ongoing effort to protect our intellectual property. It is possible that our current patents, or patents which we may later acquire, may be successfully challenged or invalidated in whole or in part. It is also possible that we may not obtain issued patents from our pending patent applications or other inventions we seek to protect. We sometimes permit certain intellectual property to lapse or go abandoned under appropriate circumstances. Due to uncertainties inherent in prosecuting patent applications, sometimes patent applications are rejected and we subsequently abandon them. It is also possible that we may develop proprietary products or technologies in the future that are not patentable or that the patents of others will limit or altogether preclude our ability to do business. In addition, any patent issued to us may provide us with little or no competitive advantage, in which case we may abandon such patent or license it to another entity.

Our registered and pending U.S. trademarks include Codexis, Codex and Codex Biocatalyst Panel. The Codexis and Codex design marks have been registered or are pending in selected foreign countries.

Our means of protecting our proprietary rights may not be adequate and our competitors may independently develop technology or products that are similar to ours or that compete with ours. Patent, trademark, and trade secret laws afford only limited protection for our technology platform and products. The laws of many countries do not protect our proprietary rights to as great an extent as do the laws of the United States. Despite our efforts to protect our proprietary rights, unauthorized parties have in the past attempted, and may in the future attempt, to operate under aspects of our intellectual property or products or to obtain and use information that we regard as proprietary. Third parties may also design around our proprietary rights, which may render our protected technology and products less valuable, if the design around is favorably received in the marketplace. In addition, if any of our products or technology is covered by third-party patents or other intellectual property rights, we could be subject to various legal actions. We cannot assure you that our technology platform and products do not infringe patents held by others or that they will not in the future.

Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement, invalidity, misappropriation, or other claims. Any such litigation could result in substantial costs and diversion of our resources. Moreover, any settlement of or adverse judgment resulting from such litigation could require us to obtain a license to continue to make, use or sell the products or technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology.

Competition

Overview

We are a leader in the field of directed molecular evolution of biocatalysts. We are aware that other companies, including Verenum Corporation (formed by the merger of Diversa Corporation and Celunol Corporation), Royal DSM N.V., or DSM, Danisco/Genencor, Novozymes, and E.I. DuPont De Nemours and Company, or DuPont, have alternative methods for obtaining and generating genetic diversity or use mutagenesis techniques to produce genetic diversity. Academic institutions such as the California Institute of Technology, the Max Planck Institute and the Center for Fundamental and Applied Molecular Evolution (FAME), a jointly sponsored initiative between Emory University and Georgia Institute of Technology, are also working in this field. This field is highly competitive and companies and academic and research institutions are actively seeking to develop technologies that could be competitive with our technologies.

We are aware that other companies, organizations and persons have described technologies that appear to have some similarities to our patented proprietary technologies. In addition, academic institutions are also working in this field. Technological developments by others may result in our products and technologies, as well as products developed by our customers using our biocatalysts, becoming obsolete.

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We monitor publications and patents that relate to directed molecular evolution to be aware of developments in the field and evaluate appropriate courses of action in relation to these developments.

Many of our competitors have substantially greater manufacturing, financial, research and development, personnel and marketing resources than we do. In addition, certain of our competitors may also benefit from local government subsidies and other incentives that are not available to us. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, which could lead to litigation.

We also face differing forms of competition in our various markets, as set forth below:

Pharmaceuticals

Our primary competitors in the pharmaceutical market are companies using conventional, non-biocatalytic processes to manufacture pharmaceutical intermediates and APIs that compete in the marketplace with our biocatalytically manufactured products. The market for the manufacture and supply of APIs and intermediates is large with many established players. These companies include many of our large innovator and generic pharmaceutical customers, such as Merck, Pfizer, and Teva, who have significant internal research and development efforts directed at developing processes to manufacture APIs and intermediates. The processes used by these companies include classical conventional organic chemistry reactions, chemo catalysis reactions catalyzed by chemical catalysts, or biocatalytic routes using commercially available enzymes, or combinations thereof. Our manufacturing processes must compete with these internally developed routes. Additionally, there are many large well-established fine chemical manufacturing companies that compete to supply pharmaceutical intermediate and APIs to our customers, such as DSM, BASF Corporation and Lonza Group Ltd. Finally, we face increasing competition from generic pharmaceutical manufacturers in low cost centers such as India and China.

In addition to competition from companies manufacturing intermediates and APIs, we face competition from companies that sell biocatalysts for use in the pharmaceutical market. The market for supplying biocatalysts for use in pharmaceutical manufacturing is quite fragmented. There is competition from large industrial enzyme companies, such as Novozymes and Amano Enzyme Inc., whose industrial enzymes (for detergents, for example) are occasionally used in pharmaceutical processes. There is also competition in this area from several small European companies with relatively limited product offerings comprised primarily of naturally occurring biocatalysts. In addition to these biocatalyst supply companies, there is a separate group of small companies, also predominately in Europe, that offers biocatalyst optimization services.

We believe that our principal advantage is our ability to rapidly deliver customized biocatalyst products for existing and new APIs in the pharmaceuticals market. This capability has allowed us to create a breadth of product offerings with improved performance characteristics including, for example, activity, stability, and activity on a range of substrates, compared to traditional chemistry-based manufacturing processes and naturally occurring biocatalysts. We believe that our directed evolution technology provides substantially superior results, in shorter time frames, than companies offering competing biocatalyst development services.

Bioindustrials

There is increasing interest and activity in the bioindustrial market directed towards developing alternative manufacturing processes for products that have traditionally been derived from fossil fuel sources, such as transportation fuels and chemicals.

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Currently, most biofuels being produced at commercial scale are ethanol derived from sugar and starch food sources, such as sugar cane and corn, and biodiesel produced from vegetable oils, such as soy oil. These markets are well-established with multiple companies, such as The Archer Daniels Midland Company, Cargill and a number of smaller companies producing ethanol in the United States.

Many established and several recently formed companies are developing biofuels technology and have forged relationships or ventures to develop and commercialize their technologies, including:

- Novozymes, which has partnered with a number of companies and organizations on a regional basis to develop or produce biofuels, and recently opened a biofuel demonstration plant with Inbicon A/S of Denmark;
- Danisco/Genencor, which has formed a joint venture with DuPont, called DuPont Danisco Cellulosic Ethanol, or DDCE, is marketing a line of cellulases to convert biomass into sugar;
- DSM, which received a grant from the U.S. Department of Energy to be the lead partner in a technical consortium including Abengoa Bioenergy New Technologies, is developing cost-effective enzyme technologies;
- Mascoma Corporation has entered into a feedstock processing and lignin supply agreement with Chevron Technology Ventures, a division of Chevron U.S.A., Inc.; and
- Verenum, which has entered into a research and development collaboration with BP, p.l.c and formed a joint venture with BP called Vercipia Biofuels to develop a commercial scale cellulosic ethanol facility.

Although no company is currently converting cellulosic biomass into fermentable sugars at commercial scale, many of our competitors have been active in this area for many years, have invested significant resources in this effort, and have extensive patent portfolios regarding the relevant biocatalysts and related processes. In addition, several companies are focused on developing non-biocatalytic, thermochemical processes to convert cellulosic biomass into fermentable sugars. Our routes from cellulosic biomass to fermentable sugars will need to be cost-competitive with all of these alternative sources and routes. There are also many companies active in the area of producing non-ethanol biofuels from fermentable sugars. For example, DuPont has announced plans to develop and market biobutanol through Butamax, a joint venture with BP, while other companies such as Amyris Biotechnologies Inc., or Amyris, Gevo Inc. and LS9, Inc. are working on biocatalytic routes to non-ethanol biofuel alternatives to petroleum-based fuels. Virent Energy Systems and Shell also have a joint collaboration to develop thermochemical catalytic routes to biogasoline directly from sugars. Range Fuels Inc. is also focused on developing non-biocatalytic thermochemical processes to convert cellulosic biomass into fuels, and Coskata, Inc. is developing a hybrid thermochemical-biocatalytic process to produce ethanol from a variety of feedstocks. New companies are being founded in this area at an increasing rate. Many of these companies are actively developing and applying for intellectual property rights, including patent rights, in this space.

Our ability to remain competitive in this area will depend on our ongoing technical success in identifying and developing novel biocatalytic routes to fuel products that are cost-competitive not only with other biofuels but with petroleum-based fuels. Several of our competitors, including Amyris, utilize synthetic biology techniques to develop their products. Because these techniques have been in the public domain for many years, we are able to use these techniques together with our gene and genome directed evolution technologies. We believe that one of our principal advantages, particularly in the bioindustrial space, is that our directed evolution technology may enable us to develop new, more efficient, and therefore more cost-effective, biocatalysts and processes in less time than our competitors.

As we pursue opportunities in other bioindustrial markets, we expect to face competition from numerous companies focusing on developing biocatalytic and other solutions for these markets, including a number of the companies described above.

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Operations

We conduct substantial operations outside of the United States. Please see Note 14 of our consolidated financial statements appearing elsewhere in this prospectus for a description of our revenues and long-lived assets outside of the United States. We have facilities located throughout the world, including in Redwood City, California, Singapore, and Budapest, Hungary. As of September 30, 2009, we employed 300 people worldwide, with 206 of our employees located in Redwood City.

Our corporate headquarters is located in Redwood City and provides general administrative support to our business and is the center of our manufacturing and research and development operations. In 2007, we established a research and development facility in Singapore to reduce our pharmaceutical research and development costs and to take advantage of the highly educated and skilled labor force in Singapore. In 2008, we established our facilities in Budapest, Hungary to create a research and development center for microbial biocatalyst improvement and fermentation development and to reduce our research and development costs. Hungary also has a highly educated and skilled work force that leverages the long history of fermentation development in Eastern Europe. Our facilities in Hungary are currently used exclusively for biofuels research and development.

Our research and development operations include efforts directed towards biocatalyst evolution, bioprocess development, cellular engineering, biocatalyst screening, metabolites, strain improvement, fermentation development and process engineering. We conduct enzyme evolution, enzyme production development, microbial bioprocess development, cellular engineering, microbial evolution and process engineering evaluations and design primarily at our headquarters in Redwood City. We also conduct biocatalyst evolution, biocatalyst screening and bioprocess development in Singapore. Our facility in Hungary collaborates with our headquarters in Redwood City in research and development activities relating to microbe improvement and is our center of excellence for strain and fermentation development. For more information on our research and development expenses, including expenses funded by our collaborative partners, see “Management’s Discussion and Analysis of Financial Condition and Results of Operations — Revenues and Operating Expenses — Research and Development Expenses” included elsewhere in this prospectus.

We have limited internal manufacturing capacity at our headquarters in Redwood City. We expect to rely on third-party manufacturers for commercial production of our biocatalysts for the foreseeable future. Our in-house manufacturing is dedicated to producing both our Codex Biocatalyst Panels and biocatalysts for use by our customers in pilot scale production. We also supply initial commercial quantities of biocatalysts for use by our collaborators to produce pharmaceutical intermediates and manufacture biocatalysts that we sell.

We rely on two primary contract manufacturers, CPC Biotech srl, or CPC, and Lactosan GmbH & Co. KG, or Lactosan, to manufacture all of the commercial enzymes used in our pharmaceutical business. We have qualified other contract manufacturers to manufacture biocatalysts for our pharmaceutical business, but we do not currently rely on them for any of our supply requirements. We also rely on Arch, headquartered in Mumbai, India, to manufacture certain of our pharmaceutical intermediates and APIs as well as to provide sales and marketing support for these products in Asia, Latin America and the Middle East, and marketing support for these products in India, the United States, Canada, Europe and Israel. In addition, we contract with other suppliers in Austria, Germany, Italy and India.

We continue to evaluate whether to develop internal capabilities to manufacture biocatalysts at commercial scale. To increase our biocatalyst manufacturing capacity, we may invest in our own manufacturing capabilities through the construction of additional manufacturing facilities. The factors we will consider in deciding whether to expand our internal manufacturing capabilities include the costs associated with developing and maintaining such capabilities, the time required to develop such capabilities, potential locations for manufacturing sites, including proximity to existing customers, taxes associated with manufacturing activities and local incentives.

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Facilities

Our headquarters is located in Redwood City, where we occupy approximately 87,000 square feet of office and laboratory space. The term of the lease expires in January 2011 for one part of our facilities, in April 2012 for another part and March 2013 for the third part. We have one option to extend the lease for an additional term of five years for each part, provided that we provide notice to the landlord at least nine months prior to the expiration of the initial term of the lease for each part. We believe that the facilities that we currently lease are adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth.

In Singapore, we occupy approximately 1,900 square meters of office and laboratory space within Singapore Science Park II. The term of the lease expires in July 2010. We have an option to extend the lease for an additional term of three years. We believe that the facilities that we currently lease in Singapore are adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth.

In Hungary, we occupy approximately 900 square meters of office and laboratory space. The term of the lease expires in July 2013. We have an option to extend the lease for an additional term of five years. We believe that the facilities that we currently lease are adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth.

Employees

As of September 30, 2009, we employed 300 full-time employees. Of the full-time employees, 185 were engaged in research and development, 51 were engaged in manufacturing and operations, and 64 were engaged in general and administrative activities, respectively. We plan to continue to expand our research and development activities. To support this growth, we will need to expand managerial, research and development, operations, finance and other functions. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Legal Proceedings

We are not currently a party to any material litigation or other material legal proceedings.

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MANAGEMENT

Executive Officers, Key Employees and Directors

The following table sets forth certain information about our executive officers, key employees and directors, as of December 1, 2009.

<u>Name</u>	<u>Age</u>	<u>Position</u>
<u>Executive Officers</u>		
Alan Shaw	46	President and Chief Executive Officer, Director
Robert J. Lawson	45	Senior Vice President and Chief Financial Officer
David L. Anton	56	Senior Vice President, Research and Development
Joseph J. Sarret	42	Chief Business Officer and President, Pharmaceutical Services and Enzyme Products
Douglas T. Sheehy	42	Senior Vice President, General Counsel and Secretary
<u>Key Employees</u>		
John H. Grate	57	Senior Vice President, Science and Innovation and Chief Science Officer
Michael J. Knauf	50	Vice President and General Manager, Bioindustrials
<u>Directors</u>		
Thomas R. Baruch(1) (2) (3)	71	Chairman, Board of Directors
Alexander A. Karsner	42	Director
Bernard J. Kelley(1) (2)	68	Director
Bruce Pasternack(1) (3)	62	Director
Chris Streng	43	Director
James R. Sulat	59	Director
Dennis P. Wolf(2) (3)	56	Director
Mun Yew Wong	38	Director

(1) Member of the Compensation Committee.

(2) Member of the Audit Committee.

(3) Member of the Nominating and Corporate Governance Committee.

Alan Shaw, Ph.D., has served as President of Codexis since its inception and Chief Executive Officer since 2002. He has been a member of our board of directors since 2002. Prior to Codexis, Dr. Shaw was Head of New Business Development for Clariant and Managing Director for Lancaster Synthesis and prior to Clariant's acquisition of BTP plc, Chief Operating Officer of Archimica, the pharmaceutical chemicals division of BTP plc. From 1994 to 1999, he was with Chiroscience Group plc, most recently as Managing Director of the pharmaceutical services unit, Chiretech Technology Limited, and a member of the board of directors of Chiroscience Ltd. Earlier in his career, Dr. Shaw held various scientific and management positions for over 15 years at Imperial Chemical Industries PLC (ICI)/Zeneca. Dr. Shaw serves on the board of directors of BIO, the biotechnology industry trade association, and is chair of the BIO Industrial and Environmental Section. He holds a B.S. in chemistry from Teesside University, England and a Ph.D. in chemistry from the University of Durham, England. Dr. Shaw is a Fellow of the Royal Society of Chemistry (FRSC, C.Chem.) and the Chartered Institute of Marketing (FCIM, Chartered Marketer).

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Robert J. Lawson has served as Senior Vice President and Chief Financial Officer since November 2009. Prior to joining Codexis, Mr. Lawson was most recently Vice President, Finance-Consumer Group of Intuit. While at Intuit from 2001 to November 2009, Mr. Lawson held various senior financial management positions, including Vice President, Investor Relations and Financial Planning and Analysis and Vice President, Finance-Small Business and Personal Finance. Prior to Intuit, Mr. Lawson served for 15 years in various financial management roles at General Electric. He holds a B.S. in business from Iowa State University.

David L. Anton, Ph.D., has served as Senior Vice President, Research and Development since May 2009. He joined Codexis in March 2008 as Vice President, Research and Development, for Codexis Bioindustrials. Dr. Anton has over 25 years experience directing development of new technology solutions and production processes. He joined DuPont in 1983, and held a variety of senior research management positions across bioprocessing and biocatalysis. He holds a B.S. in biochemistry from the University of California, Berkeley, and a Ph.D. in biochemistry from the University of Minnesota.

Joseph J. Sarret, M.D., J.D., has served as Chief Business Officer and President, Pharmaceutical Services and Enzyme Products since October 2009. He joined Codexis in 2005 as Corporate Counsel and Director, Business Development and was promoted to Vice President, Corporate Development in 2007 and Senior Vice President, Corporate Development in October 2009. Previously, he was an associate at Latham & Watkins LLP. He also served as attending physician and later Acting Medical Director for the HIV Clinic at the University of California, San Francisco Medical Center. Dr. Sarret is a graduate of both the University of California, San Francisco School of Medicine and Stanford Law School. He holds a B.A. in human biology from Stanford, where he graduated Phi Beta Kappa.

Douglas T. Sheehy has served as Senior Vice President, General Counsel and Secretary of Codexis since November 2009. He joined Codexis in April 2007 as Vice President, General Counsel and Secretary. Prior to Codexis, Mr. Sheehy spent five years at CV Therapeutics, Inc. in various positions, most recently as Executive Director, Legal — Corporate Law. Prior to that, Mr. Sheehy served as an attorney with the law firms of Gunderson Dettmer LLP and Brobeck Phleger & Harrison LLP. Mr. Sheehy holds a B.A. in history from Dartmouth College and a J.D. from American University.

John H. Grate, Ph.D., has served as Chief Science Officer and Senior Vice President, Science and Innovation since May 2009. From December 2007 to May 2009, Dr. Grate served as Chief Technology Officer and Senior Vice President, Technology and Innovation of Codexis. From July 2005 to December 2007, Dr. Grate served as Senior Vice President, Research and Development, and Chief Technology Officer of Codexis, and from September 2002 to July 2005, Dr. Grate served as Vice President, Research and Development and Chief Technology Officer. Prior to his employment with Codexis, Dr. Grate was an independent consultant and a member of Codexis' Industrial Advisory Board. Previously, Dr. Grate held various research and development leadership positions in his 20 years at Catalytica, Inc. He was founding Vice President of Research and Development for the subsidiary, Catalytica Pharmaceuticals, Inc., until its acquisition by Royal DSM N.V. in early 2001. Dr. Grate is a registered U.S. Patent Agent. He holds a B.S. in chemistry from Miami University (Ohio) and a Ph.D. in chemistry from the University of California, San Diego.

Michael J. Knauf has served as Vice President and General Manager, Bioindustrials since April 2007. He joined Codexis from Lallemand Specialties, where he was General Manager of the Ethanol Technology business unit from June 2005 to March 2007. Previously, he served for nearly 20 years with Genencor, where he rose to Director and Industry Manager for Fermentation Alcohol Enzymes. Mr. Knauf holds a B.S. in biochemistry and biophysics and a master's degree in food science from the University of California, Davis.

Thomas R. Baruch has served as a director of Codexis since 2002. Mr. Baruch is the founder and a managing director of CMEA Ventures, a venture capital firm that was established in 1989 as an affiliated fund of New Enterprise Associates. Mr. Baruch is currently on the board of directors of Entropic

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Communications, Inc., and several private companies. Before starting CMEA Ventures, Mr. Baruch was a founder and Chief Executive Officer of Microwave Technology, Inc., a supplier of gallium arsenide integrated circuits. Prior to his employment with Microwave Technology, Inc., Mr. Baruch managed a dedicated venture fund at Exxon Corp, and was president of the Exxon Materials Division. Earlier in his career, Mr. Baruch worked as a patent attorney and remains a registered patent attorney. He is also both a member of the Executive Committee of the Council of Competitiveness and a member of the Steering Committee of the ESIS Initiative (Energy, Security, Innovation and Sustainability) of the Council of Competitiveness. Mr. Baruch is a member of the board of trustees of Rensselaer Polytechnic Institute and the board of trustees of the Berkeley Institute of Synthetic Biology. Mr. Baruch holds a B.S. in engineering from Rensselaer Polytechnic Institute and a J.D. from Capital University.

Alexander A. Karsner has served as a director of Codexis since December 2009. He is currently Chief Executive Officer of Manifest Energy, LLC, a clean energy infrastructure development and finance company. Mr. Karsner served as Assistant Secretary for Energy Efficiency and Renewable Energy at the U.S. Department of Energy from March 2006 to August 2008. From April 2002 to March 2006, Mr. Karsner was Managing Director of Enercorp LLC, a private company involved in international project development, management and financing of renewable energy infrastructure. Mr. Karsner has also worked with Tondy Energy Systems of Texas, Wartsila Power Development of Finland and other multi-national energy firms and developers. Mr. Karsner is a director of Applied Materials, Inc., Conservation International, Argonne National Laboratory, the Gas Technology Institute, the National Marine Sanctuaries Foundation and is on the advisory board of Hudson Clean Energy and the Automotive X Prize. He is a Distinguished Fellow at the Council on Competitiveness and a leader of the Energy Future Coalition. Mr. Karsner earned a Masters degree at Hong Kong University and a Bachelors degree with honors from Rice University.

Bernard J. Kelley has served as a director of Codexis since April 2004. From 1993 to 2002, Mr. Kelley was the President of the Merck Manufacturing Division, a division of Merck & Co., Inc., and he served as a member of the Merck Management Committee from 1995 to 2002. Mr. Kelley currently serves on the board of directors, compensation and audit committees of MAP Pharmaceuticals, Inc., a biotechnology company, and previously served on the board of directors of Aegis Analytical Corporation, an enterprise software company, from 2004 to 2006. He holds a B.S. in engineering from the U.S. Naval Academy.

Bruce Pasternack has served as a director of Codexis since August 2007. Mr. Pasternack is currently a venture partner of CMEA Capital. From June 2005 to May 2007, Mr. Pasternack served as the President and Chief Executive Officer of Special Olympics, Inc. Prior to his employment with Special Olympics, Inc., Mr. Pasternack spent more than 28 years at Booz Allen Hamilton Inc., where his last position was Senior Vice President and Managing Partner of its San Francisco office. From 1973 to 1976, he served as Associate Administrator for Policy and Program Evaluation at the Federal Energy Administration, and Staff Director of the President's Energy Resources Council. From 1972 to 1973, he served on the staff of the President's Council on Environmental Quality in the Executive Office of the President. From 1968 to 1972, he was a systems engineer at General Electric. Mr. Pasternack is a director of Quantum Corporation and Symyx Technologies, Inc., a member of the board of trustees of The Cooper Union and has previously served on the board of directors of BEA Systems, Inc. and the Special Olympics, Inc. At Symyx Technologies, he is Lead Director and Chairman of the Compensation Committee. At Quantum Corporation, he is a member of the Compensation Committee. He holds a B.E. from The Cooper Union and a M.S.E. from the University of Pennsylvania.

Chris Streng has served as a director of Codexis since March 2009. He is currently employed by Shell Downstream Inc., an affiliate of Royal Dutch Shell plc and its affiliated companies, or the Shell Group, where he has served as Vice President Finance Manufacturing since 2007 and is based in Houston, Texas. In such position, he is responsible for finance for refinery and petrochemical plants in the Shell Group

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worldwide. From 2005 to 2007, Mr. Streng was Vice President Group Planning & Appraisal, based in The Hague, The Netherlands. He joined the Shell Group in 1990, and has held financial management positions in the Shell Group's exploration and production, refining and chemicals businesses, as well as the mergers & acquisitions and treasury functions in The Netherlands, the United Kingdom, Norway and the United States. He also serves as a director or in an equivalent position for certain refining joint ventures in which Shell Group companies are owners. Mr. Streng holds a master's degree in finance from the London Business School and graduated in business engineering from the University of Twente, The Netherlands.

James R. Sulat has served as a director of Codexis since October 2009. He was named Chief Executive Officer and Chief Financial Officer of Maxygen in 2009. He has served as a director of Maxygen since 2003. He served as Chief Financial Officer of Memory Pharmaceuticals Corp., a biotechnology company in 2008, and Chief Executive Officer from 2005 to 2008. Mr. Sulat was Senior Executive Vice President and Interim Chief Financial Officer of R.R. Donnelley & Sons Co., a diversified printing company, from February 2004 until May 2004. From April 2003 to February 2004, Mr. Sulat was Senior Executive Vice President of Moore Wallace Incorporated, a diversified printing company that was acquired by R.R. Donnelley in 2004. From April 1998 to April 2003, Mr. Sulat was Vice President and Chief Financial Officer of Chiron Corporation, a biotechnology company. Mr. Sulat is also a director of Momenta Pharmaceuticals, Inc., a publicly-traded biotechnology company focused on the development of protein pharmaceuticals, and Intercell AG, a developer of vaccines for the prevention and treatment of major infectious diseases that is listed on the Vienna Stock Exchange. Mr. Sulat holds a B.S. from Yale University, an M.B.A. from Stanford University and an M.S. in health services administration from Stanford University.

Dennis P. Wolf has served as a director of Codexis since December 2007. Mr. Wolf serves as Senior Vice President and Chief Financial Officer of Fusion-io Multisystems. Previously, Mr. Wolf served as Executive Vice President and CFO of MySQL AB. Prior to MySQL, Mr. Wolf held financial management positions for public high technology companies including Apple Computer, Inc., Centigram Communications, Inc., Credence Systems Corporation, Omnicell, Inc., Redback Networks Inc. and Sun Microsystems, Inc. Mr. Wolf is a director of Bigband Networks and Quantum Corporation, and has been a director and chair of the audit committee for public companies including Avanex Corporation, Komag, Inc. and Vitria Technology, Inc. He holds a B.A. from the University of Colorado and an M.B.A. from the University of Denver.

Mun Yew Wong, M.D., has served as a director of Codexis since October 2009. He is Director (Investments), San Francisco Centre for EDB Investments Pte Ltd, or EDB Investments, and Bio*One Capital Pte Ltd, or Bio*One. Dr. Wong is experienced in clinical medicine as a family physician, and was a founder of a number of start-up companies in the fields of education, healthcare and medical tourism prior to joining Bio*One in 2005. He has served on boards of Bio*One portfolio companies NeuroVision Pte Ltd, KOOPrime Pte Ltd in Singapore and Amaranth Medical Inc. in the U.S. In February 2007, he was appointed as Director (Investments) at Bio*One's U.S. office in the San Francisco Bay Area, focusing on the biomedical sciences sector. In addition to his role at Codexis, he is a board observer for Fluidigm Corporation, Pelikan Technologies, Inc., Kalobios Pharmaceuticals Inc., Broncus Technologies, Inc., Adamas Pharmaceuticals, Inc., Panomics, Inc. (acquired by Affymetrix), Innovalight, Inc. and Revance Therapeutics, Inc. He has held a concurrent appointment as Director (Investments) at EDB Investments since January 2009, expanding his portfolio coverage to the clean technologies and digital media sectors in the United States. He holds an M.D. from the National University of Singapore.

Board Composition

Our board of directors may establish the authorized number of directors from time to time by resolution. Ten directors are authorized and we currently have nine directors, of which five are designated by the current holders of our preferred stock, three are designated by the current holders of our preferred and common stock, and one also serves as our Chief Executive Officer. Dr. Wong and Mr. Sulat will resign

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from our board of directors in connection with the closing of our initial public offering. Of the members of our board of directors, Messrs. Baruch, Kelley, Pasternack, Wolf and Dr. Wong are independent directors as defined under the applicable rules and regulations of the Securities and Exchange Commission, or the SEC, and The Nasdaq Stock Market.

Under the terms of our amended and restated certificate of incorporation and the voting agreement among us and the holders of our preferred stock, the members of our board of directors are to be designated as follows: Equilon Enterprises LLC dba Shell Oil Products US, or Shell, has the right to designate two members; Biomedical Sciences Investment Fund Pte Ltd, CMEA Ventures Life Sciences 2000, L.P., FirstMark III, L.P. and Maxygen, Inc., each have the right to designate one member; one member shall be our Chief Executive Officer; and the remainder shall be designated with the consent of the parties holding a majority of the outstanding common and preferred stock. Upon the consummation of this offering, all of these provisions will terminate, except that for a ten-year period Shell will have the right to designate one board member for so long as: Shell holds at least 50% of the total number of shares of common stock issued upon conversion of the preferred stock purchased by Shell, and at least 5% of our fully diluted number of shares of common stock outstanding, and the collaborative research agreement between us and Shell has not expired or been terminated. The designee of Shell will be subject to the reasonable approval of a majority of the members of the board of directors.

In accordance with our amended and restated certificate of incorporation to take effect following the completion of this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. After the completion of this offering, our directors will be divided among the three classes as follows:

- the Class I directors will be _____, _____ and _____, and their terms will expire at the annual meeting of stockholders to be held in 2011;
- the Class II directors will be _____, _____ and _____, and their terms will expire at the annual meeting of stockholders to be held in 2012; and
- the Class III directors will be _____, _____ and _____, and their terms will expire at the annual meeting of stockholders to be held in 2013.

Our amended and restated certificate of incorporation will provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change of control at our company.

Board Committees

Our board of directors has the following committees: an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Our audit committee oversees our corporate accounting and financial reporting process. Among other matters, the audit committee appoints the independent registered public accounting firm; evaluates the

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independent registered public accounting firm's qualifications, independence and performance; determines the engagement of the independent registered public accounting firm; reviews and approves the scope of the annual audit and the audit fee; discusses with management and the independent registered public accounting firm the results of the annual audit and the review of our quarterly consolidated financial statements; approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent registered public accounting firm on our engagement team as required by law; reviews our consolidated financial statements and our management's discussion and analysis of financial condition and results of operations to be included in our annual and quarterly reports to be filed with the SEC, reviews our critical accounting policies and estimates; and annually reviews the audit committee charter and the committee's performance. The current members of our audit committee are Thomas R. Baruch, Bernard J. Kelley and Dennis P. Wolf. Mr. Wolf serves as the chairman of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and The Nasdaq Stock Market. Our board of directors has determined that Mr. Wolf is an audit committee financial expert as defined under the applicable rules of the SEC and has the requisite financial sophistication as defined under the applicable rules and regulations of The Nasdaq Stock Market. Each of the members of our audit committee, except Mr. Baruch, qualifies as an independent director under the applicable rules and regulations of the SEC and The Nasdaq Stock Market relating to audit committee independence. Within one year from the date of effectiveness of our initial public offering registration statement, our board of directors intends to replace Mr. Baruch as a member of our audit committee with a person who will meet these heightened independence standards. The audit committee operates under a written charter that satisfies the applicable standards of the SEC and The Nasdaq Stock Market.

Compensation Committee

Our compensation committee reviews and recommends policies relating to compensation and benefits of our officers and employees. The compensation committee reviews and approves corporate goals and objectives relevant to compensation of our Chief Executive Officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives, and sets the compensation of these officers based on such evaluations. The compensation committee also recommends to our board of directors the issuance of stock options and other awards under our stock plans. The compensation committee will review and evaluate, at least annually, the performance of the compensation committee and its members, including compliance of the compensation committee with its charter. The current members of our compensation committee are Thomas R. Baruch, Bernard J. Kelley and Bruce Pasternack. Mr. Pasternack serves as the chairman of the committee. Each of the members of our compensation committee is an independent or outside director under the applicable rules and regulations of the SEC, The Nasdaq Stock Market and the Internal Revenue Code of 1986, as amended, relating to Compensation Committee independence. The compensation committee operates under a written charter.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee is responsible for making recommendations to our board of directors regarding candidates for directorships and the size and composition of our board of directors. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies and reporting and making recommendations to our board of directors concerning governance matters. The current members of our nominating and corporate governance committee are Thomas R. Baruch, Bruce Pasternack and Dennis P. Wolf. Mr. Baruch serves as the chairman of the committee. Each of the members of our nominating and corporate governance committee is an independent director under the applicable rules and regulations of the SEC and The Nasdaq Stock Market relating to nominating and corporate governance committee independence. The nominating and corporate governance committee operates under a written charter.

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There are no family relationships among any of our directors or executive officers.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time during the prior three years been an officer or employee of ours. None of our executive officers currently serves or in the prior three years has served as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Code of Business Conduct and Ethics

We will adopt a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. The code of business conduct and ethics will be available on our website at www.codexis.com. We expect that any amendments to the code, or any waivers of its requirements, will be disclosed on our website.

Director Compensation

In June 2007, our board of directors adopted an Independent Director Compensation Plan pursuant to which those directors designated as directors who are not affiliated with the Company's major stockholders by the board of directors for purposes of the Independent Director Compensation Plan were entitled to receive an annual cash retainer of \$35,000, paid in semi-annual installments on June 30 and December 31 of each year, and the reimbursement of any actual out-of-pocket expenses. In addition, the Independent Director Compensation Plan provides for the grant of an annual option to purchase 25,000 shares of our common stock, to be granted at the first board of directors meeting of each year. These options vest as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option monthly thereafter until all shares are vested, subject to the continued service of the director on the board of directors. Pursuant to the Independent Director Compensation Plan, each of Messrs. Kelley, Pasternack and Wolf were granted an option to purchase 25,000 shares of our common stock on each of January 29, 2008 and June 2, 2009 with a per share exercise price of \$7.00 and \$4.97, respectively, which our board of directors determined was the per share fair market value of our common stock as of the respective date of grant.

Following the completion of this offering, each non-employee director shall receive an annual cash retainer of \$35,000 per year. Such directors shall also receive an additional annual cash retainer of \$5,000 per year for being a member of our compensation committee, except that the chairperson of our compensation committee shall receive an additional annual cash retainer of \$10,000 per year. Non-employee directors shall also receive an additional annual cash retainer of \$4,000 per year for being a member of our nominating and corporate governance committee, except that the chairperson of our nominating and corporate governance committee shall receive an additional annual cash retainer of \$8,000 per year. Non-employee directors shall also receive an additional annual cash retainer of \$7,500 per year for being a member of our audit committee, except that the chairperson of our audit committee shall receive an additional annual cash retainer of \$15,000 per year.

Upon election to our board of directors, each non-employee director shall receive an initial option grant of an option to purchase 20,000 shares of our common stock with a per share exercise price equal to the per share closing trading price of our common stock on the date of grant. Such initial option grant shall be vested and become exercisable as to 1/4th of the total number of shares subject to the option on the first anniversary of the date the director commences service on our board of directors, with the remainder of the option vesting and becoming exercisable at a rate of 1/48th of the total number of shares subject to the option each month thereafter. On the date of each annual meeting of stockholders beginning in 2010, each non-employee director who has served at least six months on our board of directors shall also receive an annual grant of an option to purchase 12,000 shares of our common stock with a per share exercise price

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equal to the per share closing trading price of our common stock on the date of grant. Such annual option grant shall be vested and become exercisable as to one twelfth of the total number of shares subject to the option on each monthly anniversary of the date of grant.

From August 2009, after the termination of employment of our former Chief Financial Officer, until October 31, 2009, Mr. Wolf provided additional services as chairman of the audit committee. Mr. Wolf received \$5,000 per week for these additional services, which were limited to consulting with and advising management on accounting and financial matters.

Director Compensation Table

The following table sets forth information regarding compensation earned by our non-employee directors during the fiscal year ended December 31, 2008.

Name	Fees Earned or Paid in Cash (\$)	Option Awards \$(1)	Total (\$)
Thomas R. Baruch	\$ —	\$ —	\$ —
Russell J. Howard, Ph.D.	—	—	—
Bernard J. Kelley	35,000	20,385	55,385
Bruce Pasternack	47,082	34,836	81,918
William P. Rothwell, Ph.D.	—	—	—
Dennis P. Wolf	36,917	36,993	73,910

- (1) Amount reflects the total compensation expense for the year ended December 31, 2008 calculated in accordance with Statement of Financial Accounting Standard Board Accounting Standards Codification Topic 718, "Stock Compensation," or ASC Topic 718. The valuation assumptions used in determining such amounts are described in Note 2 to our financial statements included in this prospectus. The grant date fair value of each of the options to purchase 25,000 shares of our common stock granted on January 29, 2008 to Messrs. Kelley, Pasternack and Wolf is \$83,632.50, in each, as computed in accordance with ASC Topic 718 using the valuation assumptions set forth in Note 1 to our financial statements included in this prospectus. As of December 31, 2008, Mr. Kelley, Mr. Pasternack and Mr. Wolf had outstanding option awards to purchase an aggregate of 82,500, 50,000 and 50,000 shares, respectively.

Executive Compensation

Compensation Discussion and Analysis

Our executive compensation program is designed to attract talented individuals to lead, manage and operate all aspects of our business and reward and retain those individuals who continue to meet our high expectations over time. Our executive compensation program combines short- and long-term components, cash and equity, and fixed and contingent payments in the amounts and proportions that we believe are most appropriate to incentivize and reward our executive officers for achieving our objectives. Our executive compensation program also is intended to make us competitive in our industry, where there is considerable competition for talented executives.

Our named executive officers for fiscal year 2008 were Alan Shaw, Ph.D., President and Chief Executive Officer; Robert S. Breuil, former Senior Vice President, Finance and Chief Financial Officer; Douglas T. Sheehy, Senior Vice President, General Counsel and Secretary; Peter Seuffer-Wasserthal, Ph.D., Senior Vice President, Pharmaceuticals; and David L. Anton, Ph.D., Senior Vice President, Research and Development. Mr. Breuil's employment with us terminated effective as of June 30, 2009.

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Objectives and Philosophy of Our Executive Compensation Program

Our compensation program for our named executive officers is designed to achieve the following objectives:

- attract, engage and retain individuals of superior ability, experience and managerial talent enabling us to be an employer of choice in our highly-competitive and dynamic industry;
- motivate and reward executives whose knowledge, skills and performance ensure our continued success;
- encourage and inspire our executives to achieve key corporate performance objectives by linking base salary increases and incentive award opportunities to the achievement of individual and company-wide short- and long-term goals; and
- align the interests of our executives and stockholders by motivating executives to increase stockholder value, by providing a significant portion of total compensation opportunities for our executive officers in the form of direct ownership in our company through stock options and other equity awards.

Components of Our Executive Compensation Program

The components of our executive compensation program consist primarily of base salaries, annual cash incentive bonuses, equity awards and broad-based benefits programs. We combine short-term compensation components (such as base salaries and annual cash incentive bonuses) and long-term compensation components (such as equity incentive awards) to provide an overall compensation structure that is designed to both attract and retain key executives as well as provide incentive for the achievement of short- and long-term corporate objectives.

The compensation committee of our board of directors is responsible for evaluating and administering our compensation programs and practices for our executive officers. Our compensation committee uses its judgment and experience and the recommendations of the Chief Executive Officer to determine the appropriate mix of short- and long-term compensation elements for each named executive officer. Short- and long-term compensation elements are balanced to encourage each executive officer to use his or her time and talents to accomplish both our short- and long-term corporate objectives. Our Chief Executive Officer, General Counsel and Vice President of Human Resources each attend our compensation committee meetings to provide input on factors that may influence our compensation committee members' consideration of compensation programs and individual compensation, including individual performance, financial, legal and compensation parity considerations. In addition, our Chief Financial Officer occasionally attends such compensation committee meetings depending on the issues being discussed. Each such officer is not present at the meetings at the time that his or her own compensation is being reviewed by the committee. Our compensation committee analyzes each of the primary elements of our compensation program to ensure that our executives' overall compensation is competitive with executive officers in similar positions at comparable companies in our labor market and to ensure internal compensation parity among our executive officers. Our compensation committee recommends and our board of directors approves equity incentive awards for our employees, including our executive officers.

Our compensation committee determines compensation for our executive officers, including our named executive officers, in large part based upon our financial resources, as well as competitive market data. With regard to annual base salaries and annual cash incentive bonus opportunity targets for fiscal year 2008, we referenced publicly available compensation data and comprehensive compensation data from the 2007 Radford Global Life Sciences Survey, focusing upon the 48 biotechnology and pharmaceutical companies in Northern California with revenues of less than \$100 million and fewer than 500 employees. The Radford Global Life Sciences Peer Group includes the following companies:

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- Affymax, Inc.
- Agraquest, Inc.
- Alexza Pharmaceuticals, Inc.
- Amyris Biotechnologies, Inc.
- Anesiva, Inc.
- Aradigm Corporation
- ARYX Therapeutics, Inc.
- BioMarin Pharmaceutical Inc.
- Cell Genesys, Inc.
- Cerus Corporation
- Cytokinetix, Inc.
- Depomed, Inc.
- diaDexus, Inc.
- Dow Pharmaceutical Sciences, Inc.
- DURECT Corporation
- Dynavax Technologies Corporation
- FivePrime Therapeutics, Inc.
- Genelabs Technologies, Inc.
- Genomic Health, Inc.
- Geron Corporation
- Ingenuity Systems, Inc.
- InterMune, Inc.
- Jazz Pharmaceuticals, Inc.
- Kosan Biosciences Incorporated
- Maxygen, Inc.
- Metabolix, Inc.
- Monterey Bay Aquarium Research Institute
- Novacea, Inc.
- Nuvelo, Inc.
- Onyx Pharmaceuticals, Inc.
- Perlegen Sciences, Inc.
- Pharmacyclix, Inc.
- Pharsight Corporation
- Plexxicon Inc.
- Questcor Pharmaceuticals, Inc.
- Raven Biotechnologies, Inc.
- Renovis, Inc.
- Rigel Pharmaceuticals, Inc.
- Sangamo BioSciences, Inc.
- Stem Cells, Inc.
- Sunesis Pharmaceuticals, Inc.
- SuperGen, Inc.
- Tercica, Inc.
- Theravance, Inc.
- Threshold Pharmaceuticals, Inc.
- VaxGen, Inc.
- Xenoport, Inc.
- XOMA(US) LLC

For fiscal year 2008, our compensation committee also considered data from Compensia, Inc., an executive compensation advisory services firm with respect to our equity incentive compensation. From Compensia, we obtained data on recently public life science companies and we requested information from Compensia on certain of our business peers. The Compensia Peer Group included the following companies:

- Accentia BioPharmaceuticals, Inc.
- Achillion Pharmaceuticals, Inc.
- Acorda Therapeutics, Inc.
- Adams Respiratory Therapeutics, Inc.
- Alexza Pharmaceuticals, Inc.
- Allion Healthcare, Inc.
- Altus Pharmaceuticals Inc.
- Amicus Therapeutics Inc.
- Biondri Inc.
- Coley Pharmaceutical Group, Inc.
- Cytokinetix, Inc.
- Dyadic International, Inc.
- Genomic Health, Inc.
- Hansen Medical, Inc.
- Helicos BioSciences Corporation
- Insulet Corporation
- Jazz Pharmaceuticals, Inc.
- Luna Innovations, Inc.
- Maxygen, Inc.
- Metabolix, Inc.
- NeurogesX, Inc.
- NUCRYST Pharmaceuticals Corp.
- Oculus Innovative Sciences, Inc.
- Optimer Pharmaceuticals, Inc.
- Orexigen Therapeutics, Inc.
- Pharmasset, Inc.
- Response Genetics, Inc.
- SGX Pharmaceuticals, Inc.
- Sirtris Pharmaceuticals, Inc.
- Sunesis Pharmaceuticals, Inc.
- Symyx Technologies, Inc.
- ThermoGen, Inc.
- Threshold Pharmaceuticals, Inc.
- TomoTherapy Incorporated (acquired by Indevsus Pharmaceuticals, Inc.)
- Valera Pharmaceuticals, Inc.
- Verenum Corporation
- ViaCell, Inc.
- Volcano Corporation
- Xenoport, Inc.

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We believe that the practices of the companies in the Radford Global Life Sciences Peer Group and the Compensia Peer Group provide us with appropriate compensation benchmarks because many of these companies have similar organizational structures and tend to compete with us for executives. Our compensation committee has adopted a market-competitive compensation philosophy, which targets keeping the base salaries and annual cash incentive bonus opportunity approximately equal to the 50th percentile of such compensation at the companies within the Radford Global Life Sciences Peer Group with respect to annual base salary and individual target bonus percentages, and the Compensia Peer Group with respect to equity incentive compensation. For employee benefits, we target compensation at the 75th percentile of such compensation at technology and biotechnology companies that participated in the 2007 Radford Benefits Exchange Report having between 200 and 749 employees. We target a higher percentile for employee benefits because we believe that superior benefits make us an attractive employer within all levels of the workforce. We work within the general framework of this market-competitive philosophy to determine each component of an executive's compensation package based on numerous factors, including:

- the demand for the particular skill sets we need within the marketplace;
- performance goals and other expectations for the position and the individual;
- the individual's background and relevant expertise, including training and prior relevant work experience;
- the individual's role with us and the compensation paid to similar persons in the peer group of companies that we review; and
- comparison to other executives within our company having similar levels of expertise and experience.

During 2008, our compensation committee reviewed all aspects of our executive compensation program, including base salaries, annual cash incentive bonuses and equity incentive targets for each of our executive officers. To ensure that top talent could be retained and attracted, in 2008 the compensation committee approved adjustments to each aspect of our executive compensation program to reflect competitive pressures and ensure internal equity among executives with similar levels of responsibility and authority.

Each of the primary elements of our executive compensation program is discussed in more detail below. While we have identified particular compensation objectives that each element of executive compensation serves, our compensation programs are designed to be flexible and complementary and to collectively serve all of the executive compensation objectives described above. Accordingly, whether or not specifically mentioned below, we believe that, as a part of our overall executive compensation policy, each individual element of our executive compensation program, to a greater or lesser extent, serves each of our objectives as set forth above.

Annual Cash Compensation

Base Salary

The base salaries of all executive officers are reviewed annually and adjusted when necessary to reflect individual roles and performance, and the competitive market. Our compensation committee also reviews each executive's annual base salary in comparison with other executives who are at the same level at our company and seeks parity among executives with similar levels of responsibility and authority. Our compensation committee believes that a competitive base salary is a necessary element of any compensation program designed to attract and retain talented and experienced executives. We also believe that competitive base salaries can motivate and reward executives for their overall performance.

In January 2008, our compensation committee considered base salary market data at the 50th percentile for companies in the Radford Global Life Sciences Peer Group to determine the market

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competitiveness of our executive officer base salary compensation and also compared each of our named executive officers' base salary to that of our other executives with comparable levels of responsibility and to that of the executive's subordinates. The analysis revealed that base salaries for all of our named executive officers, except Mr. Breuil, were significantly below the 50th percentile of companies in the Radford Global Life Sciences Peer Group. Therefore, our compensation committee approved an increase of between 10% and 22% in the base salaries for 2008 for each of our named executive officers, as set forth in the table below. In 2008, all of our named executive officers except Mr. Breuil remain below the 50th percentile, ranging between \$15,000 and \$59,000 below the 50th percentile of companies in the Radford Global Life Sciences Peer Group. Our compensation committee determined these base salary amounts to be appropriate in light of the stage of our company and the total compensation of each of the named executive officers, including annual cash incentive bonus opportunity and equity incentive compensation. Our compensation committee approved a base salary for Mr. Breuil which is \$18,000 above the 50th percentile of the companies in the Radford Global Life Sciences Peer Group, reflecting his significant individual contributions to our company during 2007 and the critical nature of his skills and expertise for our company at its stage of development in 2008. Other than Mr. Breuil, the differences in the base salary increases for our executive officers was attributable to the amount by which the executive's 2007 base salary was below the 50th percentile of the companies in the Radford Global Life Sciences Peer Group and the adjustments to the executive's annual cash incentive opportunities that is described below under the heading "Annual Cash Incentive Bonuses."

In addition, in October 2008, Dr. Seufer-Wasserthal received a 22% increase in base salary in connection with a promotion to Senior Vice President, Pharmaceuticals. The following table sets forth the base salaries for 2008 for each of Dr. Shaw, Mr. Breuil, Mr. Sheehy and Dr. Seufer-Wasserthal and the amount such salary increased over the base salary paid to such executive in 2007:

<u>Name of Executive Officer</u>	<u>Increase</u>	<u>2008 Base Salary Rate</u>
Alan Shaw, Ph.D.	10.4%	\$ 425,000
Robert S. Breuil	10.8	320,000
Douglas T. Sheehy	18.2	260,000
Peter Seufer-Wasserthal, Ph.D.(1)	22.0	315,733

(1) Amount converted from Euros to U.S. dollars at the December 31, 2008 average daily rate quoted by Oanda.com of 0.70946 Euros per U.S. dollar.

Dr. Anton joined our company in March 2008 as Vice President, Bioindustrial Research & Development. Our compensation committee set his base salary after considering base salary levels of executives in similar positions in the 50th percentile of companies in the Radford Global Life Sciences Peer Group, as well as the base salaries of our executives having similar levels of responsibility as Dr. Anton and the base salaries of employees who would report to Dr. Anton upon hire. Based on these factors, our compensation committee set Dr. Anton's base salary level at \$235,000.

In February 2009, our compensation committee decided to freeze all employees' salaries, including our named executive officers, at their 2008 levels, with the exception of increases due to promotions and adjustments for exceptional performance for those employees who had base salaries which fell below the 50th percentile of the companies in the Radford Global Life Sciences Peer Group for similar positions. The salary freeze was implemented in light of then-current economic conditions, similar salary freezes taking place at Radford Global Life Sciences Peer Group companies and in order to preserve our cash reserves in the face of uncertainty in the financial and credit markets. In February 2009, upon recommendation of our Chief Executive Officer, after determining that Mr. Sheehy had exhibited exceptional performance in 2008 and was paid below the 50th percentile of executives, the compensation committee increased his base salary by \$10,000 to \$270,000. Our compensation committee increased Dr. Anton's base salary from \$235,000 to \$250,000 in February 2009 and to \$270,000 in May 2009 in connection with promotions. Dr. Anton currently serves as Senior Vice President, Research and Development.

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Annual Cash Incentive Bonuses

Our compensation philosophy with respect to annual cash incentive bonuses is consistent with our overall compensation program philosophy. The annual cash incentive bonus is directed at tying individual compensation to both corporate and individual performance while maintaining market-competitive compensation. Performance, as measured against individual and corporate goals, directly affects the level of bonus payment.

Annual Cash Incentive Bonuses for 2008

In 2008, our compensation committee considered annual cash incentive bonus data for companies in the Radford Global Life Sciences Peer Group to evaluate the competitiveness of our annual cash incentive bonus compensation for our named executive officers. The analysis revealed that our 2007 annual cash incentive bonus compensation targets were below the 50th percentile of the companies in the Radford Global Life Sciences Peer Group for Dr. Shaw and Mr. Breuil. Our compensation committee approved the increase in bonus target percentages for 2008 to enable us to be at the 50th percentile of the Radford Global Life Sciences Peer Group with respect to annual cash incentive bonus targets for Dr. Shaw and Mr. Breuil. Our compensation committee did not adjust the annual cash incentive bonus targets for Messrs. Sheehy and Seufer-Wasserthal since each was already at the 50th percentile of the companies in the Radford Global Life Sciences Peer Group and each had received base salary increases as described above under the heading “Annual Cash Compensation — Base Salary.” Dr. Anton’s annual cash incentive bonus target was set at the 50th percentile of the Radford Global Life Sciences Peer Group upon his commencement of employment in March 2008. The table below sets forth the annual cash incentive bonus target for each of our named executive officers for fiscal year 2008.

<u>Name of Executive Officer</u>	<u>2008 Bonus Target (as % of 2008 Base Salary)</u>
Alan Shaw, Ph.D.	50%
Robert S. Breuil	40%
Peter Seufer-Wasserthal, Ph.D.(1)	32%
Douglas T. Sheehy	30%
David L. Anton, Ph.D.	25%

- (1) Represents a prorated amount. Dr. Seufer-Wasserthal bonus target percentage was increased from 30% to 40% in November 2008 in connection with his promotion to Senior Vice President, Pharmaceuticals.

Our compensation committee adopted the 2008 Executive Incentive Compensation Plan, under which the annual cash incentive bonus targets set forth above were used along with corporate and individual performance targets set by our compensation committee.

Under the 2008 Executive Incentive Compensation Plan, the corporate performance component of the bonus is measured based upon our company’s achievement of three equally weighted financial goals established by our compensation committee, relating to net revenues, contribution margin (revenues less cost of goods) and year-end cash (book value of unrestricted cash and securities). The targets for net revenues, contribution margin and year-end cash for 2008 were \$67.4 million, \$47.2 million and \$106.6 million, respectively.

The individual performance component of the bonus is measured by our Chief Executive Officer’s, or in the case of our Chief Executive Officer’s performance, our compensation committee’s, assessment of the overall performance of each of our executives using individual goals established for each executive by our compensation committee. These individual goals, and the target bonus amounts, are established based on our Chief Executive Officer’s and our compensation committee’s evaluation of each executive’s position within the company, the corporate goals over which that executive has control or influence and the market practices

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of the companies in the Radford Global Life Sciences Peer Group. In setting individual performance goals and target bonus percentages for our named executive officers, our Chief Executive Officer, or in the case of our Chief Executive Officer's goals and target, our compensation committee, also considered the target bonus percentages and individual goals of executives with similar levels of responsibility within the company to ensure parity between executives at similar position levels. The individual goals for any one named executive officer are too numerous for any single individual goal to have a material impact on a named executive officer's total compensation but, taken as a whole, provide our Chief Executive Officer and our compensation committee insight into the individual performance level of our named executive officers. Examples of individual goals include achieving departmental budgets for revenues and margin, meeting sales and/or testing objectives, achieving milestones related to the development of new products, achieving recognition for a product or facility, securing supplies, meeting expansion goals and achieving or maintaining a professional standard. Individual performance goals are set to be difficult to achieve and require above what our compensation committee has determined to be average performance in order to meet the minimum standard. Achievement against the goals set by the compensation committee is determined by assessing whether a majority of performance targets were met or exceeded and is subject to upward and downward discretion by the Chief Executive Officer or the compensation committee.

Under the 2008 Executive Incentive Compensation Plan, no bonus is payable if our company achieves less than 80% of any single corporate performance goal, or if the executive's achievement of his individual goals is less than 90%. The maximum corporate performance component achievement level is 120%, and there is a direct correlation between actual achievement and the corporate performance factor. Similarly, the maximum individual performance component achievement level is 150%, with a direct correlation between individual achievement and the individual performance factor. The formula for the bonus paid to each executive under the 2008 Executive Incentive Compensation Plan is as follows:

$$\text{Bonus Amount} = (\text{Base Salary}) \times (\text{Target Percentage}) \times (\text{Company Performance Factor}) \times (\text{Individual Performance Factor})$$

In February 2009, our compensation committee determined that the corporate performance targets of net revenues, contribution margin and year-end cash had been achieved in 2008 at 79%, 78% and 35%, respectively, and thus none of the minimum thresholds under the company performance factor for 2008 had been met. However, our compensation committee determined that the corporate performance targets were missed largely because of then-current economic conditions rather than a failure on the part of any named executive officer to execute on the company's corporate strategy. As a result, the compensation committee determined to provide discretionary fiscal year 2008 annual cash incentive bonuses based on individual performance at an aggregate amount for all employees not to exceed \$2 million, which represents approximately 56% of the total amount payable to all employees of the company if on-target performance levels were achieved. Prior to awarding these discretionary bonuses, though, the compensation committee required that we complete a large strategic agreement and our Series F Preferred Stock Financing, which were initially included in our fiscal year 2008 budget. In March 2009, our compensation committee determined that our named executive officers achieved their individual performance goals at the following levels and awarded them the following discretionary bonuses based on their overall performance for the company in light of the economic climate during late 2008 and early 2009 and based on their achievement of individual performance goals:

<u>Name of Executive Officer</u>	<u>Bonus Target (Base Salary x Target %)</u>	<u>2008 Corporate Performance Factor Achievement (%)</u>	<u>2008 Individual Performance Factor Achievement (%)</u>	<u>Bonus Payment</u>
Alan Shaw, Ph.D.	\$ 212,500	56.4%	125%	\$ 149,899
Robert S. Breuil	128,000	56.4	100	72,234
Douglas T. Sheehy	78,000	56.4	125	55,022
Peter Seuffer-Wasserthal, Ph.D.(1)	90,380	56.4	50	28,429
David L. Anton, Ph.D.(2)	45,390	56.4	125	32,019

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- (1) Amount converted from Euros to U.S. dollars at the December 31, 2008 average daily rate quoted by Oanda.com of 0.70946 Euros per U.S. dollar. The amount paid to Dr. Seufer-Wasserthal differs slightly from that calculated because of fluctuations in currency rates between the date his target bonus was established and the date it was paid.
- (2) Dr. Anton's bonus payment represents a prorated amount. He was hired in March 2008.

Annual Cash Incentive Bonuses for 2009

In June 2009, our compensation committee adopted the 2009 Executive Incentive Compensation Plan, which is substantially similar to the 2008 Executive Incentive Compensation Plan with the following changes. First, under the 2009 Executive Incentive Compensation Plan, the company performance factor was subdivided into two separate factors: (i) the company non-financial performance factor and (ii) the company financial performance factor. The company financial performance factor is measured based upon our company's achievement of three equally weighted financial goals established by our compensation committee, relating to net revenues, earnings before the deduction of interest, tax, depreciation and amortization and year-end cash (book value of unrestricted cash and securities). The non-financial performance goals include the achievement of certain milestones related to the achievement of our strategic plan and improving internal controls. The company financial performance factor represents 45% of the total company performance factor and the company non-financial performance represents the other 55%. The second change under the 2009 Executive Incentive Compensation Plan was to reduce the minimum threshold for bonus eligibility under the executive's individual performance factor from 90% to 80%. Company and individual goals were set at levels our compensation committee determined would be difficult to achieve and we do not believe any bonus will be payable upon average performance.

In 2009, our compensation committee retained the same the bonus target percentages for our named executive officers, with the exception of Dr. Anton and Mr. Sheehy. Dr. Anton's bonus target percentage was increased to 40% of his base salary, in connection with his promotion in May 2009 to Senior Vice President, Research and Development. Likewise, Mr. Sheehy's target bonus percentage was increased to 40% in connection with his promotion to Senior Vice President, General Counsel and Secretary, which took place in November 2009. In setting Dr. Anton's and Mr. Sheehy's target bonus percentage, our compensation committee considered the target bonus percentages of executives having a similar level of responsibility within our company. The table below sets forth the annual cash incentive bonus target for each of our named executive officers in 2009:

<u>Name of Executive Officer</u>	<u>2009 Bonus Target (as % of 2009 Base Salary)</u>
Alan Shaw, Ph.D.	50%
Robert S. Breuil	40
Douglas T. Sheehy(1)	32
Peter Seufer-Wasserthal, Ph.D.	40
David L. Anton, Ph.D.(2)	35

- (1) Represents a prorated amount. Mr. Sheehy's bonus target percentage was increased from 30% to 40% in November 2009 in connection with his promotion to Senior Vice President, General Counsel and Secretary.
- (2) Represents a prorated amount. Dr. Anton's bonus target percentage was increased first from 25% to 30% in February 2009 in connection with his promotion to Vice President Level II, Bioindustrial Research and Development, and second from 30% to 40% in May 2009 in connection with his promotion to Senior Vice President, Research and Development.

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We believe that our annual cash incentive bonus plans help to attract and motivate our executives, and to align the compensation payable to our executives with our corporate objectives, thereby maximizing shareholder value. By evaluating our bonus program for executive each fiscal year, we believe we provide sufficient and attainable incentives for our executives that align with both our financial and non-financial goals.

Equity Incentive Compensation

We believe that our long-term performance is best facilitated through a culture of executive ownership that encourages long-term investment by our executive officers in our equity, thereby better aligning the executives' interests with the interests of our stockholders. To encourage this ownership culture, we typically make an initial equity award of stock options to new employees and periodic grants at other times, as approved by our board of directors. Our compensation committee recommends and our board of directors approves all equity grants to our employees including our executive officers. These grants have an exercise price that is at least equal to the fair market value of our common stock on the date of grant, as determined by our board of directors. Grants of options in 2008 were typically subject to a four-year vesting schedule with 1/4th of the grant vesting upon the first anniversary of the vesting commencement date and the remainder of the shares vesting at a rate of 1/48th of the total shares subject to the option each month after the vesting commencement date, subject to the continued service of the executive officer. Vesting commencement dates generally correlate to the date of hire, date of promotion or date of grant. In keeping with our market-competitive philosophy, our compensation committee established the foregoing vesting schedules for 2008 because it determined such vesting represents market practice in our industry based on the experience of the members of our compensation committee.

The size of the initial stock option award is determined based on the executive's position with us and takes into account the executive's base salary and other compensation as well as an analysis of the grant and compensation practices of the peer companies that we review in connection with establishing our overall compensation policies. The initial stock option awards are intended to provide the executive with an incentive to build value in the organization over an extended period of time while remaining consistent with our overall compensation philosophy.

In 2008, we retained Compensia to review the market competitiveness of our stock option grant practices and to help our compensation committee develop an equity strategy for our company. Our compensation committee managed Compensia's review. Compensia continued to recommend an equity strategy that targets keeping our equity incentive compensation at the 50th percentile of the companies in the Compensia Peer Group. However, in light of our efforts in 2008 to undertake an initial public offering of our common stock, the compensation committee did not make a periodic grant to our named executive officers. The compensation committee did grant Dr. Anton an option to purchase 150,000 shares of our common stock having an exercise price of \$7.90 per share in connection with the commencement of his employment. The size of Dr. Anton's option grant was determined based upon new hire grants made to employees in similar positions at the Compensia Peer Group companies and was adjusted to bring Dr. Anton's option total to a level similar to that of other executives within our company with comparable levels of responsibility.

In 2009, we considered a number of factors in determining the amount of periodic equity incentive awards, if any, granted to our executives, including:

- the number of shares subject to outstanding options, both vested and unvested, held by our executives;
- the vesting schedule of the unvested stock options held by our executives; and
- the periodic equity incentive award practices of Compensia Peer Group companies.

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In February 2009, our compensation committee determined that in order to best serve our retention goals, all 2009 “refresher” stock option grants would vest and become exercisable according to the following schedule: no shares vest until the 24th month following the vesting commencement date, after which 1/24th of the number of shares subject to the grant vest each month. Our named executive officers received the following refresher stock option grants in June 2009, each having an exercise price of \$4.97 per share: Dr. Shaw (400,000 shares), Mr. Breuil (100,000 shares), Dr. Anton (35,000 shares) and Mr. Sheehy (50,000 shares). The size of grant was based on the compensation committee’s review of grants made at the Compensia Peer Group companies, grants made to individuals at similar levels within the Company and correlated with the level of authority and responsibility of the named executive officer. In addition to his refresher grant, Dr. Anton received a stock option to purchase 35,000 shares of our common stock for an exercise price of \$4.97 per share in June 2009 in connection with his promotion to Senior Vice President, Research and Development. In lieu of a refresher grant, Dr. Seufer-Wasserthal received a stock option to purchase 62,500 shares of our common stock for an exercise price of \$4.97 per share in June 2009 in recognition of his promotion to Senior Vice President, Pharmaceuticals in November 2008. The size of Dr. Seufer-Wasserthal’s grant was determined based on the grants provided to executives having similar levels of responsibility within our company.

As a privately owned company, there has been no market for our common stock. Accordingly, in 2008 and 2009, we had no program, plan or practice pertaining to the timing of stock option grants to executive officers coinciding with the release of material non-public information. The compensation committee intends to adopt a formal policy regarding the timing of grants in connection with this offering.

Termination-Based Compensation

Our compensation committee provides our executives with termination protection when it determines that such protection is necessary to attract or retain an executive.

We have entered into change in control agreements with Dr. Shaw, Mr. Breuil and Mr. Sheehy, which provide severance payments and benefits in the event the executive is terminated without cause or resigns with good reason within 12 months following or, in certain circumstances, when the executive is terminated without cause or resigns with good reason within a short period prior to, certain transactions or a change in the beneficial ownership of securities of the Company representing fifty percent (50%) or more of the combined voting power entitled to vote in the election of our directors.

We have also entered into a contract of employment with Dr. Seufer-Wasserthal pursuant to which we must provide Dr. Seufer-Wasserthal with three months notice prior to terminating his employment. Likewise, Dr. Seufer-Wasserthal must provide us with three months notice prior to resigning his employment. In the event we terminate Dr. Seufer-Wasserthal’s employment, we may satisfy our obligation to provide him notice by paying him an amount equal to what he otherwise would have earned during the three month notice period.

The severance payments and benefits that are payable under the change in control agreements are further described below in the section entitled “Potential Payments Upon Termination and Change in Control — Change in Control Agreements.”

Other Compensation

All of our executive officers are eligible to participate in certain benefit plans and arrangements offered to employees generally, including health, dental, life and disability insurance and our 401(k) plan. We currently pay in excess of 85% of the monthly premium, with respect to coverage for the employee only portion of coverage for all employees, including our named executive officers, for medical, dental, vision, life and long-term disability insurance. Should medical insurance premium rates increase, employees, including named executive officers, may be required to contribute to the cost of increased premiums to retain coverage. Consistent with our market-competitive compensation philosophy, we intend

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to continue to maintain these benefit plans and arrangements for our employees, including our executive officers. Our compensation committee in its discretion may revise, amend or add to any executive's benefits and perquisites if it deems it advisable. We currently do not believe it is necessary for the attraction or retention of management talent to provide the officers with a substantial amount of compensation in the form of perquisites.

Tax Considerations

Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code, generally disallows a tax deduction for compensation in excess of \$1.0 million paid to certain named executive officers. Qualifying performance-based compensation is not subject to the deduction limitation if specified requirements are met. We generally intend to structure the performance-based portion of our executive compensation, when feasible, to comply with exemptions in Section 162(m) so that the compensation remains tax deductible to us. However, our board of directors may, in its judgment, authorize compensation payments that do not comply with the exemptions in Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent.

2008 Summary Compensation Table

The following table summarizes the compensation that we paid to our Chief Executive Officer, Chief Financial Officer and each of our three other most highly compensated executive officers during the year ended December 31, 2008. We refer to these officers in this prospectus as our named executive officers.

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Bonus (\$)(1)</u>	<u>Option Awards (\$)(2)</u>	<u>Non-Equity Incentive Plan Compensation (\$)(3)</u>	<u>All Other Compensation (\$)</u>	<u>Total (\$)</u>
Alan Shaw, Ph.D., President and Chief Executive Officer	2008	425,000	149,899	375,737			950,636
	2007	385,000		172,523	259,875		817,398
Robert S. Breuil, Former Senior Vice President, Finance and Chief Financial Officer(4)	2008	320,000	72,234	148,324			540,558
	2007	288,750		99,311	133,908		521,969
Douglas T. Sheehy, Senior Vice President, General Counsel and Secretary(5)	2008	260,000	55,022	80,759			395,781
	2007	164,522		32,826	79,200		276,548
Peter Seuffer-Wasserthal, Ph.D., Senior Vice President, Pharmaceuticals(6)	2008	268,520	28,429	88,604		10,148(7)	395,701
David L. Anton, Ph.D., Senior Vice President, Research & Development(8)	2008	176,250	42,019	122,516		146,583(9)	487,368

- (1) The amounts included in the "Bonus" column represent the amount paid to each named executive officer as a discretionary bonus after the minimum corporate performance thresholds were not met under the 2008 Executive Incentive Compensation Plan, except in the case of Dr. Anton who, in addition to a discretionary bonus of \$32,019, received a \$10,000 bonus in connection with the commencement of his employment with us.
- (2) The amounts included in the "Option Awards" column represent the compensation cost that was recognized by us in the years ended December 31, 2008 and December 31, 2007 determined in accordance with ASC Topic 718. The valuation assumptions used in determining such amounts are described in Note 2 to our consolidated financial statements included in this prospectus.
- (3) Amounts reflect bonus payments made pursuant to the applicable executive incentive compensation plan.

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- (4) Mr. Breuil's employment with us terminated effective as of June 30, 2009.
- (5) Mr. Sheehy joined Codexis as Vice President, General Counsel and Secretary in April 2007 and was promoted to Senior Vice President, General Counsel and Secretary in November 2009.
- (6) Dr. Seuffer-Wasserthal is paid in Euros. Amount converted from Euros to U.S. dollars at the December 31, 2008 average daily rate quoted by Oanda.com of 0.70946 Euros per U.S. dollar.
- (7) Represents a car allowance of \$10,148 provided to Dr. Seuffer-Wasserthal. Amount converted from Euros to U.S. dollars at the December 31, 2008 average daily rate quoted by Oanda.com of 0.70946 Euros per U.S. dollar.
- (8) Dr. Anton joined Codexis as Vice President, Bioindustrial Research and Development in March 2008 and was promoted to Senior Vice President, Research and Development in May 2009.
- (9) Represents relocation assistance paid to Dr. Anton in connection with his commencement of employment and includes \$77,946 paid to reimburse closing costs on the sale of his prior home, \$16,767 paid to reimburse temporary housing costs, \$4,963 paid to reimburse automobile rental costs, \$46,167 paid to reimburse household moving costs and \$740 paid to reimburse spousal employment assistance costs.

Grants of Plan-Based Awards in 2008 Table

All options granted to our named executive officers are incentive stock options, to the extent permissible under the Code. The exercise price per share of each option granted to our named executive officers was determined to be equal to at least the fair market value of our common stock by our board of directors on the date of the grant. All options were granted under our 2002 Stock Plan, as amended, as described below in the section entitled "Employee Benefit and Stock Plans — 2002 Stock Plan, as amended."

The following table shows information regarding grants of equity awards during the year ended December 31, 2008 to each of our named executive officers.

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards\$(1)			All Other Option Awards; Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards (\$/Share)	Grant Date Fair Value of Option Awards \$(2)
		Threshold	Target	Maximum			
Alan Shaw, Ph.D.		153,000	212,500	382,500			
Robert S. Breuil		92,160	128,000	230,400			
Douglas T. Sheehy		56,160	78,000	140,400			
Peter Seuffer-Wasserthal, Ph.D.		65,074	90,380	162,685			
David L. Anton, Ph.D.(3)	5/22/08	32,681	45,390	81,703	150,000	7.90	4.4776

- (1) Amounts in the "Estimated Future Payouts Under Non-Equity Incentive Plan Awards" column relate to amounts payable under our Executive Incentive Compensation Plan. The threshold column assumes the achievement of either the corporate or individual goals at the threshold level. The maximum column assumes the maximum achievement for both corporate and individual goals.
- (2) The amount set forth in the "Grant Date Fair Value of Option Awards" column are the per share full grant date fair value of the award determined in accordance with ASC Topic 718. The valuation assumptions used in determining such amounts are described in Note 12 to our consolidated financial statements included in this prospectus.
- (3) Dr. Anton joined Codexis as Vice President, Bioindustrial Research and Development in March 2008.

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Outstanding Equity Awards at 2008 Fiscal Year-End

The following table shows grants of stock options outstanding on December 31, 2008, the last day of our fiscal year, to each of our named executive officers.

Name	Vesting Commencement Date	Option Awards		Option Exercise Price (\$)	Option Expiration Date
		Number of Securities Underlying Unexercised Options (#) Exercisable(1)	Number of Securities Underlying Unexercised Options (#) Unexercisable		
Alan Shaw, Ph.D.	5/16/2003	500,000(2)	0	0.40	5/16/2013
	7/15/2003	50,000(3)	0	0.40	7/14/2013
	1/1/2004	140,000	0	0.40	12/10/2013
	1/1/2005	78,833	1,667	0.60	1/4/2015
	1/1/2005	20,000(4)	0	0.60	1/4/2015
	10/18/2005	39,583	10,417	0.70	10/17/2015
	1/1/2006	70,000(4)	0	0.70	12/12/2015
	8/23/2006	126,656	90,469	1.63	1/25/2017
	12/31/2006	108,562	108,563	1.63	1/25/2017
	8/28/2007	112,499	225,001	4.47	8/27/2017
	10/25/2007	50,749	123,251	4.57	10/24/2017
Robert S. Breuil	1/3/2006	218,749	81,251	0.70	9/30/2009
	1/3/2006	45,390	16,860	1.63	9/30/2009
	12/31/2006	31,124	31,126	1.63	9/30/2009
	8/28/2007	35,999	72,001	4.47	9/30/2009
	10/25/2007	31,499	76,501	4.57	9/30/2009
Douglas T. Sheehy	4/2/2007	62,499	87,501	1.63	4/18/2017
	8/28/2007	10,999	22,001	4.47	8/27/2017
	10/25/2007	16,333	39,667	4.57	10/24/2017
Peter Seuffer-Wasserthal, Ph.D.	2/27/2006	56,666	23,334	0.70	3/1/2016
	8/23/2006	15,020	10,730	1.63	1/25/2017
	12/31/2006	12,874	12,876	1.63	1/25/2017
	8/28/2007	13,666	27,334	4.47	8/27/2017
	10/25/2007	18,958	46,042	4.57	10/24/2017
David L. Anton, Ph.D.	3/24/2008	0	150,000	7.90	5/22/2018

- (1) Unless otherwise noted, each option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option shall vest monthly thereafter until all shares are vested.
- (2) These options vest as to 1/4th of the total number of shares subject to the option on the six month anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option shall vest monthly thereafter.
- (3) These options vest as to 100% of the total number of shares subject to the option on the fifth anniversary of the vesting commencement date.
- (4) These options were fully vested on the date of grant.

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Option Exercises in 2008 Table

None of our named executive officers exercised stock options and no stock awards vested during 2008.

Pension Benefits

We do not maintain any defined benefit pension plans.

Nonqualified Deferred Compensation

We do not maintain any nonqualified deferred compensation plans.

Offer Letter Agreements

We have entered into the following offer letter agreements with each of our named executive officers.

Alan Shaw, Ph.D. On July 29, 2003, we entered into an offer letter agreement with Dr. Shaw, setting forth the terms and conditions of his employment as our Chief Executive Officer. The offer letter agreement provided for annual base salary of \$285,000. The offer letter agreement also provided that for 2003, Dr. Shaw would be eligible to participate in our Executive Bonus Plan for 2003, a performance-based program that allowed for a bonus stock option award based upon achievement of our objectives. In connection with his offer letter agreement, Dr. Shaw was granted an option to purchase shares of common stock of our company in exchange for cancellation of his options to purchase shares of Maxygen, Inc.

Robert S. Breuil. On December 22, 2005, we entered into an offer letter agreement with Mr. Breuil, setting forth the terms and conditions of his employment as our Senior Vice President, Finance and Chief Financial Officer. The offer letter agreement provided for annual base salary of \$275,000. Mr. Breuil's offer letter agreement provided that for 2006, he would be eligible to participate in an Executive Bonus Plan, and that the bonus would be paid out in the form of stock options or cash, or a combination of cash and stock options at the discretion of our compensation committee, based upon the achievement of corporate and individual objectives as defined by our Chief Executive Officer and our board of directors, and subject to the final approval of our compensation committee. The offer letter agreement provided that the dollar value of the bonus payout for the Senior Vice President level is 30% of annual base salary.

In connection with the offer letter agreement, Mr. Breuil received an option to purchase 300,000 shares of our common stock for an exercise price per share equal to \$0.70, which option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of his employment start date, and 1/48th of the total number of shares subject to the option vesting monthly thereafter until all shares are vested. In addition, the offer letter provides for an additional grant of an option to purchase shares, following the closing of our company's next financing following the date of the offer letter agreement, in a total share amount equal to the amount necessary to make Mr. Breuil's then-total ownership of our company equal to 1.25% of our then fully diluted shares (the "Supplemental Hire Grant"). The offer letter provides that Mr. Breuil will be eligible for periodic stock option grants based upon our company's and his individual performance, with his target total stock and option ownership, including vested and unvested shares, but excluding any option shares granted pursuant to our Executive Bonus Plan, expected to be approximately 1.25% of our fully diluted shares outstanding immediately prior to our filing to complete an initial public offering. However, this target ownership may be reduced or increased based on our company policy, and additional stock option grants, if any, are subject to approval by our compensation committee and board of directors.

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On June 30, 2009, we entered into a Separation Agreement with Mr. Breuil in connection with his resignation of employment with us. Pursuant to the Separation Agreement, in return for a full release of claims against us and our affiliates, we provided Mr. Breuil cash lump sum severance in the amount of \$160,000 and reimbursed him for six months of COBRA coverage for him and his dependents. The post-termination exercise period with respect to Mr. Breuil's vested options was also extended to the earliest of (i) the third anniversary of his termination of employment, (ii) the closing of a change in control or (iii) the later of the 12-month anniversary of this offering or the six-month anniversary of the expiration of any lock-up restriction imposed on Mr. Breuil in connection with this offering. Mr. Breuil also agreed to be available to consult with us on a paid and as-needed basis for three months following his termination of employment, and has continued to consult for us beyond that three-month period.

Douglas T. Sheehy. On February 26, 2007, we entered into an offer letter agreement with Mr. Sheehy, setting forth the terms and conditions of his employment as our Vice President, General Counsel and Secretary. The offer letter agreement provided an annual base salary of \$220,000. The offer letter also provided that he is eligible to participate in our Executive Cash Compensation Incentive Plan, with a target of 30% of his annualized base salary (prorated to his start date) for 2007, and which will be awarded at the discretion of our board of directors based on the company's performance. Mr. Sheehy also was eligible to receive a signing bonus of up to \$40,000, which was to be offset by any 2006 year-end bonus that he received from his previous employer. Because Mr. Sheehy received his full year-end bonus from his previous employer, he did not receive any signing bonus from us. In connection with the offer letter agreement, Mr. Sheehy received an option to purchase 150,000 shares of our common stock for an exercise price per share equal to \$1.63, which option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option vesting monthly thereafter until all shares are vested. The offer letter also provided that at the time of the company wide compensation review following December 31, 2007, Mr. Sheehy would receive an option to purchase a minimum of 33,000 shares of our common stock, contingent upon Mr. Sheehy's performance and subject to the approval of our board of directors. In lieu of this option grant, Mr. Sheehy received options to purchase 33,000 and 56,000 shares of our common stock on August 28, 2007 and October 25, 2007, respectively. The offer letter provides for certain benefits payable to Mr. Sheehy in the event of termination following a change in control of our company, as described below in the section entitled "Potential Payments Upon Termination and Change in Control — Change in Control Agreements."

David L. Anton, Ph.D. On February 15, 2008, we entered into an offer letter agreement with Dr. Anton, setting forth the terms and conditions of his employment as our Vice President, Bioindustrial Research and Development. The offer letter agreement provided an annual base salary of \$235,000. The offer letter agreement also provided that he is eligible to participate in our Executive Incentive Compensation Plan, with a target of 25% of his annualized base salary (prorated to his start date) for 2008, and which will be awarded at the discretion of our board of directors based on the company's performance. Dr. Anton also was eligible to receive a signing bonus of up to \$10,000, which was contingent upon his starting work with the company on or prior to March 24, 2008. In connection with Dr. Anton's commencement of employment, he received an option to purchase 150,000 shares of our common stock for an exercise price per share equal to \$7.90, which option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option vesting monthly thereafter until all shares are vested. The offer letter also provided for relocation assistance in an amount to be determined at a later date. When paid, Dr. Anton received a total of \$146,582 in relocation assistance.

Peter Seufer-Wasserthal, Ph.D. On March 6, 2006, we entered into a contract of employment with Dr. Seufer-Wasserthal, setting forth the terms and conditions of his employment as our Vice President, General Manager, Codexis Enzymes and Intermediates. The contract of employment provided an annual base salary of 165,642 Euros plus 50% of his portion of social security contributions according to the Austrian Social Security Act. Dr. Seufer-Wasserthal's contract of employment provided that for 2006, he

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would be eligible to participate in our Executive Bonus Plan with a bonus target of 20% of his annualized base salary, and that the bonus would be paid out in the form of stock options or cash, or a combination of cash and stock options at the discretion of our compensation committee, based upon the achievement of corporate and individual objectives as defined by our Chief Executive Officer and our board of directors, and subject to the final approval of our compensation committee. In November 2008, Dr. Seuffer-Wasserthal's bonus target was increased to 40% of his annualized base salary in connection with his promotion to Senior Vice President, Pharmaceuticals.

In connection with the contract of employment, Dr. Seuffer-Wasserthal received an option to purchase 80,000 shares of our common stock for an exercise price per share equal to \$0.70, which option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of his employment start date, and 1/48th of the total number of shares subject to the option vesting monthly thereafter until all shares are vested. Dr. Seuffer-Wasserthal also was eligible to receive a car allowance for the use of his personal vehicle in connection with his position at the company, amounting to 600 Euros per month. The contract of employment provides that the company will contribute: (i) the amounts required for benefit programs as required by Austrian law; (ii) 50% of Dr. Seuffer-Wasserthal's portion of social security contributions according to the Austrian Social Security Act; and (iii) 5% of Dr. Seuffer-Wasserthal's base salary to a personal pension plan to be set up by Dr. Seuffer-Wasserthal. The company also agreed to pay for life insurance equating to three times Dr. Seuffer-Wasserthal's base salary.

Dr. Seuffer-Wasserthal's contract of employment also provides that we must provide him no less than three months notice prior to terminating his employment and he, likewise, must provide us three months notice prior to resigning his employment.

Potential Payments Upon Termination and Change in Control

Severance Arrangements

Under Dr. Seuffer-Wasserthal's contract of employment with us, we must provide Dr. Seuffer-Wasserthal with three months notice prior to terminating his employment. Likewise, Dr. Seuffer-Wasserthal must provide us with three months notice prior to resigning his employment. In the event we terminate Dr. Seuffer-Wasserthal's employment, we may satisfy our obligation to provide him notice by paying him an amount equal to what he otherwise would have earned during the three month notice period. Had we terminated Dr. Seuffer-Wasserthal's employment on December 31, 2008, the amount we would have paid him in-lieu-of-notice would have been \$78,933, as converted from Euros to U.S. dollars at the December 31, 2008 average daily rate quoted by Oanda.com of 0.70946 Euros per U.S. dollar.

Change in Control Agreements

During 2008, we were party to change in control agreements with Dr. Shaw, Mr. Breuil, and Mr. Sheehy. The change in control agreements provide that in the event a named executive officer is terminated without cause or resigns for good reason, each as defined in the agreements, within twelve months following the change in control of our company, the terminated executive officer is entitled, subject to our receipt of a release of claims and a confidential information, secrecy and invention agreement, to the following payments and benefits:

Base salary, payable in a cash lump sum	12 months
Equity award vesting acceleration	100%
Continued health care coverage premiums(1)	12 months

- (1) If an executive elects to receive continued healthcare coverage pursuant to the provisions of COBRA, the executive will be eligible for reimbursement or direct payment of COBRA coverage premiums for the executive and any dependents. If the executive and/or the executive's dependents become eligible for healthcare coverage under a subsequent employer's plans, payment of health care coverage premiums will cease.

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The following table sets forth quantitative estimates of the benefits that would have accrued to each of our named executive officers if his employment had been terminated on December 31, 2008 by us without cause or for good reason by the named executive officers upon a change in control, assuming that such termination occurred within the period beginning on the effective date of a change in control as specified in the agreement and ending on the last day of the twelfth calendar month following the calendar month in which the effective date of a change in control occurs. Amounts below reflect potential payments pursuant to the change in control agreements for such named executive officers.

Name of Executive Officer	Salary Continuation	Value of Accelerated Equity Awards(1)	Value of Continued Healthcare Coverage Premiums	Total
Alan Shaw, Ph.D.	\$ 425,000	\$ 1,130,048	\$ 19,200	\$ 1,574,248
Robert S. Breuil(2)	320,000	698,798	19,200	1,037,998
Douglas T. Sheehy	260,000	386,246	19,200	665,446

- (1) Amounts calculated based on the aggregate amount by which the fair market value of the common stock subject to unvested equity awards exceeded the aggregate exercise price of the awards as of December 31, 2008.
- (2) Mr. Breuil resigned from employment with us as of June 30, 2009. In connection with his resignation, we entered into a Separation Agreement with Mr. Breuil pursuant to which we paid him a lump sum of \$160,000 as severance and reimbursed him for COBRA benefits in the amount of \$10,372. We also amended Mr. Breuil's vested options such that they will remain exercisable until earliest of (i) the third anniversary of his termination of employment, (ii) the closing of a change in control or (iii) the later of the 12-month anniversary of this offering or the six-month anniversary of the expiration of any lock-up restriction imposed on Mr. Breuil in connection with this offering.

Confidentiality Information, Secrecy and Invention Agreements

Each of our named executive officers has entered into a standard form agreement with respect to confidential information, secrecy and inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our proprietary information received during the course of employment and, with some exceptions, to assign to us any inventions conceived or developed during the course of employment.

Employee Benefit and Stock Plans

2010 Equity Incentive Award Plan

We intend to adopt a 2010 Equity Incentive Award Plan, or the 2010 Plan, which will be effective on the date of adoption. The principal purpose of the 2010 Plan is to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards and cash-based performance bonus awards. The 2010 Plan is also designed to permit us to make cash-based awards and equity-based awards intended to qualify as "performance-based compensation" under Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code.

The principal features of the 2010 Plan are summarized below. This summary is qualified in its entirety by reference to the text of the 2010 Plan, which is filed as an exhibit to the registration statement of which this prospectus is a part.

Share Reserve. Under the 2010 Plan, _____ shares of our common stock will be initially reserved for issuance pursuant to a variety of stock-based compensation awards, including stock options, stock appreciation rights, or SARs, restricted stock awards, restricted stock unit awards, deferred stock awards, dividend equivalent awards, stock payment awards and performance awards and other stock-based awards,

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plus the number of shares remaining available for future awards under our 2002 Stock Plan as of the completion of this offering. The number of shares initially reserved for issuance or transfer pursuant to awards under the 2010 Plan will be increased by (i) the number of shares represented by awards outstanding under our 2002 Stock Plan that are forfeited or lapse unexercised and which following the effective date are not issued under the 2002 Stock Plan and (ii) an annual increase on the first day of each fiscal year beginning in 2011 and ending in 2020, equal to the least of (A) _____ shares, (B) _____ % of the shares of stock outstanding (on an as converted basis) on the last day of the immediately preceding fiscal year and (C) such smaller number of shares of stock as determined by our board of directors; provided, however, no more than _____ shares of stock may be issued upon the exercise of incentive stock options.

The following counting provisions will be in effect for the share reserve under the 2010 Plan:

- to the extent that an award terminates, expires or lapses for any reason or an award is settled in cash without the delivery of shares, any shares subject to the award at such time will be available for future grants under the 2010 Plan;
- to the extent shares are tendered or withheld to satisfy the grant, exercise price or tax withholding obligation with respect to any award under the 2010 Plan, such tendered or withheld shares will be available for future grants under the 2010 Plan;
- to the extent that shares of our common stock are repurchased by us prior to vesting so that shares are returned to us, such shares will be available for future grants under the 2010 Plan;
- the payment of dividend equivalents in cash in conjunction with any outstanding awards will not be counted against the shares available for issuance under the 2010 Plan; and
- to the extent permitted by applicable law or any exchange rule, shares issued in assumption of, or
- in substitution for, any outstanding awards of any entity acquired in any form of combination by us or any of our subsidiaries will not be counted against the shares available for issuance under the 2010 Plan.

Administration. The compensation committee of our board of directors will administer the 2010 Plan unless our board of directors assumes authority for administration. The compensation committee must consist of at least two members of our board of directors, each of whom is intended to qualify as an “outside director,” within the meaning of Section 162(m) of the Code, a “non-employee director” for purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and an “independent director” within the meaning of the rules of The Nasdaq Stock Market, or other principal securities market on which shares of our common stock are traded. The 2010 Plan provides that the compensation committee may delegate its authority to grant awards to employees other than executive officers and certain senior executives of the company to a committee consisting of one or more members of our board of directors or one or more of our officers, but our compensation committee charter prohibits such delegation in the case of awards to employees at or above the level of vice president, and the equity awards policy we adopted in _____, 2010 calls for the compensation committee to approve all equity awards, other than awards made to our non-employee directors, which must be approved by our full board of directors.

Subject to the terms and conditions of the 2010 Plan, the administrator has the authority to select the persons to whom awards are to be made, to determine the number of shares to be subject to awards and the terms and conditions of awards, and to make all other determinations and to take all other actions necessary or advisable for the administration of the 2010 Plan. The administrator is also authorized to adopt, amend or rescind rules relating to administration of the 2010 Plan. Our board of directors may at any time remove the compensation committee as the administrator and re-vest in itself the authority to administer the 2010 Plan. The full board of directors will administer the 2010 Plan with respect to awards to non-employee directors.

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Eligibility. Options, SARs, restricted stock and all other stock-based and cash-based awards under the 2010 Plan may be granted to individuals who are then our officers, employees or consultants or are the officers, employees or consultants of certain of our subsidiaries. Such awards also may be granted to our directors. Only employees of our company or certain of our subsidiaries may be granted incentive stock options, or ISOs.

Awards. The 2010 Plan provides that the administrator may grant or issue stock options, SARs, restricted stock, restricted stock units, deferred stock, dividend equivalents, performance awards, stock payments and other stock-based and cash-based awards, or any combination thereof. Each award will be set forth in a separate agreement with the person receiving the award and will indicate the type, terms and conditions of the award.

- *Nonqualified Stock Options*, or NQSOs, will provide for the right to purchase shares of our common stock at a specified price which may not be less than fair market value on the date of grant, and usually will become exercisable (at the discretion of the administrator) in one or more installments after the grant date, subject to the participant's continued employment or service with us and/or subject to the satisfaction of corporate performance targets and individual performance targets established by the administrator. NQSOs may be granted for any term specified by the administrator that does not exceed ten years.
- *Incentive Stock Options*, or ISOs, will be designed in a manner intended to comply with the provisions of Section 422 of the Code and will be subject to specified restrictions contained in the Code. Among such restrictions, ISOs must have an exercise price of not less than the fair market value of a share of common stock on the date of grant, may only be granted to employees, and must not be exercisable after a period of ten years measured from the date of grant. In the case of an ISO granted to an individual who owns (or is deemed to own) at least 10% of the total combined voting power of all classes of our capital stock, the 2010 Plan provides that the exercise price must be at least 110% of the fair market value of a share of common stock on the date of grant and the ISO must not be exercisable after a period of five years measured from the date of grant.
- *Restricted Stock* may be granted to any eligible individual and made subject to such restrictions as may be determined by the administrator. Restricted stock, typically, may be forfeited for no consideration or repurchased by us at the original purchase price if the conditions or restrictions on vesting are not met. In general, restricted stock may not be sold or otherwise transferred until restrictions are removed or expire. Purchasers of restricted stock, unlike recipients of options, will have voting rights and will have the right to receive dividends, if any, prior to the time when the restrictions lapse, however, extraordinary dividends will generally be placed in escrow, and will not be released until restrictions are removed or expire.
- *Restricted Stock Units* may be awarded to any eligible individual, typically without payment of consideration, but subject to vesting conditions based on continued employment or service or on performance criteria established by the administrator. Like restricted stock, restricted stock units may not be sold, or otherwise transferred or hypothecated, until vesting conditions are removed or expire. Unlike restricted stock, stock underlying restricted stock units will not be issued until the restricted stock units have vested, and recipients of restricted stock units generally will have no voting or dividend rights prior to the time when vesting conditions are satisfied.
- *Deferred Stock Awards* represent the right to receive shares of our common stock on a future date. Deferred stock may not be sold or otherwise hypothecated or transferred until issued. Deferred stock will not be issued until the deferred stock award has vested, and recipients of deferred stock generally will have no voting or dividend rights prior to the time when the vesting conditions are satisfied and the shares are issued. Deferred stock awards generally will be forfeited, and the underlying shares of deferred stock will not be issued, if the applicable vesting conditions and other restrictions are not met.

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- *Stock Appreciation Rights*, or SARs, may be granted in connection with stock options or other awards, or separately. SARs granted in connection with stock options or other awards typically will provide for payments to the holder based upon increases in the price of our common stock over a set exercise price. The exercise price of any SAR granted under the 2010 Plan must be at least 100% of the fair market value of a share of our common stock on the date of grant. Except as required by Section 162(m) of the Code with respect to a SAR intended to qualify as performance-based compensation as described in Section 162(m) of the Code, there are no restrictions specified in the 2010 Plan on the exercise of SARs or the amount of gain realizable therefrom, although restrictions may be imposed by the administrator in the SAR agreements. SARs under the 2010 Plan will be settled in cash or shares of our common stock, or in a combination of both, at the election of the administrator.
- *Dividend Equivalents* represent the value of the dividends, if any, per share paid by us, calculated with reference to the number of shares covered by the award. Dividend equivalents may be settled in cash or shares and at such times as determined by the compensation committee or board of directors, as applicable.
- *Performance Awards* may be granted by the administrator on an individual or group basis. Generally, these awards will be based upon specific performance targets and may be paid in cash or in common stock or in a combination of both. Performance awards may include “phantom” stock awards that provide for payments based upon the value of our common stock. Performance awards may also include bonuses that may be granted by the administrator on an individual or group basis and which may be payable in cash or in common stock or in a combination of both.
- *Stock Payments* may be authorized by the administrator in the form of common stock or an option or other right to purchase common stock as part of a deferred compensation on other arrangement in lieu of all or any part of compensation, including bonuses, that would otherwise be payable in cash to the employee, consultant or non-employee director.

Change in Control. In the event of a change in control where the acquiror does not assume or replace awards granted, prior to the consummation of such transaction and then the awards will terminate upon consummation of the transaction under the 2010 Plan, awards issued under the 2010 Plan will be subject to accelerated vesting such that 100% of such awards will become vested and exercisable or payable, as applicable. In addition, the administrator will also have complete discretion to structure one or more awards under the 2010 Plan to provide that such awards will become vested and exercisable or payable on an accelerated basis in the event such awards are assumed or replaced with equivalent awards but the individual’s service with us or the acquiring entity is subsequently terminated within a designated period following the change in control event. The administrator may also make appropriate adjustments to awards under the 2010 Plan and is authorized to provide for the acceleration, cash-out, termination, assumption, substitution or conversion of such awards in the event of a change in control or certain other unusual or nonrecurring events or transactions. Under the 2010 Plan, a change in control is generally defined as:

- the transfer or exchange in a single or series of related transactions by our stockholders of more than 50% of our voting stock to a person or group;
- a change in the composition of our board of directors over a two-year period such that 50% or more of the members of the board were elected through one or more contested elections;
- a merger, consolidation, reorganization or business combination in which we are involved, directly or indirectly, other than a merger, consolidation, reorganization or business combination which results in our outstanding voting securities immediately before the transaction continuing to represent a majority of the voting power of the acquiring company’s outstanding voting securities and after which no person or group beneficially owns 50% or more of the outstanding voting securities of the surviving entity immediately after the transaction;

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- the sale, exchange, or transfer of all or substantially all of our assets; or
- stockholder approval of our liquidation or dissolution.

Adjustments of Awards. In the event of any stock dividend, stock split, combination or exchange of shares, merger, consolidation, spin-off, recapitalization, distribution of our assets to stockholders (other than normal cash dividends) or any other corporate event affecting the number of outstanding shares of our common stock or the share price of our common stock that would require adjustments to the 2010 Plan or any awards under the 2010 Plan in order to prevent the dilution or enlargement of the potential benefits intended to be made available thereunder, the administrator will make appropriate, proportionate adjustments to:

- the aggregate number and type of shares subject to the 2010 Plan;
- the number and kind of shares subject to outstanding awards and terms and conditions of outstanding awards (including, without limitation, any applicable performance targets or criteria with respect to such awards); and
- the grant or exercise price per share of any outstanding awards under the 2010 Plan.

Amendment and Termination. Our board of directors or the committee (with board approval) may terminate, amend or modify the 2010 Plan at any time and from time to time. However, we must generally obtain stockholder approval:

- to increase the number of shares available under the 2010 Plan (other than in connection with certain corporate events, as described above);
- to grant options with an exercise price that is below 100% of the fair market value of shares of our common stock on the grant date;
- to extend the exercise period for an option beyond ten years from the date of grant; or
- to the extent required by applicable law, rule or regulation (including any applicable stock exchange rule).

Notwithstanding the foregoing, an option may be amended to reduce the per share exercise price below the per share exercise price of such option on the grant date and options may be granted in exchange for, or in connection with, the cancellation or surrender of options having a higher per share exercise price without receiving additional shareholder approval.

Expiration Date. The 2010 Plan will expire on, and no option or other award may be granted pursuant to the 2010 Plan after, the tenth anniversary of the effective date of the 2010 Plan. Any award that is outstanding on the expiration date of the 2010 Plan will remain in force according to the terms of the 2010 Plan and the applicable award agreement.

Securities Laws and U.S. Federal Income Taxes. The 2010 Plan is designed to comply with various securities and U.S. federal tax laws as follows:

Securities Laws. The 2010 Plan is intended to conform to all provisions of the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the SEC thereunder, including without limitation, Rule 16b-3. The 2010 Plan will be administered, and options will be granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations.

Section 409A of the Code. Certain awards under the 2010 Plan may be considered “nonqualified deferred compensation” for purposes of Section 409A of the Code, which imposes certain additional requirements regarding the payment of deferred compensation. Generally, if at any time during a taxable year a nonqualified deferred compensation plan fails to meet the requirements of Section 409A, or is not operated in accordance with those requirements, all amounts deferred under the 2010 Plan and all other equity incentive plans for the taxable year and all preceding taxable years by any participant with

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respect to whom the failure relates are includible in gross income for the taxable year to the extent not subject to a substantial risk of forfeiture and not previously included in gross income. If a deferred amount is required to be included in income under Section 409A, the amount also is subject to interest and an additional income tax. The interest imposed is equal to the interest at the underpayment rate plus one percentage point, imposed on the underpayments that would have occurred had the compensation been includible in income for the taxable year when first deferred, or if later, when not subject to a substantial risk of forfeiture. The additional U.S. federal income tax is equal to 20% of the compensation required to be included in gross income. In addition, certain states, including California, have laws similar to Section 409A, which impose additional state penalty taxes on such compensation.

Section 162(m) of the Code. In general, under Section 162(m) of the Code, income tax deductions of publicly held corporations may be limited to the extent total compensation (including, but not limited to, base salary, annual bonus, and income attributable to stock option exercises and other non-qualified benefits) for certain executive officers exceeds \$1,000,000 (less the amount of any “excess parachute payments” as defined in Section 280G of the Code) in any taxable year of the corporation. However, under Section 162(m), the deduction limit does not apply to certain “performance-based compensation” established by an independent compensation committee that is adequately disclosed to and approved by stockholders. In particular, stock options and SARs will satisfy the “performance-based compensation” exception if the awards are made by a qualifying compensation committee, the 2010 Plan sets the maximum number of shares that can be granted to any person within a specified period and the compensation is based solely on an increase in the stock price after the grant date. Specifically, the option exercise price must be equal to or greater than the fair market value of the stock subject to the award on the grant date. Under a Section 162(m) transition rule for compensation plans of corporations which are privately held and which become publicly held in an initial public offering, the 2010 Plan will not be subject to Section 162(m) until a specified transition date, which is the earlier of:

- the material modification of the 2010 Plan;
- the issuance of all of the shares of our common stock reserved for issuance under the 2010 Plan;
- the expiration of the 2010 Plan; or
- the first meeting of our stockholders at which members of our board of directors are to be elected that occurs after the close of the third calendar year following the calendar year in which our initial public offering occurs.

After the transition date, rights or awards granted under the 2010 Plan, other than options and SARs, will not qualify as “performance-based compensation” for purposes of Section 162(m) unless such rights or awards are granted or vest upon pre-established objective performance goals, the material terms of which are disclosed to and approved by our stockholders. Thus, after the transition date, we expect that such other rights or awards under the plan will not constitute performance-based compensation for purposes of Section 162(m).

We intend to file with the SEC a registration statement on Form S-8 covering the shares of our common stock issuable under the 2010 Plan.

2002 Stock Plan, as amended

Our board of directors adopted, and our stockholders approved, the 2002 Stock Plan in November 2002. An aggregate of 15,757,642 shares of our common stock is reserved for issuance under the 2002 Stock Plan. The 2002 Stock Plan provides for the grant of ISOs, NQSOs and stock purchase rights. As of September 30, 2009, options to purchase 10,897,854 shares of our common stock at a weighted average exercise price per share of \$3.26 remained outstanding under the 2002 Stock Plan. No stock purchase

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rights have been granted under the 2002 Stock Plan. As of September 30, 2009, options to purchase 3,226,648 shares of our common stock remained available for future issuance pursuant to awards granted under the 2002 Stock Plan.

Our board of directors, or a committee thereof appointed by our board of directors, has the authority to administer the 2002 Stock Plan and the awards granted under it. Following the completion of this offering, no further awards will be granted under the 2002 Stock Plan; all outstanding awards will continue to be governed by their existing terms.

Stock Options. The 2002 Stock Plan provides for the grant of ISOs under the federal tax laws or NQSOs. ISOs may be granted only to employees. NQSOs and stock purchase rights may be granted to employees, directors or consultants. The exercise price of ISOs granted to employees who at the time of grant own stock representing more than 10% of the voting power of all classes of our common stock may not be less than 110% of the fair market value of our common stock on the date of grant, and the exercise price of ISOs granted to any other employees may not be less than 100% of the fair market value of our common stock on the date of grant. The exercise price of NQSOs to employees, directors or consultants who at the time of grant own stock representing more than 10% of the voting power of all classes of our common stock may not be less than 110% of the fair market value of our common stock on the date of grant, and the exercise price of nonstatutory stock options to all other employees, directors or consultants may not be less than 85% of the fair market value of our common stock on the date of grant. Shares subject to options under the 2002 Stock Plan generally vest in a series of installments over an optionee's period of service, with a minimum vesting rate of at least 20% per year over five years from the date of grant, except with respect to options granted to officers, directors and consultants. This minimum vesting rate does not apply to recipients of options who are tax residents of Germany.

In general, the maximum term of options granted is ten years. The maximum term of options granted to an optionee who owns stock representing more than 10% of the voting power of all classes of our common stock is five years. If an optionee's service relationship with us terminates other than by disability or death, the optionee may exercise the vested portion of any option in such period of time as specified in the optionee's option agreement, but in no event will such period be less than 30 days following the termination of service. If an optionee's service relationship with us terminates by disability or death, the optionee, or the optionee's designated beneficiary, as applicable, may exercise the vested portion of any option in such period of time as specified in the optionee's option agreement, but in no event will such period be less than six months following the termination of service. Shares of common stock representing any unvested portion of the option on the date of termination shall immediately cease to be issuable and shall become available for issuance under the 2002 Stock Plan. If, after termination, the optionee does not exercise the option within the time period specified, the option shall terminate and the shares of common stock covered by such option will become available for issuance under the 2002 Stock Plan.

Stock Purchase Rights. The 2002 Stock Plan provides that we may issue stock purchase rights alone, in addition to or in tandem with options granted under the 2002 Stock Plan and/or cash awards made outside of the 2002 Stock Plan. Any stock purchase rights will be governed by a restricted stock purchase agreement. We will have the right to repurchase shares of common stock acquired by the purchaser upon exercise of a stock purchase right upon the termination of the purchaser's status as an employee, director or consultant for any reason. The repurchase price for shares acquired by the purchaser upon exercise of a stock purchase right shall be the original price paid by the purchaser. Except with respect to shares purchased by officers, directors and consultants, the repurchase option shall lapse at a rate of at least 20% per year over five years from the date of purchase; this term does not apply to stock purchase rights granted to individuals who are tax residents of Germany. Once the stock purchase right is exercised, the purchaser shall have rights equivalent to those of our other stockholders.

Corporate Transactions. In the event of a proposed dissolution or liquidation, the administrator of the 2002 Stock Plan has the discretion to take one or more of the following actions: (a) provide that any

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option or stock purchase right be made exercisable until 10 days prior to such transaction; and (b) provide that the Company repurchase option applicable to any shares purchased upon exercise of an option or stock purchase right shall lapse as to all such shares. To the extent options and stock purchase rights have not been previously exercised, all such options and stock purchase rights will terminate immediately prior to the consummation of the proposed transaction.

In the event of certain corporate transactions, the administrator of the 2002 Stock Plan shall adjust the number of shares of common stock that may be delivered under the 2002 Stock Plan and/or the number class and price of shares of common stock covered by each outstanding option or stock purchase right.

Change in Control. In the event we undergo a change in control, and any surviving corporation does not assume options or stock purchase rights under the 2002 Stock Plan, or substitute an equivalent option of the successor corporation or a parent or subsidiary of the successor corporation, the vesting of options or stock purchase rights held by participants in the 2002 Stock Plan, shall be accelerated and made fully exercisable. The holder of such options or stock purchase rights not assumed or substituted shall be notified by the 2002 Stock Plan administrator that the option or stock purchase right is fully exercisable for a period of 15 days from the date of such notice, and shall be terminated if not exercised within such 15 day period.

Employee Stock Purchase Plan

Our Employee Stock Purchase Plan, which we refer to as our ESPP, was adopted by our board of directors in _____ and approved by our stockholders in _____. The ESPP is designed to allow our eligible employees and the eligible employees of our participating subsidiaries to purchase shares of common stock, at semi-annual intervals, with their accumulated payroll deductions.

Share Reserve. _____ shares of our common stock are initially reserved for issuance under our ESPP. The number of shares of common stock reserved under our ESPP will automatically increase on the first trading day each year, beginning in 2011, by an amount equal to the least of: (i) _____ percent (____%) of our outstanding shares of common stock outstanding on such date, (ii) _____ shares or (iii) a lesser amount determined by our board of directors. The maximum aggregate number of shares which may be issued over the term of the ESPP is _____ shares. In addition, no participant in our ESPP may be issued or transferred more than \$25,000 of shares of common stock pursuant to awards under the ESPP per calendar year.

Offering Periods. The ESPP has a series of successive offering periods, with a new offering period beginning on _____ and _____ each year. Unless otherwise determined by the compensation committee, each offering period has a duration of six months, other than the initial offering period which will begin on the effective date of our initial public offering and will end on _____.

Eligible Employees. Our employees, and any employees of our subsidiaries that the compensation committee designates as participating in the ESPP, who are scheduled to work more than 20 hours per week for more than five calendar months per year may join an offering period on the start date of that period.

Payroll Deductions. A participant may contribute from 1% to 15% of his or her compensation through payroll deductions, and the accumulated deductions will be applied to the purchase of shares on each semi-annual purchase date. The purchase price per share will be equal to 85% of the fair market value per share of our common stock on the first trading date of an offering period in which a participant is enrolled or, if lower, 85% of the fair market value per share on the semi-annual purchase date. Semi-annual purchase dates will occur on the last trading day of each offering period. However, not more than _____ shares may be purchased in total by any participant during any offering period. Our compensation committee has the authority to change these limitations for any subsequent offering period.

Change in Control. Should we be acquired by merger or sale of substantially all of our assets or more than 50% of our voting securities, then all outstanding purchase rights may either be assumed by the

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acquirer or all outstanding purchase rights will be exercised at an early purchase date prior to the effective date of the acquisition. The purchase price in effect for each participant will be equal to 85% of the fair market value per share of our common stock on the first trading date of the offering period in which the participant is enrolled at the time the acquisition occurs or, if lower, 85% of the fair market value per share on the purchase date prior to the acquisition.

Plan Provisions. The ESPP will terminate no later than 10 years after the date our board approved it. The board may at any time amend, suspend or discontinue the ESPP. However, certain amendments may require stockholder approval.

401(k) Plan

In January 2005, we implemented a 401(k) Plan covering certain employees. Currently, all of our U.S.-based employees over the age of 18 are eligible to participate in the 401(k) Plan. Under the 401(k) Plan, eligible employees may elect to reduce their current compensation by up to the lesser of 75% of their base salary and cash compensation or the prescribed annual limit and contribute these amounts to the 401(k) Plan. We may make matching or other contributions to the 401(k) Plan on behalf of eligible employees. In 2009, we did not make any contributions to the 401(k) Plan on behalf of eligible employees. The 401(k) Plan is intended to qualify under Section 401 of the Code so that contributions by employees to the 401(k) Plan, and income earned on the 401(k) Plan contributions, are not taxable to employees until withdrawn from the 401(k) Plan. The trustees under the 401(k) Plan, at the direction of each participant, invest the 401(k) Plan employee salary deferrals in selected investment options.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation and amended and restated bylaws, each to be effective upon the completion of this offering, will provide that we will indemnify our directors, officers, employees and agents to the fullest extent permitted by the Delaware General Corporation Law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director's duty of loyalty to us or to our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we will also be empowered to enter into indemnification agreements with our directors, officers, employees and other agents and to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our amended and restated certificate of incorporation and amended and restated bylaws, we have entered into indemnification agreements with each of our directors, and will enter into new indemnification agreements with each of our current directors, officers, and certain employees before the completion of this offering. These agreements provide for the indemnification of our directors, officers, and certain employees for all reasonable expenses and liabilities

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incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were our agents. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us. This description of the indemnification provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is qualified in its entirety by reference to these documents, each of which is attached as an exhibit to this registration statement.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend or terminate the plan in some circumstances. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

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CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

We describe below transactions, since our inception, to which we were a party or will be a party, in which:

- The amounts involved exceeded or will exceed \$120,000; and
- A director, executive officer, holder of more than 5% of our common stock or any member of their immediate family had or will have a direct or indirect material interest.

Preferred Stock Issuances

Issuance of Series F Preferred Stock

Between March and November 2009, we sold 5,529,410 shares of Series F preferred stock at a price of \$8.50 per share for gross proceeds of approximately \$47.0 million. The table below sets forth the number of shares of Series F preferred stock sold to our directors, executive officers and 5% stockholders and their affiliates.

<u>Name</u>	<u>Number of Shares of Series F Preferred Stock</u>	<u>Aggregate Purchase Price</u>
Equilon Enterprises LLC dba Shell Oil Products US(1)	3,529,411	\$ 30,000,000.00

- (1) Chris Streng is one of our directors and is Vice President Finance Manufacturing for Shell Downstream Inc.

Issuance of Series E Preferred Stock

During November and December 2007, we sold 6,100,305 shares of Series E preferred stock at a price of \$8.50 per share for gross proceeds of approximately \$51.9 million, and issued an additional 56,470 shares of Series E preferred stock valued at \$480,000 to a professional consulting services firm in exchange for their services. The table below sets forth the number of shares of Series E preferred stock sold to our directors, executive officers and 5% stockholders and their affiliates.

<u>Name</u>	<u>Number of Shares of Series E Preferred Stock</u>	<u>Aggregate Purchase Price</u>
Equilon Enterprises LLC dba Shell Oil Products US(1)	3,584,428	\$ 30,467,638.00
CMEA Ventures Life Sciences 2000, L.P.(2) (3)	588,236	5,000,006.00
FirstMark III, L.P. (formerly, Pequot Private Equity Fund III, LP)(4)	588,235	4,999,997.50
CITV Investments LLC	88,236	750,006.00

- (1) Chris Streng is one of our directors and is Vice President Finance Manufacturing for Shell Downstream Inc.
- (2) Thomas R. Baruch is one of our directors and a managing director of CMEA Ventures.
- (3) Includes 36,471 shares held by CMEA Ventures Life Sciences 2000, Civil Law Partnership, an affiliate of CMEA Ventures Life Sciences 2000, L.P.
- (4) Includes 72,677 shares held by FirstMark III Offshore Partners, L.P. (formerly, Pequot Offshore Private Equity Partners III, LP), an affiliate of FirstMark III, L.P.

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Issuance of Series D Preferred Stock

In August and October 2006, we issued an aggregate of 10,068,402 shares of our Series D preferred stock at a price per share of approximately \$3.97 for an aggregate purchase price of approximately \$40.0 million, including cancellation of indebtedness. The table below sets forth the number of shares of Series D preferred stock sold to our directors, executive officers and 5% stockholders and their affiliates.

Name	Number of Shares of Series D Preferred Stock	Aggregate Purchase Price
Biomedical Sciences Investment Fund Pte Ltd.(1)	5,037,783	\$ 19,999,998.51
CMEA Ventures Life Sciences 2000, L.P.(2) (3)	1,520,180	6,035,114.60
Equilon Enterprises LLC dba Shell Oil Products US(4) (7)	1,184,239	5,999,998.96
FirstMark III, L.P. (formerly, Pequot Private Equity Fund III, LP)(5)	736,375	2,923,408.75
Maxygen, Inc.(6)	254,838	1,011,706.86
CTTV Investments LLC	755,668	3,000,001.96

- (1) Mun Yew Wong is one of our directors and Director (Investments) of EDB Investments Pte Ltd and Bio*One Capital Pte Ltd.
- (2) Thomas R. Baruch is one of our directors and a managing director of CMEA Ventures.
- (3) Includes 94,223 shares held by CMEA Ventures Life Sciences 2000, Civil Law Partnership, an affiliate of CMEA Ventures Life Sciences 2000, L.P.
- (4) Chris Streng is one of our directors and is Vice President Finance Manufacturing for Shell Downstream Inc.
- (5) Includes 645,395 shares held by FirstMark III Offshore Partners, L.P. (formerly, Pequot Offshore Private Equity Partners III, LP), an affiliate of FirstMark III, L.P.
- (6) James R. Sulat is one of our directors and the Chief Executive Officer and Chief Financial Officer and a director of Maxygen, Inc.
- (7) Includes 428,571 shares acquired in November 2007 pursuant to the exercise of a warrant at a price per share of \$7.00 per share for an aggregate purchase price of \$2,999,997.00.

2006 Bridge Financing

In May 2006, we sold convertible promissory notes, or the 2006 Notes, to certain of our existing investors in the aggregate principal amount of approximately \$4.2 million. The 2006 Notes accrued interest at a rate of 8% per annum and had a maturity date of the earlier of (1) December 31, 2006 or (2) the closing of any consolidation or merger of the Company with or into another corporation or entity or a sale of all or substantially all of our assets. In August 2006, in connection with our Series D preferred stock financing described above, the full principal amount of and accrued but unpaid interest on the 2006 Notes was automatically converted into an aggregate of 1,078,571 shares of our Series D preferred stock at a conversion price equal to the issue price of our Series D preferred stock.

In connection with the 2006 Notes, we issued warrants to purchase an aggregate of 323,569 shares of our Series D preferred stock at an exercise price of \$3.97 per share to the purchasers of the 2006 Notes. The warrants may be exercised at any time prior to their respective termination dates, which are the seventh anniversaries of their issue dates.

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The table below sets forth the principal amount of the 2006 Notes and the shares of Series D preferred stock issuable upon exercise of the related warrants sold to our directors, executive officers and 5% stockholders and their affiliates.

<u>Name</u>	<u>Aggregate Principal Amount of 2006 Notes</u>	<u>Shares of Series D Preferred Stock Issuable Upon the Exercise of Warrants</u>
CMEA Ventures Life Sciences 2000, L.P.(1) (2) (3)	\$ 1,800,000	138,673
FirstMark III, L.P. (formerly, Pequot Private Equity Fund III, LP)(4) (5)	\$ 1,200,000	92,448
Maxygen, Inc.(6)	\$ 600,000	46,224
CTTV Investments LLC	\$ 600,000	46,224

- (1) Thomas R. Baruch is one of our directors and a managing director of CMEA Ventures.
- (2) Includes \$111,565.82 aggregate principal amount invested by CMEA Ventures Life Sciences 2000, Civil Law Partnership, an affiliate of CMEA Ventures Life Sciences 2000, L.P.
- (3) Includes 8,595 shares of Series D preferred stock issuable upon the exercise of a warrant held by CMEA Ventures Life Sciences 2000, Civil Law Partnership, an affiliate of CMEA Ventures Life Sciences 2000, L.P.
- (4) Includes \$148,261.00 aggregate principal amount invested by FirstMark III Offshore Partners, L.P. (formerly, Pequot Offshore Private Equity Partners III, LP), an affiliate of FirstMark III, L.P.
- (5) Includes 11,422 shares of Series D preferred stock issuable upon the exercise of a warrant held by FirstMark III Offshore Partners, L.P. (formerly, Pequot Offshore Private Equity Partners III, LP), an affiliate of FirstMark III, L.P.
- (6) James R. Sulat is one of our directors and the Chief Executive Officer and Chief Financial Officer and a director of Maxygen, Inc.

Registration Rights Agreement

We have entered into an investors' rights agreement with the purchasers of our outstanding preferred stock and certain holders of common stock and warrants to purchase our common stock and preferred stock, including entities with which certain of our directors are affiliated. Additionally, in connection with our acquisition of Jülich Fine Chemicals GmbH we entered into a registration rights agreement with certain stockholders of Jülich who acquired shares of our common stock in connection with the acquisition. As of September 30, 2009, the holders of 38,418,542 shares of our common stock, including the shares of common stock issuable upon the automatic conversion of our preferred stock and shares of common stock issued upon exercise of warrants, are entitled to rights with respect to the registration of their shares under the Securities Act. For a more detailed description of these registration rights, see "Description of Capital Stock — Registration Rights."

Other Transactions

In March 2002, we licensed core enabling technology from Maxygen and commenced operations. The license agreement was amended in September 2002, October 2002 and August 2006. See "Business — License Agreement with Maxygen."

In November 2006, we entered into a research agreement and license agreement with Shell. In November 2007, we entered into a new collaboration under an amended and restated collaborative research agreement and an amended and restated license agreement. Both of these agreements were further amended in March 2009. See "Business — Strategic Collaborations — Shell and Other Biofuels Partners."

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We have entered into change of control agreements with certain of our executive officers that, among other things, provide for certain severance and change of control benefits. For a description of these agreements, see “Management — Change in Control Agreements.”

We have granted stock options to our executive officers and certain of our directors. For a description of these options, see “Management — Grants of Plan-Based Awards in 2008 Table.”

In December 2009, we entered into a consulting agreement with Alexander A. Karsner, one of our directors. Under the consulting agreement, Mr. Karsner agreed to provide certain strategic advisory services related to the energy industry and government relations, as requested by us from time to time, in exchange for cash compensation of \$120,000 per year, payable on a quarterly basis. Pursuant to the consulting agreement, we also granted Mr. Karsner an option to purchase 100,000 shares of our common stock pursuant to our 2002 Stock Plan, which vests monthly as to 1/48th of the total shares subject to the option, provided that Mr. Karsner continues to provide services to us under the consulting agreement. The consulting agreement has a term of four years, but is terminable at any time by either party.

We have entered into indemnification agreements with each of our directors, and will enter into new indemnification agreements with each of our current directors, officers, and certain employees before the completion of this offering. See “Management — Limitation on Liability and Indemnification Matters.”

Policies and Procedures for Related Party Transactions

Our board of directors intends to adopt a written related person transaction policy to set forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, the amount involved exceeds \$120,000, and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness, and employment by us of a related person.

PRINCIPAL AND SELLING STOCKHOLDERS

The following table sets forth information about the beneficial ownership of our common stock at September 30, 2009 (based on the total number of shares of common stock outstanding on September 30, 2009, as adjusted to reflect the conversion of all shares of our outstanding preferred stock and assuming the sale of shares of our common stock in this offering) as adjusted to reflect the sale of the shares of common stock in this offering for:

- each person known to us to be the beneficial owner of more than 5% of our common stock;
- each named executive officer and each director;
- all of our executive officers and directors as a group; and
- each selling stockholder.

Unless otherwise noted below, the address of each beneficial owner listed on the table is c/o Codexis, Inc., 200 Penobscot Drive, Redwood City, CA 94063. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the tables below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

In computing the number of shares of common stock beneficially owned by a person after the offering, we have assumed the issuance of 37,624,216 shares of common stock to holders of our preferred stock upon the closing of this offering as a cumulative dividend, pursuant to the terms of our certificate of incorporation.

In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of common stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days of September 30, 2009. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

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We have based our calculation of the percentage of beneficial ownership prior to the offering on 41,599,768 shares of common stock outstanding on September 30, 2009 (as adjusted to reflect at that date the conversion of all shares of our preferred stock outstanding into 37,624,216 shares of common stock). We have based our calculation of the percentage of beneficial ownership after the offering on _____ shares of our common stock outstanding immediately after the completion of this offering.

Name and Address of Beneficial Owner	Number of Shares Beneficially Owned		Shares Being Offered	Percentage of Shares Beneficially Owned	
	Prior to the Offering	After the Offering		Prior to the Offering	After the Offering
5% Stockholders:					
Maxygen, Inc.(1)	8,981,888			21.57%	
Equilon Enterprises LLC dba Shell Oil Products US	8,298,078			19.95%	
Biomedical Sciences Investment Fund Pte Ltd(2)	5,037,783			12.11%	
Entities affiliated with CMEA Ventures(3)	4,515,397			10.82%	
Entities affiliated with FirstMark Capital (formerly, Pequot Capital Management)(4)	4,009,411			9.62%	
CTTV Investments LLC(5)	2,510,348			6.03%	
Executive Officers and Directors:					
Alan Shaw(6)	1,658,177			3.85%	
Robert J. Lawson	—			—	
David L. Anton(7)	62,499			*	
Joseph J. Sarret(8)	179,508			*	
Douglas T. Sheehy(9)	144,602			*	
Thomas R. Baruch(10)	4,515,397			10.82%	
Alexander A. Karsner	—			—	
Bernard J. Kelley(11)	145,000			*	
Bruce Pasternack(12)	75,000			*	
Chris Streng	—			—	
James R. Sulat(13)	8,981,888			21.57%	
Dennis P. Wolf(14)	75,000			*	
Mun Yew Wong	—			—	
Robert S. Breuil(15)	442,824			1.05%	
Peter Seufer-Wasserthal(16)	186,700			*	
All executive officers and directors as a group (15 persons)	16,466,595			36.95%	
Other Selling Stockholders:					

* Represents beneficial ownership of less than 1% of the outstanding shares of our common stock.

- (1) Includes 46,224 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by Maxygen, Inc.
- (2) EDB Investments Pte Ltd, or EDB Investments, the parent entity of Biomedical Sciences Investment Fund Pte Ltd, and the Economic Development Board of Singapore, or EDB, the ultimate parent entity of EDB Investments, may be deemed to have voting and dispositive power over the shares owned beneficially and of record by Biomedical Sciences Investment Fund Pte Ltd.
- (3) Includes (i) 4,105,438 shares and 130,078 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CMEA Ventures Life Sciences 2000, L.P. and (ii) 271,286 shares and 8,595 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CMEA Ventures Life Sciences 2000, Civil Law Partnership. CMEA Ventures LS Management 2000, L.P. is the general partner of CMEA Ventures Life Sciences 2000, L.P. and the

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managing limited partner of CMEA Ventures Life Sciences 2000, Civil Law Partnership. David Collier, Karl Handelsman and Thomas R. Baruch are the general partners of CMEA Ventures LS Management 2000, L.P. and as such, have voting and dispositive power over these shares. Each disclaims beneficial ownership of the shares and warrants held by these entities except to the extent of any pecuniary interest therein.

- (4) Includes (i) 3,433,018 shares and 81,026 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by FirstMark III, L.P. and (ii) 483,945 shares and 11,422 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by FirstMark III Offshore Partners, L.P. FirstMark Capital, LLC, or FirstMark, is the investment manager/advisor of, and exercises sole investment discretion over, FirstMark III, L.P. and FirstMark III Offshore Partners, L.P., and as such, has voting and dispositive power over these shares. Lawrence D. Lenihan, Jr. is the chief executive officer and a managing member of FirstMark, and Gerald A. Poch is the chairman and a managing member of FirstMark. As such, each of Mr. Lenihan and Mr. Poch have voting and dispositive power over these shares. Each of Mr. Lenihan and Mr. Poch disclaim beneficial ownership of the shares and shares underlying warrants held by these entities, except to the extent of each of his pecuniary interest therein.
- (5) Includes 46,224 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CTTV Investments LLC.
- (6) Includes (i) 71,302 shares held by Alan Shaw, Trustee of The Alan Shaw 2008 Annuity Trust, dated June 20, 2008, (ii) 66,198 shares held by The Shaw Living Trust Agreement and (iii) 1,520,677 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009.
- (7) Includes 62,499 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009.
- (8) Includes (i) 20,000 shares held by Joseph Sarret as Trustee UTD 5/30/00 and (ii) 159,508 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009.
- (9) Includes 144,602 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009.
- (10) Includes (i) 4,105,438 shares and 130,078 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CMEA Ventures Life Sciences 2000, L.P. and (ii) 271,286 shares and 8,595 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CMEA Ventures Life Sciences 2000, Civil Law Partnership. CMEA Ventures LS Management 2000, L.P. is the general partner of CMEA Ventures Life Sciences 2000, L.P. and the managing limited partner of CMEA Ventures Life Sciences 2000, Civil Law Partnership. Mr. Baruch is a general partner of CMEA Ventures LS Management 2000, L.P. and as such, has voting and dispositive power over these shares. Mr. Baruch disclaims beneficial ownership of the shares and warrants held by these entities except to the extent of his pecuniary interest therein.
- (11) Includes 107,500 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009. Such options are vested as to 61,666 shares, and the remaining 45,834 shares, if the options are exercised, would be subject to a right of repurchase within 60 days of September 30, 2009, at the original option exercise price, in the event Mr. Kelley ceases to provide services to us. The option exercise prices range from \$0.70 to \$7.00 per share.
- (12) Includes 75,000 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009. Such options are vested as to 25,520 shares, and the remaining 49,480 shares, if the options are exercised, would be subject to a right of repurchase within 60 days of September 30, 2009, at the original option exercise price, in the event Mr. Pasternack ceases to provide services to us. The option exercise prices range from \$4.47 to \$7.00 per share.

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- (13) Includes 8,935,664 shares and 46,224 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by Maxygen, Inc. Mr. Sulat is the Chief Executive Officer, Chief Financial Officer and a member of the board of directors of Maxygen and may be deemed to be the beneficial owner of our securities held by Maxygen. Mr. Sulat disclaims beneficial ownership of all our securities held by Maxygen, except to the extent of his pecuniary interest therein. Mr. Sulat will resign from our board of directors in connection with the closing of our initial public offering.
- (14) Includes 75,000 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009. Such options are vested as to 23,437 shares, and the remaining 51,563 shares, if the options are exercised, would be subject to a right of repurchase within 60 days of September 30, 2009, at the original option exercise price, in the event Mr. Wolf ceases to provide services to us. The option exercise prices range from \$4.97 to \$7.00 per share.
- (15) Includes 442,824 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009.
- (16) Includes 186,700 shares issuable pursuant to stock options exercisable within 60 days of September 30, 2009.

DESCRIPTION OF CAPITAL STOCK

General

Upon the completion of this offering, we will have authorized under our amended and restated certificate of incorporation _____ shares of common stock, \$0.0001 par value per share, and _____ shares of preferred stock, \$ _____ par value per share. The following information assumes the filing of our amended and restated certificate of incorporation and the conversion of all outstanding shares of our preferred stock into shares of common stock upon the completion of this offering.

As of September 30, 2009, there were outstanding:

- 41,599,768 shares of our common stock held by approximately 109 stockholders; and
- 10,962,854 shares of our common stock issuable upon exercise of outstanding stock options.

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws to be in effect upon the completion of this offering are summaries. Copies of these documents have been filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part. The descriptions of the common stock and preferred stock reflect changes to our capital structure that will occur upon the closing of this offering. Currently, there is no established public trading market for our common stock.

Common Stock

Voting Rights

Each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights in the election of directors. Accordingly, holders of a majority of the voting shares are able to elect all of the directors.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Preferred Stock

Upon the completion of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to _____ shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could

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include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control of our company or other corporate action. Upon completion of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Warrants

The following table sets forth information about outstanding warrants to purchase shares of our stock as of September 30, 2009. Upon completion of this offering, the warrants to purchase shares of our Series D preferred stock will automatically convert into warrants to purchase our common stock.

<u>Class of Stock</u>	<u>Number of Shares</u>	<u>Exercise Price/Share</u>	<u>Expiration Date</u>
Common	46,176	\$ 0.40	02/12/2011
Common	9,100	0.70	10/25/2012
Common	3,577	8.30	02/09/2016
Series D preferred stock	323,569	3.97	05/25/2013
Series D preferred stock	109,091	5.50	09/28/2017

Registration Rights

We are party to an investor's agreement which provides that holders of our preferred stock and our founding stockholder, Maxygen, have the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. In the event that we propose to register any of our securities under the Securities Act, either for our own account or for the account of other security holders, these holders are entitled to notice of such registration and are entitled to certain "piggyback" registration rights allowing the holder to include their common stock in such registration, subject to certain marketing and other limitations. Pursuant to the investor's rights agreement, the holders of common stock issuable upon conversion of our preferred stock have the right upon the earlier of 180 days after the completion of this offering and March 4, 2012 to require us, on not more than two occasions, to file a registration statement under the Securities Act in order to register the resale of their shares of common stock with an anticipated aggregate offering price, net of underwriting discounts and commissions, of at least ten million dollars. We may, in certain circumstances, defer such registrations and any underwriters will have the right, subject to certain limitations, to limit the number of shares included in such registrations. Further, these holders may require us to register the resale of all or a portion of their shares on a registration statement on Form S-3 once we are eligible to use Form S-3, subject to certain conditions and limitations. In an underwritten offering, the underwriter, has the right, subject to specified conditions, to limit the number of registrable securities such holders may include. Additionally, the holders of registration rights have waived their rights to include any of their shares in this offering prior to the completion of this offering.

In connection with our acquisition of Jülich Fine Chemicals GmbH in February 2005, we entered into a registration rights agreement with certain stockholders of Jülich who acquired shares of our common stock in connection with the acquisition. If we propose to register any of our securities under the Securities Act, these stockholders are entitled to notice of such registration and are entitled to certain "piggyback" registration rights allowing the holder to include their common stock in such registration, subject to certain marketing and other limitations. In an underwritten offering, the underwriter, has the right, subject to specified conditions, to limit the number of registrable securities such holders may include. The holders of these registration rights have waived their rights to include any of their shares in this offering prior to the completion of this offering.

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Anti-Takeover Provisions

Certificate of Incorporation and Bylaws to be in Effect Upon the Completion of this Offering

Our amended and restated certificate of incorporation to be in effect upon the completion of this offering will provide for our board of directors to be divided into three classes, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon the completion of this offering will provide that all stockholder action must be effected at a duly called meeting of stockholders and not by a consent in writing, and that only our board of directors, chairman of the board, chief executive officer, or president (in the absence of a chief executive officer) may call a special meeting of stockholders.

Our amended and restated certificate of incorporation will require a 66 $\frac{2}{3}$ % stockholder vote for the amendment, repeal or modification of certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws relating to the classification of our board of directors, the requirement that stockholder actions be effected at a duly called meeting, and the designated parties entitled to call a special meeting of the stockholders. The combination of the classification of our board of directors, the lack of cumulative voting and the 66 $\frac{2}{3}$ % stockholder voting requirements will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions may have the effect of deterring hostile takeovers or delaying changes in our control or management. These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts. Such provisions may also have the effect of preventing changes in our management.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested holder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

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- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or is an affiliate or associate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Limitations of Liability and Indemnification Matters

For an in depth discussion of liability and indemnification, please see “Management — Limitation on Liability and Indemnification Matters.”

The Nasdaq Global Market Listing

We have applied to have our common stock approved for listing on The Nasdaq Global Market under the symbol “CDXS.”

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of September 30, 2009, upon completion of this offering, _____ shares of common stock will be outstanding, assuming no exercise of the underwriters' option to purchase additional shares and no exercise of options or warrants. All of the shares sold by us and the selling stockholders in this offering will be freely tradable unless purchased by our affiliates. The remaining 41,599,768 shares of common stock outstanding after this offering will be restricted as a result of securities laws or lock-up agreements as described below. Following the expiration of the lock-up period, all shares will be eligible for resale in compliance with Rule 144 or Rule 701 to the extent such shares have been released from any repurchase option that we may hold. "Restricted securities" as defined under Rule 144 were issued and sold by us in reliance on exemptions from the registration requirements of the Securities Act. These shares may be sold in the public market only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act.

Rule 144

In general, under Rule 144 of the Securities Act, as in effect on the date of this prospectus, a person (or persons whose shares are aggregated) who has beneficially owned restricted stock for at least six months, will be entitled to sell in any three-month period a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding (_____ shares immediately after this offering or _____ shares if the underwriters' option to purchase additional shares is exercised in full); or
- the average weekly trading volume of our common stock on The Nasdaq Global Market during the four calendar weeks immediately preceding the date on which the notice of sale is filed with the SEC.

Sales pursuant to Rule 144 are subject to requirements relating to manner of sale, notice and availability of current public information about us. A person (or persons whose shares are aggregated) who is not deemed to be an affiliate of ours for 90 days preceding a sale, and who has beneficially owned restricted stock for at least one year is entitled to sell such shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144. Rule 144 will not be available to any stockholders until we have been subject to the reporting requirements of the Exchange Act for 90 days.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under "Underwriting" included elsewhere in this prospectus and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

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Lock-up Agreements

We, along with our directors, executive officers and substantially all of our other security holders, including selling stockholders, have agreed with the underwriters that for a period of 180 days following the date of this prospectus, we or they will not offer, sell, contract to sell, pledge, or otherwise dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, or enter into any swap, hedge or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement, subject to specified exceptions. Credit Suisse Securities (USA) LLC and Goldman, Sachs & Co. may, in their sole discretion, at any time without prior notice, release all or any portion of the shares from the restrictions in any such agreement.

The 180-day restricted period described in the preceding paragraph will be extended if:

- during the last 17 days of the 180-day restricted period we issue an earnings release or material news or a material event relating to us occurs; or
- prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day period,

in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the release or the occurrence of the material news or material event, unless such extension is waived, in writing, by Credit Suisse Securities (USA) LLC and Goldman, Sachs & Co. on behalf of the underwriters.

Registration Rights

We are party to an investor rights agreement which provides that holders of our preferred stock and our founding stockholders have the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. We are also party to a registration rights agreement with certain former stockholders of Jülich Fine Chemicals GmbH, which we acquired in February 2005, who are entitled to certain “piggyback” registration rights. See “Description of Capital Stock — Registration Rights.” Except for shares purchased by affiliates, registration of their shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon effectiveness of the registration, subject to the expiration of the lock-up period and to the extent such shares have been released from any repurchase option that we may hold.

Stock Plans

As soon as practicable after the completion of this offering, we intend to file a Form S-8 registration statement under the Securities Act to register shares of our common stock subject to options outstanding or reserved for issuance under our 2002 Stock Plan and our 2008 Incentive Award Plan. This registration statement will become effective immediately upon filing, and shares covered by this registration statement will thereupon be eligible for sale in the public markets, subject to Rule 144 limitations applicable to affiliates and any lock-up agreements. For a more complete discussion of our stock plans, see “Management — Employee Benefit and Stock Plans.”

**CERTAIN MATERIAL UNITED STATES FEDERAL INCOME TAX
CONSEQUENCES TO NON-U.S. HOLDERS**

The following is a summary of certain material United States federal income tax consequences to non-U.S. holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all of the potential United States federal income tax consequences relating thereto, nor does it address any estate and gift tax consequences or any tax consequences arising under any state, local or foreign tax laws, or any other United States federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service, or IRS, all as in effect as of the date of this offering. These authorities may change, possibly retroactively, resulting in United States federal income tax consequences different from those discussed below. No ruling has been or will be sought from the IRS with respect to the matters discussed below, and there can be no assurance that the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, or that any such contrary position would not be sustained by a court.

This discussion is limited to non-U.S. holders who purchase our common stock issued pursuant to this offering and who hold our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the United States federal income tax consequences that may be relevant to a particular holder in light of such holder’s particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the United States federal income tax laws, including, without limitation:

- U.S. expatriates or former long-term residents of the United States;
- partnerships or other pass-through entities;
- real estate investment trusts;
- regulated investment companies;
- “controlled foreign corporations,” “passive foreign investment companies” corporations that accumulate earnings to avoid United States federal income tax;
- banks, insurance companies, or other financial institutions;
- brokers, dealers, or traders in securities, commodities or currencies;
- tax-exempt organizations;
- tax-qualified retirement plans;
- persons subject to the alternative minimum tax; or
- persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER UNITED STATES FEDERAL TAX LAWS.

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Definition of Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a “U.S. person” or a partnership (or other entity treated as a partnership) for United States federal income tax purposes. A U.S. person is any of the following:

- an individual citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized under the laws of the United States, any state therein or the District of Columbia;
- an estate the income of which is subject to United States federal income tax regardless of its source; or
- a trust (1) the administration of which is subject to the primary supervision of a United States court and all substantial decisions of which are controlled by one or more United States persons or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

Distributions on Our Common Stock

If we make cash or other property distributions on our common stock, such distributions will generally constitute dividends for United States federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. Amounts not treated as dividends for United States federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder’s adjusted tax basis in the common stock, but not below zero. Distributions in excess of our current and accumulated earnings and profits and in excess of a non-U.S. holder’s tax basis in its shares will be treated as gain realized on the sale or other disposition of the common stock and will be treated as described under “Gain on Disposition of Our Common Stock” below.

Dividends paid to a non-U.S. holder of our common stock generally will be subject to United States federal withholding tax at a rate of 30% of the gross amount of the dividends, or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish to us or our paying agent a valid IRS Form W-8BEN (or applicable successor form) certifying such holder’s qualification for the reduced rate. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but which qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on the common stock are effectively connected with such holder’s United States trade or business, and, if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States, the non-U.S. holder will be exempt from United States federal withholding tax. To claim the exemption, the non-U.S. holder must generally furnish to us or our paying agent a properly executed IRS Form W-8ECI (or applicable successor form).

Any dividends paid on our common stock that are effectively connected with a non-U.S. holder’s United States trade or business (and if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States) generally will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates in much the same manner as if such holder were a resident of the United States, unless an

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applicable income tax treaty provides otherwise. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Non-U.S. holders are urged to consult any applicable income tax treaties that may provide for different rules.

A non-U.S. holder who claims the benefit of an applicable income tax treaty generally will be required to satisfy applicable certification and other requirements prior to the distribution date. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Disposition of Our Common Stock

A non-U.S. holder generally will not be subject to United States federal income tax on any gain realized upon the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States;
- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the calendar year of the disposition, and certain other requirements are met; or
- our common stock constitutes a "United States real property interest" by reason of our status as a United States real property holding corporation, or USRPHC, for United States federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock. The determination of whether we are a USRPHC depends on the fair market value of our United States real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests.

We believe we are not currently and do not anticipate becoming a USRPHC for United States federal income tax purposes. Even if we become a USRPHC, however, so long as our common stock is regularly traded on an established securities market, such common stock will be treated as U.S. real property interests only if the non-U.S. holder actually or constructively holds more than 5% of our common stock.

Unless an applicable income tax treaty provides otherwise, gain described in the first bullet point above will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates in much the same manner as if such holder were a resident of the United States. Further, non-U.S. holders that are foreign corporations also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

Gain described in the second bullet point above will be subject to United States federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by United States source capital losses (even though the individual is not considered a resident of the United States).

Non-U.S. holders are urged to consult any applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the amount of distributions on our common stock paid to such holder and the amount of any tax withheld with respect to those distributions. These information reporting requirements apply even if no withholding was required because the distributions were effectively connected with the holder's conduct of a United States trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the

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non-U.S. holder resides or is established. Backup withholding, currently at a 28% rate, may apply to distribution payments to a non-U.S. holder of our common stock and information reporting and backup withholding may apply to the payments of the proceeds of a sale of our common stock within the United States or through certain U.S.-related financial intermediaries, unless the non-U.S. holder furnishes to us or our paying agent the required certification as to its non-U.S. status, such as by providing a valid IRS Form W-8BEN or IRS Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if either we have or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person that is not an exempt recipient.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder's United States federal income tax liability, provided the required information is timely furnished to the IRS.

Proposed Legislation

Legislative proposals have been introduced that, if enacted in their current form, would substantially revise some of the rules discussed above, including with respect to certification requirements and information reporting. In the event of non-compliance with the revised certification requirements, withholding tax could be imposed on payments to certain non-U.S. Holders. It cannot be predicted whether, or in what form, these proposals will be enacted. Prospective investors should consult their own tax advisers regarding these proposals.

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UNDERWRITING

Under the terms and subject to the conditions contained in an underwriting agreement dated _____, 2010 we and the selling stockholders have agreed to sell to the underwriters named below, for whom Credit Suisse Securities (USA) LLC, Goldman, Sachs & Co., RBC Capital Markets Corporation and Pacific Crest Securities LLC are acting as representatives, the following respective numbers of shares of common stock:

<u>Underwriter</u>	<u>Number of Shares</u>
Credit Suisse Securities (USA) LLC	
Goldman, Sachs & Co.	
RBC Capital Markets Corporation	
Pacific Crest Securities LLC	
Total	

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased, other than those shares covered by the option described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated.

We have granted to the underwriters a 30-day option to purchase on a pro rata basis up to _____ additional shares of common stock, at the initial public offering price, less the underwriting discounts and commissions.

The underwriters propose to offer the shares of common stock initially at the public offering price on the cover page of this prospectus and to selling group members at that price less a selling concession of \$ _____ per share. The underwriters and selling group members may allow a discount of \$ _____ per share on sales to other broker/dealers. After the initial public offering the representatives may change the public offering price and concession and discount to broker/dealers. The offering of the shares of common stock by the underwriters is subject to receipt and acceptance to the underwriters' right to reject any order in whole or in part.

The following table summarizes the compensation and estimated expenses we and the selling stockholders will pay:

	<u>Per Share</u>		<u>Total</u>	
	<u>No Exercise</u>	<u>Full Exercise</u>	<u>No Exercise</u>	<u>Full Exercise</u>
Underwriting discounts and commissions paid by us	\$	\$	\$	\$
Underwriting discounts and commissions paid by the selling stockholders	\$	\$	\$	\$
Expenses payable by us	\$	\$	\$	\$
Expenses payable by the selling stockholders	\$	\$	\$	\$

The representatives have informed us that they do not expect sales to accounts over which the underwriters have discretionary authority to exceed 5% of the shares of common stock being offered.

We have agreed that we will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any shares of

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our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, without the prior written consent of Credit Suisse Securities (USA) LLC and Goldman, Sachs & Co., or the Lead Representatives, for a period of 180 days after the date of this prospectus, except issuances pursuant to the exercise of warrants or employee stock options outstanding on the date hereof or grants of employee stock options pursuant to the terms of a plan in effect on the date hereof. However, in the event that either (1) during the last 17 days of the “lock-up” period, we release earnings results or material news or a material event relating to us occurs or (2) prior to the expiration of the “lock-up” period, we announce that we will release earnings results during the 16-day period beginning on the last day of the “lock-up” period, then in either case the expiration of the “lock-up” will be extended until the expiration of the 18-day period beginning on the date of the release of the earnings results or the occurrence of the material news or event, as applicable, unless the Lead Representatives waive, in writing, such an extension.

Our officers and directors and holders of substantially all of our outstanding securities have agreed that they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, enter into a transaction that would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of the Lead Representatives for a period of 180 days after the date of this prospectus, except transfers of shares of our common stock or securities convertible into or exchangeable or exercisable for shares of our common stock by will or intestate succession, in connection with a bona fide gift or in distributions or transfers to limited partners, members, affiliates or stockholders of a security holder, provided that in each case the transferee agrees to be subject to the terms of the lock-up. However, in the event that either (1) during the last 17 days of the “lock-up” period, we release earnings results or material news or a material event relating to us occurs or (2) prior to the expiration of the “lock-up” period, we announce that we will release earnings results during the 16-day period beginning on the last day of the “lock-up” period, then in either case the expiration of the “lock-up” will be extended until the expiration of the 18-day period beginning on the date of the release of the earnings results or the occurrence of the material news or event, as applicable, unless the Lead Representatives waive, in writing, such an extension. Notwithstanding the foregoing, our officers and directors may enter into a written trading plan established pursuant to Rule 10b5-1 of the Exchange Act during the “lock-up” period, and we may announce the establishment of such a plan, provided that no direct or indirect offers, pledges, sales, contracts to sell, sales of any option or contract to purchase, purchases of any option or contract to sell, grants of any option, right or warrant to purchase, loans, or other transfers or disposals of any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock may be effected pursuant to such plan during the “lock-up” period.

We and the selling stockholders have agreed to indemnify the underwriters against liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect.

Prior to this offering, there has been no public market for our common stock. The initial public offering price has been negotiated among us, and the selling stockholders and the representatives. The factors to be considered in determining the initial public offering price of the shares of our common stock, in addition to prevailing market conditions, will be our historical performance, estimates of our business potential and earnings prospects, an assessment of our management and the consideration of the above factors in relation to market valuation of companies in related businesses. We have applied to list the shares of our common stock on The Nasdaq Global Market, under the symbol “CDXS.”

Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for the company, for which they received or will receive customary fees and expenses.

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In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. "Covered" short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares from us in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option granted to them. "Naked" short sales are any sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the company's stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued at any time. These transactions may be effected on The Nasdaq Global Market, in the over-the-counter market or otherwise.

A prospectus in electronic format may be made available on the web sites maintained by one or more of the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

(a) to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorised or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 Euros and (3) an annual net turnover of more than 50,000,000 Euros, as shown in its last annual or consolidated accounts;

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(c) to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives for any such offer; or

(d) in any other circumstances which do not require the publication by the company of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer of shares to the public” in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

Each underwriter has represented and agreed that:

- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Market Act 2000 (as amended), or the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA would not apply to the company; and
- it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

The shares may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to “professional investors” within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries’ rights and interest in that trust shall not be transferable for six months after

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that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

The securities have not been and will not be registered under the Securities and Exchange Law of Japan (the Securities and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Securities and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

NOTICE TO CANADIAN RESIDENTS

Resale Restrictions

The distribution of our common stock in Canada is being made only on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of common stock are made. Any resale of our common stock in Canada must be made under applicable securities laws which will vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of our common stock.

Representations of Purchasers

By purchasing our common stock in Canada and accepting a purchase confirmation a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase our common stock without the benefit of a prospectus qualified under those securities laws,
- where required by law, that the purchaser is purchasing as principal and not as agent,
- the purchaser has reviewed the text above under the heading “Resale Restrictions,” and
- the purchaser acknowledges and consents to the provision of specified information concerning its purchase of our common stock to the regulatory authority that by law is entitled to collect the information.

Further details concerning the legal authority for this information is available on request.

Rights of Action — Ontario Purchasers Only

Under Ontario securities legislation, certain purchasers who purchase a security offered by this prospectus during the period of distribution will have a statutory right of action for damages, or while still the owner of the common stock, for rescission against us in the event that this prospectus contains a misrepresentation without regard to whether the purchaser relied on the misrepresentation. The right of action for damages is exercisable not later than the earlier of 180 days from the date the purchaser first had knowledge of the facts giving rise to the cause of action and three years from the date on which payment is made for the common stock. The right of action for rescission is exercisable not later than 180 days from the date on which payment is made for the common stock. If a purchaser elects to exercise the right of action for rescission, the purchaser will have no right of action for damages against us. In no case will the amount recoverable in any action exceed the price at which the common stock was offered to the purchaser and if the purchaser is shown to have purchased the securities with knowledge of the misrepresentation, we will have no liability. In the case of an action for damages, we will not be liable for all or any portion of the damages that are proven to not represent the depreciation in value of the common stock as a result of the misrepresentation relied upon. These rights are in addition to, and without derogation from, any other rights or remedies available at law to an Ontario purchaser. The foregoing is a summary of the rights available to an Ontario purchaser. Ontario purchasers should refer to the complete text of the relevant statutory provisions.

Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

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Taxation and Eligibility for Investment

Canadian purchasers of our common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in our common stock in their particular circumstances and about the eligibility of our common stock for investment by the purchaser under relevant Canadian legislation.

LEGAL MATTERS

The validity of our common stock offered by this prospectus will be passed upon for us by Latham & Watkins LLP, Menlo Park, California. Certain attorneys and investment funds affiliated with the firm collectively own less than 1% of our shares of preferred stock, which will convert into an aggregate of less than 1% of our shares of common stock upon the completion of this offering. Certain legal matters in connection with this offering will be passed upon for the underwriters by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California.

EXPERTS

The consolidated financial statements of Codexis, Inc. at December 31, 2007 and 2008, and for each of the three years in the period ended December 31, 2008, appearing in this Prospectus and Registration Statement have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act, with respect to the shares of our common stock offered hereby. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. Some items are omitted in accordance with the rules and regulations of the SEC. For further information with respect to us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed therewith. Statements contained in this prospectus as to the contents of any contract, agreement or any other document are summaries of the material terms of this contract, agreement or other document. A copy of the registration statement, and the exhibits and schedules thereto, may be inspected without charge at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials may be obtained by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facility. The SEC maintains a web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the SEC's website is <http://www.sec.gov>.

Upon completion of this offering, we will become subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, will file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information will be available for inspection and copying at the public reference room and web site of the SEC referred to above. We maintain a website at www.codexis.com. You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website address does not constitute incorporation by reference of the information contained on our website.

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Report of Independent Registered Public Accounting Firm

**The Board of Directors and Stockholders
Codexis, Inc.**

We have audited the accompanying consolidated balance sheets of Codexis, Inc. (the Company) as of December 31, 2007 and 2008, and the related consolidated statements of operations, redeemable convertible preferred stock and stockholders' deficit, and cash flows for each of the three years in the period ended December 31, 2008. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Codexis, Inc. at December 31, 2007 and 2008, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Palo Alto, CA
April 28, 2009

Codexis, Inc.
Consolidated Balance Sheets
(In Thousands, Except Share and Per Share Amounts)

	December 31, 2007	December 31, 2008	September 30, 2009 (Unaudited)	Pro Forma as of September 30, 2009 (Unaudited) (Note 2)
Assets				
Current assets:				
Cash and cash equivalents	\$ 55,075	\$ 21,903	\$ 22,644	\$ 22,644
Marketable securities	28,995	15,227	33,318	33,318
Accounts receivable, net of allowances of \$250, \$16 and \$82 at December 31, 2007, 2008 and September 30, 2009 (unaudited), respectively	4,752	6,193	6,865	6,865
Related party accounts receivable	1,680	—	172	172
Inventories	1,635	2,976	2,487	2,487
Prepaid expenses and other current assets	1,209	1,669	2,168	2,168
Restricted cash	1,563	366	594	594
Total current assets	94,909	48,334	68,248	68,248
Restricted cash, non-current portion	632	558	136	136
Property and equipment, net	11,099	16,006	18,839	18,839
Intangible assets, net	2,783	1,793	1,151	1,151
Goodwill	3,099	3,137	3,209	3,209
Other non-current assets	1,019	1,054	1,624	1,624
Total assets	\$ 113,541	\$ 70,882	\$ 93,207	\$ 93,207
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Equity (Deficit)				
Current liabilities:				
Accounts payable	\$ 4,225	\$ 9,166	\$ 8,236	\$ 8,236
Accrued compensation	3,182	4,084	5,211	5,211
Related party payable	7,788	435	344	344
Other accrued liabilities	7,480	8,557	9,134	9,134
Advances from a related party	—	3,000	—	—
Redeemable convertible preferred stock warrant liability	1,485	1,382	1,731	—
Deferred revenues	654	771	863	863
Related party deferred revenues	4,856	9,812	8,575	8,575
Financing obligations	4,507	5,194	6,093	6,093
Total current liabilities	34,177	42,401	40,187	38,456
Deferred revenues, net of current portion	2,233	2,060	1,903	1,903
Related party deferred revenues, net of current portion	16,632	11,572	8,508	8,508
Financing obligations, net of current portion	12,900	8,154	3,412	3,412
Other long-term liabilities	2,321	3,073	2,344	2,344
Commitments and contingencies (Note 9)				
Redeemable convertible preferred stock issuable in series A to F, \$0.0001 par value per share; 33,204,886, 33,204,886 and 39,204,886 shares authorized at December 31, 2007, 2008 and September 30, 2009 (unaudited), respectively; 32,269,494, 32,269,494 and 37,563,610 shares issued and outstanding at December 31, 2007, 2008 and September 30, 2009 (unaudited), respectively; aggregate liquidation value of \$204,006 at September 30, 2009 (unaudited); no shares authorized, issued or outstanding pro forma (unaudited)				
	132,746	132,746	177,746	—
Stockholders' equity (deficit):				
Common stock, \$0.0001 par value per share; 62,000,000, 62,000,000 and 68,000,000 shares authorized at December 31, 2007, 2008 and September 30, 2009 (unaudited), respectively; 3,386,789, 3,905,425 and 3,975,552 shares issued and outstanding at December 31, 2007, 2008 and September 30, 2009 (unaudited), respectively; 68,000,000 shares authorized, 41,599,768 shares issued and outstanding pro forma (unaudited)				
	—	—	—	4
Additional paid-in capital	6,187	10,056	13,324	192,797
Accumulated other comprehensive income	537	139	211	211
Accumulated deficit	(94,192)	(139,319)	(154,428)	(154,428)
Total stockholders' equity (deficit)	(87,468)	(129,124)	(140,893)	38,584
Total liabilities, redeemable convertible preferred stock and stockholders' equity (deficit)	\$ 113,541	\$ 70,882	\$ 93,207	\$ 93,207

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Codexis, Inc.
Consolidated Statements of Operations
(In Thousands, Except Per Share Amounts)

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
				(Unaudited)	
Revenues:					
Product	\$ 2,544	\$ 11,418	\$ 16,860	\$ 10,777	\$ 13,401
Related party collaborative research and development	863	8,481	30,239	18,174	43,963
Collaborative research and development	8,403	4,733	3,062	2,678	1,295
Government grants	317	701	317	251	11
Total revenues	12,127	25,333	50,478	31,880	58,670
Costs and operating expenses:					
Cost of product revenues	1,806	8,319	13,188	7,922	11,886
Research and development	17,257	35,644	45,554	33,250	39,486
Selling, general and administrative	11,880	19,713	35,709	28,300	20,939
Total costs and operating expenses	30,943	63,676	94,451	69,472	72,311
Loss from operations	(18,816)	(38,343)	(43,973)	(37,592)	(13,641)
Interest income	742	1,491	1,538	1,435	141
Interest expense and other, net	(724)	(2,533)	(2,365)	(2,517)	(1,530)
Loss before provision (benefit) for income taxes	(18,798)	(39,385)	(44,800)	(38,674)	(15,030)
Provision (benefit) for income taxes	(127)	(408)	327	126	79
Net loss	<u>\$(18,671)</u>	<u>\$(38,977)</u>	<u>\$(45,127)</u>	<u>\$(38,800)</u>	<u>\$(15,109)</u>
Net loss per share of common stock, basic and diluted	<u>\$ (10.99)</u>	<u>\$ (15.53)</u>	<u>\$ (12.64)</u>	<u>\$ (11.02)</u>	<u>\$ (3.86)</u>
Weighted average common shares used in computing net loss per share of common stock, basic and diluted	<u>1,699</u>	<u>2,510</u>	<u>3,570</u>	<u>3,521</u>	<u>3,917</u>
Net loss used in computing pro forma net loss per share of common stock, basic and diluted (unaudited) (Note 2)			<u>\$(45,230)</u>		<u>\$ (14,760)</u>
Pro forma net loss per share of common stock, basic and diluted (unaudited) (Note 2)			<u>\$ (1.26)</u>		<u>\$ (0.37)</u>
Weighted average common shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited) (Note 2)			<u>35,900</u>		<u>39,684</u>

Codexis, Inc.
Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit
(In Thousands)

	Redeemable Convertible Preferred Stock		Common Stock			Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount	Additional Paid-in Capital			
December 31, 2005	15,616	\$ 37,749	1,637	\$ —	\$ 2,352	\$ (581)	\$ (36,544)	\$ (34,773)
Exercise of stock options	—	—	125	—	55	—	—	55
Issuance of common stock related to an acquisition	—	—	36	—	25	—	—	25
Issuance of Series D redeemable convertible preferred stock, net of issuance costs of \$208	8,989	35,482	—	—	—	—	—	—
Beneficial conversion feature on issuance of redeemable convertible preferred stock warrants in connection with convertible debt	—	—	—	—	5	—	—	5
Issuance of Series D redeemable convertible preferred stock upon conversion of convertible debt and accrued interest	1,079	4,282	—	—	—	—	—	—
Employee stock-based compensation	—	—	—	—	32	—	—	32
Non-employee stock-based compensation	—	—	—	—	32	—	—	32
Comprehensive loss:								
Net loss	—	—	—	—	—	—	(18,671)	(18,671)
Currency translation adjustments	—	—	—	—	—	528	—	528
Unrealized gain on marketable securities	—	—	—	—	—	1	—	1
Total comprehensive loss								(18,142)
December 31, 2006	25,684	77,513	1,798	—	2,501	(52)	(55,215)	(52,766)
Exercise of stock options	—	—	596	—	265	—	—	265
Vesting of shares exercised early	—	—	—	—	38	—	—	38
Employee stock-based compensation	—	—	—	—	1,043	—	—	1,043
Non-employee stock-based compensation	—	—	—	—	213	—	—	213
Issuance of common stock related to an acquisition	—	—	963	—	1,228	—	—	1,228
Issuance of common stock in connection with a license agreement	—	—	30	—	134	—	—	134
Issuance of Series D redeemable convertible preferred stock upon exercise of warrants	429	3,000	—	—	765	—	—	765
Issuance of Series E redeemable convertible preferred stock, net of issuance costs of \$100	6,101	51,753	—	—	—	—	—	—
Issuance of Series E redeemable convertible preferred stock for consulting services	56	480	—	—	—	—	—	—
Comprehensive loss:								
Net loss	—	—	—	—	—	—	(38,977)	(38,977)
Currency translation adjustments	—	—	—	—	—	457	—	457
Unrealized gain on marketable securities	—	—	—	—	—	132	—	132
Total comprehensive loss								(38,388)
December 31, 2007	32,270	132,746	3,387	—	6,187	537	(94,192)	(87,468)
Exercise of stock options	—	—	518	—	378	—	—	378
Vesting of shares exercised early	—	—	—	—	31	—	—	31
Employee stock-based compensation	—	—	—	—	3,163	—	—	3,163
Non-employee stock-based compensation	—	—	—	—	297	—	—	297
Comprehensive loss:								
Net loss	—	—	—	—	—	—	(45,127)	(45,127)
Currency translation adjustments	—	—	—	—	—	(278)	—	(278)
Unrealized loss on marketable securities	—	—	—	—	—	(120)	—	(120)
Total comprehensive loss								(45,525)
December 31, 2008	32,270	132,746	3,905	—	10,056	139	(139,319)	(129,124)

Codexis, Inc.

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit — (Continued)
(In Thousands)

	Redeemable Convertible Preferred Stock		Common Stock			Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount	Additional Paid-in Capital			
Exercise of stock options (unaudited)	—	—	71	—	72	—	—	72
Vesting of shares exercised early (unaudited)	—	—	—	—	17	—	—	17
Employee stock-based compensation (unaudited)	—	—	—	—	3,067	—	—	3,067
Non-employee stock-based compensation (unaudited)	—	—	—	—	112	—	—	112
Issuance of Series F redeemable convertible preferred stock (unaudited)	5,294	45,000	—	—	—	—	—	—
Comprehensive loss:								
Net loss (unaudited)	—	—	—	—	—	—	(15,109)	(15,109)
Currency translation adjustments (unaudited)	—	—	—	—	—	58	—	58
Unrealized gain on marketable securities (unaudited)	—	—	—	—	—	14	—	14
Total comprehensive loss (unaudited)								(15,037)
September 30, 2009 (unaudited)	<u>37,564</u>	<u>\$177,746</u>	<u>3,976</u>	<u>\$ —</u>	<u>\$ 13,324</u>	<u>\$ 211</u>	<u>\$ (154,428)</u>	<u>\$ (140,893)</u>

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Codexis, Inc.
Consolidated Statements of Cash Flows
(In Thousands)

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
				(Unaudited)	
Operating activities					
Net loss	\$ (18,671)	\$ (38,977)	\$ (45,127)	\$ (38,800)	\$ (15,109)
Adjustments to reconcile net loss to net cash used in operating activities:					
Amortization of intangible assets	633	781	880	784	709
Depreciation and amortization of property and equipment	1,754	2,103	3,683	2,565	3,722
Revaluation of redeemable convertible preferred stock warrant liability	156	1,328	(103)	567	349
Loss (gain) on disposal of property and equipment	6	86	2	1	(50)
Stock-based compensation	64	1,256	3,460	2,376	3,179
Amortization of debt discount	5	67	531	403	283
Accretion (amortization) of premium/discount on marketable securities	—	(368)	(676)	(657)	368
Amortization of deferred costs associated with a license agreement	62	400	—	—	—
Beneficial conversion feature on issuance of redeemable convertible preferred stock	5	—	—	—	—
Issuance of redeemable convertible preferred stock for consulting services	—	480	—	—	—
Issuance of common stock in connection with a license agreement	—	134	—	—	—
Changes in operating assets and liabilities:					
Accounts receivable	369	(3,146)	226	1,040	(842)
Inventories	(354)	(283)	(1,382)	(1,431)	511
Prepaid expenses and other current assets	(211)	(285)	(460)	(1,618)	(499)
Other assets	(191)	(590)	(113)	(593)	(629)
Accounts payable	1,409	1,169	4,941	1,723	(929)
Accrued compensation	552	1,664	902	1,348	1,128
Related party payable	560	7,228	(7,353)	(7,506)	(91)
Deferred revenues	775	16,385	(160)	(1,050)	(4,366)
Other current liabilities	(210)	4,098	4,433	2,231	(3,266)
Net cash used in operating activities	<u>(13,287)</u>	<u>(6,470)</u>	<u>(36,316)</u>	<u>(38,617)</u>	<u>(15,532)</u>
Investing activities					
Decrease (increase) in restricted cash	(193)	(1,301)	1,271	1,271	194
Purchase of property and equipment	(1,102)	(8,245)	(8,537)	(5,587)	(6,491)
Purchase of marketable securities	—	(42,267)	(47,821)	(37,727)	(35,619)
Proceeds from maturities of marketable securities	1,500	13,772	56,062	39,084	17,175
Proceeds from sale of marketable securities	—	—	6,081	1,247	—
Acquisition, net of cash acquired	—	(1,168)	—	—	—
Net cash provided by (used in) investing activities	<u>205</u>	<u>(39,209)</u>	<u>7,056</u>	<u>(1,712)</u>	<u>(24,741)</u>
Financing activities					
Proceeds from financing obligations	1,067	14,805	—	—	—
Principal payments on financing obligations	(1,090)	(1,485)	(4,264)	(2,919)	(4,004)
Proceeds from convertible debt	4,200	—	—	—	—
Proceeds from the exercise of redeemable convertible preferred stock warrants	—	3,000	—	—	—
Proceeds from issuance of preferred stock, net of issuance costs	35,482	51,753	—	—	45,000
Proceeds from exercises of stock options	55	303	378	265	72
Net cash provided by (used in) financing activities	<u>39,714</u>	<u>68,376</u>	<u>(3,886)</u>	<u>(2,654)</u>	<u>41,068</u>
Effect of exchange rate changes on cash and cash equivalents	109	132	(26)	(81)	(54)
Net increase (decrease) in cash and cash equivalents	<u>26,741</u>	<u>22,829</u>	<u>(33,172)</u>	<u>(43,064)</u>	<u>741</u>
Cash and cash equivalents at beginning of period	<u>5,505</u>	<u>32,246</u>	<u>55,075</u>	<u>55,075</u>	<u>21,903</u>
Cash and cash equivalents at end of period	<u>\$ 32,246</u>	<u>\$ 55,075</u>	<u>\$ 21,903</u>	<u>\$ 12,011</u>	<u>\$ 22,644</u>
Supplemental disclosures of cash flow information:					
Cash paid for interest	\$ 383	\$ 686	\$ 1,572	\$ 1,421	\$ 964
Cash paid for income taxes	\$ 132	\$ 99	\$ 80	\$ 80	\$ 110
Supplemental schedule of noncash investing and financing activities:					
Conversion of convertible debt to redeemable convertible preferred stock	\$ 4,282	\$ —	\$ —	\$ —	\$ —
Issuance of redeemable convertible preferred stock warrants in connection with financing arrangement	\$ 736	\$ 463	\$ —	\$ —	\$ —
Issuance of common stock for acquisitions	\$ 25	\$ 1,228	\$ —	\$ —	\$ —

Codexis, Inc.

Notes to Consolidated Financial Statements

1. Description of Business

Codexis, Inc. (“we” or “Codexis”) is a developer of proprietary biocatalysts that we believe have the potential to make existing industrial processes faster, cleaner and more efficient than current methods and have the potential to make new industrial processes possible on a commercial scale. Biocatalysts are enzymes or microbes that initiate or accelerate chemical reactions. We are currently selling our biocatalysts to customers in the pharmaceutical industry and are engaged in a multi-year research and development collaboration with Equilon Enterprises LLC dba Shell Oil Products US (“Shell”) to develop advanced biofuels. We are also using our technology platform to pursue biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals. We were incorporated in Delaware in January 2002.

2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States and include the accounts of Codexis and our wholly-owned subsidiaries. The results of operations of BioCatalytics, Inc., a California corporation (“BioCatalytics”), are included in the accompanying consolidated statements of operations subsequent to its acquisition on July 17, 2007. We also have subsidiaries in Germany, Singapore, India, Austria, Mauritius, and Hungary. All significant intercompany balances and transactions have been eliminated in consolidation.

Redeemable Convertible Preferred Stock

The holders of at least a majority of the then-outstanding shares of Series B, D and E redeemable convertible preferred stock, voting or consenting as separate series, may require us to redeem each of the respective series of redeemable convertible preferred stock on or after December 31, 2013. The holders of Series A, C and F convertible preferred stock do not have redemption rights; however, the securities are classified outside of stockholders’ deficit due to their liquidation rights. The holders of our Series A, B, C, D, E and F preferred stock control the vote of our stockholders and board of directors through their appointed representatives. As a result, the holders of Series A, B, C, D, E and F preferred stock can force a change in control that would trigger liquidation. As redemption of the preferred stock through liquidation is outside of our control, all shares of preferred stock have been presented outside of permanent equity on our consolidated balance sheets. Series A, B, C, D, E and F preferred stock are collectively referred to in the consolidated financial statements and notes to the consolidated financial statements as redeemable convertible preferred stock.

Unaudited Interim Financial Information

The accompanying consolidated balance sheet as of September 30, 2009, the consolidated statements of operations and cash flows for the nine months ended September 30, 2008 and 2009, and the consolidated statement of redeemable convertible preferred stock and stockholders’ deficit for the nine months ended September 30, 2009 are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to state fairly our financial position as of September 30, 2009 and results of operations and cash flows for the nine months ended September 30, 2008 and 2009. The financial data and other information disclosed in these notes to the financial statements as of September 30, 2009 and for the nine months ended September 30, 2008 and 2009 are unaudited. The results for the nine months ended September 30, 2009 are not necessarily indicative of the results to be expected for the year ending December 31, 2009 or for any future year or interim period.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

Unaudited Pro Forma Balance Sheet

In the event that an initial public offering is consummated that results in the automatic conversion of our redeemable convertible preferred stock, as described in Note 11, all of the redeemable convertible preferred stock outstanding will automatically convert into 37,624,216 shares of common stock based on the number of shares of redeemable convertible preferred stock outstanding at September 30, 2009. In addition, all redeemable convertible preferred stock warrants will automatically convert to common stock warrants and the related redeemable convertible preferred stock warrant liability of \$1.7 million at September 30, 2009 would be reclassified to additional paid-in capital. The unaudited pro forma balance sheet information at September 30, 2009 gives effect to the automatic conversion of all outstanding shares of the redeemable convertible preferred stock to common stock and the conversion of all redeemable convertible preferred stock warrants to common stock warrants.

Significant Risks and Uncertainties

We have incurred net losses of \$18.7 million, \$39.0 million, \$45.1 million, \$38.8 million and \$15.1 million for the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, respectively. We used \$13.3 million, \$6.5 million, \$36.3 million, \$38.6 million and \$15.5 million of cash in operating activities for the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, respectively. At December 31, 2008 and September 30, 2009, we had an accumulated deficit of \$139.3 million and \$154.4 million, respectively, and unrestricted cash and cash equivalents and marketable securities of \$37.1 million and \$56.0 million, respectively. Our failure to generate sufficient revenues, achieve planned gross margins, control operating costs or raise sufficient additional funds may require us to modify, delay or abandon some of our planned future expansion or expenditures, which could have a material adverse effect on our business, operating results, financial condition and ability to achieve our intended business objectives. We may be required to seek additional funds through collaborations or public or private debt or equity financings, and may also seek to reduce expenses related to our operations. There can be no assurance that any financings will be available or at terms acceptable to us.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Our management regularly assesses these estimates which primarily affect revenue recognition, the valuation of accounts receivable, intangible assets and goodwill arising out of business acquisitions, inventories, accrued liabilities, the fair values of redeemable convertible preferred stock, common stock, redeemable convertible preferred stock warrants and stock options and the valuation allowances associated with deferred tax assets. Actual results could differ from those estimates, and such differences may be material to the consolidated financial statements.

Foreign Currency Translation

The assets and liabilities of foreign subsidiaries, where the local currency is the functional currency, are translated from their respective functional currencies into U.S. dollars at the exchange rates in effect at the balance sheet date, with resulting foreign currency translation adjustments recorded in accumulated other comprehensive income (loss) in the consolidated statements of stockholders' deficit. Revenues and

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

expense amounts are translated at average rates during the period. Accumulated other comprehensive income (loss) included cumulative translation adjustment losses of \$580,000 and \$52,000, and gains of \$405,000, \$127,000 and \$185,000 at December 31, 2005, 2006, 2007 and 2008 and September 30, 2009, respectively.

Where the U.S. dollar is the functional currency, nonmonetary assets and liabilities originally acquired or assumed in other currencies are recorded in U.S. dollars at the exchange rates in effect at the date they were acquired or assumed. Monetary assets and liabilities denominated in other currencies are translated into U.S. dollars at the exchange rates in effect at the balance sheet date. Revenues and expense amounts are generally translated at the average rates during the period. Translation adjustments are recorded in interest expense and other, net in the accompanying consolidated statements of operations. Gains and losses realized from transactions, including intercompany balances not considered as permanent investments, denominated in currencies other than an entity's functional currency, are included in interest expense and other, net in the accompanying consolidated statements of operations.

Concentrations of Credit Risk

Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash and cash equivalents, marketable securities, accounts receivable and restricted cash. Cash and cash equivalents, marketable securities and restricted cash are invested through banks and other financial institutions in the United States, as well as in other foreign countries. Such deposits are primarily in excess of insured limits.

Credit risk with respect to accounts receivable exists to the full extent of amounts presented in the consolidated financial statements. We periodically require collateral to support credit sales. We estimate an allowance for doubtful accounts through specific identification of potentially uncollectible accounts receivable based on an analysis of our accounts receivable aging. Uncollectible accounts receivable are written off against the allowance for doubtful accounts when all efforts to collect them have been exhausted. Recoveries are recognized when they are received. Actual collection losses may differ from our estimates and could be material to the consolidated financial position, results of operations, and cash flows.

One customer accounted for 14%, 21% and 39% of accounts receivable at December 31, 2007, December 31, 2008 and September 30, 2009, respectively. At December 31, 2007 and 2008 and September 30, 2009, a second customer accounted for 2%, 37% and 17% of accounts receivable, respectively. One additional customer accounted for 11% of accounts receivable at December 31, 2008. Two additional customers accounted for 11% and 10% of accounts receivable at September 30, 2009. We do not believe the accounts receivable from these customers represent a significant credit risk based on past collection experiences and the general creditworthiness of these customers.

Fair Value of Financial Instruments

The carrying amounts of certain of our financial instruments, including cash and cash equivalents, marketable securities, restricted cash, accounts receivable and accounts payable, approximate fair value due to their short maturities. Based on borrowing rates currently available to us for loans with similar terms, the carrying values of our financing obligations approximate their fair values.

Fair value is considered to be the price at which an asset could be exchanged or a liability transferred (an exit price) in an orderly transaction between knowledgeable, willing parties in the principal or most advantageous market for the asset or liability. Where available, fair value is based on or derived from observable market prices or other observable inputs. Where observable prices or inputs are not available,

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

valuation models are applied. These valuation techniques involve some level of management estimation and judgment, the degree of which is dependent on the price transparency for the instruments or market and the instruments' complexity.

Cash, Cash Equivalents and Marketable Securities

We consider all highly liquid investments with maturity dates of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents consist of cash on deposit with banks and money market funds. Marketable securities are primarily comprised of corporate debt obligations, U.S. Treasury obligations and government-sponsored enterprise securities.

Our debt securities are classified as available-for-sale and are carried at estimated fair value. Unrealized gains and losses are reported as a component of accumulated other comprehensive income (loss). Amortization of purchase premiums and accretion of purchase discounts, realized gains and losses and declines in value deemed to be other than temporary, if any, are included in interest income or interest expense and other, net. The cost of securities sold is based on the specific-identification method. There were no significant realized gains or losses from sales of marketable securities during the years ended December 31, 2006, 2007 and 2008 or the nine months ended September 30, 2009. At December 31, 2007, December 31, 2008 and September 30, 2009, we did not have any other-than-temporary declines in the fair value of our marketable securities.

Accounts Receivable

Accounts receivable represent amounts owed to us under our collaborative research and development agreements, product sales, and government grants. Our allowance for doubtful accounts was \$250,000, \$16,000 and \$82,000 as of December 31, 2007, December 31, 2008 and September 30, 2009, respectively. Specific accounts written off against the established reserve were \$141,000, \$0, \$234,000, and \$0 during the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2009, respectively.

Inventories

Inventories consist of biocatalysts, which are enzymes or microbes that facilitate chemical reactions, and pharmaceutical intermediates. Inventories are held in our facilities in the United States and Europe and at contract manufacturers in Europe and Asia. Internally produced biocatalysts only qualify as commercial inventory after they have achieved specifications that are required for selling the materials. Inventories held at our contract manufacturers are accepted as finished goods after achieving specifications stated in our purchase orders. Inventories are carried at the lower of cost or market and are removed from inventory using the first-in first-out method. Inventories, based on demand and age, are written down for excess and obsolete materials, if necessary.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

Property and Equipment

Property and equipment, including the cost of purchased software, are stated at cost, less accumulated depreciation and amortization. Depreciation is calculated using the straight-line method over the following estimated ranges of useful lives:

<u>Asset classification</u>	<u>Estimated useful life</u>
Laboratory equipment	5 years
Computer equipment and software	3 to 5 years
Office equipment and furniture	5 years
Leasehold improvements	Lesser of useful life or lease term

Goodwill

Goodwill represents the excess of the purchase price over the fair value of assets acquired and liabilities assumed. Goodwill is presumed to have an indefinite life and is not subject to annual amortization. We review goodwill for impairment at the company level, which is the sole reporting unit, on at least an annual basis and at any interim date whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

The annual test for goodwill impairment is a two-step process. The first step is a comparison of the fair value of the reporting unit with its carrying amount, including goodwill. If this step indicates an impairment, then the loss is measured as the excess of recorded goodwill over its implied fair value. Implied fair value is the excess of the fair value of the reporting unit over the fair value of all identified assets and liabilities. No impairment charges were recorded during the years ended December 31, 2006, 2007 and 2008 or the nine months ended September 30, 2009.

Intangible Assets and Impairment of Long-Lived Assets

Intangible assets consist of customer relationships, developed core technology and the trade name, all arising out of the Jülich Fine Chemicals (“JFC”) acquisition in 2005 and BioCatalytics acquisition in 2007. Intangible assets are recorded at their fair value at the date of the acquisition and, for those assets having finite useful lives, are amortized using the straight-line method over their estimated useful lives, which range from one to seven years.

We periodically review our intangible and other long-lived assets for possible impairment, whenever events or changes in circumstances indicate that such assets are impaired or the estimated useful lives are no longer appropriate. If indicators of impairment exist and the undiscounted projected cash flows associated with such assets are less than the carrying amounts of the assets, an impairment loss is recorded to write the assets down to their estimated fair values. Fair value is estimated based on discounted future cash flows. No impairment charges were recorded during the years ended December 31, 2006, 2007 and 2008 or the nine months ended September 30, 2008 and 2009.

Restricted Cash

Restricted cash was invested in money market accounts primarily for purposes of securing a standby letter of credit as collateral for our Redwood City, California facility lease agreement, for future payment obligations to the shareholder of BioCatalytics related to the acquisition, and for the purpose of securing a working capital line of credit. During the year ended December 31, 2008, restricted cash decreased by \$0.8 million on payment of purchase consideration to a former shareholder of BioCatalytics and \$0.6 million on expiration of JFC-related letters of credit relating to its facility lease.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

Redeemable Convertible Preferred Stock Warrant Liability

Outstanding warrants to purchase shares of our Series D redeemable convertible preferred stock are freestanding warrants that are subject to redemption and are therefore classified as liabilities on the consolidated balance sheet at fair value. The initial liability recorded is adjusted for changes in fair value at each reporting date with an offsetting entry recorded as a component of interest expense and other, net in the accompanying consolidated statements of operations. The liability will continue to be adjusted for changes in fair value until the earlier of the exercise date or the conversion of the underlying redeemable convertible preferred stock into common stock, at which time the redeemable convertible preferred stock warrants will convert to common stock warrants and the liability will be reclassified to stockholders' equity.

Revenue Recognition

When evaluating multiple element arrangements, we consider whether the components of each arrangement represent separate units of accounting. Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer, and whether there is objective and reliable evidence of the fair value of the undelivered items. Consideration received is allocated among the separate units of accounting based on their respective fair values. Applicable revenue recognition criteria are then applied to each of the units.

Revenues are recognized when the four basic revenue recognition criteria are met: (1) persuasive evidence of an arrangement exists; (2) products have been delivered, transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured.

Our primary sources of revenues consist of collaborative research and development agreements, product revenues and government grants. Collaborative research and development agreements typically provide us with multiple revenue streams, including up-front fees for licensing, exclusivity and technology access, fees for full-time employee equivalent ("FTE") services and the potential to earn milestone payments upon achievement of contractual criteria and royalty fees based on future product sales or cost savings by our customers. Our collaborative research and development revenues consist of revenues from related parties and revenues from other collaborative research and development agreements. Related party collaborative research and development revenues for the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009 is comprised of revenue from Shell.

Related party collaborative research and development revenues relate to the arrangements with Shell and consisted of the following (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008 (Unaudited)	2009
License, technology access and exclusivity fees	\$ 373	\$ 2,665	\$ 3,675	\$ 2,236	\$ 3,500
Services	365	4,909	26,564	15,938	39,963
Milestones	125	907	—	—	500
Total related party collaborative research and development revenues	<u>\$ 863</u>	<u>\$ 8,481</u>	<u>\$ 30,239</u>	<u>\$ 18,174</u>	<u>\$ 43,963</u>

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

Other collaborative research and development revenues consisted of the following (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
				(Unaudited)	
License, technology access and exclusivity fees	\$ 894	\$ 1,340	\$ 150	\$ 150	\$ 139
Services	6,084	2,584	2,002	1,827	679
Milestones	724	300	—	—	—
Royalties	701	509	910	701	477
Total collaborative research and development revenues	\$ 8,403	\$ 4,733	\$ 3,062	\$ 2,678	\$ 1,295

For each source of collaborative research and development revenues, product revenues and grant revenues, we apply the revenue recognition criteria as follows:

- Up-front fees received in connection with collaborative research and development agreements, including license fees, technology access fees, and exclusivity fees, are deferred upon receipt, are not considered a separate unit of accounting and are recognized as revenues over the relevant performance periods under the agreement, as discussed below.
- Revenues related to FTE services are recognized as research services are performed over the related performance periods for each contract. We are required to perform research and development activities as specified in each respective agreement. The payments received are not refundable and are based on a contractual reimbursement rate per FTE working on the project. When up-front payments are combined with FTE services in a single unit of accounting, we recognize the up-front payments using the proportionate performance method of revenue recognition based upon the actual amount of research and development labor hours incurred relative to the amount of the total expected labor hours to be incurred by us, up to the amount of cash received. In cases where the planned levels of research services fluctuate substantially over the research term, we are required to make estimates of the total hours required to perform our obligations. Research and development expenses related to FTE services under the collaborative research and development agreements approximate the research funding over the term of the respective agreements.
- Revenues related to milestones that are determined to be substantive and at risk at the inception of the arrangement are recognized upon achievement of the milestone event and when collectability is reasonably assured. Milestone payments are triggered either by the results of our research efforts or by events external to us, such as our collaboration partner achieving a revenue target. Fees associated with milestones for which performance was not at risk at the inception of the arrangement or that are determined not to be substantive are accounted for in the same manner as the up-front fees, provided collectability is reasonably assured.
- We recognize revenues from royalties based on licensees' sales of products using our technologies. Royalties are recognized as earned in accordance with the contract terms when royalties from licensees can be reasonably estimated and collectability is reasonably assured.
- Product revenues are recognized once passage of title and risk of loss has occurred and contractually specified acceptance criteria have been met, provided all other revenue recognition criteria have also been met. Product revenues consist of sales of biocatalysts, intermediates, active pharmaceutical ingredients and Codex Biocatalyst Panels. Cost of product revenues includes both internal and third party fixed and variable costs including amortization of purchased technology, materials and supplies, labor, facilities and other overhead costs associated with our product revenues.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

- We license mutually agreed upon third party technology for use in our research and development collaboration with Shell. We record the license payments to research and development expense and offset related reimbursements received from Shell. Payments made by Shell to us are direct reimbursements of our costs. We account for these direct reimbursable costs as a net amount, whereby no expense or revenues is recorded for the costs reimbursed by Shell. For any payments not reimbursed by Shell, we will recognize these as expenses in the statement of operations. We elected to present the reimbursement from Shell as a component of our research and development expense since presenting the receipt of payment from Shell as revenues does not reflect the substance of the arrangement.
- We receive payments from government entities in the form of government grants. Government grants are agreements that generally provide us with cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Revenues from government grants are recognized in the period during which the related costs are incurred, provided that the conditions under which the government grants were provided have been met and we have only perfunctory obligations outstanding.
- Shipping and handling costs charged to customers are recorded as revenues. Shipping costs are included in our cost of product revenues. Such charges were not significant in any of the periods presented.

Customer Concentration

Customers with revenues of 10% or more of our total revenues consist of the following (substantially all of the revenues presented below represent revenues from collaborative research and development arrangements):

	Percentage of Total Revenues				
	For The Years Ended December 31,			For The Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
				(Unaudited)	
Customers					
Shell	*	33%	60%	57%	75%
Pfizer	36%	13%	*	*	*
Schering-Plough	11%	*	*	*	*

* Represents less than 10% of total revenues

Concentrations of Supply Risk

We rely on a limited number of suppliers for our products. We believe that other vendors would be able to provide similar products; however, the qualification of such vendors may require substantial start-up time. In order to mitigate any adverse impacts from a disruption of supply, we attempt to maintain an adequate supply of critical single-sourced materials. For certain materials, our vendors maintain a supply for us. We outsource a portion of the manufacturing of our products to contract manufacturers with facilities in Austria, Germany, India and Italy.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects as well as partner-funded collaborative research and development activities. These costs include direct and research-related

Codexis, Inc.**Notes to Consolidated Financial Statements — (Continued)**

overhead expenses, which include salaries, stock-based compensation and other personnel-related expenses, facility costs, supplies, depreciation of facilities, and laboratory equipment, as well as research consultants and the cost of funding research at universities and other research institutions, and are expensed as incurred. Costs to acquire technologies that are utilized in research and development and that have no alternative future use are expensed when incurred.

To approximate research and development expenses by funded category, we estimate, based on FTE efforts, the percentage of research and development efforts, as measured in hours incurred. The number of hours expended in each category is divided by the total number of hours expended on all categories of research and development with the resulting fractions then multiplied by the total cost of research and development effort, with the products then added to project-specific external costs. In the case where a collaborative partner is sharing the research and development costs, the expenses for that project are allocated proportionately between the collaborative projects funded by third parties and internal projects. We believe that presenting our research and development expenses in these categories will provide our investors with meaningful information on how our resources are being used.

The following table presents our approximate research and development expenses by funding category (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
				(Unaudited)	
Collaborative research and development(1)	\$ 4,150	\$ 10,920	\$ 17,368	\$ 10,894	\$ 28,554
Grants	25	384	155	113	—
Internal projects	13,082	24,340	28,031	22,243	10,932
Total research and development expenses	<u>\$ 17,257</u>	<u>\$ 35,644</u>	<u>\$ 45,554</u>	<u>\$ 33,250</u>	<u>\$ 39,486</u>

- (1) Research and development expenses related to collaborative projects funded by related and other third parties are less than the reported revenues due to the recognition of revenues from the amortization of non-refundable up-front payments.

Advertising

Advertising costs are expensed as incurred and included in selling, general and administrative expenses in the consolidated statements of operations. Advertising costs were \$191,000, \$244,000 and \$335,000 for the years ended December 31, 2006, 2007 and 2008, respectively.

Income Taxes

We use the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets are recognized for deductible temporary differences, along with net operating loss carryforwards, if it is more likely than not that the tax benefits will be realized. To the extent a deferred tax asset cannot be recognized under the preceding criteria, a valuation allowance is established. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

We adopted FASB Interpretation No. 48, *Accounting for Uncertainties in Income Taxes — an interpretation of FASB Statement No. 109* or FIN 48 (incorporated in Accounting Standards Codification (“ASC”) Topic 740, *Income Taxes*), effective January 1, 2007. FIN 48 requires us to recognize the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. Upon adoption of FIN 48, there was no adjustment to accumulated deficit.

Stock-Based Compensation

Effective January 1, 2006, we began recognizing compensation expense related to share-based transactions, including the awarding of employee stock options, based on the estimated fair value of the awards granted. Options granted prior to January 1, 2006 were measured using the minimum value method for the pro forma disclosures that were previously required. We continued to account for non-vested employee share-based awards outstanding at January 1, 2006 using the intrinsic value method. All awards granted, modified or settled after January 1, 2006 have been accounted for based on the fair value of the awards granted. We are using the straight-line method to allocate stock-based compensation expense to the appropriate reporting periods.

We account for stock options issued to non-employees based on their estimated fair value determined using the Black-Scholes option-pricing model. The fair value of the options granted to non-employees is remeasured as they vest, and the resulting change in value, if any, is recognized as an increase or decrease in stock compensation expense during the period the related services are rendered.

Comprehensive Loss

We report our comprehensive loss, and its components, on the consolidated statements of stockholders’ deficit. Comprehensive loss consists of net loss, unrealized gains (losses) on marketable securities and foreign currency translation adjustments.

Net Loss per Share of Common Stock

Basic net loss per share of common stock is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding during the period, less the weighted-average unvested common stock subject to repurchase. Diluted net loss per share of common stock is computed by giving effect to all potential common shares, consisting of stock options, warrants and redeemable convertible preferred stock, to the extent dilutive. Basic and diluted net loss per share of common stock was the same for each period presented as the inclusion of all potential common shares outstanding was anti-dilutive.

The calculations for the unaudited pro forma basic and diluted net loss per share of common stock assume the conversion of all outstanding shares of redeemable convertible preferred stock into shares of common stock and the conversion of redeemable convertible preferred stock warrants to common stock warrants as if the conversions had occurred at the beginning of the period, or for Series F redeemable convertible preferred stock issued during the nine months ended September 30, 2009, the issue date for each share, using the as-if-converted method. Also, the numerator in the pro forma basic and diluted net loss per share calculation has been adjusted to remove gains and losses resulting from re-measurements of the redeemable convertible preferred stock warrant liability as these measurements would no longer be required when the redeemable convertible preferred stock warrants become warrants to purchase shares of our common stock.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

The following table presents the calculation of historical and pro forma basic and diluted net loss per share of common stock (in thousands, except per share amounts):

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
	(Unaudited)				
Actual:					
<i>Numerator:</i>					
Net loss	\$(18,671)	\$(38,977)	\$(45,127)	\$(38,800)	\$ (15,109)
<i>Denominator:</i>					
Weighted-average shares of common stock outstanding	1,699	2,530	3,607	3,559	3,935
Less: Weighted-average shares of common stock subject to repurchase	—	(20)	(37)	(38)	(18)
Weighted-average shares of common stock used in computing net loss per share of common stock, basic and diluted	<u>1,699</u>	<u>2,510</u>	<u>3,570</u>	<u>3,521</u>	<u>3,917</u>
Net loss per share of common stock, basic and diluted	<u>\$ (10.99)</u>	<u>\$ (15.53)</u>	<u>\$ (12.64)</u>	<u>\$ (11.02)</u>	<u>\$ (3.86)</u>
Pro Forma:					
<i>Numerator:</i>					
Net loss			\$(45,127)		\$ (15,109)
Less: change in fair value of redeemable convertible preferred stock warrant liability (unaudited)			(103)		349
Net loss used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)			<u>\$(45,230)</u>		<u>\$ (14,760)</u>
<i>Denominator:</i>					
Weighted-average shares of common stock used in computing net loss per share of common stock, basic and diluted, as used above			3,570		3,917
Add: Pro forma adjustments to reflect weighted-average effect of assumed conversion of redeemable convertible preferred stock (unaudited)			<u>32,330</u>		<u>35,767</u>
Weighted-average shares of common stock used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)			<u>35,900</u>		<u>39,684</u>
Pro forma net loss per share of common stock, basic and diluted (unaudited)			<u>\$ (1.26)</u>		<u>\$ (0.37)</u>

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

The following redeemable convertible preferred stock, common stock subject to repurchase, options to purchase common stock, warrants to purchase redeemable convertible preferred and warrants to purchase common stock were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have had an antidilutive effect (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
				(Unaudited)	
Redeemable convertible preferred stock	25,745	32,330	32,330	32,330	37,624
Common stock subject to repurchase	—	58	25	30	10
Options to purchase common stock	4,188	9,032	9,672	10,373	10,963
Warrants to purchase redeemable convertible preferred stock	752	433	433	433	433
Warrants to purchase common stock	55	59	59	59	59
Total	30,740	41,912	42,519	43,225	49,089

Recent Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board (“FASB”) issued Statement of Financial Accounting Standard (“SFAS”) No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles — A Replacement of FASB Statement No. 162* (“SFAS 168”). SFAS 168, which is incorporated in ASC Topic 105, *Generally Accepted Accounting Principles*, identifies the ASC as the authoritative source of generally accepted accounting principles in the United States. Rules and interpretive releases of the SEC under federal securities laws are also sources of authoritative GAAP for SEC registrants. We adopted the provisions of the authoritative accounting guidance for the interim reporting period ended September 30, 2009 and included references to the ASC within our consolidated financial statements. The adoption had no impact on our consolidated results of operations or financial position.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* (“SFAS 157”), which is incorporated in ASC Topic 820, *Fair Value Measurements and Disclosures*. SFAS 157 defines fair value, establishes a framework for measuring fair value and requires additional disclosures about fair value measurements. In February 2008, the FASB issued FASB Staff Position (“FSP”) FAS 157-1, *Application of FASB Statement No. 157 to FASB Statement No. 13 and Other Pronouncements that Address Fair Value Measurements for Purpose of Lease Classification or Measurement under Statement 13*, which is incorporated in ASC Topic 820, which amends SFAS 157 to exclude accounting pronouncements that address fair value measurements for purposes of lease classification or measurement under SFAS No. 13, *Accounting for Leases*. In February 2008, the FASB also issued FSP SFAS No. 157-2, *Effective Date of FASB Statement No. 157*, which is incorporated in ASC Topic 820, which delays the effective date of SFAS 157 until the first quarter of 2009 for all non-financial assets and non-financial liabilities, except for items that are recognized or disclosed at fair value in the consolidated financial statements on a recurring basis (at least annually). SFAS 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements. In April 2009, the FASB further issued FSP SFAS No. 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly* (“FSP SFAS 157-4”), which is incorporated in ASC Topic 820. FSP SFAS 157-4 is effective for interim

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

and annual periods ending after June 15, 2009, with early adoption permitted. We adopted SFAS 157 and such adoption did not have a significant impact on our consolidated financial statements.

In December 2007, the FASB ratified EITF Issue No. 07-1, *Accounting for Collaborative Agreements* (“EITF 07-1”), which defines collaborative agreements as contractual arrangements that involve a joint operating activity. EITF 07-1, which is incorporated in ASC Topic 808, *Collaborative Agreements*, states that these arrangements involve two or more parties who are both active participants in the activity and that are exposed to significant risks and rewards dependent on the commercial success of the activity. EITF 07-1 provides that a company should report the effects of adoption as a change in accounting principle through retrospective application to all periods. Furthermore, it requires the parties to determine who the principal party of the arrangement is, and therefore which party must report the revenues and expenses under the collaboration, as well as specific additional disclosures in the parties’ financial statements. EITF 07-1 is effective for periods beginning after December 15, 2008. We adopted EITF 07-1 on January 1, 2009. The adoption did not have a significant effect on our consolidated results of operations or financial position.

In May 2009, the FASB issued SFAS No. 165, *Subsequent Events* (“SFAS 165”), which is incorporated in ASC Topic 855, *Subsequent Events*. The standard establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. Although there is new terminology, the standard is based on the same principles as those that are currently exist in the auditing standards. The standard, which includes a new required disclosure of the date through which an entity has evaluated subsequent events, is effective for interim or annual periods ending after June 15, 2009. We adopted the provisions of this authoritative guidance in the nine month period ended September 30, 2009. The adoption had no impact on our consolidated results of operations or financial position.

In October 2009, the FASB issued Accounting Standards Update (“ASU”) 2009-13, which amends ASC Topic 605 *Revenue Recognition*, to require companies to allocate revenues in multiple-element arrangements based on an element’s estimated selling price if vendor-specific or other third-party evidence of value is not available. ASU 2009-13 is effective beginning January 1, 2011. Earlier application is permitted. We are currently evaluating both the timing and the impact of the pending adoption of the ASU on our consolidated financial statements.

3. Collaborative Research and Development Agreements

Shell

In November 2006, we entered into a collaborative research agreement and a license agreement with Shell to develop biocatalysts and associated processes that use such biocatalysts. In November 2007, we entered into a new and expanded five-year collaborative research agreement and a license agreement with Shell. In March 2009, we entered into an amended collaborative research agreement and a license agreement with Shell to further expand the scope of the collaboration and allow for additional purchases of the Company’s preferred stock by Shell. Shell has been a shareholder of the Company throughout all periods presented.

November 2006 Research Collaboration with Shell

In connection with the November 2006 research collaboration, Shell paid us a \$2.8 million nonrefundable, up-front technology access fee, purchased 755,668 shares of our Series D redeemable convertible preferred stock at \$3.97 per share for gross proceeds and an aggregate value of approximately \$3.0 million, and agreed to pay us (1) research funding at specified rates per FTE working on the project

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

during the 12-month research term, (2) a \$1.0 million milestone payment upon the delivery of a research report six months after the research commenced, and (3) royalties on future product sales, should such products using our technology be developed.

Under this agreement, we had a right of first negotiation to manufacture for Shell any biocatalysts developed under the collaborative research agreement if Shell decided to outsource the manufacture of such biocatalysts. In conjunction with the collaborative research agreement, Shell was issued a warrant to purchase \$3.0 million of additional Series D redeemable convertible preferred stock at a price of \$7.00 per share. The fair value of the warrant at issuance was determined to be \$462,000 and was amortized against revenues over the twelve-month term of the collaborative research agreement. The fair value was measured using the probability-weighted expected return method. Shell exercised this warrant in full in November 2007 in connection with the new and expanded collaborative research and license agreement discussed below (see also Note 10).

In accordance with our revenue recognition policy, the \$2.8 million up-front technology access fee, the \$4.1 million of research funding fees and the \$1.0 million milestone payment were recognized over the 12-month performance period. The \$1.0 million milestone payment was concluded to not be at risk and therefore was determined to not be a substantive milestone.

November 2007 Research Collaboration with Shell

In November 2007, we entered into a five-year expanded collaborative research agreement and a license agreement with Shell. In connection with the new and expanded collaborative research agreements, Shell paid us a \$20.0 million up-front exclusivity fee, purchased 3,584,428 shares of our Series E redeemable convertible preferred stock at \$8.50 per share for gross proceeds of \$30.5 million, and agreed to pay us (1) research funding at specified rates per FTE working on the project during the research term, (2) milestone payments upon the achievement of milestones, and (3) royalties on future product sales. The up-front exclusivity fee is refundable under certain conditions, such as a change in control in which we are acquired by a competitor of Shell. Refundability lapses ratably over a five-year period beginning on November 1, 2007, on a straight-line basis. The agreement also specifies certain minimum levels of FTE services that we must allocate to the collaboration efforts that increase over the term of the agreement. Shell has the right to terminate the collaborative research agreement upon nine months' notice, subject to certain restrictions, at any time after November 2010. The term of the new and expanded agreement extends through November 2012. During the term of the agreement, we are required to act exclusively with Shell as it relates to the rights and research described in the arrangement and may not conduct research, or contract to conduct research, for another party in the field of use. Under this agreement, we also have a right of first negotiation but not an obligation to manufacture any biocatalysts developed under the collaborative research agreement if Shell decides to out-source the manufacture of such biocatalysts.

In March 2009, we entered into an amended collaborative research agreement and a license agreement with Shell. In connection with the amended collaborative research agreements, Shell purchased 3,529,412 shares of our Series F redeemable convertible preferred stock at \$8.50 per share for gross proceeds of \$30.0 million and agreed to pay us (1) additional research funding at specified rates per FTE working on the project during the research term and (2) additional milestone payments upon the achievement of milestones. After November 1, 2010, Shell has the right to reduce the number of funded FTEs, subject to certain limitations, with a required advance notice period ranging from 30 to 270 days, so the earliest an FTE reduction could take place would be December 2, 2010, and a subsequent period ranging from 90 to 360 days during which notices of further FTE reductions cannot be made by Shell. The length of these periods varies dependent on the number of funded FTEs reduced.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

In accordance with our revenue recognition policy, the \$20.0 million up-front exclusivity fee and the research funding fees to be received for FTE services are recognized in proportion to the actual research efforts incurred relative to the amount of total expected effort to be incurred by us over the five-year research period commencing November 2007. Milestones to be earned under this agreement have been determined to be at risk and substantive at the inception of the arrangement and are expected to be recognized upon achievement of the milestone and when collectability is reasonably assured. No milestone revenues have been recognized through December 31, 2008. We recorded milestone revenues of \$0.5 million during the nine months ended September 30, 2009.

Under the agreements with Shell, we have the right to license technology from third parties that will assist us in meeting objectives under the collaboration. If a third-party technology is identified and mutually agreed upon by both parties, Shell is obligated to reimburse us for the licensing costs of the technology. In 2008, we mutually agreed to license two third-party technologies for which Shell would reimburse us the cost of the technologies. Payments made by us to the third-party providers were recorded as research and development expenses related to our collaborative research agreement with Shell. None of the acquired licenses are expected to be used in products that will be sold within the next year and the phase of the project has not reached technological feasibility. Shell reimbursed us for licensing costs of \$0, \$0, \$6.1 million, \$0 and \$7.3 million for the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, respectively. We record these reimbursements against the costs incurred. As of December 31, 2008, \$3.0 million of the reimbursements received from Shell were recorded in the consolidated balance sheet as advances from a related party and were paid to the third party in January 2009.

Other Collaborations

Pfizer

In July 2004, we entered into a multi-year collaborative research agreement and a license agreement with Pfizer to discover and develop biocatalysts, and associated processes that use such biocatalysts, in the manufacture of pharmaceutical products for Pfizer. Under the terms of these agreements, Pfizer provided us an up-front technology access fee of \$2.0 million and agreed to provide research funding of approximately \$8.6 million over a multi-year period. We were also eligible to receive milestone payments, a license fee if Pfizer exercised its option to acquire a non-exclusive worldwide license to our gene shuffling technology, and royalty payments based upon sales by Pfizer of products that are manufactured using our biocatalysts. The agreement was terminated in May 2007. During the term of the agreement, we received an aggregate of \$600,000 of milestone payments in connection with the discovery and development of new biocatalysts on behalf of Pfizer.

In accordance with our revenue recognition policy, the \$2.0 million up-front technology access fee and the research funding at specified rates per FTE working on the project were recognized over the research period under the agreement. In November 2006, following Pfizer's six-month notice of termination in May 2007 of the research term, we changed our estimate of the research term from 48 to 34 months and recognized the remaining unamortized portion of the up-front payment over the reduced expected life of the research term. Research milestones were determined to be substantive and at risk at the inception of the arrangement and, as such, were recognized in the period when each milestone was achieved. Total collaborative research and development revenues recognized under this agreement was \$3.7 million and \$1.8 million in 2006 and 2007, respectively. No revenues were recorded under these agreements subsequent to 2007.

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Notes to Consolidated Financial Statements — (Continued)

Concurrent with the execution of the multi-year collaborative research agreement and the license agreement, we also entered into a stock purchase agreement in which Pfizer purchased 1,514,645 shares of our Series C redeemable convertible preferred stock at \$6.60 per share for gross proceeds of \$10.0 million.

In September 2000, Maxygen, Inc. (Maxygen) extended a May 1998 agreement with Pfizer for the development of a biochemical manufacturing process for a specific pharmaceutical product. This agreement was assigned to us in connection with our initial capitalization in March 2002. The extended agreement entitled us to earn research and commercial milestones and a royalty based on a percentage of all manufacturing cost savings once the optimized commercial process was scaled up at Pfizer. During the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, we recognized royalty revenues related to commercial payments under this agreement in the amounts of \$0.3 million, \$0.3 million, \$0.5 million, \$0.4 million and \$0.5 million, respectively.

Merck

In February 2007, we entered into a three year Catalyst License and Supply Agreement with Merck. Pursuant to the terms of the agreement, Merck may obtain enzymes from us and request that we screen the enzymes for activity in the manufacture of compounds of interest to Merck. We have granted Merck a license to use such enzymes. In connection with the agreement, Merck agreed to purchase enzyme supplies and optimization and screening services from us based on firm orders at agreed-upon rates. The minimum volume of purchases Merck is obligated to make is \$4.5 million over the term of the agreement. Merck may continue to purchase supplies and services after the minimum purchase commitment period at the agreed-upon rates. Merck was also obligated to pay us additional fees upon achievement of specified milestones. The contractual term was defined as three years with licenses applicable in perpetuity. We recognize revenues from the agreement based on the amounts billed as we deliver enzyme supplies and provide the services, if all other revenue recognition criteria have been met. No amounts were billed for or recognized upon delivery of the license. During the years ended December 31, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, we recognized product and collaborative research and development revenues under this agreement of \$0.8 million, \$2.2 million, \$1.9 million and \$1.8 million, respectively.

Manufacturing Collaboration

In October 2005, we entered into a technology transfer and supply agreement, which we refer to as the 2005 Agreement, with Arch Pharmalabs Ltd. (“Arch”), a company based in India engaged in the manufacturing and sale of active pharmaceutical ingredients, or APIs, and intermediates to pharmaceutical companies worldwide. In exchange for a \$500,000 up-front payment, we granted to Arch a non-exclusive, royalty free license, with no right to grant sublicense rights, to certain of our patent rights and technology, to solely manufacture an intermediate called ATS-8 for us and on our behalf.

We also agreed to transfer technology that is necessary or useful for the manufacture of ATS-8. We recognized the fee upon delivery of the technology and the performance of certain other obligations. In exchange for a \$1.5 million up-front payment, we agreed to purchase from Arch certain intermediate production quantities. The \$1.5 million up-front payment was repayable by us to Arch if the specified purchases of production quantities were not met. Arch also agreed to purchase exclusively from us quantities of certain of our enzymes and an earlier intermediate used in the production of ATS-8, known as

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

ATS-5, sufficient to enable Arch to fulfill our orders for ATS-8. Subsequently, we have transferred our ATS-5 related technology to Arch for the sole purposes of manufacturing ATS-5 for our resale to Pfizer and others and for Arch's use in the manufacture of ATS-8 manufactured for and on our behalf.

In August 2006, we broadened our relationship with Arch by entering into an enzyme and supply agreement, a supply agreement and a master services agreement, which we call the 2006 Agreements. The 2006 Agreements, among other things, provided biocatalytic supply specifications from us to Arch, intermediate supply from Arch to us, and services to be performed by Arch over the four year term of the agreements.

Due to the ongoing negotiations of our agreements with Arch in 2005 and 2006, we viewed the 2006 Agreements to be linked to the 2005 Agreement. We did not purchase the production volumes to earn the \$1.5 million up-front payment under the 2005 Agreement so that payment was applied as consideration to the 2006 Agreements.

Under the 2006 Agreements, we agreed to pay Arch up to \$1.5 million for certain chemical process and manufacturing method development services as Arch delivers them over the course of the master services agreement. For the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, we had paid Arch \$0, \$250,000, \$500,000, \$500,000 and \$500,000, respectively, for their services under the 2006 Agreements. As of December 31, 2008 and September 30, 2009, we had a remaining liability of \$750,000 and \$250,000, respectively, due to Arch. We have recognized expense for these services of \$156,000, \$375,000, \$375,000, \$281,000 and \$281,000 during the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, respectively, on a proportional basis based on quarterly manufacturing reports received from Arch.

The terms of the license prohibit Arch from using the licensed process or biocatalysts for any purpose other than manufacturing ATS-8 for sale to our affiliates. We sell the biocatalysts to Arch at cost, and Arch manufactures ATS-8 on our behalf. Arch sells ATS-8 to us at a formula-based price, which results in a fixed percentage profit share. We then directly market and sell ATS-8 to customers in the generic pharmaceutical industry, including Arch. Sales to Arch of ATS-8 are recognized net of the manufacturing costs charged by Arch. Total product and collaborative research and development revenues recorded from Arch was \$219,000, \$387,000, \$442,000, \$373,000 and \$302,000 during the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, respectively.

In August 2008, we further expanded our relationship with Arch by entering into several enzyme and supply agreements, and product territory agreements ("2008 Agreements"). The 2008 Agreements, among other things, provided biocatalytic supply specifications from us to Arch, intermediate supply from Arch to us, and services to be performed by Arch over the term of the agreements for an expanded product portfolio.

4. Acquisition of BioCatalytics

On July 17, 2007, we acquired 100% of the outstanding stock of BioCatalytics for total consideration of \$2.4 million. BioCatalytics offers a range of enzymes for chemical synthesis. It also provides synthesis services of metabolites and other compounds. We acquired BioCatalytics to expand our product offerings and customer relationships.

The BioCatalytics acquisition was accounted for as a business combination using the purchase method of accounting. Accordingly, the results of BioCatalytics are included in our consolidated financial statements from the date of acquisition.

Codexis, Inc.**Notes to Consolidated Financial Statements — (Continued)**

The aggregate purchase price consisted of the following (in thousands):

Cash consideration	\$ 1,000
Fair value of common stock issued	1,228
Direct transaction costs	219
Total purchase price	<u>\$ 2,447</u>

The allocation of the total purchase price to the assets acquired and liabilities assumed based on their respective fair values at the acquisition date is as follows (in thousands):

	December 31, 2007	2008 Adjustments	December 31, 2008
Total current assets	\$ 1,041	\$ —	\$ 1,041
Property and equipment, net and other noncurrent assets	601	728	1,329
Total liabilities assumed	(1,227)	(854)	(2,081)
Core technology	440	—	440
Customer relationships	490	—	490
Noncompete agreement	90	—	90
Goodwill	1,012	126	1,138
Total purchase price	<u>\$ 2,447</u>	<u>\$ —</u>	<u>\$ 2,447</u>

In the year ended December 31, 2008, we completed an analysis of the tax returns filed by BioCatalytics prior to our acquisition. The analysis revealed additional tax liabilities. These liabilities relate to income taxes and associated interest and penalties in pre-acquisition tax periods. As a result of the analysis, we recorded a tax liability of \$0.9 million as well as \$0.7 million in related assets that are discussed further below.

The merger agreement relating to the BioCatalytics acquisition provides that the former shareholder will reimburse us for his share of the tax liability associated with the final return. As a result, we have recorded a current tax liability and a corresponding receivable from the former shareholder in the amount of \$0.4 million. The adjustment to other noncurrent assets comprises the \$0.4 million receivable from the former shareholder and \$0.3 million of deferred tax assets.

Customer relationships and core technology are being amortized over an expected useful life of five years. The non-compete agreement is being amortized over its expected useful life of three years.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

5. Balance Sheets and Statements of Operations Details

Cash Equivalents and Marketable Securities

At December 31, 2007, cash equivalents and marketable securities, consisted of the following (in thousands):

	December 31, 2007			Estimated Fair Value
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	
Money market funds	\$ 52,125	\$ —	\$ —	\$ 52,125
Corporate debt obligations	25,316	128	(1)	25,443
Asset-backed securities	3,547	5	—	3,552
Total	80,988	133	(1)	81,120
Less amounts classified as cash equivalents	(52,125)	—	—	(52,125)
Total marketable securities	<u>\$ 28,863</u>	<u>\$ 133</u>	<u>\$ (1)</u>	<u>\$ 28,995</u>

At December 31, 2008, cash equivalents and marketable securities, consisted of the following (in thousands):

	December 31, 2008			Estimated Fair Value
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	
Money market funds	\$ 15,992	\$ —	\$ —	\$ 15,992
Corporate debt obligations	3,492	7	—	3,499
Government-sponsored enterprise securities	11,723	6	(1)	11,728
Total	31,207	13	(1)	31,219
Less amounts classified as cash equivalents	(15,992)	—	—	(15,992)
Total marketable securities	<u>\$ 15,215</u>	<u>\$ 13</u>	<u>\$ (1)</u>	<u>\$ 15,227</u>

At September 30, 2009, cash equivalents and marketable securities consisted of the following (in thousands):

	September 30, 2009			Estimated Fair Value
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	
		(Unaudited)		
Money market funds	\$ 17,769	\$ —	\$ —	\$ 17,769
U.S. Treasury obligations	3,775	3	—	3,778
Corporate debt obligations	1,749	—	—	1,749
Government-sponsored enterprise securities	28,768	24	(1)	28,791
Total	52,061	27	(1)	52,087
Less amounts classified as cash equivalents	(18,769)	—	—	(18,769)
Total marketable securities	<u>\$ 33,292</u>	<u>\$ 27</u>	<u>\$ (1)</u>	<u>\$ 33,318</u>

All marketable securities held as of December 31, 2007, December 31, 2008 and September 30, 2009 had maturities of less than one year.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

Inventories

Inventories consisted of the following (in thousands):

	December 31,		September 30,
	2007	2008	2009 (Unaudited)
Raw materials	\$ 372	\$ 924	\$ 1,310
Work in process	43	14	142
Finished goods	1,220	2,038	1,035
Total inventories	<u>\$1,635</u>	<u>\$2,976</u>	<u>\$ 2,487</u>

Property and Equipment

Property and equipment consisted of the following (in thousands):

	December 31,	
	2007	2008
Laboratory equipment	\$ 11,875	\$ 17,558
Leaseholds improvements	6,295	7,375
Computer equipment and software	1,105	1,466
Office equipment and furniture	429	708
Construction in progress	502	1,605
	<u>20,206</u>	<u>28,712</u>
Less: accumulated depreciation and amortization	<u>(9,107)</u>	<u>(12,706)</u>
Property and equipment	<u>\$ 11,099</u>	<u>\$ 16,006</u>

Included in property and equipment, net is \$124,000 and \$75,000 of equipment under capital lease arrangements at December 31, 2007 and December 31, 2008, respectively. Included in accumulated depreciation and amortization is \$121,000 and \$248,000 of accumulated amortization related to equipment under capital leases at December 31, 2007 and December 31, 2008, respectively.

Intangible Assets

At December 31, 2007 and 2008, intangible assets consisted of the following (in thousands):

	December 31, 2007			December 31, 2008		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value
Customer relationships	\$ 2,850	\$ (1,323)	\$ 1,527	\$ 2,850	\$ (1,921)	\$ 929
Developed and core technology	1,430	(441)	989	1,430	(670)	760
Tradename	90	(64)	26	90	(86)	4
Noncompete agreements	90	(14)	76	90	(44)	46
Foreign exchange adjustments	72	93	165	5	49	54
	<u>\$ 4,532</u>	<u>\$ (1,749)</u>	<u>\$ 2,783</u>	<u>\$ 4,465</u>	<u>\$ (2,672)</u>	<u>\$ 1,793</u>

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Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

The estimated amortization expense through the year ending December 31, 2012 is as follows at December 31, 2008 (in thousands):

Year ending December 31:	Cost of Product Revenues	Selling, General and Administrative	Total
2009	\$ 229	\$ 685	\$ 914
2010	229	197	426
2011	229	98	327
2012	71	55	126
	<u>\$ 758</u>	<u>\$ 1,035</u>	<u>\$1,793</u>

Goodwill

The changes in the carrying value of goodwill are as follows (in thousands):

	Years Ended December 31,	
	2007	2008
Balance at beginning of year	\$1,926	\$3,099
Additions due to BioCatalytics acquisition	1,012	126
Adjustments to tax valuation allowances established in purchase accounting	(51)	—
Foreign exchange adjustments	212	(88)
Balance at end of year	<u>\$3,099</u>	<u>\$3,137</u>

Interest Expense and Other, Net

Interest expense and other, net consisted of the following (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
	(Unaudited)				
Interest expense	\$ 485	\$ 829	\$ 2,021	\$ 1,603	\$ 1,078
Foreign exchange losses	46	173	415	206	169
Remeasurement of redeemable convertible preferred stock warrant liabilities	156	1,328	(103)	567	349
Other	37	203	32	141	(66)
Interest expense and other, net	<u>\$ 724</u>	<u>\$ 2,533</u>	<u>\$ 2,365</u>	<u>\$ 2,517</u>	<u>\$ 1,530</u>

6. Fair Value

Assets and liabilities recorded at fair value in the consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels which are directly related to the amount of subjectivity associated with the inputs to the valuation of these assets or liabilities are as follows:

Level 1 — Inputs that are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

Level 2 — Inputs (other than quoted prices included in Level 1) that are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities and which reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

The following table presents our financial instruments that were measured at fair value on a recurring basis at December 31, 2008 by level within the fair value hierarchy (in thousands):

	December 31, 2008			Total
	Level 1	Level 2	Level 3	
Financial Assets				
Money market funds	\$ 15,992	\$ —	\$ —	\$ 15,992
Corporate debt obligations	—	3,499	—	3,499
Government-sponsored enterprise securities	—	11,728	—	11,728
Total	\$ 15,992	\$ 15,227	\$ —	\$ 31,219
Financial Liability				
Redeemable convertible preferred stock warrant liability	\$ —	\$ —	\$ 1,382	\$ 1,382

The change in the value of the warrant liability is summarized below (in thousands):

Fair value at December 31, 2007	\$1,485
Change in fair value recorded in interest expense and other, net	(103)
Fair value at December 31, 2008	<u>\$1,382</u>

The following table presents our financial instruments that were measured at fair value on a recurring basis at September 30, 2009 by level within the fair value hierarchy (in thousands):

	September 30, 2009			Total
	Level 1	Level 2 (unaudited)	Level 3	
Financial Assets				
Money market funds	\$ 17,769	\$ —	\$ —	\$ 17,769
U.S. Treasury obligations	—	3,778	—	3,778
Corporate debt obligations	—	1,749	—	1,749
Government-sponsored enterprise securities	—	28,791	—	28,791
Total	\$ 17,769	\$ 34,318	\$ —	\$ 52,087
Financial Liability				
Redeemable convertible preferred stock warrant liability	\$ —	\$ —	\$ 1,731	\$ 1,731

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

The change in the value of the warrant liability is summarized below (in thousands):

Fair value at December 31, 2008	\$ 1,382
Change in fair value recorded in interest expense and other, net (unaudited)	349
Fair value at September 30, 2009 (unaudited)	<u>\$ 1,731</u>

The valuation of the redeemable convertible preferred stock warrant liability is discussed in Note 10.

7. Related Party Transactions with Maxygen

Maxygen founded the Company in 2002 and remains one of the stockholders of the Company. During the years ended December 31, 2006, 2007 and 2008, and nine months ended September 30, 2009, Maxygen provided to the Company certain legal and administrative services, with total fees paid to Maxygen of \$1.4 million, \$652,000, \$268,000, \$231,000 and \$70,000, respectively. At December 31, 2007, December 31, 2008 and September 30, 2009, we owed Maxygen \$116,000, \$26,000 and \$9,000, respectively, in connection with such services.

In August 2006, Maxygen purchased 254,838 shares of Series D redeemable convertible preferred stock for \$3.97 per share. Other investors not affiliated with Maxygen also purchased shares of Series D redeemable convertible preferred stock at the same price and on the same date as Maxygen. Maxygen has not subsequently purchased or been granted any additional shares.

In August 2006, we entered into an amendment to the license agreement with Maxygen. Under the amendment, we are required to pay Maxygen a fee based on a percentage of all consideration we receive from third parties related to the use of certain intellectual property owned or controlled by Maxygen in the specified field of biofuels. We also pay Maxygen a percentage of proceeds from equity financing received from such third parties. We expense all payments owed to Maxygen as they become due as collaborative research and development expenses, which we report as research and development expenses in our consolidated statements of operations. We are also obligated to reimburse up to 20% of the costs incurred by Maxygen related to the prosecution and maintenance of the patents licensed from Maxygen relating to our core technology. Further, in the event that any subsidiary or affiliate of ours develops and/or sells any energy applications using the Maxygen technology, we are obligated to transfer to Maxygen a percentage of the value of the subsidiary or affiliate that is attributable to the Maxygen technology and give Maxygen an option to acquire a percentage of the other consideration that we invest in such affiliate or subsidiary.

Currently, we pay Maxygen a fee based on our collaborative research and development agreements with Shell (see Note 3). We expensed \$556,000, \$7.8 million, \$988,000, \$579,000 and \$4.2 million during the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009, respectively. Amounts payable to Maxygen were \$7.6 million, \$409,000 and \$314,000 at December 31, 2007, December 31, 2008 and September 30, 2009, respectively.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

8. Financing Obligations

Financing obligations, net of debt discounts and issuance costs, consisted of the following (in thousands):

	December 31,		September 30,
	2007	2008	2009 (unaudited)
General Electric Capital Corporation and Oxford Finance Corporation (2007 agreement)	\$14,501	\$11,895	\$ 8,460
Oxford Finance Corporation (2005 agreement)	923	551	247
Lighthouse Capital Partners V, L.P.	858	103	—
A German bank	753	721	746
Total loans payable	<u>17,035</u>	<u>13,270</u>	<u>9,453</u>
Lines of credit	217	—	—
Capital leases	155	78	52
	17,407	13,348	9,505
Less: current portion	<u>(4,507)</u>	<u>(5,194)</u>	<u>(6,093)</u>
Financing obligations, net of current portion	<u>\$12,900</u>	<u>\$ 8,154</u>	<u>\$ 3,412</u>

Loans Payable

In September 2007, we entered into a loan and security agreement with General Electric Capital Corporation and Oxford Finance Corporation under which we could borrow up to \$15.0 million. In connection with the execution of the loan and security agreement, we incurred costs of \$269,000 and, in addition, we issued the lenders a warrant to purchase 109,091 shares of Series D redeemable convertible preferred stock with an estimated fair value of \$297,000, which was recorded in the consolidated balance sheet as a debt discount that is being amortized to interest expense over the life of the loans (see Note 10). During the year ended December 31, 2007, we drew down the entire \$15.0 million, net of issuance costs. The loan agreement provides for 6 monthly payments of interest only and 36 monthly installments of principal and interest, with an additional 4% payment due upon final maturity of each funding. Interest accrues at 9.4% per annum. The loan is secured by substantially all of our assets except for intellectual property, and also contains covenants that, among other things, place restrictions on our use of cash including the payment of dividends, investment in subsidiaries and the purchase of capital assets. At December 31, 2008 and September 30, 2009, we were either in compliance with the covenants of the loan and security agreement, or obtained from the lenders a waiver of noncompliance. During the years ended December 31, 2007 and December 31, 2008, we recorded interest expense of \$67,000 and \$250,000, respectively, for the amortization of the debt discounts related to these loans.

In October 2005, we entered into a loan agreement with Oxford Finance Corporation to borrow up to \$3.0 million to be used for equipment purchases. Borrowings under the agreement to purchase equipment are secured by the equipment financed. The ability to make new borrowings under this financing agreement expired on December 31, 2006. Each borrowing is being repaid over 48-months from the date of drawdown at a fixed interest rate ranging from 9.9% to 10.7% per annum.

In February 2004, we entered into a loan agreement with Lighthouse Capital Partners V, L.P. to borrow up to \$4.8 million to be used for equipment purchases and to fund working capital requirements. Borrowings under this agreement to purchase equipment are secured by the equipment financed, while borrowings to fund working capital requirements are unsecured. The ability to make new borrowings under

Codexis, Inc.**Notes to Consolidated Financial Statements — (Continued)**

this financing agreement expired on March 31, 2005. The borrowings are being repaid over 48-months from the date of drawdown at a fixed interest rate ranging from 9.2% to 10.9% per annum and were repaid in full by January 2009.

In August 2001, JFC entered into a loan agreement with a German bank denominated in Euros and borrowed 511,000 Euro at a fixed interest rate of 7.9% per annum. The loan requires interest only payments of 10,000 Euro (\$15,000, \$14,000 and \$15,000 as of December 31, 2007, December 31, 2008 and September 30, 2009, respectively) per quarter until September 2011, at which time the entire principal is payable in full (see Note 17).

Bridge Financing Agreement

In May 2006, we entered into a bridge financing agreement with several of our then current investors. Under the agreement, the investors loaned us a total of \$4.2 million in exchange for convertible promissory notes bearing interest at an annual rate of 8.0%. With the exception of certain assets securing various notes under our other financing agreements, the notes were secured by all of our assets including our intellectual property. Commensurate with our closing of the Series D redeemable convertible preferred stock offering in August 2006, the bridge loan principal of \$4.2 million plus accrued interest of \$82,000 was converted into 1,078,568 shares of Series D redeemable convertible preferred stock.

In accordance with the terms of the bridge loan financing, warrants to purchase 323,569 shares of our Series D redeemable convertible preferred stock were also issued (see Note 10). The estimated fair value of the warrants of \$5,000 was recorded as a debt discount with an offsetting entry to the redeemable convertible preferred stock warrant liability. As the strike price of the warrants is equal to the liquidation preference of Series D redeemable convertible preferred stock and the warrants convert to common stock warrants upon a merger or a qualified initial public offering (see Note 11), the fair value was determined on an "as-converted" basis using the Black-Scholes option-pricing model. The entire amount of the debt discount was amortized to interest expense during the year ended December 31, 2006. The initial allocation of proceeds received from the bridge loan financing to the warrants resulted in an embedded beneficial conversion feature in the amount of \$5,000. The beneficial conversion feature was recorded as interest expense with an offsetting entry to additional paid-in capital during the year ended December 31, 2006.

Future Payments Under Financing Obligations

Future payments due for all financing obligations are as follows as of December 31, 2008 (in thousands):

	<u>Loans Payable</u>	<u>Capital Leases</u>	<u>Total</u>
Years ending December 31:			
2009	\$ 6,351	\$ 45	\$ 6,396
2010	5,975	33	6,008
2011	3,443	—	3,443
Total payments	<u>\$15,769</u>	<u>\$ 78</u>	15,847
Less: amount representing interest			<u>(2,499)</u>
Outstanding principal balance of financing obligations			13,348
Less: current portion of financing obligations			<u>(5,194)</u>
Financing obligations, net of current portion			<u>\$ 8,154</u>

Codexis, Inc.**Notes to Consolidated Financial Statements — (Continued)**

Future payments due for all financing obligations are as follows as of September 30, 2009 (in thousands, unaudited):

	<u>Loans Payable</u>	<u>Capital Leases</u>	<u>Total</u>
Three months ending December 31, 2009	\$ 2,299	\$ 52	\$ 2,351
Years ending December 31:			
2010	5,920	—	5,920
2011	2,680	—	2,680
Total payments	<u>\$10,899</u>	<u>\$ 52</u>	10,951
Less: amount representing interest			<u>(1,446)</u>
Outstanding principal balance of financing obligations			9,505
Less: current portion of financing obligations			<u>(6,093)</u>
Long-term portion of financing obligations			<u>\$ 3,412</u>

9. Commitments and Contingencies**Operating Leases**

In October 2003, we entered into an operating lease agreement with a third party landlord for our facilities in Redwood City, California. The rent payments commenced in February 2004, with scheduled rent increases through the lease expiration in January 2011. During 2007 and 2008, we leased additional facilities from the same landlord adjacent to our current headquarters. The new leases expire in April 2012 and March 2013. We have an option to renew each of the three leases for a five year period. Rent expense is recognized on a straight-line basis over the term of the lease. In accordance with the terms of the lease agreement, we exercised our right to deliver a letter of credit in the amount of \$450,000 in lieu of a security deposit. Provided that we have not been in default of the lease, the amount of the letter of credit will be reduced to \$225,000 in February 2010. This letter of credit, which is recorded as restricted cash on the consolidated balance sheets, will be required until the termination of the lease.

Landlord allowances for leasehold improvements were \$149,000, \$518,000 and \$54,000 for the years ended December 31, 2007, December 31, 2008 and the nine months ended September 30, 2009, respectively. We recorded these amounts as lease incentive obligations that are being amortized as a reduction of rent expense on a straight-line basis over the term of the operating lease.

We also rent facilities in Singapore, Germany and Hungary. Rent expense is being recognized on a straight-line basis over the respective terms of these leases.

We recorded a liability of \$349,000 in the year ended December 31, 2007 related to asset retirement obligations from operating leases, whereby we must restore the facilities that we are renting to their original form. We are expensing the asset retirement obligation over the terms of the respective leases. We review the estimated obligation each period and we will make adjustments if our estimates change.

Codexis, Inc.**Notes to Consolidated Financial Statements — (Continued)**

Future minimum payments under noncancellable operating leases are as follows at December 31, 2008 (in thousands):

	<u>Lease Payments</u>
Year ending December 31:	
2009	\$ 3,058
2010	2,935
2011	1,545
2012	1,213
2013	346
	<u>\$ 9,097</u>

Total rent expense under operating leases was \$1.2 million, \$2.1 million and \$3.6 million, during the years ended December 31, 2006, 2007 and 2008, respectively. Deferred rent of \$210,000 and \$412,000 at December 31, 2007 and 2008, respectively, is included in other accrued liabilities on our consolidated balance sheets.

Litigation

We have been subject to various legal proceedings related to matters that have arisen during the ordinary course of business. Although there can be no assurance as to the ultimate disposition of these matters, we have determined, based upon the information available, that the expected outcome of these matters, individually or in the aggregate, will not have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Indemnifications

We are required to recognize a liability for the fair value of any obligations we assume upon the issuance of a guarantee. Along these lines, we have certain agreements with licensors, licensees and collaborators that contain indemnification provisions. In such provisions, we typically agree to indemnify the licensor, licensee and collaborator against certain types of third party claims. The maximum amount of the indemnifications is not limited. We accrue for known indemnification issues when a loss is probable and can be reasonably estimated. There were no accruals for expenses related to indemnification issues for any periods presented.

10. Warrants

In connection with debt offerings at various times between the years ended December 31, 2004 and 2007, we issued warrants to purchase a total of 861,231 shares of our Series D redeemable convertible preferred stock and warrants to purchase a total of 58,853 shares of our common stock. The warrants are exercisable at any time during their respective terms. During the year ended December 31, 2007, a warrant to purchase 428,571 shares of Series D redeemable convertible preferred stock was exercised (see Note 3). At December 31, 2008 and September 30, 2009, the following warrants were issued and outstanding:

<u>Issue Date</u>	<u>Class of Shares Upon Exercise</u>	<u>Shares Subject to Warrants</u>	<u>Exercise Price per Share</u>	<u>Expiration</u>
February 12, 2004	Common	46,176	\$ 0.40	February 12, 2011
October 25, 2005	Common	9,100	0.70	October 25, 2012
May 25, 2006	Series D	323,569	3.97	May 25, 2013
July 17, 2007	Common	3,577	8.30	February 9, 2016
September 28, 2007	Series D	109,091	5.50	September 28, 2017

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

The fair value of the redeemable convertible preferred stock warrants which are recorded as liabilities in our consolidated balance sheets and are remeasured to fair value at each balance sheet date was determined using the Black-Scholes option pricing model with the following assumptions:

	December 31,			September 30,
	2006	2007	2008	2009 (Unaudited)
Expected term in years (equals the remaining contractual term)	1.0 - 6.4	5.4 - 9.8	4.4 - 8.7	3.7 - 8.0
Expected volatility	48% - 49%	44%	57% - 65%	72% - 75%
Range of risk-free interest rates	4.6% - 5.0%	3.8% - 4.8%	1.3% - 2.1%	2.1% - 3.2%
Expected dividend yield	0.0%	0.0%	0.0%	0.0%

11. Redeemable Convertible Preferred Stock

The authorized, issued and outstanding shares, aggregate liquidation preferences and carrying values of our redeemable convertible preferred stock were as follows at December 31, 2008 (in thousands):

Series	Number of Shares		Aggregate Liquidation Preference	Carrying Value
	Designated	Issued and Outstanding		
Series A	6,000	6,000	\$ 30,000	\$ 1
Series B	8,101	8,101	25,000	27,779
Series C	1,515	1,515	10,000	9,969
Series D	11,155	10,497	41,673	42,764
Series E	6,434	6,157	52,333	52,233
	<u>33,205</u>	<u>32,270</u>	<u>\$ 159,006</u>	<u>\$ 132,746</u>

The authorized, issued and outstanding shares, aggregate liquidation preferences and carrying values of our redeemable convertible preferred stock were as follows at September 30, 2009 (in thousands, unaudited):

Series	Number of Shares		Aggregate Liquidation Preference	Carrying Value
	Designated	Issued and Outstanding		
Series A	6,000	6,000	\$ 30,000	\$ 1
Series B	8,101	8,101	25,000	27,779
Series C	1,515	1,515	10,000	9,969
Series D	11,155	10,497	41,673	42,764
Series E	6,434	6,157	52,333	52,233
Series F	6,000	5,294	45,000	45,000
	<u>39,205</u>	<u>37,564</u>	<u>\$ 204,006</u>	<u>\$ 177,746</u>

We recorded the redeemable convertible preferred stock at fair value on the dates of issuance, net of issuance costs. We classify the redeemable convertible preferred stock outside of stockholders' deficit because the shares contain redemption features that are not solely within our control. For the years ended December 31, 2007 and 2008 and the nine months ended September 30, 2009, we elected not to adjust the carrying values of the redeemable convertible preferred stock to the deemed redemption values of such shares since it is uncertain as to whether or when a liquidation event could occur. Subsequent adjustments to increase the carrying values to the ultimate redemption values will be made only when it becomes probable that such a liquidation event will occur.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

The significant rights, privileges and preferences of our redeemable convertible preferred stock are as follows:

Voting Rights — The holders of Series A through F redeemable convertible preferred stock are all entitled to one vote for each share of common stock into which such share may be converted, and the vote of the holders of a majority of our Series B, C, D, E and F redeemable convertible preferred stock (voting together as a single class and on an as-if-converted basis) is required to effect certain corporate actions. In addition, the vote of the holders of a majority of our Series D redeemable convertible preferred stock is required to affect (i) any winding up or liquidation of our Singapore subsidiary, (ii) a significant reduction in the number of employees at our Singapore subsidiary or (iii) a significant reduction in the overall technological capacity of our Singapore subsidiary's operations.

Dividends — The holders of the redeemable convertible preferred stock are entitled, when, as, and if declared by the board of directors, to non-cumulative dividends of (i) \$0.40 per share for Series A, (ii) \$0.25 per share for Series B, (iii) \$0.53 per share for Series C, (iv) \$0.32 per share for Series D, (v) \$0.68 per share for Series E and (vi) \$0.68 per share for Series F. The Series B, C, D, E and F redeemable convertible preferred stock dividends are to be paid in advance of any distributions to the holders of Series A convertible preferred stock and common stock. The Series A convertible preferred stock dividends are to be paid in advance of any distributions to the holders of common stock. Once the redeemable convertible preferred stockholders have received their dividend preference, and in the event dividends are paid on any share of common stock, the holders of all series of redeemable convertible preferred stock are entitled to additional dividends equal to those paid or set aside to the common stockholders determined on an as-if-converted basis. No dividends have been declared or paid as of December 31, 2007, December 31, 2008 and September 30, 2009.

Liquidation — In the event of any voluntary or involuntary liquidation, dissolution or winding up of our company, all of our assets available for distribution among the holders of redeemable convertible preferred stock are required to be distributed in the following order: (i) each holder of Series D, E and F redeemable convertible preferred stock is entitled to receive a liquidation preference of \$3.97, \$8.50 and \$8.50 per share, respectively, together with any declared but unpaid dividends, before any payments can be made to holders of Series A, B and C redeemable convertible preferred stock, (ii) each holder of Series B and C redeemable convertible preferred stock is entitled to receive a liquidation preference of \$3.09 and \$6.60 per share, respectively, together with any declared but unpaid dividends, before any payments can be made to holders of Series A convertible preferred stock, and (iii) each holder of Series A convertible preferred stock is entitled to receive a liquidation preference of \$5.00 per share, together with any declared but unpaid dividends. After payment of these preferential amounts, the remaining assets are required to be distributed ratably to holders of common stock. In the event that the assets available for distribution are insufficient to make the full per share distributions, all such assets are required to be distributed among the holders of the respective series in proportion to the full preference to which such holders would otherwise be entitled. Any of the following shall be deemed a liquidation, dissolution or winding up of our company: (1) a consolidation or merger of our company with or into any other corporation or other entity or person, or any other corporate reorganization, in which (x) we do not survive or (y) our stockholders immediately prior to such consolidation, merger or reorganization, own less than 50% of our voting power immediately after such consolidation, merger or reorganization; (2) any transaction or series of related transactions to which we are a party in which greater than 50% of our voting power is transferred; or (3) a sale, lease, exclusive license or other disposition of all or substantially all of our assets. As the holders of our redeemable convertible preferred stock may elect a majority of the members of our board of directors, and control the vote of our stockholders, a liquidation may not be in our control. Accordingly, all series of redeemable convertible preferred stock are classified outside of permanent equity.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

From our inception through February 2005, Maxygen held a majority of our outstanding voting rights and, therefore, consolidated us as a subsidiary of Maxygen through that date. Based upon Maxygen's control of us during this period, we recorded accretion adjustments to Maxygen's Series B convertible preferred stock through the end of 2004, the last balance sheet date at which Maxygen retained such control. Accordingly, we adjusted the carrying value of redeemable convertible preferred stock to the deemed redemption amount during 2002, 2003 and 2004. During 2006 and 2007, our board of directors has not indicated that a deemed redemption or liquidation event, as described in the preceding paragraph, was being considered or was probable due to the reduction of Maxygen's voting rights to less than a majority of our outstanding shares. Accordingly, during 2006, 2007 and 2008 and the nine months ended September 30, 2009, we did not adjust the carrying value of our Series A, B, C, D, E and F redeemable convertible preferred stock to the amounts we would have paid if a deemed redemption payment had become probable.

Conversion — The holders of Series B through F redeemable convertible preferred stock have the right, at the option of the holder, at any time, to convert their shares into shares of common stock on a 1-for-1 basis, subject to adjustment for antidilution, stock splits, reclassifications and the like. The holders of the Series A convertible preferred stock have the right, at the option of the holder, at any time, to convert their shares into shares of common stock on a 1-for-1.01 basis, subject to adjustment for antidilution, stock splits, reclassifications and the like. Conversion of all outstanding redeemable convertible preferred stock is automatic (i) at any time upon the affirmative election of the holders of at least two-thirds of the then outstanding shares of the Series B, C, D, E and F, voting together as a single class and on an as-if-converted basis, or (ii) immediately upon the closing of a firmly underwritten public offering in which the gross cash proceeds to us before underwriting discounts, commissions and fees are equal to or exceed \$50.0 million and our value immediately prior to the offering is equal to or exceeds \$250.0 million.

Redemption — At any time on or after December 31, 2013, the holders of at least a majority of the then-outstanding shares of Series B, D and E redeemable convertible preferred stock, voting or consenting together as a separate series, may require us to redeem each of these series of redeemable convertible preferred stock in three annual installments. The redemption price for each share will be payable in cash. Shares of Series B redeemable convertible preferred stock are to be redeemed at a sum equal to the applicable original issue price per share plus five percent (5%) of the original issue price per annum from the Series B original issue date until the Series D original issue date and eight percent (8%) of the original issue price per annum from the Series D original issue date until the applicable Series B redemption date, plus declared but unpaid dividends. Shares of Series D and E redeemable convertible preferred stock are to be redeemed at a sum equal to the applicable original issue price per share plus eight percent (8%) of the original issue price per annum from the original issue date until the applicable redemption date, plus declared but unpaid dividends.

12. Stockholders' Deficit

In 2002, we adopted the 2002 Stock Option Plan (the "Plan"), under which our board of directors may issue incentive stock options, nonstatutory stock options (options that do not qualify as incentive stock options) and restricted stock to our employees, officers, directors or consultants. As of December 31, 2008 and September 30, 2009, we have reserved 15,757,642 shares of common stock for issuance under the Plan. Options granted under the Plan expire no later than 10 years from the date of grant. For incentive stock options and nonstatutory stock options, the option price shall be at least 100% and 85%, respectively, of the fair value of the common stock on the date of grant, as determined by the Board of Directors. If, at the time of a grant, the optionee directly or by attribution owns stock possessing more than 10% of the total

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

combined voting power of all of our outstanding capital stock, the exercise price for these options must be at least 110% of the fair value of the underlying common stock. Options typically vest over a four-year period at a rate of no less than 25% per year but may be granted with different vesting terms.

In the year ended December 31, 2007, our board of directors amended the Plan to allow for the early exercise of options prior to vesting. During the year ended December 31, 2007, we issued an aggregate of 130,000 unvested shares of common stock with an average exercise price of \$0.81 pursuant to the early exercise of stock options. Prior to the year ended December 31, 2007, we had not issued any shares of common stock pursuant to the early exercise of stock options. The amounts received in exchange for these shares have been recorded as a liability in the accompanying consolidated balance sheet and are reclassified into equity as the shares vest. These amounts were insignificant in all periods presented.

During the nine months ended September 30, 2009, in connection with a termination of an executive officer, the Company extended the exercise period for his stock option awards to three years following the termination date, resulting in incremental stock compensation expense of \$190,000. The Company also paid this officer cash severance benefits of \$160,000.

The Company may also from time to time grant stock options outside the Plan. These grants and the options outstanding outside the Plan were insignificant in all periods presented.

A summary of stock option activity is as follows:

	Shares Available for Grant	Number of Options	Options Outstanding
			Weighted-Average Exercise Price per Share
December 31, 2007	2,446,191	9,032,074	\$ 1.94
Authorized	3,317,812	—	—
Grants	(2,105,562)	2,105,562	7.16
Exercises	—	(518,636)	0.73
Cancelled	946,943	(946,943)	4.04
December 31, 2008	4,605,384	9,672,057	2.94
Authorized (unaudited)	—	—	—
Grants (unaudited)	(2,059,495)	2,059,495	4.96
Exercises (unaudited)	—	(70,127)	1.03
Cancelled (unaudited)	680,759	(698,571)	4.25
September 30, 2009 (unaudited)	<u>3,226,648</u>	<u>10,962,854</u>	\$ 3.25

The following table summarizes information about stock options outstanding and exercisable at December 31, 2008:

Exercise Prices	Options Outstanding			Options Exercisable	
	Number of Options	Weighted-Average Remaining Contractual Term (Years)	Weighted-Average Exercise Price per Share	Number of Options	Weighted-Average Exercise Price per Share
\$0.40-0.70	3,238,658	5.7	\$ 0.55	2,937,239	\$ 0.53
\$1.63-1.63	2,559,055	8.0	1.63	1,295,096	1.63
\$4.47-5.79	2,074,482	8.6	4.58	704,341	4.59
\$7.00-7.90	1,799,862	9.0	7.20	189,062	7.01
Total	<u>9,672,057</u>	7.5	2.94	<u>5,125,738</u>	1.61

Codexis, Inc.**Notes to Consolidated Financial Statements — (Continued)**

The following table summarizes information about stock options as of December 31, 2008 that are vested and are expected to vest:

	Number of Options Outstanding	Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In Thousands)
Vested	4,967,090	\$ 1.47	6.4	\$ 19,721
Expected to vest	4,215,643	4.49	8.7	6,446
Total vested and expected to vest	<u>9,182,733</u>	\$ 2.85	7.5	<u>\$ 26,167</u>

The following table summarizes information about stock options as of September 30, 2009 (unaudited) that are vested and are expected to vest:

	Number of Options Outstanding	Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In Thousands)
Vested	6,275,502	\$ 2.09	5.9	\$ 25,593
Expected to vest	4,075,343	4.79	8.8	6,224
Total vested and expected to vest	<u>10,350,845</u>	\$ 3.15	7.0	<u>\$ 31,817</u>

The weighted-average grant date fair value of options granted during the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2009 was \$0.78, \$1.44, \$3.66 and \$3.28, respectively.

At December 31, 2008, exercisable options had a weighted average exercise price of \$1.61 per share and an intrinsic value of \$19.8 million. At September 30, 2009, exercisable options had a weighted average exercise price of \$2.20 per share and an intrinsic value of \$25.8 million. The aggregate intrinsic value of exercised stock options was \$50,000, \$869,000, \$374,000 and \$287,000 during the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2009, respectively. The intrinsic value of stock options outstanding, exercised, exercisable and expected-to-vest is calculated based on the difference between the exercise price and the fair value of our common stock.

Stock-based compensation costs capitalized during the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2008 and 2009 were insignificant. There were no stock-based compensation tax benefits during the years ended December 31, 2006, 2007 and 2008 or the nine months ended September 30, 2008 and 2009.

At December 31, 2008 and September 30, 2009, there was \$9.3 million and \$11.9 million, respectively, of unrecognized stock-based compensation cost which is expected to be recognized over an average period of 2.9 and 2.7 years, respectively.

Stock-Based Compensation Expense

We estimate the fair value of stock-based awards granted to employees and directors using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of highly subjective and complex assumptions to determine the fair value of stock-based awards, including the expected life of the option and expected volatility of the underlying stock over the expected life of the related grants. As a private entity, company specific historical volatility data are not available. As a result, we estimate the expected volatility based on the historical volatility of a group of unrelated public

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

companies within our industry. We will continue to consistently apply this process until a sufficient amount of historical information regarding the volatility of our own share price becomes available. Due to our limited history of grant activity, the expected life of options granted to employees is calculated using the “simplified method” permitted by the SEC as the average of the total contractual term of the option and its vesting period. The risk-free rate assumption was based on U.S. Treasury instruments whose terms were consistent with the terms of our stock options. The expected dividend assumption was based on our history and expectation of dividend payouts.

The following assumptions were used to estimate the fair value of our employee option grants:

	Year Ended December 31,			Nine Months Ended
	2006	2007	2008	September 30, 2009 (Unaudited)
Weighted-average expected life (years)	6.1	6.0	6.1	6.1
Weighted-average expected volatility	65%	48%	57%	75%
Weighted-average risk-free interest rates	4.2%	4.3%	3.2%	2.5%
Expected dividend yield	0.0%	0.0%	0.0%	0.0%

During the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2009, we also granted options to purchase 22,500, 331,000, 30,000 and 30,000 shares of common stock, respectively, to non-employees. For options granted to non-employees, the Black-Scholes option-pricing model was applied using the following assumptions during the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2009:

	Year Ended December 31,			Nine Months Ended
	2006	2007	2008	September 30, 2009 (Unaudited)
Remaining contractual option life (years)	8	9 - 10	7 - 9	6 - 10
Volatility	49% - 65%	44% - 49%	49%	73% - 88%
Risk-free interest rate	4.5% - 4.7%	3.9% - 5.0%	1.9% - 2.1%	2.3% - 3.6%
Expected dividend yield	0.0%	0.0%	0.0%	0.0%

We recognized total stock-based compensation expense during the year ended December 31, 2006 of \$64,000, of which \$61,000 was recorded as a general and administrative expense and \$3,000 was recorded as a research and development expense. We recognized stock-based compensation expense during the year ended December 31, 2007 of \$1.3 million, of which \$788,000 was recorded as a general and administrative expense and \$468,000 was recorded as a research and development expense. For the year ended December 31, 2008, we recognized stock-based compensation expense of \$3.5 million, of which \$2.0 million was recorded as general and administrative expense and \$1.5 million was recorded as a research and development expense. For the nine months ended September 30, 2009, we recognized stock-based compensation expense of \$3.2 million, of which \$1.6 million was recorded as general and administrative expense and \$1.6 million was recorded as a research and development expense.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

Shares Reserved

Common stock reserved for future issuance is as follows (in thousands):

	<u>December 31, 2008</u>	<u>September 30, 2009</u> (Unaudited)
Conversion of redeemable convertible preferred stock	32,330	37,624
Warrants to purchase redeemable convertible preferred and common stock	492	492
Stock options:		
Outstanding	9,672	10,963
Reserved for future grants	<u>4,605</u>	<u>3,227</u>
	<u>47,099</u>	<u>52,306</u>

13. Income Taxes

Our loss before provision (benefit) for income taxes was as follows (in thousands):

	<u>Years Ended December 31,</u>		
	<u>2006</u>	<u>2007</u>	<u>2008</u>
United States	\$ (18,142)	\$ (35,504)	\$ (42,144)
Foreign	<u>(656)</u>	<u>(3,881)</u>	<u>(2,656)</u>
Loss before (benefit) provision for income taxes	<u>\$ (18,798)</u>	<u>\$ (39,385)</u>	<u>\$ (44,800)</u>

The tax provision (benefit) for the years ended December 31, 2006, 2007 and 2008 consists primarily of foreign tax withheld at source on royalties received from overseas and other taxes attributable to foreign operations. The components of the provision (benefit) for income taxes are as follows (in thousands):

	<u>Years Ended December 31,</u>		
	<u>2006</u>	<u>2007</u>	<u>2008</u>
Current provision (benefit):			
Federal	\$ —	\$ —	\$ 88
State	3	4	6
Foreign	<u>208</u>	<u>287</u>	<u>384</u>
Total current provision	<u>211</u>	<u>291</u>	<u>478</u>
Deferred provision (benefit):			
Federal	—	(131)	—
State	—	—	—
Foreign	<u>(338)</u>	<u>(568)</u>	<u>(151)</u>
Total deferred (benefit)	<u>(338)</u>	<u>(699)</u>	<u>(151)</u>
Total provision (benefit)	<u>\$ (127)</u>	<u>\$ (408)</u>	<u>\$ 327</u>

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

Reconciliation of the benefits for income taxes at the statutory rate to our provision for income taxes is as follows (in thousands):

	Years Ended December 31,		
	2006	2007	2008
Tax benefit at federal statutory rate	\$ (6,580)	\$ (13,781)	\$ (15,680)
State taxes	(859)	(1,827)	(1,724)
Research and development credits	(371)	(483)	(427)
Foreign operations taxes at different rates	(43)	1,047	1,144
Other nondeductible items	147	560	3,155
Change in valuation allowance	<u>7,579</u>	<u>14,076</u>	<u>13,859</u>
Provision (benefit) for income taxes	<u>\$ (127)</u>	<u>\$ (408)</u>	<u>\$ 327</u>

Significant components of our deferred tax assets and liabilities are as follows (in thousands):

	December 31,	
	2007	2008
Deferred tax assets:		
Federal, state and foreign net operating loss carryforwards	\$ 24,213	\$ 34,690
Federal and state credits	1,635	2,314
Deferred contract revenues	8,945	7,408
Capitalized research and development	323	209
Other	2,472	4,498
Acquired intangible assets	<u>—</u>	<u>2,065</u>
Total deferred tax assets	37,588	51,184
Deferred tax liabilities:		
Acquired intangible assets	(913)	—
Other	<u>—</u>	<u>(484)</u>
Total deferred tax liabilities	(913)	(484)
Valuation allowance	<u>(36,893)</u>	<u>(50,752)</u>
Net deferred tax liabilities	<u>\$ (218)</u>	<u>\$ (52)</u>

Realization of the deferred tax assets is dependent upon future taxable income, if any, the amount and timing of which are uncertain. Accordingly, the net deferred tax assets in the United States and Germany have been fully reserved by a valuation allowance. The net valuation allowance increased by \$7.6 million, \$14.1 million and \$13.9 million during the years ended December 31, 2006, 2007 and 2008, respectively. At such time as it is determined that it is more likely than not that the deferred tax assets are realizable, the valuation allowance will be reduced.

As of December 31, 2008, we had federal net operating losses (NOLs) of \$89.0 million. We also had federal research and development tax credit carryforwards of \$1.4 million. The federal NOLs will expire at various dates beginning in 2022 through 2028 if not utilized and the federal research and development tax credits will expire at various dates beginning in 2022 through 2028 if not utilized.

As of December 31, 2008, we had state NOLs of \$78.2 million. We also had state research and development tax credit carryforwards of \$1.5 million. The state NOLs will expire at various dates beginning in 2013 through 2028 if not utilized and the state research and development tax credits will not expire.

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

As of December 31, 2008, we had foreign NOLs of \$0.7 million which do not expire.

Current federal and California tax laws include substantial restrictions on the utilization of NOLs and tax credit carryforwards in the event of an ownership change of a corporation. Accordingly, our ability to utilize NOLs and tax credit carryforwards may be limited as a result of such ownership changes. Such a limitation could result in the expiration of carryforwards before they are utilized.

We have not recorded deferred income taxes applicable to undistributed earnings of a foreign subsidiary that are indefinitely reinvested in foreign operations. Undistributed earnings amounted to \$1.0 million at December 31, 2008. Generally, such earnings become subject to U.S. tax upon the remittance of dividends and under certain other circumstances.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	December 31	
	2007	2008
Balance at beginning of year	\$1,661	\$2,798
Additions based on tax positions related to current year	1,137	1,991
Additions for tax positions of prior years	—	601
Reductions for tax positions of prior years	—	(267)
Balance at end of year	<u>\$2,798</u>	<u>\$5,123</u>

We recognize interest and penalties in income tax expense. Total interest and penalties recognized in the consolidated statement of operations was \$120,000 and \$169,000, respectively, during the years ended December 31, 2007 and 2008. The total unrecognized tax benefits that, if recognized, would impact our effective tax rate are \$1.6 million. We do not expect any unrecognized tax benefits to be recognized within the next 12 months. We are not subject to examination by U.S. federal or state tax authorities for years prior to 2002 and foreign tax authorities for years prior to the year ended December 31, 2006.

14. 401(k) Plan

In January 2005, we implemented a 401(k) Plan covering certain employees. Currently, all of our U.S. based employees over the age of 18 are eligible to participate in the 401(k) Plan. Under the 401(k) Plan, eligible employees may elect to reduce their current compensation up to a certain annual limit and contribute these amounts to the 401(k) Plan. We may make matching or other contributions to the 401(k) Plan on behalf of eligible employees. In the years ended December 31, 2006, 2007 and 2008 and the nine months ended September 30, 2009, we did not make any contributions to the 401(k) Plan on behalf of eligible employees.

15. Restructuring Charges

In 2009, the board of directors approved and committed to plans to reduce our cost structure, which included a relocation of our operation in Germany to facilities in the U.S. and in Singapore, a rationalization of the Company's product offerings and closure of the facility in Germany, and employee terminations in Germany and the U.S. We anticipate total costs of the plans to be approximately \$1.4 million, including \$0.5 million in inventory write downs, \$0.4 million in lease termination costs, and \$0.4 million in employee severance and benefits. During the nine months ended September 30, 2009, we incurred costs of \$0.2 million for employees and \$0.5 million related to inventory write downs, for a total of \$0.8 million. These costs were included in cost of product revenue in the consolidated statements of

Codexis, Inc.

Notes to Consolidated Financial Statements — (Continued)

operations. As of September 30, 2009, \$0.6 million related to these expenses has been paid or charged off and the remaining \$0.2 million is recorded in other accrued liabilities on the consolidated balance sheet. We expect to incur substantially all of the remaining costs of \$0.6 million by December 31, 2009.

In 2008, the board of directors approved and committed to plans to reduce the Company's cost structure. The restructuring plan applied to employees and facilities worldwide. The Company expensed \$1.1 million for facilities, \$0.6 million for employees and \$0.2 million in other costs associated with the closure of the Pasadena site for a total of \$2.0 million in the year ended December 31, 2008. Restructuring expense was included in general and administrative expenses in the consolidated statements of operations. As of December 31, 2008, \$0.4 million has been paid and the remaining expenses are recorded on the consolidated balance sheet in other accrued liabilities for \$0.8 million and in other long-term liabilities for \$0.7 million. During the nine months ended September 30, 2009, \$1.3 million was paid, and \$0.1 million was reversed as reduction of general and administrative expense due to a change in estimated costs of restructuring. The amounts included in other accrued liabilities on the consolidated balance sheet as of September 30, 2009 under this restructuring plan were \$0.1 million.

16. Segment Reporting

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision making group, in deciding how to allocate resources and in assessing performance. Our chief operating decision maker is our Chief Executive Officer. The Chief Executive Officer reviews financial information presented on a consolidated basis, accompanied by information about revenues by geographic region, for purposes of allocating resources and evaluating financial performance. We have one business activity and there are no segment managers who are held accountable for operations, operating results beyond revenue goals or gross margins, or plans for levels or components below the consolidated unit level. Accordingly, we have a single reporting segment.

Operations outside of the United States consist principally of research and development and sales activities. Geographic revenues are identified by the location of the customer and consist of the following (in thousands):

	Years Ended December 31,			Nine Months Ended September 30,	
	2006	2007	2008	2008	2009
				(Unaudited)	
Revenues					
Americas(1)	\$ 7,933	\$ 15,010	\$ 35,166	\$ 22,017	\$ 48,110
Europe	2,491	4,005	8,165	5,934	6,146
Asia	1,703	6,318	7,147	3,929	4,414
	<u>\$ 12,127</u>	<u>\$ 25,333</u>	<u>\$ 50,478</u>	<u>\$ 31,880</u>	<u>\$ 58,670</u>

(1) Primarily United States.

Codexis, Inc.**Notes to Consolidated Financial Statements — (Continued)**

Geographic presentation of identifiable long-lived assets below shows those assets that can be directly associated with a particular geographic area and consist of the following (in thousands):

	December 31,		September 30,
	2007	2008	2009 (Unaudited)
Long-lived assets			
Americas(1)	\$ 9,470	\$ 11,270	\$ 13,991
Europe	651	2,437	3,163
Asia	4,780	5,146	4,460
	<u>\$ 14,901</u>	<u>\$ 18,853</u>	<u>\$ 21,614</u>

(1) Primarily United States.

17. Subsequent Events (unaudited)

We have evaluated events subsequent to September 30, 2009, the balance sheet date, through December 28, 2009, which is the date our unaudited condensed consolidated financial statements were issued.

In November 2009, we issued 235,294 additional shares of Series F redeemable convertible preferred stock at a price of \$8.50 per share for gross proceeds of \$2.0 million.

In November 2009, in connection with the closure of our German operations, we repaid the loan of 511,000 Euros in full due to the German bank.

On December 15, 2009, we entered into an exclusive joint development agreement with CQ Solution, Inc. (CO₂ Solution), a company based in Quebec City, Canada, whose shares are publicly traded in Canada on TSX Venture Exchange. Under the agreement, we acquired 10,000,000 common shares of CO₂ Solution in a private placement for an aggregate amount of Canadian \$2.0 million and paid to CO₂ Solution a commitment fee of Canadian \$475,000. The joint development agreement extends until January 31, 2011. Under the agreement, we expect to work with CO₂ Solution to enhance to effectiveness of CO₂ Solution's carbon capture processes, with CO₂ Solution responsible for processes testing and enzyme delivery systems, and Codexis responsible for enzyme development and manufacturing. Each party will bear the costs it incurs under the agreement.



Biobased Solutions for the Low Carbon Economy

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table sets forth the fees and expenses, other than underwriting discounts and commissions, payable in connection with the registration of the common stock hereunder. All amounts are estimates except the SEC registration fee, the FINRA filing fee and The Nasdaq Global Market listing fee.

Securities and Exchange Commission registration fee	\$ 7,130
FINRA filing fee	10,500
Nasdaq Global Market listing fee	*
Blue Sky fees and expenses	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer Agent and Registrar fees	*
Miscellaneous expenses	*
Total	*

* To be provided by amendment.

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify its directors and officers from certain expenses in connection with legal proceedings and permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by this section.

The Registrant's amended and restated certificate of incorporation provides for the indemnification of directors to the fullest extent permissible under Delaware law.

The Registrant's amended and restated bylaws provide for the indemnification of officers, directors and third parties acting on the Registrant's behalf if such persons act in good faith and in a manner reasonably believed to be in and not opposed to the Registrant's best interest, and, with respect to any criminal action or proceeding, such indemnified party had no reason to believe his or her conduct was unlawful.

The Registrant has entered into indemnification agreements with each of its directors, and will enter into new indemnification agreements with each of its directors and executive officers before the completion of this offering, in addition to the indemnification provisions provided for in its charter documents. The Registrant intends to enter into indemnification agreements with any new directors and executive officers in the future.

The underwriting agreement (to be filed as Exhibit 1.1 hereto) will provide for indemnification by the underwriters of the Registrant, the Registrant's executive officers and directors, and indemnification of the underwriters by the Registrant for certain liabilities, including liabilities arising under the Securities Act of 1933, as amended, in connection with matters specifically provided in writing by the underwriters for inclusion in the registration statement.

The Registrant intends to purchase and maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in that capacity, subject to certain exclusions and limits of the amount of coverage.

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Item 15. *Recent Sales of Unregistered Securities*

Since January 1, 2006, the registrant has issued and sold the following unregistered securities:

1. In May 2006, the Registrant issued warrants to purchase an aggregate of 323,569 shares of its Series D convertible preferred stock at an exercise price of \$3.97 per share to certain bridge lenders to the Registrant. The warrants may be exercised at any time prior to their respective termination dates, which are the 7th anniversaries of their issue dates.
2. In August and October 2006, the Registrant issued and sold 10,068,402 shares of Series D convertible preferred stock to venture capital funds and other investors at a per share price of approximately \$3.97, for aggregate consideration of approximately \$40.0 million. Upon completion of this offering, these shares of Series D convertible preferred stock will convert into 10,068,402 shares of the Registrant's common stock.
3. In November 2006, the Registrant issued a warrant to purchase an aggregate of 428,571 shares of its Series D convertible preferred stock at an exercise price of \$7.00 per share to a certain strategic partner of the Registrant. In November 2007, the warrant was exercised and the Registrant issued and sold 428,571 shares of Series D convertible preferred stock to the holder for a purchase price of approximately \$3.0 million.
4. In July 2007, the Registrant issued and sold 963,423 shares of common stock to the sole shareholder of BioCatalytics, Inc. as partial consideration for the Registrant's acquisition of BioCatalytics, Inc.
5. In July 2007, the Registrant converted a warrant issued by a newly-acquired subsidiary to its landlord into a warrant to purchase an aggregate of 3,577 shares of its common stock at an exercise price of \$8.30 per share. The warrant may be exercised at any time prior to its termination date, which is the 10th anniversary of its issue date.
6. In September 2007, the Registrant issued warrants to purchase an aggregate of up to 109,091 shares of its Series D convertible preferred stock at an exercise price of \$5.50 per share to certain lenders to the Registrant. The warrants may be exercised at any time prior to their respective termination dates, which are the 10th anniversaries of their issue dates.
7. In November and December 2007, the Registrant issued and sold 6,156,775 shares of Series E convertible preferred stock to venture capital funds and other investors at a per share price of approximately \$8.50, for aggregate consideration of approximately \$52.0 million. Upon completion of this offering, these shares of Series E convertible preferred stock will convert into 6,156,775 shares of the Registrant's common stock.
8. In September 2008, the Registrant granted a stock option to purchase 7,812 shares of the Registrant's common stock to a former director of the Registrant at an exercise price of \$7.19 per share. The stock option has since been cancelled.
9. In September 2008, the Registrant granted a stock option to purchase 10,000 shares of the Registrant's common stock to an employee of the Registrant at an exercise price of \$4.57 per share. The stock option has since been cancelled.
10. Between March and November 2009, the Registrant issued and sold 5,529,410 shares of Series F convertible preferred stock to venture capital funds and other investors at a per share price of approximately \$8.50, for aggregate consideration of approximately \$47 million. Upon completion of this offering, these shares of Series F convertible preferred stock will convert into 5,529,410 shares of the Registrant's common stock.

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11. Since January 1, 2006 through September 30, 2009, the Registrant granted stock options to purchase 10,277,570 shares of the registrant's common stock at exercise prices ranging from \$0.70 to \$7.90 per share to employees, consultants and directors of the Registrant. Since January 1, 2006 through September 30, 2009, the Registrant had issued and sold an aggregate of 1,309,568 shares of its common stock to the Registrant's employees, consultants and directors at prices ranging from \$0.40 to \$7.00 per share pursuant to exercises of options.

The issuance of securities described above in paragraphs (1) through (8) and (10) were exempt from registration under the Securities Act of 1933, as amended, in reliance on Section 4(2) of the Securities Act of 1933, as amended, and Regulation D promulgated thereunder, as transactions by an issuer not involving any public offering. The purchasers of the securities in these transactions represented that they were accredited investors and that they were acquiring the securities for investment only and not with a view toward the public sale or distribution thereof. Such purchasers received written disclosures that the securities had not been registered under the Securities Act of 1933, as amended, and that any resale must be made pursuant to a registration statement or an available exemption from registration. All purchasers either received adequate financial statement or non-financial statement information about the Registrant or had adequate access, through their relationship with the Registrant, to financial statement or non-financial statement information about the Registrant. The sale of these securities was made without general solicitation or advertising.

The issuance of securities described above in paragraphs (9) and (11) were exempt from registration under the Securities Act of 1933, as amended, in reliance on Rule 701, Section 4(2) and Regulation S of the Securities Act of 1933, as amended, pursuant to compensatory benefit plans or agreements approved by the Registrant's board of directors.

All certificates representing the securities issued in these transactions described in this Item 15 included appropriate legends setting forth that the securities had not been offered or sold pursuant to a registration statement and describing the applicable restrictions on transfer of the securities. There were no underwriters employed in connection with any of the transactions set forth in this Item 15.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
1.1*	Form of Underwriting Agreement.
3.1	Seventh Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect.
3.2*	Form of Amended and Restated Certificate of Incorporation of the Registrant, to be in effect upon completion of the offering.
3.3	Amended and Restated Bylaws of the Registrant, as currently in effect.
3.4*	Form of Amended and Restated Bylaws of the Registrant, to be in effect upon completion of the offering.
4.1*	Form of the Registrant's Common Stock Certificate.
4.2	Fifth Amended and Restated Investor Rights Agreement dated March 4, 2009.
4.3	Form of Warrant to purchase shares of Common Stock issued in connection with the Loan and Security Agreement dated as of February 12, 2004.

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<u>Exhibit No.</u>	<u>Description</u>
4.4	Warrant to purchase shares of Common Stock issued to Oxford Finance Corporation dated October 25, 2005.
4.5	Form of Warrant to purchase shares of Series D preferred stock issued in connection with the Bridge Loan Agreement dated as of May 25, 2006.
4.6	Form of Warrant to purchase shares of Series D preferred stock issued in connection with the Loan and Security Agreement dated as of September 28, 2007.
4.7	Warrant to purchase shares of Common Stock issued to Alexandria Equities, LLC.
4.8	Registration Rights Agreement among the Company, Jülich Fine Chemicals GmbH and the other parties named therein, dated February 11, 2005.
4.9*	Fifth Amended and Restated Voting Agreement dated March 4, 2009.
5.1*	Opinion of Latham & Watkins LLP.
10.1A†	Loan and Security Agreement by and among the Company, General Electric Capital Corporation and Oxford Finance Corporation dated as of September 28, 2007.
10.1B†	First Amendment to Loan and Security Agreement by and among the Company, General Electric Capital Corporation and Oxford Finance Corporation dated as of November 9, 2007.
10.2A†	License Agreement by and between Maxygen, Inc. and the Company effective as of March 28, 2002 (the Maxygen License).
10.2B†	Amendment No. 1 to the Maxygen License effective as of September 13, 2002.
10.2C	Amendment No. 2 to the Maxygen License effective as of October 1, 2002.
10.2D†	Amendment No. 3 to the Maxygen License effective as of August 22, 2006.
10.2E†	Side Letter by and between the Company and Maxygen, Inc. re: the Maxygen License dated as of February 18, 2005.
10.2F†	Side Letter by and between the Company and Maxygen, Inc. re: the Maxygen License dated as of September 11, 2007.
10.2G†	Side Letter by and between the Company and Maxygen, Inc. re: the Maxygen License dated as of September 24, 2007.
10.3A†*	Amended and Restated Collaborative Research Agreement by and between the Company and Equilon Enterprises LLC dba Shell Oil Products US effective as of November 1, 2006.
10.3B†*	Amendment to the Amended and Restated Collaborative Research Agreement, by and between the Company and Equilon Enterprises LLC dba Shell Oil Products US effective as of March 4, 2009.
10.4A†*	Amended and Restated License Agreement by and between the Company and Equilon Enterprises LLC dba Shell Oil Products US effective as of November 1, 2007.
10.4B†*	Amendment to the Amended and Restated License Agreement by and between the Company and Equilon Enterprises LLC dba Shell Oil Products US effective as of March 4, 2009.
10.5†*	Collaborative Research and License Agreement by and among the Company, Iogen Energy Corporation and Equilon Enterprises LLC dba Shell Oil Products US effective as of July 10, 2009.

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<u>Exhibit No.</u>	<u>Description</u>
10.6†*	License Agreement by and among the Company, Dyadic International (USA), Inc. and Dyadic International, Inc. effective as of November 14, 2008.
10.7A†*	Master Services Agreement by and between the Company and Arch Pharmed Labs, Ltd. effective as of August 1, 2006 (the Master Services Agreement).
10.7B†*	Amendment to Master Services Agreement effective as of August 21, 2008.
10.7C†*	Product Supply and Manufacturing Agreement (Regulated Markets) by and between the Company and Arch Pharmed Labs Ltd. effective as of August 21, 2008.
10.7D†*	Product Supply and Marketing Agreement (India) by and between Codexis Laboratories India Private Limited and Arch Pharmed Labs Ltd. effective as of August 21, 2008.
10.7E†*	Enzyme License and Development Agreement by and between the Company and Arch Pharmed Labs Ltd. effective as of August 21, 2008.
10.7F†*	Enzyme Supply Agreement by and between the Company and Arch Pharmed Labs Ltd. effective as of August 21, 2008.
10.8A	Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of February 1, 2004.
10.8B	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of June 1, 2004.
10.8C	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of March 9, 2007.
10.8D	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of March 31, 2008.
10.9	Master Security Agreement by and between the Company and Oxford Finance Corporation effective as of October 25, 2005.
10.10	Codexis, Inc. 2002 Stock Plan, as amended, and Form of Stock Option Agreement.
10.11*	Codexis, Inc. 2010 Equity Incentive Award Plan and Form of Stock Option Agreement.
10.12A	Offer Letter Agreement by and between the Company and Alan Shaw dated as of July 29, 2003.
10.12B	Change in Control Agreement by and between the Company and Alan Shaw dated as of July 29, 2003.
10.13A	Offer Letter Agreement by and between the Company and Robert S. Breuil dated as of December 22, 2005.
10.13B	Change in Control Agreement by and between the Company and Robert S. Breuil dated as of January 3, 2006.
10.13C	Separation Agreement by and between the Company and Robert S. Breuil dated as of June 30, 2009.
10.13D*	Amendment to Separation Agreement by and between the Company and Robert S. Breuil effective as of June 30, 2009.
10.14A	Offer Letter Agreement by and between the Company and Douglas T. Sheehy dated as of February 26, 2007.

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<u>Exhibit No.</u>	<u>Description</u>
10.14B	Change in Control Agreement by and between the Company and Douglas T. Sheehy dated as of January 7, 2008.
10.15	Offer Letter Agreement by and between Company and David L. Anton dated as of February 15, 2008.
10.16	Employment Contract by and between the Company and Peter Seufer-Wasserthal dated as of March 6, 2006.
10.17*	Consulting Agreement by and between the Company and Alexander A. Karsner.
10.18	Form of Indemnification Agreement between the Company and each of its directors, as currently in effect.
10.19*	Form of Indemnification Agreement between the Company and each of its directors, officers and certain employees, to be in effect before the completion of the offering.
21	List of Subsidiaries.
23.1	Consent of independent registered public accounting firm.
23.2*	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
24.1	Power of Attorney (contained on signature page).

* To be filed by amendment.

† Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the SEC.

(b) Financial Statement Schedules

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933, as amended, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933, as amended, and will be governed by the final adjudication of such issue.

The Registrant hereby undertakes that:

(a) The Registrant will provide to the underwriters at the closing as specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

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(b) For purposes of determining any liability under the Securities Act of 1933, as amended, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933, as amended, shall be deemed to be part of this registration statement as of the time it was declared effective.

(c) For the purpose of determining any liability under the Securities Act of 1933, as amended, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Redwood City, State of California, on the 28th day of December, 2009.

CODEXIS, INC.

By: /s/ Alan Shaw
Alan Shaw
President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Alan Shaw and Robert J. Lawson, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this Registration Statement, including any and all post-effective amendments and amendments thereto, and any registration statement relating to the same offering as this Registration Statement that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities indicated below.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ALAN SHAW</u> Alan Shaw	President and Chief Executive Officer, Director (Principal Executive Officer)	December 28, 2009
<u>/s/ ROBERT J. LAWSON</u> Robert J. Lawson	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	December 28, 2009
<u>/s/ THOMAS R. BARUCH</u> Thomas R. Baruch	Chairman of the Board of Directors	December 28, 2009
<u>Alexander A. Karsner</u>	Director	December , 2009
<u>/s/ BERNARD J. KELLEY</u> Bernard J. Kelley	Director	December 28, 2009
<u>/s/ BRUCE PASTERNAK</u> Bruce Pasternack	Director	December 28, 2009

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<u>Signature</u>	<u>Title</u>	<u>Date</u>
<hr/> /s/ CHRIS STRENG Chris Streng	Director	December 28, 2009
<hr/> /s/ JAMES R. SULAT James R. Sulat	Director	December 28, 2009
<hr/> /s/ DENNIS P. WOLF Dennis P. Wolf	Director	December 28, 2009
<hr/> /s/ MUN YEW WONG Mun Yew Wong	Director	December 28, 2009

EXHIBIT INDEX

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10.2E†	Side Letter by and between the Company and Maxygen, Inc. re: the Maxygen License dated as of February 18, 2005.
10.2F†	Side Letter by and between the Company and Maxygen, Inc. re: the Maxygen License dated as of September 11, 2007.
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10.7B*	Amendment to Master Services Agreement effective as of August 21, 2008.
10.7C†*	Product Supply and Manufacturing Agreement (Regulated Markets) by and between the Company and Arch Pharmed Labs Ltd. effective as of August 21, 2008.
10.7D†*	Product Supply and Marketing Agreement (India) by and between Codexis Laboratories India Private Limited and Arch Pharmed Labs Ltd. effective as of August 21, 2008.
10.7E†*	Enzyme License and Development Agreement by and between the Company and Arch Pharmed Labs Ltd. effective as of August 21, 2008.
10.7F†*	Enzyme Supply Agreement by and between the Company and Arch Pharmed Labs Ltd. effective as of August 21, 2008.
10.8A	Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of February 1, 2004.
10.8B	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of June 1, 2004.
10.8C	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of March 9, 2007.
10.8D	Amendment to Lease Agreement by and between the Company and Metropolitan Life Insurance Company dated as of March 31, 2008.
10.9	Master Security Agreement by and between the Company and Oxford Finance Corporation effective as of October 25, 2005.
10.10	Codexis, Inc. 2002 Stock Plan, as amended, and Form of Stock Option Agreement.
10.11*	Codexis, Inc. 2010 Equity Incentive Award Plan and Form of Stock Option Agreement.
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10.13B	Change in Control Agreement by and between the Company and Robert S. Breuil dated as of January 3, 2006.
10.13C	Separation Agreement by and between the Company and Robert S. Breuil dated as of June 30, 2009.
10.13D*	Amendment to Separation Agreement by and between the Company and Robert S. Breuil effective as of June 30, 2009.
10.14A	Offer Letter Agreement by and between the Company and Douglas T. Sheehy dated as of February 26, 2007.
10.14B	Change in Control Agreement by and between the Company and Douglas T. Sheehy dated as of January 7, 2008.
10.15	Offer Letter Agreement by and between Company and David L. Anton dated as of February 15, 2008.
10.16	Employment Contract by and between the Company and Peter Seufer-Wasserthal dated as of March 6, 2006.
10.17*	Consulting Agreement by and between the Company and Alexander A. Karsner.
10.18	Form of Indemnification Agreement between the Company and each of its directors, as currently in effect.
10.19*	Form of Indemnification Agreement between the Company and each of its directors, officers and certain employees, to be in effect before the completion of the offering.
21	List of Subsidiaries
23.1	Consent of independent registered public accounting firm.
23.2*	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
24.1	Power of Attorney (contained on signature page).

* To be filed by amendment.

† Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the SEC.

**SEVENTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
CODEXIS, INC.**

Alan Shaw hereby certifies that:

ONE: The original name of this corporation is Codexis, Inc. and the date of filing the original Certificate of Incorporation of this corporation with the Secretary of State of the State of Delaware was January 31, 2002.

TWO: He is the duly elected and acting President of Codexis, Inc., a Delaware corporation.

THREE: The Certificate of Incorporation of this corporation is hereby amended and restated to read as follows:

I.

The name of the corporation is Codexis, Inc. (the "Corporation").

II.

The address of the registered office of this Corporation in the State of Delaware is 2711 Centerville Road, Suite 400, City of Wilmington, County of New Castle, 19808, and the name of the registered agent of this Corporation in the State of Delaware at such address is Corporation Service Company.

III.

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

IV.

A. Classes of Stock. The Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares which the Corporation is authorized to issue is one hundred seven million two hundred four thousand eight hundred eighty-six (107,204,886) shares, sixty-eight million (68,000,000) of which shall be Common Stock (the "Common Stock") and thirty-nine million two hundred four thousand eight hundred eighty-six (39,204,886) shares of which shall be Preferred Stock (the "Preferred Stock"). The Preferred Stock shall have a par value of one-hundredth of one cent (\$0.0001) per share and the Common Stock shall have a par value of one-hundredth of one cent (\$0.0001) per share.

B. Subject to compliance with applicable protective and voting rights provisions that have been granted to outstanding series of Preferred Stock in this Seventh Amended and Restated Certificate of Incorporation, and irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of the State of Delaware, the number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation (voting together on an as-if-converted basis).

C. Six million (6,000,000) of the authorized shares of Preferred Stock are hereby designated "Series A Preferred Stock" (the "Series A Preferred"). Eight million one hundred one thousand one hundred one (8,101,101) of the authorized shares of Preferred Stock are hereby designated "Series B Preferred Stock" (the "Series B Preferred"). One million five hundred fourteen thousand six hundred forty-five (1,514,645) of the authorized shares of Preferred Stock are hereby designated "Series C Preferred Stock" (the "Series C Preferred"). Eleven million one hundred fifty-four thousand eight hundred and two (11,154,802) of the authorized shares of Preferred Stock are hereby designated "Series D Preferred Stock" (the "Series D Preferred"). Six million four hundred thirty-four thousand three hundred thirty-eight (6,434,338) of the authorized shares of Preferred Stock are hereby designated "Series E Preferred Stock" (the "Series E Preferred"). Six million (6,000,000) of the authorized shares of Preferred Stock are hereby designated "Series F Preferred Stock" (the "Series F Preferred").

D. The rights, preferences, privileges, restrictions and other matters relating to the Preferred Stock are as follows:

1. Dividend Rights.

(a) The holders of Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred and Series F Preferred, on a pari passu basis, in preference to the holders of Series A Preferred and in preference to the holders of Common Stock, shall be entitled to receive, when and as declared by the Board of Directors, but only out of funds that are legally available therefor, cash dividends at the rate of eight percent (8%) of the applicable Original Issue Price (as defined below) per annum on each outstanding share of Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred and Series F Preferred (in each case as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The holders of Series A Preferred, in preference to the holders of Common Stock of the Corporation, shall be entitled to receive, when and as declared by the Board of Directors, but only out of funds that are legally available therefor, cash dividends at the rate of eight percent (8%) of the applicable Original Issue Price (as defined below) per annum on each outstanding share of Series A Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The "Original Issue Price" of the Series A Preferred shall be five dollars (\$5.00) per share (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The "Original Issue Price" of the Series B Preferred shall be three dollars and eight and six tenths cents (\$3.086) per share (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The "Original Issue Price" of the Series C Preferred shall be six dollars and sixty and twenty-two hundredths of a cent (\$6.6022) per share (as

2.

adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The "Original Issue Price" of the Series D Preferred shall be three dollars and ninety-seven cents (\$3.97) per share (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The "Original Issue Price" of the Series E Preferred shall be eight dollars and fifty cents (\$8.50) per share (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). The "Original Issue Price" of the Series F Preferred shall be eight dollars and fifty cents (\$8.50) per share (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares). Such dividends shall be payable only when, as and if declared by the Board of Directors and shall be non-cumulative.

(b) So long as any shares of Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred and Series F Preferred shall be outstanding, no dividend, whether in cash or property, shall be paid or declared, nor shall any other distribution be made, on any Series A Preferred or Common Stock, nor shall any shares of Series A Preferred or Common Stock of the Corporation be purchased, redeemed, or otherwise acquired for value by the Corporation (except for acquisitions of Common Stock by the Corporation pursuant to agreements that permit the Corporation to repurchase such shares upon termination of services to the Corporation or in exercise of the Corporation's right of first refusal upon a proposed transfer) until all dividends (set forth in Section 1(a) above) on the Series B Preferred, the Series C Preferred, the Series D Preferred, the Series E Preferred and the Series F Preferred shall have been paid or declared and set apart. So long as any shares of Series A Preferred shall be outstanding, no dividend, whether in cash or property, shall be paid or declared, nor shall any other distribution be made, on any Common Stock, nor shall any shares of any Common Stock of the Corporation be purchased, redeemed, or otherwise acquired for value by the Corporation (except for acquisitions of Common Stock by the Corporation pursuant to agreements that permit the Corporation to repurchase such shares upon termination of services to the Corporation or in exercise of the Corporation's right of first refusal upon a proposed transfer) until all dividends (set forth in Section 1(a) above) on the Series A Preferred shall have been paid or declared and set apart. In the event dividends are paid on any share of Common Stock, an additional dividend shall be paid with respect to all outstanding shares of Preferred Stock in an amount equal per share (on an as-if-converted to Common Stock basis) to the amount paid or set aside for each share of Common Stock. The provisions of this Section 1(b) shall not, however, apply to (i) a dividend payable in Common Stock or (ii) any repurchase of any outstanding securities of the Corporation that is approved by the Corporation's Board of Directors.

2. Voting Rights.

(a) General Rights. The holder of each share of Preferred Stock shall have the right to one vote for each share of Common Stock into which such Preferred Stock could be converted on the record date for the vote or written consent of stockholders. In all cases any fractional share, determined on an aggregate conversion basis, shall be rounded to the nearest whole share. Except as otherwise provided herein or as required by law, with respect to such vote, such holder shall have full voting rights and powers equal to the voting rights and powers of the holders of Common Stock, and shall be entitled, notwithstanding any provision hereof, to notice of any stockholders' meeting in accordance with the Bylaws of the Corporation, and shall be entitled to vote, together with holders of Common Stock, with respect to any matter upon which holders of Common Stock have the right to vote.

(b) Protective Provisions: Vote of Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred and Series F Preferred In addition to any other vote or consent required herein or by law, the vote or written consent of the holders of at least a majority of the then outstanding Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred and Series F Preferred (voting together as a single class and not as a separate series and on an as-if-converted basis) (for so long as at least an aggregate of five million (5,000,000) shares of Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred and Series F Preferred (subject to adjustment for any stock split, reverse stock split or other similar event affecting such Preferred Stock) remain outstanding) shall be necessary for effecting or validating the following actions:

(i) Any amendment, alteration, repeal or waiver of any provision of this Restated Certificate or the Bylaws of the Corporation (by merger, consolidation or otherwise and including any filing of a Certificate of Designation);

(ii) Any increase or decrease in the authorized or designated number of shares of Common Stock or Preferred Stock or any series or class of Common Stock or Preferred Stock;

(iii) Any authorization or any designation, whether by reclassification or otherwise, of any new class or series of stock or any other securities convertible into equity securities of the Corporation ranking on a parity with or senior to the Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred or Series F Preferred in right of redemption, liquidation preference, conversion, voting or dividends or any increase in the authorized or designated number of any such new class or series;

(iv) Any authorization or issuance of any new class or series of stock or any other securities convertible into equity securities of the Corporation ranking junior to the Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred or Series F Preferred for consideration other than cash;

(v) Any redemption or repurchase of Common Stock or Preferred Stock (except (x) for acquisitions of Common Stock by the Corporation pursuant to agreements that permit the Corporation to repurchase such shares upon termination of services to the Corporation or in exercise of the Corporation's right of first refusal upon a proposed transfer, or (y) in connection with the redemption of Series B Preferred, Series D Preferred, Series E Preferred and Series F Preferred as provided in Section 5 of this Restated Certificate);

(vi) Any agreement by the Corporation or its stockholders regarding an Asset Transfer or Acquisition (each as defined in Section 3(e));

(vii) Any action that results in the payment or declaration of a dividend on any shares of Common Stock or Preferred Stock (other than a dividend payable solely in shares of capital stock);

(viii) Any agreement by the Corporation to become indebted for borrowed money or capital lease obligations greater than five million dollars (\$5,000,000) in the aggregate;

(ix) Any merger or consolidation of the Corporation or any voluntary dissolution, winding up or liquidation of the Corporation;

(x) Any recapitalization of the Corporation;

(xi) Any increase or decrease in the authorized number of members of the Corporation's Board of Directors from ten (10), except as provided in Sections 5(a)(iv), 5(b)(iv), 5(c)(iv) and/or 5(d) of Section D of this Article IV;

(xii) Any agreement by the Corporation to acquire a corporation or other entity or person;

(xiii) Any action that alters or changes the rights, preferences and privileges of the Series A Preferred Stock so as to affect the Series A Preferred Stock adversely, but which does not so affect the entire class of Preferred Stock;

(xiv) Any action that alters or changes the rights, preferences and privileges of the Series B Preferred Stock so as to affect the Series B Preferred Stock adversely, but which does not so affect the entire class of Preferred Stock;

(xv) Any action that alters or changes the rights, preferences and privileges of the Series C Preferred Stock so as to affect the Series C Preferred Stock adversely, but which does not so affect the entire class of Preferred Stock;

(xvi) Any action that alters or changes the rights, preferences and privileges of the Series D Preferred;

(xvii) Any action that alters or changes the rights, preferences and privileges of the Series E Preferred; or

(xviii) Any action that alters or changes the rights, preferences and privileges of the Series F Preferred.

For the purposes of this Restated Certificate "Affiliate" shall mean any corporation or other entity that is directly or indirectly controlling, controlled by or under the common control with the subject entity. For the purpose of this definition, "control" shall mean the direct or indirect ownership of at least fifty percent (50%) of the outstanding shares or other voting rights of the subject entity to elect directors or equivalent governing body, or if not meeting the preceding, any entity owned or controlled by or owning or controlling at the maximum control or ownership right permitted in the country where such entity exists.

(c) Protective Provisions: Separate Vote of Series D Preferred So long as Biomedical Sciences Investment Fund Pte Ltd ("Bio*One") (with its Affiliates) shall hold not less than five million (5,000,000) shares of Series D Preferred Stock (as adjusted for stock splits

and combinations), representing not less than 10% of the Company's outstanding Common Stock (as calculated on a fully diluted as-if-converted basis, assuming conversion or exercise of all convertible or exercisable securities and including all shares reserved for issuance pursuant to any stock option or similar plan), the vote or written consent of Bio*One shall be necessary for the Board to take action to effect any of the following:

(i) any voluntary dissolution, winding up or liquidation of Codexis Laboratories Singapore Pte. Ltd. ("Codexis Singapore") other than in connection with an Asset Transfer or an Acquisition;

(ii) a significant reduction in the number of employees at Codexis Singapore; or

(iii) a significant reduction in the overall technological capacity of the Codexis Singapore operations.

(d) Election of Board of Directors. The holders of Common Stock and Preferred Stock, voting together as a single class and on an as-if-converted basis, shall be entitled to elect all members of the Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors, to remove from office such directors, and, subject to the provisions of the Corporation's bylaws, to fill any vacancy caused by the resignation, death or removal of such directors.

3. Liquidation Rights.

(a) Upon any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, before any distribution or payment shall be made to the holders of any Series C Preferred, Series B Preferred, Series A Preferred or Common Stock, the holders of Series D Preferred, Series E Preferred and Series F Preferred shall be entitled to be paid out of the assets of the Corporation an amount per share of Series D Preferred, Series E Preferred or Series F Preferred equal to the applicable Original Issue Price plus all declared and unpaid dividends on the Series D Preferred, Series E Preferred and Series F Preferred, respectively, (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares) for each share of Series D Preferred, Series E Preferred or Series F Preferred, respectively, held by them. If, upon any such liquidation, distribution or winding up, the assets of the Corporation shall be insufficient to make payment in full to all holders of Series D Preferred, Series E Preferred and Series F Preferred of the liquidation preference set forth in this Section 3(a), then such assets legally available for distribution shall be distributed among the holders of Series D Preferred, Series E Preferred and Series F Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

(b) After the payment of the full liquidation preference of the Series D Preferred, Series E Preferred and Series F Preferred as set forth in Section 3(a) above, before any distribution or payment shall be made to the holders of any Series A Preferred or Common Stock, the holders of Series B Preferred and the Series C Preferred, on a pari passu basis, shall be entitled to be paid out of the assets of the Corporation an amount per share of Series B Preferred

or Series C Preferred equal to the applicable Original Issue Price plus all declared and unpaid dividends on the Series B Preferred and Series C Preferred, respectively, (in each case as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares) for each share of Series B Preferred or Series C Preferred, respectively, held by them. If, upon any such liquidation, distribution or winding up, the assets of the Corporation shall be insufficient to make payment in full to all holders of Series B Preferred and Series C Preferred of the liquidation preference set forth in this Section 3(b), then such assets legally available for distribution shall be distributed among the holders of Series B Preferred and Series C Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

(c) After the payment of the full liquidation preference of the Series E Preferred, Series D Preferred, Series C Preferred and the Series B Preferred as set forth in Sections 3(a) and 3(b) above, before any distribution or payment shall be made to the holders of any Common Stock, the holders of Series A Preferred shall be entitled to be paid out of the assets of the Corporation an amount per share of Series A Preferred equal to the applicable Original Issue Price plus all declared and unpaid dividends on the Series A Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares) for each share of Series A Preferred held by them. If, upon any such liquidation, distribution or winding up, the assets of the Corporation shall be insufficient to make payment in full to all holders of Series A Preferred of the liquidation preference set forth in this Section 3(c), then such assets legally available for distribution shall be distributed among the holders of Series A Preferred at the time outstanding, ratably in proportion to the full amounts to which they would otherwise be respectively entitled.

(d) After the payment of the full liquidation preference of the Preferred Stock as set forth in Sections 3(a), 3(b) and 3(c) above, the remaining assets of the Corporation legally available for distribution, if any, shall be distributed ratably to the holders of the then outstanding Common Stock.

(e) The following events shall be considered a liquidation under this Section:

(i) any consolidation or merger of the Corporation with or into any other corporation or other entity or person, or any other corporate reorganization, in which either (i) the Corporation does not survive (except a transaction in which the holders of capital stock of the Corporation, immediately prior to such merger, consolidation or other corporate reorganization, continue to hold at least fifty percent (50%) of the voting power of capital stock of the surviving or acquiring entity) (ii) the stockholders of the Corporation immediately prior to such consolidation, merger or reorganization, own less than fifty percent (50%) of the Corporation's voting power immediately after such consolidation, merger or reorganization, or (iii) any transaction or series of related transactions to which the Corporation is a party in which in excess of fifty percent (50%) of the Corporation's voting power is transferred, excluding in each case any consolidation or merger effected exclusively to change the domicile of the Corporation (an "Acquisition"); or

(ii) a sale, lease, exclusive license or other disposition of all or substantially all of the assets of the Corporation (an “Asset Transfer”).

(f) Notwithstanding the above, for purposes of determining the amount each holder of shares of Preferred Stock is entitled to receive with respect to a Liquidation Event, each such holder of shares of a series of Preferred Stock shall be deemed to have converted (regardless of whether such holder actually converted) such holder’s shares of such series into shares of Common Stock immediately prior to the Liquidation Event if, as a result of an actual conversion, such holder would receive, in the aggregate and without satisfaction of any conditions or contingencies, an amount greater than the amount that would be distributed to such holder if such holder did not convert such series of Preferred Stock into shares of Common Stock. If any such holder shall be deemed to have converted shares of Preferred Stock into Common Stock pursuant to this paragraph, then such holder shall not be entitled to receive any distribution that would otherwise be made to holders of Preferred Stock that have not converted (or have not been deemed to have converted) into shares of Common Stock.

(g) For the purposes of this Section 3, if the consideration received by the Corporation is other than cash, its value will be deemed its fair market value as determined in good faith by the Board of Directors. Any securities shall be valued as follows:

(i) Securities not subject to investment letter or other similar restrictions on free marketability covered by (ii) below:

(A) If traded on a securities exchange or through the Nasdaq National Market, the value shall be deemed to be the average of the closing prices of the securities on such quotation system over the thirty (30) day period ending three (3) days prior to the closing;

(B) If actively traded over-the-counter, the value shall be deemed to be the average of the closing bid or sale prices (whichever is applicable) over the thirty (30) day period ending three (3) days prior to the closing; and

(C) If there is no active public market, the value shall be the fair market value thereof, as mutually determined by the Board of Directors and the holders of not less than a majority of the then outstanding Preferred Stock (voting together as a single class and not as separate series and on an as-if-converted basis).

(ii) The method of valuation of securities subject to investment letter or other restrictions on free marketability (other than restrictions arising solely by virtue of a stockholder’s status as an affiliate or former affiliate) shall be to make an appropriate discount from the market value determined as above in (i) (A), (B) or (C) to reflect the approximate fair market value thereof, as mutually determined by the Board of Directors and the holders of not less than a majority of the then outstanding Preferred Stock (voting together as a single class and not as separate series and on an as-if-converted basis).

4. Conversion Rights.

The holders of the Preferred Stock shall have the following rights with respect to the conversion of the Preferred Stock into shares of Common Stock (the "Conversion Rights"):

(a) Optional Conversion. Subject to and in compliance with the provisions of this Section 4, any shares of Preferred Stock may, at the option of the holder, be converted at any time into fully-paid and nonassessable shares of Common Stock; provided that requests to convert shall to the extent possible be done at least five days before an applicable Series B Redemption Date, Series D Redemption Date or Series E Redemption Date (as defined in Section 5). The number of shares of Common Stock to which a holder of Preferred Stock shall be entitled upon conversion shall be the product obtained by multiplying the applicable "Preferred Stock Conversion Rate" then in effect (determined as provided in Section 4(b)) by the number of shares of Preferred Stock, as applicable, being converted.

(b) Preferred Stock Conversion Rate. The conversion rate in effect at any time for conversion of the Preferred Stock (the "Preferred Stock Conversion Rate") shall be the quotient obtained by dividing the applicable Original Issue Price of the Preferred Stock by the applicable "Preferred Stock Conversion Price," calculated as provided in Section 4(c).

(c) Preferred Stock Conversion Price. The initial conversion price per share for the Preferred Stock (the "Preferred Stock Conversion Price") shall be as follows: the Preferred Stock Conversion Price for the Series A Preferred shall be \$4.95; the Preferred Stock Conversion Price for the Series B Preferred shall be the Original Issue Price of the Series B Preferred; the Preferred Stock Conversion Price for the Series C Preferred shall be the Original Issue Price of the Series C Preferred; the Preferred Stock Conversion Price for the Series D Preferred shall be the Original Issue Price of the Series D Preferred; the Preferred Stock Conversion Price for the Series E Preferred shall be the Original Issue Price of the Series E Preferred; and the Preferred Stock Conversion Price for the Series F Preferred shall be the Original Issue Price of the Series F Preferred. Such Preferred Stock Conversion Prices shall be adjusted from time to time in accordance with this Section 4. All references to the applicable Preferred Stock Conversion Price herein shall mean the applicable Preferred Stock Conversion Price as so adjusted.

(d) Mechanics of Conversion. Each holder of Preferred Stock who desires to convert the same into shares of Common Stock pursuant to this Section 4 shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or any transfer agent for the Preferred Stock, and shall give written notice to the Corporation at such office that such holder elects to convert the same. Such notice shall state the number of shares of Preferred Stock being converted and the name or names in which the certificate or certificates for shares of Common Stock are to be issued. Thereupon, the Corporation shall promptly issue and deliver at such office to such holder a certificate or certificates for the number of shares of Common Stock to which such holder is entitled and shall promptly pay (i) in cash or, to the extent sufficient funds are not then legally available therefor, in Common Stock (at the Common Stock's fair market value determined by the Board of Directors as of the date of such conversion), any declared and unpaid dividends on the shares of Preferred Stock being converted and (ii) in cash (at the Common Stock's fair market value determined by the Board of

Directors as of the date of conversion) the value of any fractional share of Common Stock otherwise issuable to any holder of Preferred Stock. Such conversion shall be deemed to have been made at the close of business on the date of such surrender of the certificates representing the shares of Preferred Stock to be converted, and the person entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock on such date.

(e) Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the date of the filing of this Restated Certificate (the "Filing Date") effect a subdivision of the outstanding Common Stock without a corresponding subdivision of the Preferred Stock, the applicable Preferred Stock Conversion Price in effect immediately before that subdivision shall be proportionately decreased. Conversely, if the Corporation shall at any time or from time to time after the Filing Date combine the outstanding shares of Common Stock into a smaller number of shares without a corresponding combination of the Preferred Stock, the applicable Preferred Stock Conversion Price in effect immediately before the combination shall be proportionately increased. Any adjustment under this Section 4(e) shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) Adjustment for Common Stock Dividends and Distributions. If the Corporation at any time or from time to time after the Filing Date makes, or fixes a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, in each such event the applicable Preferred Stock Conversion Price that is then in effect shall be decreased as of the time of such issuance or, in the event such record date is fixed, as of the close of business on such record date, by multiplying the applicable Preferred Stock Conversion Price then in effect by a fraction (i) the numerator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and (ii) the denominator of which is the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, that if such record date is fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the applicable Preferred Stock Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the applicable Preferred Stock Conversion Price shall be adjusted pursuant to this Section 4(f) to reflect the actual payment of such dividend or distribution.

(g) Adjustment for Reclassification, Exchange and Substitution. If at any time or from time to time after the Filing Date, the Common Stock issuable upon the conversion of the Preferred Stock is changed into the same or a different number of shares of any class or classes of stock, whether by recapitalization, reclassification or otherwise (other than an Acquisition or Asset Transfer as defined in Section 3(e) or a subdivision or combination of shares or stock dividend or a reorganization, merger, consolidation or sale of assets provided for elsewhere in this Section 4), in any such event each holder of Preferred Stock shall have the right thereafter to convert such stock into the kind and amount of stock and other securities and property receivable upon such recapitalization, reclassification or other change by holders of the maximum number of shares of Common Stock into which such shares of Preferred Stock could

have been converted immediately prior to such recapitalization, reclassification or change, all subject to further adjustment as provided herein or with respect to such other securities or property by the terms thereof.

(h) Reorganizations, Mergers or Consolidations. If at any time or from time to time after the Filing Date, there is a capital reorganization of the Common Stock or the merger or consolidation of the Corporation with or into another corporation or another entity or person (other than an Acquisition or Asset Transfer as defined in Section 3(e) or a recapitalization, subdivision, combination, reclassification, exchange or substitution of shares provided for elsewhere in this Section 4), as a part of such capital reorganization, provision shall be made so that the holders of the Preferred Stock shall thereafter be entitled to receive upon conversion of the Preferred Stock the number of shares of stock or other securities or property of the Corporation to which a holder of the number of shares of Common Stock deliverable upon conversion would have been entitled on such capital reorganization, subject to adjustment in respect of such stock or securities by the terms thereof. In any such case, appropriate adjustment shall be made in the application of the provisions of this Section 4 with respect to the rights of the holders of Preferred Stock after the capital reorganization to the end that the provisions of this Section 4 (including adjustment of the applicable Preferred Stock Conversion Price then in effect and the number of shares issuable upon conversion of the Preferred Stock) shall be applicable after that event and be as nearly equivalent as practicable.

(i) Sale of Shares Below Preferred Stock Conversion Price.

(i) If at any time or from time to time after the Filing Date, the Corporation issues or sells, or is deemed by the express provisions of this subsection (i) to have issued or sold, Additional Shares of Common Stock (as defined in subsection (i)(iv) below), other than as a dividend or other distribution on any class of stock as provided in Section 4(f) above, and other than a subdivision or combination of shares of Common Stock as provided in Section 4(e) above, for an Effective Price (as defined in subsection (i)(iv) below) less than the then effective applicable Preferred Stock Conversion Price, then and in each such case the then existing applicable Preferred Stock Conversion Price shall be reduced, as of the opening of business on the date of such issue or sale, to a price determined by multiplying the applicable Preferred Stock Conversion Price by a fraction (i) the numerator of which shall be (A) the number of shares of Common Stock deemed outstanding (as defined below) immediately prior to such issue or sale, plus (B) the number of shares of Common Stock that the aggregate consideration received (as defined in subsection (i)(ii)) by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at such applicable Preferred Stock Conversion Price with respect to which this adjustment is being made, and (ii) the denominator of which shall be the number of shares of Common Stock deemed outstanding (as defined below) immediately prior to such issue or sale plus the total number of Additional Shares of Common Stock so issued. For the purposes of the preceding sentence, the number of shares of Common Stock deemed to be outstanding as of a given date shall be the sum of (A) the number of shares of Common Stock actually outstanding (excluding shares subject to repurchase by the Corporation at cost), (B) the number of shares of Common Stock into which the then outstanding shares of Preferred Stock could be converted if fully converted on the day immediately preceding the given date, and (C) the number of shares of Common Stock which could be obtained through the exercise or conversion of all other rights, options and convertible

securities vested on the day immediately preceding the given date. No adjustment shall be made to the Preferred Stock Conversion Price in an amount less than one cent per share. Any adjustment otherwise required by this Section 4(i) that is not required to be made due to the preceding sentence shall be included in any subsequent adjustment to the Preferred Stock Conversion Price.

(ii) For the purpose of making any adjustment required under this Section 4(i), the consideration received by the Corporation for any issue or sale of securities shall (A) to the extent it consists of cash, be computed at the net amount of cash received by the Corporation after deduction of any underwriting or similar commissions, compensation or concessions paid or allowed by the Corporation in connection with such issue or sale but without deduction of any expenses payable by the Corporation, (B) to the extent it consists of consideration other than cash, be computed at the fair value of that consideration as determined in good faith by the Board of Directors, and (C) if Additional Shares of Common Stock, Convertible Securities (as defined in subsection (i)(iii)) or rights or options to purchase either Additional Shares of Common Stock or Convertible Securities are issued or sold together with other stock or securities or other assets of the Corporation for a consideration which covers both, be computed as the portion of the consideration so received that may be reasonably determined in good faith by the Board of Directors to be allocable to such Additional Shares of Common Stock, Convertible Securities or rights or options.

(iii) For the purpose of the adjustment required under this Section 4(i), if the Corporation issues or sells (i) stock or other securities convertible into, Additional Shares of Common Stock (such convertible stock or securities being herein referred to as "Convertible Securities") or (ii) rights or options for the purchase of Additional Shares of Common Stock or Convertible Securities and if the Effective Price of such Additional Shares of Common Stock is less than the applicable Preferred Stock Conversion Price, in each case the Corporation shall be deemed to have issued at the time of the issuance of such rights or options or Convertible Securities the maximum number of Additional Shares of Common Stock issuable upon exercise or conversion thereof and to have received as consideration for the issuance of such shares an amount equal to the total amount of the consideration, if any, received by the Corporation for the issuance of such rights or options or Convertible Securities, plus, in the case of such rights or options, the minimum amounts of consideration, if any, payable to the Corporation upon the exercise of such rights or options, plus, in the case of Convertible Securities, the minimum amounts of consideration, if any, payable to the Corporation (other than by cancellation of liabilities or obligations evidenced by such Convertible Securities) upon the conversion thereof; provided that if in the case of Convertible Securities the minimum amounts of such consideration cannot be ascertained, but are a function of antidilution or similar protective clauses, the Corporation shall be deemed to have received the minimum amounts of consideration without reference to such clauses; provided further that if the minimum amount of consideration payable to the Corporation upon the exercise or conversion of rights, options or Convertible Securities is reduced over time or on the occurrence or non-occurrence of specified events other than by reason of antidilution adjustments, the Effective Price shall be recalculated using the figure to which such minimum amount of consideration is reduced; provided further that if the minimum amount of consideration payable to the Corporation upon the exercise or conversion of such rights, options or Convertible Securities is subsequently increased, the Effective Price shall be again recalculated using the increased minimum amount of consideration

payable to the Corporation upon the exercise or conversion of such rights, options or Convertible Securities. No further adjustment of the applicable Preferred Stock Conversion Price, as adjusted upon the issuance of such rights, options or Convertible Securities, shall be made as a result of the actual issuance of Additional Shares of Common Stock on the exercise of any such rights or options or the conversion of any such Convertible Securities. If any such rights or options or the conversion privilege represented by any such Convertible Securities shall expire without having been exercised, the applicable Preferred Stock Conversion Price as adjusted upon the issuance of such rights, options or Convertible Securities shall be readjusted to the applicable Preferred Stock Conversion Price which would have been in effect had an adjustment been made on the basis that the only Additional Shares of Common Stock so issued were the Additional Shares of Common Stock, if any, actually issued or sold on the exercise of such rights or options or rights of conversion of such Convertible Securities, and such Additional Shares of Common Stock, if any, were issued or sold for the consideration actually received by the Corporation upon such exercise, plus the consideration, if any, actually received by the Corporation for the granting of all such rights or options, whether or not exercised, plus the consideration received for issuing or selling the Convertible Securities actually converted, plus the consideration, if any, actually received by the Corporation (other than by cancellation of liabilities or obligations evidenced by such Convertible Securities) on the conversion of such Convertible Securities, provided that such readjustment shall not apply to prior conversions of Preferred Stock.

(iv) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued by the Corporation or deemed to be issued pursuant to this Section 4(i), whether or not subsequently reacquired or retired by the Corporation other than (A) shares of Common Stock issued upon conversion of the Preferred Stock; (B) shares of Common Stock and/or options, warrants or other Common Stock purchase rights, and the Common Stock issued pursuant to such options, warrants or other rights (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like) after the Filing Date, issued to employees, officers or directors of, or consultants or advisors to the Corporation or any subsidiary pursuant to stock purchase or stock option plans or other agreements or arrangements that are approved by the Board of Directors; (C) shares of Common Stock issued pursuant to the exercise of options, warrants or convertible securities outstanding as of the Filing Date; (D) shares of Common Stock issued pursuant to a merger, consolidation, acquisition or similar business combination approved by the Board of Directors; (E) shares of Common Stock issued in connection with any stock split, stock dividend or recapitalization by the Corporation for which an adjustment is made under sections 4(e), (f) or (g) hereof; (F) shares of Common Stock or Preferred Stock, or warrants to purchase shares of Common Stock or Preferred Stock, issued pursuant to any equipment leasing, real property leasing or loan arrangement, or debt financing from a bank or similar financial or lending institution approved by the Board of Directors; (G) shares of Common Stock or Preferred Stock issued pursuant to the exercise of warrants issued pursuant to clause (F) of this Section 4(i)(iv); (H) shares of Common Stock and/or options, warrants or other Common Stock purchase rights issued pursuant to any licensing transaction approved by the Board of Directors; (I) shares of Common Stock and/or options, warrants or other Common Stock purchase rights issued in connection with strategic alliances, joint ventures, manufacturing, marketing or distribution arrangements or technology transfer or development arrangements; provided, however, that any such strategic transaction and the issuance of shares therein, has been approved by the Board of Directors; (J) shares of Common Stock and/or options, warrants or other Common Stock purchase rights issued in connection with the establishment of any

enzyme manufacturing facility owned and/or operated by the Corporation; provided, however, that any such transaction and the issuance of shares therein, has been approved by the Board of Directors; and (K) shares of Series F Preferred Stock issued pursuant to that certain Series F Preferred Stock Purchase Agreement dated on or about March 3, 2009, as amended from time to time. References to Common Stock in the subsections of this clause (iv) above shall mean all shares of Common Stock issued by the Corporation or deemed to be issued pursuant to this Section 4(i). The “Effective Price” of Additional Shares of Common Stock shall mean the quotient determined by dividing the total number of Additional Shares of Common Stock issued or sold, or deemed to have been issued or sold by the Corporation under this Section 4(i), into the aggregate consideration received, or deemed to have been received by the Corporation for such issue under this Section 4(i), for such Additional Shares of Common Stock.

(j) Certificate of Adjustment. In each case of an adjustment or readjustment of the applicable Preferred Stock Conversion Price for the number of shares of Common Stock or other securities issuable upon conversion of the Preferred Stock, if the Preferred Stock is then convertible pursuant to this Section 4, the Corporation, at its expense, shall compute such adjustment or readjustment in accordance with the provisions hereof and prepare a certificate showing such adjustment or readjustment, and shall mail such certificate, by first class mail, postage prepaid, to each registered holder of Preferred Stock at the holder’s address as shown in the Corporation’s books. The certificate shall set forth such adjustment or readjustment, showing in detail the facts upon which such adjustment or readjustment is based, including a statement, as applicable, of (i) the consideration received or deemed to be received by the Corporation for any Additional Shares of Common Stock issued or sold or deemed to have been issued or sold, (ii) the applicable Preferred Stock Conversion Price at the time in effect, (iii) the number of Additional Shares of Common Stock and (iv) the type and amount, if any, of other property which at the time would be received upon conversion of the Preferred Stock.

(k) Notices of Record Date. Upon (i) any taking by the Corporation of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend, other distribution or other right, or (ii) any Acquisition (as defined in Section 3(e)) or other capital reorganization of the Corporation, any reclassification or recapitalization of the capital stock of the Corporation, any merger or consolidation of the Corporation with or into any other corporation, or any Asset Transfer (as defined in Section 3(d)), or any voluntary or involuntary dissolution, liquidation or winding up of the Corporation, the Corporation shall mail to each holder of Preferred Stock at least ten (10) days prior to the record date specified therein (or such shorter period approved by a majority of the outstanding Preferred Stock) a notice specifying (A) the date on which any such record is to be taken for the purpose of such dividend, distribution or right and a description of such dividend, distribution or right, (B) the date on which any such Acquisition, reorganization, reclassification, transfer, consolidation, merger, Asset Transfer, dissolution, liquidation or winding up is expected to become effective, and (C) the date, if any, that is to be fixed as to when the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares of Common Stock (or other securities) for securities or other property deliverable upon such Acquisition, reorganization, reclassification, transfer, consolidation, merger, Asset Transfer, dissolution, liquidation or winding up.

(l) Automatic Conversion.

(i) Each share of Preferred Stock shall automatically be converted into shares of Common Stock, based on the then-effective applicable Preferred Stock Conversion Price, (A) at any time upon the affirmative election of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the then outstanding shares of the Series B Preferred, Series C Preferred, Series D Preferred, Series E Preferred and Series F Preferred (voting together as a single class and not as a separate series and on an as-if-converted basis) or (B) immediately upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of Common Stock for the account of the Corporation in which (x) the gross cash proceeds to the Corporation (before underwriting discounts, commissions and fees) are at least fifty million dollars (\$50,000,000) and (y) the pre-money valuation of the Corporation (calculated based on capital stock outstanding on an as-converted basis, assuming conversion or exercise of all convertible or exercisable securities and including all shares reserved for issuance pursuant to any stock option or similar plan) immediately prior to the offering is at least two hundred fifty million dollars (\$250,000,000). Upon such automatic conversion, any declared and unpaid dividends shall be paid in accordance with the provisions of Section 4(d).

(ii) Upon the occurrence of either of the events specified in Section 4(l)(i) above, the applicable outstanding shares of Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent; provided, however, that the Corporation shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such conversion unless the certificates evidencing such shares of Preferred Stock are either delivered to the Corporation or its transfer agent as provided below, or the holder notifies the Corporation or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates. Upon the occurrence of such automatic conversion of the Preferred Stock, the holders of Preferred Stock shall surrender the certificates representing such shares at the office of the Corporation or any transfer agent for the Preferred Stock. Thereupon, there shall be issued and delivered to such holder promptly at such office and in its name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Common Stock into which the shares of Preferred Stock surrendered were convertible on the date on which such automatic conversion occurred, and any declared and unpaid dividends shall be paid in accordance with the provisions of Section 4(d).

(m) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of any fractional share, the Corporation shall, in lieu of issuing any fractional share, pay cash equal to the product of such fraction multiplied by the Common Stock's fair market value (as determined by the Board of Directors) on the date of conversion.

(n) Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Preferred Stock. If at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

(o) Notices. Any notice required by the provisions of this Section 4 shall be in writing and shall be deemed effectively given: (i) upon personal delivery to the party to be notified, (ii) when sent by confirmed facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (iv) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with verification of receipt. All notices shall be addressed to each holder of record at the address of such holder appearing on the books of the Corporation.

(p) Payment of Taxes. The Corporation will pay all taxes (other than taxes based upon income) and other governmental charges that may be imposed with respect to the issue or delivery of shares of Common Stock upon conversion of shares of Preferred Stock, excluding any tax or other charge imposed in connection with any transfer involved in the issue and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered.

(q) No Dilution or Impairment. Without the consent of the holders of then outstanding Preferred Stock as required under Section 2(b), the Corporation shall not amend this Restated Certificate or participate in any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or take any other voluntary action, for the purpose of avoiding or seeking to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but shall at all times in good faith assist in carrying out all such action as may be reasonably necessary or appropriate in order to protect the conversion rights of the holders of the Preferred Stock against dilution or other impairment.

5. Redemption.

(a) The Corporation shall be obligated to redeem the Series E Preferred as follows:

(i) At any time on or after December 31, 2013, the holders of at least a majority of the then outstanding shares of Series E Preferred, voting or consenting together as a separate series, may require the Corporation, to the extent it may lawfully do so, to redeem the Series E Preferred in three (3) annual installments as provided in subparagraph (ii) below. The Corporation shall effect such redemptions beginning on the date sixty (60) days after the date the holders provide notice to the Corporation of their election to redeem their shares of Series E Preferred (the date of the first such redemption, the "First Series E Redemption Date")

and the date of such notice, the "Series E Redemption Notice Date"). The Corporation shall redeem one third of the Series E Preferred on the First Series E Redemption Date, one third of the Series E Preferred on or before the first anniversary of the First Series E Redemption Date (the "Second Series E Redemption Date") and the final one third of the Series E Preferred on or before the second anniversary of the First Series E Redemption Date (the "Third Series E Redemption Date," and, with the First Series E Redemption Date, Second Series E Redemption Date and Third Series E Redemption Date each referred to as a "Series E Redemption Date").

(ii) Each redemption shall be effected on the applicable date by paying in cash in exchange for the shares of Series E Preferred to be redeemed a sum equal to the applicable Original Issue Price per share of the Series E Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like) plus eight percent (8%) of the applicable Original Issue Price (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares) per annum from the date that the first share of Series E Preferred was issued (the "Series E Original Issue Date") until the applicable Series E Redemption Date, plus declared and unpaid dividends with respect to such shares. The number of shares of Series E Preferred that the Corporation shall be required to redeem on any one Series E Redemption Date shall be equal to the amount determined by dividing (A) the aggregate number of shares of Series E Preferred outstanding immediately prior to the Series E Redemption Date by (B) the number of remaining Series E Redemption Dates (including the Series E Redemption Date to which such calculation applies). Shares subject to redemption pursuant to this Section 5(a) shall be redeemed from each holder of Series E Preferred on a pro rata basis.

(iii) At least thirty (30) days but no more than sixty (60) days prior to the First Series E Redemption Date, the Corporation shall send a notice (a "Series E Redemption Notice") to all holders of Series E Preferred setting forth (A) the redemption price for the shares to be redeemed; and (B) the place at which such holders may obtain payment of the redemption price upon surrender of their share certificates.

(iv) Subject to Section 5(d), if the Corporation does not have sufficient funds legally available to redeem all shares to be redeemed at the applicable Series E Redemption Date, then (i) it shall redeem such shares pro rata (based on the portion of the aggregate redemption price payable to them) to the extent possible and (ii) the holders of the Series E Preferred shall be entitled to elect a majority of the members of the Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors and the number of directors constituting the Corporation's Board of Directors shall be automatically increased to a number such that representatives of the Series E Preferred will constitute a majority of the members of the Board of Directors. Subject to Section 5(d), at any time thereafter when additional funds of the Corporation are legally available for the redemption of shares of Series E Preferred, such funds will immediately be used to redeem the balance of the shares that the Corporation has become obligated to redeem on any Series E Redemption Date but that it has not redeemed.

(v) On or prior to each Series E Redemption Date, the Corporation shall deposit the redemption price of all shares to be redeemed with a bank or trust

company having aggregate capital and surplus in excess of one hundred million dollars (\$100,000,000), as a trust fund for the benefit of the respective holders of shares designated for redemption but not yet redeemed, with irrevocable instructions and authority to the bank or trust company to pay, on and after such Series E Redemption Date, the redemption price of the shares to their respective holders upon the surrender of their share certificates. Any moneys deposited by the Corporation pursuant to this Section 5(a) for the redemption of shares thereafter converted into shares of Common Stock pursuant to Section 4 hereof no later than the fifth (5th) day preceding the applicable Series E Redemption Date shall be returned to the Corporation forthwith upon such conversion. The balance of any funds deposited by the Corporation pursuant to this Section 5(a) remaining unclaimed at the expiration of one (1) year following the applicable Series E Redemption Date shall be returned to the Corporation promptly upon its written request; provided that the stockholder to which such money would be payable hereunder shall be entitled, upon proof of its ownership of such shares of Series E Preferred and payment of any bond requested by the Corporation, to receive such monies without interest from the applicable Series E Redemption Date.

(vi) On or after each Series E Redemption Date, each holder of shares of Series E Preferred to be redeemed shall surrender such holder's certificates representing such shares to the Corporation in the manner and at the place designated in the Series E Redemption Notice, and thereupon the redemption price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof and each surrendered certificate shall be canceled. From and after each Series E Redemption Date, unless there shall have been a default in payment of the redemption price or the Corporation is unable to pay the redemption price due to not having sufficient legally available funds, all rights of the holder of such shares as holder of Series E Preferred (except the right to receive the redemption price without interest upon surrender of their certificates), shall cease and terminate with respect to such shares; provided, however, that in the event that shares of Series E Preferred are not redeemed due to a default in payment by the Corporation or because the Corporation does not have sufficient legally available funds, such shares of Series E Preferred shall remain outstanding and shall be entitled to all of the rights and preferences provided herein.

(vii) In the event of a call for redemption of the Series E Preferred, the Conversion Rights (as defined in Section 4) for such Series E Preferred shall terminate as to the shares designated for redemption at the close of business on the fifth (5th) day preceding each Series E Redemption Date, unless default is made in payment of the redemption price.

(viii) Within five (5) days after the Series E Redemption Notice Date, the Company shall deliver a notice to the holders of Series B Preferred and Series D Preferred notifying such holders of (x) the intent of the holders of Series E Preferred to exercise their redemption rights pursuant to this Section 5 and (y) the Series E Redemption Notice Date. Subject to Section 5(d), provided that such holders deliver notice to the Corporation of their election to redeem their shares of Series B Preferred or Series D Preferred, as applicable, within thirty (30) days after the Series E Redemption Notice Date, the holders of at least a majority of the then outstanding shares of Series B Preferred or Series D Preferred, as applicable, each voting as a separate series, may require the Corporation, to the extent it may lawfully do so, to

redeem the Series B Preferred or Series D Preferred, as applicable, in three (3) annual installments on each of the Series E Redemption Dates, pursuant to Sections 5(b)(ii) through 5(b)(vii) and/or 5(c)(ii) through 5(c)(vii), as applicable, and such dates shall also be deemed to be Series B Redemption Dates and/or Series D Redemption Dates.

(b) The Corporation shall be obligated to redeem the Series D Preferred as follows:

(i) At any time on or after December 31, 2013, the holders of at least a majority of the then outstanding shares of Series D Preferred, voting or consenting together as a separate series, may require the Corporation, to the extent it may lawfully do so, to redeem the Series D Preferred in three (3) annual installments as provided in subparagraph (ii) below. The Corporation shall effect such redemptions beginning on the date sixty (60) days after the date the holders provide notice to the Corporation of their election to redeem their shares of Series D Preferred (the date of the first such redemption, the "First Series D Redemption Date" and the date of such notice, the "Series D Redemption Notice Date"). The Corporation shall redeem one third of the Series D Preferred on the First Series D Redemption Date, one third of the Series D Preferred on or before the first anniversary of the First Series D Redemption Date (the "Second Series D Redemption Date") and the final one third of the Series D Preferred on or before the second anniversary of the First Series D Redemption Date (the "Third Series D Redemption Date," and, with the First Series D Redemption Date, Second Series D Redemption Date and Third Series D Redemption Date each referred to as a "Series D Redemption Date").

(ii) Each redemption shall be effected on the applicable date by paying in cash in exchange for the shares of Series D Preferred to be redeemed a sum equal to the applicable Original Issue Price per share of the Series D Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like) plus eight percent (8%) of the applicable Original Issue Price (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like with respect to such shares) per annum from the date that the first share of Series D Preferred was issued (the "Series D Original Issue Date") until the applicable Series D Redemption Date, plus declared and unpaid dividends with respect to such shares. The number of shares of Series D Preferred that the Corporation shall be required to redeem on any one Series D Redemption Date shall be equal to the amount determined by dividing (A) the aggregate number of shares of Series D Preferred outstanding immediately prior to the Series D Redemption Date by (B) the number of remaining Series D Redemption Dates (including the Series D Redemption Date to which such calculation applies). Shares subject to redemption pursuant to this Section 5(b) shall be redeemed from each holder of Series D Preferred on a pro rata basis.

(iii) At least thirty (30) days but no more than sixty (60) days prior to the First Series D Redemption Date, the Corporation shall send a notice (a "Series D Redemption Notice") to all holders of Series D Preferred setting forth (A) the redemption price for the shares to be redeemed; and (B) the place at which such holders may obtain payment of the redemption price upon surrender of their share certificates.

(iv) Subject to Section 5(d), if the Corporation does not have sufficient funds legally available to redeem all shares to be redeemed at the applicable Series D

Redemption Date, then (i) it shall redeem such shares pro rata (based on the portion of the aggregate redemption price payable to them) to the extent possible and (ii) the holders of the Series D Preferred shall be entitled to elect a majority of the members of the Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors and the number of directors constituting the Corporation's Board of Directors shall be automatically increased to a number such that representatives of the Series D Preferred will constitute a majority of the members of the Board of Directors. Subject to Section 5(d), at any time thereafter when additional funds of the Corporation are legally available for the redemption of shares of Series D Preferred, such funds will immediately be used to redeem the balance of the shares that the Corporation has become obligated to redeem on any Series D Redemption Date but that it has not redeemed.

(v) On or prior to each Series D Redemption Date, the Corporation shall deposit the redemption price of all shares to be redeemed with a bank or trust company having aggregate capital and surplus in excess of one hundred million dollars (\$100,000,000), as a trust fund for the benefit of the respective holders of shares designated for redemption but not yet redeemed, with irrevocable instructions and authority to the bank or trust company to pay, on and after such Series D Redemption Date, the redemption price of the shares to their respective holders upon the surrender of their share certificates. Any moneys deposited by the Corporation pursuant to this Section 5(b) for the redemption of shares thereafter converted into shares of Common Stock pursuant to Section 4 hereof no later than the fifth (5th) day preceding the applicable Series D Redemption Date shall be returned to the Corporation forthwith upon such conversion. The balance of any funds deposited by the Corporation pursuant to this Section 5(b) remaining unclaimed at the expiration of one (1) year following the applicable Series D Redemption Date shall be returned to the Corporation promptly upon its written request; provided that the stockholder to which such money would be payable hereunder shall be entitled, upon proof of its ownership of such shares of Series D Preferred and payment of any bond requested by the Corporation, to receive such monies without interest from the applicable Series D Redemption Date.

(vi) On or after each Series D Redemption Date, each holder of shares of Series D Preferred to be redeemed shall surrender such holder's certificates representing such shares to the Corporation in the manner and at the place designated in the Series D Redemption Notice, and thereupon the redemption price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof and each surrendered certificate shall be canceled. From and after each Series D Redemption Date, unless there shall have been a default in payment of the redemption price or the Corporation is unable to pay the redemption price due to not having sufficient legally available funds, all rights of the holder of such shares as holder of Series D Preferred (except the right to receive the redemption price without interest upon surrender of their certificates), shall cease and terminate with respect to such shares; provided, however, that in the event that shares of Series D Preferred are not redeemed due to a default in payment by the Corporation or because the Corporation does not have sufficient legally available funds, such shares of Series D Preferred shall remain outstanding and shall be entitled to all of the rights and preferences provided herein.

(vii) In the event of a call for redemption of the Series D Preferred, the Conversion Rights (as defined in Section 4) for such Series D Preferred shall terminate as to the shares designated for redemption at the close of business on the fifth (5th) day preceding each Series D Redemption Date, unless default is made in payment of the redemption price.

(viii) Within five (5) days after the Series D Redemption Notice Date, the Company shall deliver a notice to the holders of Series B Preferred and Series E Preferred notifying such holders of (x) the intent of the holders of Series D Preferred to exercise their redemption rights pursuant to this Section 5 and (y) the Series D Redemption Notice Date. Subject to Section 5(d), provided that such holders deliver notice to the Corporation of their election to redeem their shares of Series B Preferred or Series E Preferred, as applicable, within thirty (30) days after the Series D Redemption Notice Date, the holders of at least a majority of the then outstanding shares of Series B Preferred or Series E Preferred, as applicable, each voting as a separate series, may require the Corporation, to the extent it may lawfully do so, to redeem the Series B Preferred or Series E Preferred, as applicable, in three (3) annual installments on each of the Series D Redemption Dates, pursuant to Sections 5(a)(ii) through 5(a)(vii) and/or 5(c)(ii) through 5(c)(vii), as applicable, and such dates shall also be deemed to be Series B Redemption Dates and/or Series E Redemption Dates.

(c) The Corporation shall be obligated to redeem the Series B Preferred as follows:

(i) At any time on or after December 31, 2013, the holders of at least a majority of the then outstanding shares of Series B Preferred, voting or consenting together as a separate series, may require the Corporation, to the extent it may lawfully do so, to redeem the Series B Preferred in three (3) annual installments as provided in subparagraph (ii) below. The Corporation shall effect such redemptions beginning on the date sixty (60) days after the date the holders provide notice to the Corporation of their election to redeem their shares of Series B Preferred (the date of the first such redemption, the "First Series B Redemption Date" and the date of such notice, the "Series B Redemption Notice Date"). The Corporation shall redeem one third of the Series B Preferred on the First Series B Redemption Date, one third of the Series B Preferred on or before the first anniversary of the First Series B Redemption Date (the "Second Series B Redemption Date") and the final one third of the Series B Preferred on or before the second anniversary of the First Series B Redemption Date (the "Third Series B Redemption Date," with the First Series B Redemption Date, Second Series B Redemption Date and Third Series B Redemption Date each referred to as a "Series B Redemption Date," and with each Series D Redemption Date and each Series E Redemption Date, a "Redemption Date").

(ii) Each redemption shall be effected on the applicable date by paying in cash in exchange for the shares of Series B Preferred to be redeemed a sum equal to the applicable Original Issue Price per share of the Series B Preferred (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like) plus five percent (5%) of the applicable Original Issue Price (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like) per annum from the date that the first share of Series B Preferred was issued until the Series E Original Issue Date and eight percent (8%) of the applicable Original Issue Price (as adjusted for any stock dividends, combinations, splits, recapitalizations

and the like) per annum from the Series D Original Issue Date until the applicable Series B Redemption Date, plus declared and unpaid dividends with respect to such shares. The number of shares of Series B Preferred that the Corporation shall be required to redeem on any one Series B Redemption Date shall be equal to the amount determined by dividing (A) the aggregate number of shares of Series B Preferred outstanding immediately prior to the Series B Redemption Date by (B) the number of remaining Series B Redemption Dates (including the Series B Redemption Date to which such calculation applies). Shares subject to redemption pursuant to this Section 5(c) shall be redeemed from each holder of Series B Preferred on a pro rata basis.

(iii) At least thirty (30) days but no more than sixty (60) days prior to the First Series B Redemption Date, the Corporation shall send a notice (a "Series B Redemption Notice") to all holders of Series B Preferred setting forth (A) the redemption price for the shares to be redeemed; and (B) the place at which such holders may obtain payment of the redemption price upon surrender of their share certificates.

(iv) Subject to Section 5(d), if the Corporation does not have sufficient funds legally available to redeem all shares to be redeemed at the applicable Series B Redemption Date, then (i) it shall redeem such shares pro rata (based on the portion of the aggregate redemption price payable to them) to the extent possible and (ii) the holders of the Series B Preferred shall be entitled to elect a majority of the members of the Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors and the number of directors constituting the Corporation's Board of Directors shall be automatically increased to a number such that representatives of the Series B Preferred will constitute a majority of the members of the Board of Directors. Subject to Section 5(d), at any time thereafter when additional funds of the Corporation are legally available for the redemption of shares of Series B Preferred, such funds will immediately be used to redeem the balance of the shares that the Corporation has become obligated to redeem on any Series B Redemption Date but that it has not redeemed.

(v) On or prior to each Series B Redemption Date, the Corporation shall deposit the redemption price of all shares to be redeemed with a bank or trust company having aggregate capital and surplus in excess of one hundred million dollars (\$100,000,000), as a trust fund for the benefit of the respective holders of shares designated for redemption but not yet redeemed, with irrevocable instructions and authority to the bank or trust company to pay, on and after such Series B Redemption Date, the redemption price of the shares to their respective holders upon the surrender of their share certificates. Any moneys deposited by the Corporation pursuant to this Section 5(c) for the redemption of shares thereafter converted into shares of Common Stock pursuant to Section 4 hereof no later than the fifth (5th) day preceding the applicable Series B Redemption Date shall be returned to the Corporation forthwith upon such conversion. The balance of any funds deposited by the Corporation pursuant to this Section 5(c) remaining unclaimed at the expiration of one (1) year following the applicable Series B Redemption Date shall be returned to the Corporation promptly upon its written request; provided that the stockholder to which such money would be payable hereunder shall be entitled, upon proof of its ownership of such shares of Series B Preferred and payment of any bond requested by the Corporation, to receive such monies without interest from the applicable Series B Redemption Date.

(vi) On or after each Series B Redemption Date, each holder of shares of Series B Preferred to be redeemed shall surrender such holder's certificates representing such shares to the Corporation in the manner and at the place designated in the Series B Redemption Notice, and thereupon the redemption price of such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof and each surrendered certificate shall be canceled. From and after each Series B Redemption Date, unless there shall have been a default in payment of the redemption price or the Corporation is unable to pay the redemption price due to not having sufficient legally available funds, all rights of the holder of such shares as holder of Series B Preferred (except the right to receive the redemption price without interest upon surrender of their certificates), shall cease and terminate with respect to such shares; provided, however, that in the event that shares of Series B Preferred are not redeemed due to a default in payment by the Corporation or because the Corporation does not have sufficient legally available funds, such shares of Series B Preferred shall remain outstanding and shall be entitled to all of the rights and preferences provided herein.

(vii) In the event of a call for redemption of the Series B Preferred, the Conversion Rights (as defined in Section 4) for such Series B Preferred shall terminate as to the shares designated for redemption at the close of business on the fifth (5th) day preceding each Series B Redemption Date, unless default is made in payment of the redemption price.

(viii) Within five (5) days after the Series B Redemption Notice Date, the Company shall deliver a notice to the holders of Series D Preferred and Series E Preferred notifying such holders of (x) the intent of the holders of Series B Preferred to exercise their redemption rights pursuant to this Section 5 and (y) the Series B Redemption Notice Date. Subject to Section 5(d), provided that such holders deliver notice to the Corporation of their election to redeem their shares of Series D Preferred or Series E Preferred, as applicable, within thirty (30) days after the Series B Redemption Notice Date, the holders of at least a majority of the then outstanding shares of Series D Preferred or Series E Preferred, as applicable, each voting as a separate series, may require the Corporation, to the extent it may lawfully do so, to redeem the Series D Preferred or Series E Preferred, as applicable, in three (3) annual installments on each of the Series B Redemption Dates, pursuant to Sections 5(a)(ii) through 5(a)(vii) and/or Sections 5(b)(ii) through 5(b)(vii), as applicable, and such dates shall also be deemed to be Series D Redemption Dates and/or Series E Redemption Dates.

(d) If the Corporation does not have sufficient funds legally available to redeem on any Redemption Date all shares of Series B Preferred, Series D Preferred and the Series E Preferred and of any other class or series of stock to be redeemed on such Redemption Date, the Corporation shall redeem a pro rata portion of each holder's redeemable shares of such stock out of funds legally available therefor, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the legally available funds were sufficient to redeem all such shares, and shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor. If,

pursuant to Sections 5(a), 5(b) and/or 5(c) hereof, the holders of more than one of the Series B Preferred, the Series D Preferred and the Series E Preferred shall be entitled to elect a majority of the members of the Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors, then holders of the outstanding Series B Preferred, Series D Preferred and/or Series E Preferred, as applicable (voting together as a single class and not as a separate series and on an as-if-converted basis) shall be entitled to elect a majority of the members of the Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors, and to remove from office such directors and to fill any vacancy caused by the resignation, death or removal of such directors and the number of directors constituting the Corporation's Board of Directors shall be automatically increased to a number such that representatives of the Series B Preferred, Series D Preferred and/or the Series E Preferred, as applicable, will constitute a majority of the members of the Board of Directors.

V.

A. The liability of the directors for monetary damages shall be eliminated to the fullest extent allowed under applicable law.

B. Each person who is or is made a party or is threatened to be made a party to or is involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "proceeding"), by reason of the fact that he or she, or a person of whom he or she is the legal representative, is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the Delaware General Corporation Law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, Employee Retirement Income Security Act excise taxes or penalties and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith and such indemnification shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of his or her heirs, executors and administrators; provided, however, that, except as provided in the second paragraph hereof, the Corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation. The right to indemnification conferred in this section shall be a contract right and shall include the right to be paid by the Corporation any expenses incurred in defending any such proceeding in advance of its final disposition; provided, however, that, if the Delaware General Corporation Law requires, the payment of such expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such person while a director or officer, including, without limitation, service to an employee benefit plan) in advance of the final disposition of a proceeding, shall be made only upon

delivery to the Corporation of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified under this section or otherwise. The Corporation may, by action of its Board of Directors, provide indemnification to employees and agents of the Corporation with the same scope and effect as the foregoing indemnification of directors and officers.

If a claim under the first paragraph of this section (B) is not paid in full by the Corporation within thirty (30) days after a written claim has been received by the Corporation, the claimant may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim and, if successful in whole or in part, the claimant shall be entitled to be paid also the expense of prosecuting such claim. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in defending any proceeding in advance of its final disposition where the required undertaking, if any is required, has been tendered to the Corporation) that the claimant has not met the standards of conduct which make it permissible under the Delaware General Corporation Law for the Corporation to indemnify the claimant for the amount claimed, but the burden of proving such defense shall be on the Corporation. Neither the failure of the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he or she has met the applicable standard of conduct set forth in the Delaware General Corporation Law, nor an actual determination by the Corporation (including its Board of Directors, independent legal counsel, or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that the claimant has not met the applicable standard of conduct.

The right to indemnification and the payment of expenses incurred in defending a proceeding in advance of its final disposition conferred in this section shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, provision of this Restated Certificate or Bylaws of the Corporation, agreement, vote of stockholders or disinterested directors or otherwise.

The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any such expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the Delaware General Corporation Law.

C. Any repeal or modification of this Article V shall only be prospective and shall not effect the rights under this Article V in effect at the time of the alleged occurrence of any action or omission to act giving rise to liability.

VI.

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. The management of the business and the conduct of the affairs of the Corporation shall be vested in its Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed by the Board of Directors in the manner provided in the Bylaws, subject to any restrictions that may be set forth in this Restated Certificate.

B. Subject to compliance with applicable protective voting rights that have been or may be granted to the Preferred Stock or series thereof in a Certificate of Designation or this Restated Certificate and to the indemnification provisions in the Bylaws, the Board of Directors may from time to time make, amend, supplement or repeal the Bylaws; provided, however, that the stockholders may change or repeal any Bylaw adopted by the Board of Directors by the affirmative vote of the percentage of holders of capital stock as provided therein; and, provided further, that no amendment or supplement to the Bylaws adopted by the Board of Directors shall vary or conflict with any amendment or supplement thus adopted by the stockholders.

C. The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

* * * *

FOUR: This Restated Certificate has been duly approved by the Board of Directors of this Corporation.

FIVE: This Restated Certificate has been duly adopted in accordance with the provisions of Sections 228, 242 and 245 of the General Corporation Law of the State of Delaware by the Board of Directors and the stockholders of the Corporation. The total number of outstanding shares entitled to vote or act by written consent was three million nine hundred nineteen thousand six hundred seventy-three (3,919,673) shares of Common Stock, six million (6,000,000) shares of Series A Preferred, eight million one hundred one thousand one hundred one (8,101,101) shares of Series B Preferred, one million five hundred fourteen thousand six hundred forty-five (1,514,645) shares of Series C Preferred, ten million four hundred nine-six thousand nine hundred seventy-three (10,496,973) shares of Series D Preferred and six million one hundred fifty-six thousand seven hundred seventy-five (6,156,775) shares of Series E Preferred. All of the outstanding shares of Common Stock, Series A Preferred, Series B Preferred, Series C Preferred, Series D Preferred and Series E Preferred approved this Restated Certificate by written consent in accordance with Section 228 of the General Corporation Law of the State of Delaware and written notice of such was given by the Corporation in accordance with Section 228.

[Signature Page Follows]

IN WITNESS WHEREOF, Codexis, Inc. has caused this Seventh Amended and Restated Certificate of Incorporation to be signed by its President this 3rd day of March, 2009.

CODEXIS, INC.

By: /s/ Alan Shaw
President

BYLAWS
OF
CODEXIS, INC.
(A DELAWARE CORPORATION)
(as adopted on January 31, 2002)

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BYLAWS
OF
CODEXIS, INC.
(A DELAWARE CORPORATION)

ARTICLE I
OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be in the City of Wilmington, County of New Castle. (Del. Code Ann., tit. 8, § 131)

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the corporation may require. (Del. Code Ann., tit. 8, § 122(8))

ARTICLE II
CORPORATE SEAL

Section 3. Corporate Seal. The corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." The seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise. (Del. Code Ann., tit. 8, § 122(3))

ARTICLE III
STOCKHOLDERS' MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation shall be held at such place, either within or without the State of Delaware, as may be designated from time to time by the Board of Directors. (Del. Code Ann., tit. 8, § 211(a))

Section 5. Annual Meeting

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may lawfully come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving of notice provided for in the following paragraph, who is entitled to vote at the meeting and who complied with the notice procedures set forth in Section 5. (Del. Code Ann., tit. 8, § 211(b)).

(b) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of Section 5(a) of these Bylaws, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation, (ii) such other business must be a proper matter for stockholder action under the General Corporation Law of Delaware, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the corporation with a Solicitation Notice (as defined in this Section 5(b)), such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the corporation's voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section 5. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (A) as to each person whom the stockholder proposed to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "1934 Act") and Rule 14a-11 thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class and number of shares of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner, and (iii)

whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "Solicitation Notice").

(c) Notwithstanding anything in the second sentence of Section 5(b) of these Bylaws to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the corporation at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 5 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section 5 shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 5. Except as otherwise provided by law, the Chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

(e) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, stockholders must provide notice as required by the regulations promulgated under the 1934 Act. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation proxy statement pursuant to Rule 14a-8 under the 1934 Act.

(f) For purposes of this Section 5, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption)

or (iv) by the holders of shares entitled to cast not less than ten percent (10%) of the votes at the meeting, and shall be held at such place, on such date, and at such time as the Board of Directors shall fix. At any time or times that the corporation is subject to Section 2115(b) of the California General Corporation Law ("CGCL"), stockholders holding five percent (5%) or more of the outstanding shares shall have the right to call a special meeting of stockholders as set forth in Section 18(c) herein.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by registered mail or by telegraphic or other facsimile transmission to the Chairman of the Board of Directors, the Chief Executive Officer, or the Secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. If the notice is not given within sixty (60) days after the receipt of the request, the person or persons properly requesting the meeting may set the time and place of the meeting and give the notice. Nothing contained in this paragraph (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

Section 7. Notice of Meetings. Except as otherwise provided by law or the Certificate of Incorporation, written notice of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and purpose or purposes of the meeting. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof, or a waiver by electronic transmission by the person entitled to notice thereof, either before or after such meeting, and will be waived by any stockholder by his attendance thereat in person or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given. (Del. Code Ann., tit. 8, §§ 222, 229)

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business

until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by law, the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of a majority of shares present in person or represented by proxy duly authorized at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy duly authorized at the meeting and entitled to vote on the election of directors. Where a separate vote by a class or series or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or series or classes or series, present in person or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of the outstanding shares of such class or series or classes or series present in person or represented by proxy duly authorized at the meeting shall be the act of such class or classes or series. (Del. Code Ann., tit. 8, § 216)

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares casting votes. When a meeting is adjourned to another time or place, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. (Del. Code Ann., tit. 8, § 222(c))

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote or execute consents shall have the right to do so either in person or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period. (Del. Code Ann., tit. 8, § 212(b))

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, such person's act

binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the Delaware General Corporation Law, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest. (Del. Code Ann., tit. 8, § 217(b))

Section 12. List of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting: (i) on a reasonably accessible electronic network, provided with the notice of the meeting, or (ii) during ordinary business hours, at the principal place of business of the corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. (Del. Code Ann., tit. 8, § 219(a))

Section 13. Action Without Meeting

(a) Unless otherwise provided in the Certificate of Incorporation, any action required by statute to be taken at any annual or special meeting of the stockholders, or any action that may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

(b) Every written consent shall bear the date of signature of each stockholder who signs the consent, and no written consent shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered to the corporation in the manner herein required, written consents signed by a sufficient number of stockholders to take action are delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. (Del. Code Ann., tit. 8, § 228(c))

(c) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed

by a sufficient number of stockholders to take action were delivered to the corporation as provided in Section 228(c) of the Delaware General Corporation Law. If the action that is consented to is such as would have required the filing of a certificate under any section of the Delaware General Corporation Law if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the Delaware General Corporation Law.

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or, if the President is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office.

The authorized number of directors of the corporation shall be fixed by the Board of Directors from time to time. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient. (Del. Code Ann., tit. 8, §§ 141(b), 211(b), (c))

Section 16. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation. (Del. Code Ann., tit. 8, § 141(a))

Section 17. Term of Directors.

(a) Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders for a term of one year. Each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(b) No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the corporation is subject to Section 2115(b) of the CGCL. During such time or times that the corporation is subject to Section 2115(b) of the CGCL, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder thinks fit. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (a) the names of such candidate or candidates have been placed in nomination prior to the voting and (b) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all stockholders may cumulate their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

Section 18. Vacancies.

(a) Unless otherwise provided in the Certificate of Incorporation, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director. (Del. Code Ann., tit. 8, § 223(a), (b))

(b) If at the time of filling any vacancy or any newly created directorship, the directors then in office shall constitute less than a majority of the whole board (as constituted immediately prior to any such increase), the Delaware Court of Chancery may, upon application of any stockholder or stockholders holding at least ten percent (10%) of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an

election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in offices as aforesaid, which election shall be governed by Section 211 of the Delaware General Corporation Law (Del. Code Ann. tit. 8, §223(c)).

(c) At any time or times that the corporation is subject to §2115(b) of the CGCL, if, after the filling of any vacancy, the directors then in office who have been elected by stockholders shall constitute less than a majority of the directors then in office, then

(i) any holder or holders of an aggregate of five percent (5%) or more of the total number of shares at the time outstanding having the right to vote for those directors may call a special meeting of stockholders; or

(ii) the Superior Court of the proper county shall, upon application of such stockholder or stockholders, summarily order a special meeting of the stockholders, to be held to elect the entire board, all in accordance with Section 305(c) of the CGCL, the term of office of any director shall terminate upon that election of a successor. (CGCL §305(c))

Section 19. Resignation. Any director may resign at any time by delivering notice given in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it shall be deemed effective at the pleasure of the Board of Directors. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his successor shall have been duly elected and qualified. (Del. Code Ann., tit. 8, §§ 141(b), 223(d))

Section 20. Removal.

(a) Subject to any limitations imposed by applicable law (and assuming the corporation is not subject to Section 2115 of the CGCL), the Board of Directors or any director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of voting stock of the corporation entitled to vote at an election of directors or (ii) without cause by the affirmative vote of sixty-six and two-thirds percent (66²/₃%) of the voting power of all then-outstanding shares of voting stock of the corporation, entitled to vote at an election of directors.

(b) During such time or times that the corporation is subject to Section 2115(b) of the CGCL, the Board of Directors or any individual director may be removed from office at any time without cause by the affirmative vote of the holders of at least a majority of the outstanding shares entitled to vote on such removal; provided, however, that unless the entire Board is removed, no individual director may be removed when the votes cast against such director's removal, or not consenting in writing to such removal, would be sufficient to elect that director if voted cumulatively at an election which the same total number of votes were cast (or, if such action is taken by written consent, all shares entitled to vote were voted) and the entire number of directors authorized at the time of such director's most recent election were then being elected.

Section 21. Meetings.

(a) Annual Meetings. The annual meeting of the Board of Directors shall be held immediately before or after the annual meeting of stockholders and at the place where such meeting is held. No notice of an annual meeting of the Board of Directors shall be necessary and such meeting shall be held for the purpose of electing officers and transacting such other business as may lawfully come before it.

(b) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware that has been designated by the Board of Directors and publicized among all directors. No formal notice shall be required for a regular meeting of the Board of Directors. (Del. Code Ann., tit. 8, § 141(g))

(c) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the President or any two of the directors. (Del. Code Ann., tit. 8, § 141(g))

(d) Telephone Meetings. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting. (Del. Code Ann., tit. 8, § 141(i))

(e) Notice of Meetings. Notice of the time and place of all meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting, or sent in writing to each director by first class mail, postage prepaid, at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. (Del. Code Ann., tit. 8, § 229)

(f) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present shall sign a written waiver of notice or provide notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting. (Del. Code Ann., tit. 8, § 229)

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number and except with respect to indemnification questions arising under Section 43 hereof, for which a quorum shall be one-third of the exact number of directors fixed from time to time, a quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation; *provided, however*, at any meeting, whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting. (Del. Code Ann., tit. 8, § 141(b))

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws. (Del. Code Ann., tit. 8, § 141(b))

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. (Del. Code Ann., tit. 8, § 141(f))

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor. (Del. Code Ann., tit. 8, § 141(h))

Section 25. Committees.

(a) **Executive Committee.** The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the Delaware General Corporation Law to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any bylaw of the corporation. (Del. Code Ann., tit. 8, § 141(c))

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws. (Del. Code Ann., tit. 8, § 141(c))

(c) Term. Each member of a committee of the Board of Directors shall serve a term on the committee coexistent with such member's term on the Board of Directors. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock, the provisions of subsections (a) or (b) of this Bylaw may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. (Del. Code Ann., tit. 8, §141(c))

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place that has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice given in writing or by electronic transmission to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. A majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee. (Del. Code Ann., tit. 8, §§ 141(c), 229)

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or if the President is absent, the most senior Vice President, (if a director) or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his absence, any Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chairman of the Board of Directors, the Chief Executive Officer, the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer, the Treasurer and the Controller, all of whom shall be elected at the annual organizational meeting of the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers, Assistant Controllers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors. (Del. Code Ann., tit. 8, §§ 122(5), 142(a), (b))

Section 28. Tenure and Duties of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors. (Del. Code Ann., tit. 8, § 141(b), (e))

(b) Duties of Chairman of the Board of Directors. The Chairman of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairman of the Board of Directors shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. If there is no President, then the Chairman of the Board of Directors shall also serve as the Chief Executive Officer of the corporation and shall have the powers and duties prescribed in paragraph (c) of this Section 28. (Del. Code Ann., tit. 8, § 142(a))

(c) Duties of President. The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. Unless some other officer has been elected Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. (Del. Code Ann., tit. 8, § 142(a))

(d) Duties of Vice Presidents. The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. (Del. Code Ann., tit. 8, § 142(a))

(e) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties given him in these Bylaws and other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. (Del. Code Ann., tit. 8, § 142(a))

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. The President may direct the Treasurer or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. (Del. Code Ann., tit. 8, § 142(a))

Section 29. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving written notice to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer. (Del. Code Ann., tit. 8, § 142(b))

Section 31. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by the unanimous written consent of the directors in office at the time, or by any committee or superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation. (Del. Code Ann., tit. 8, §§ 103(a), 142(a), 158)

All checks and drafts drawn on banks or other depositories on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount. (Del. Code Ann., tit. 8, §§ 103(a), 142(a), 158)

Section 33. Voting of Securities Owned by the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President. (Del. Code Ann., tit. 8, § 123)

ARTICLE VII

SHARES OF STOCK

Section 34. Form and Execution of Certificates. Certificates for the shares of stock of the corporation shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock in the corporation shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors, or the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue. Each certificate shall state upon the face or back thereof, in full or in summary, all of the powers, designations, preferences, and rights, and the limitations or restrictions of the shares authorized to be issued or shall, except as otherwise required by law, set forth on the face or back a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional, or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated stock, the corporation shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to this section or otherwise required by law or with respect to this section a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Except as otherwise expressly provided by law, the rights and obligations of the holders of certificates representing stock of the same class and series shall be identical. (Del. Code Ann., tit. 8, § 158)

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or his legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed. (Del. Code Ann., tit. 8, § 167)

Section 36. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and upon the surrender of a properly endorsed certificate or certificates for a like number of shares. (Del. Code Ann., tit. 8, § 201, tit. 6, § 8-401(1))

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the Delaware General Corporation Law. (Del. Code Ann., tit. 8, § 160 (a))

Section 37. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. Any stockholder of record seeking to have the stockholders authorize or take corporate action by written consent shall, by written notice to the Secretary, request the Board of Directors to fix a record date. The Board of Directors shall promptly, but in all events within ten (10) days after the date on which such a request is received, adopt a resolution fixing the record date. If no record date has been fixed by the Board of Directors within ten (10) days of the date on which such a request is received, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by applicable law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of

stockholders are recorded. Delivery made to the corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto. (Del. Code Ann., tit. 8, § 213)

Section 38. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware. (Del. Code Ann., tit. 8, §§ 213(a), 219)

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 39. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 34), may be signed by the Chairman of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however*, that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 40. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law. (Del. Code Ann., tit. 8, §§ 170, 173)

Section 41. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created. (Del. Code Ann., tit. 8, § 171)

ARTICLE X

FISCAL YEAR

Section 42. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 43. Indemnification of Directors and Officers, Employees and Other Agents.

(a) Directors and Officers. The corporation shall indemnify its directors and officers to the fullest extent not prohibited by the Delaware General Corporation Law or any other applicable law; *provided, however*, that the corporation may modify the extent of such indemnification by individual contracts with its directors and officers; and, *provided, further*, that the corporation shall not be required to indemnify any director or officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the Delaware General Corporation Law or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) Employees and Other Agents. The corporation shall have power to indemnify its employees and other agents as set forth in the Delaware General Corporation Law or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person to such officers or other persons as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or officer, of the corporation, or is or was serving at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or officer in connection with such proceeding upon receipt of an undertaking by or on behalf of such person to repay said amounts if it should be determined ultimately that such person is not entitled to be indemnified under this Bylaw or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (c) of this Bylaw, no advance shall be made by the corporation to an officer of the corporation (except by reason of the fact that such officer is or was a director of the corporation, in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to the proceeding, or (ii) if such quorum is not obtainable, or, even if obtainable, a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or officer. Any right to indemnification or advances granted by this Bylaw to a director or officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting his claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the Delaware General Corporation Law or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with

respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the Delaware General Corporation Law or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or officer is not entitled to be indemnified, or to such advancement of expenses, under this Article XI or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the Delaware General Corporation Law or any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director, officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the Delaware General Corporation Law, or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Bylaw.

(h) Amendments. Any repeal or modification of this Bylaw shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and officer to the full extent not prohibited by any applicable portion of this Bylaw that shall not have been invalidated, or by any other applicable law. If this Section 43 shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and officer to the full extent under applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(1) The term "proceeding" shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(2) The term “expenses” shall be broadly construed and shall include, without limitation, court costs, attorneys’ fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the “corporation” shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Bylaw with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a “director,” “executive officer,” “officer,” “employee,” or “agent” of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer, officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to “serving at the request of the corporation” shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this Bylaw.

ARTICLE XII

NOTICES

Section 44. Notices.

(a) **Notice to Stockholders.** Whenever, under any provisions of these Bylaws, notice is required to be given to any stockholder, it shall be given in writing, timely and duly deposited in the United States mail, postage prepaid, and addressed to his last known post office address as shown by the stock record of the corporation or its transfer agent. (Del. Code Ann., tit. 8, § 222)

(b) Notice to Directors. Any notice required to be given to any director may be given by the method stated in subsection (a), or by electronic transmission, overnight delivery service, facsimile, telex or telegram, except that such notice other than one which is delivered personally shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) Affidavit of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained. (Del. Code Ann., tit. 8, § 222)

(d) Time Notices Deemed Given. All notices given by mail or by overnight delivery service, as above provided, shall be deemed to have been given as at the time of mailing, and all notices given by electronic transmission, facsimile, telex or telegram shall be deemed to have been given as of the sending time recorded at time of transmission.

(e) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all directors, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(f) Failure to Receive Notice. The period or limitation of time within which any stockholder may exercise any option or right, or enjoy any privilege or benefit, or be required to act, or within which any director may exercise any power or right, or enjoy any privilege, pursuant to any notice sent him in the manner above provided, shall not be affected or extended in any manner by the failure of such stockholder or such director to receive such notice.

(g) Notice to Person with Whom Communication Is Unlawful. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting that shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the Delaware General Corporation Law, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(h) Notice to Person with Undeliverable Address. Whenever notice is required to be given, under any provision of law or the Certificate of Incorporation or Bylaws of the corporation, to any stockholder to whom (i) notice of two consecutive annual meetings, and all notices of meetings or of the taking of action by written consent without a meeting to such person during the period between such two consecutive annual meetings, or (ii) all, and at least two, payments (if sent by first class mail) of dividends or interest on securities during a

twelve-month period, have been mailed addressed to such person at his address as shown on the records of the corporation and have been returned undeliverable, the giving of such notice to such person shall not be required. Any action or meeting that shall be taken or held without notice to such person shall have the same force and effect as if such notice had been duly given. If any such person shall deliver to the corporation a written notice setting forth his then current address, the requirement that notice be given to such person shall be reinstated. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the Delaware General Corporation Law, the certificate need not state that notice was not given to persons to whom notice was not required to be given pursuant to this paragraph. The exception in this subsection (h) to the requirement that notice be given shall not be applicable to any notice returned as undeliverable if the notice was given by electronic transmission. (Del. Code Ann, tit. 8, § 230)

ARTICLE XIII

AMENDMENTS

Section 45. Amendments. Subject to paragraph (h) of Section 43 of the Bylaws, these Bylaws may be amended or repealed and new Bylaws adopted by the stockholders entitled to vote. The Board of Directors shall also have the power, if such power is conferred upon the Board of Directors by the Certificate of Incorporation, to adopt, amend, or repeal Bylaws (including, without limitation, the amendment of any Bylaw setting forth the number of Directors who shall constitute the whole Board of Directors). (Del. Code Ann., tit. 8, §§109(a), 122(6)).

ARTICLE XIV

RIGHT OF FIRST REFUSAL

Section 46. Right of First Refusal. No stockholder shall sell, assign, pledge, or in any manner transfer any of the shares of common stock of the corporation or any right or interest therein, whether voluntarily or by operation of law, or by gift or otherwise, except by a transfer which meets the requirements hereinafter set forth in this bylaw:

(a) If the stockholder desires to sell or otherwise transfer any of his shares of common stock, then the stockholder shall first give written notice thereof to the corporation. The notice shall name the proposed transferee and state the number of shares to be transferred, the proposed consideration, and all other terms and conditions of the proposed transfer.

(b) For thirty (30) days following receipt of such notice, the corporation shall have the option to purchase all (but not less than all) of the shares specified in the notice at the price and upon the terms set forth in such notice; *provided, however*, that, with the consent of the stockholder, the corporation shall have the option to purchase a lesser portion of the shares specified in said notice at the price and upon the terms set forth therein. In the event of a gift, property settlement or other transfer in which the proposed transferee is not paying the full price for the shares, and that is not otherwise exempted from the provisions of this Section 46, the price shall be deemed to be the fair market value of the stock at such time as determined in good faith by the Board of Directors. In the event the corporation elects to purchase all of the shares or, with consent of the stockholder, a lesser portion of the shares, it shall give written notice to the transferring stockholder of its election and settlement for said shares shall be made as provided below in paragraph (d).

(c) The corporation may assign its rights hereunder.

(d) In the event the corporation and/or its assignee(s) elect to acquire any of the shares of the transferring stockholder as specified in said transferring stockholder's notice, the Secretary of the corporation shall so notify the transferring stockholder and settlement thereof shall be made in cash within thirty (30) days after the Secretary of the corporation receives said transferring stockholder's notice; provided that if the terms of payment set forth in said transferring stockholder's notice were other than cash against delivery, the corporation and/or its assignee(s) shall pay for said shares on the same terms and conditions set forth in said transferring stockholder's notice.

(e) In the event the corporation and/or its assignees(s) do not elect to acquire all of the shares specified in the transferring stockholder's notice, said transferring stockholder may, within the sixty-day period following the expiration of the option rights granted to the corporation and/or its assignees(s) herein, transfer the shares specified in said transferring stockholder's notice which were not acquired by the corporation and/or its assignees(s) as specified in said transferring stockholder's notice. All shares so sold by said transferring stockholder shall continue to be subject to the provisions of this bylaw in the same manner as before said transfer.

(f) Anything to the contrary contained herein notwithstanding, the following transactions shall be exempt from the provisions of this bylaw:

(1) A stockholder's transfer of any or all shares held either during such stockholder's lifetime or on death by will or intestacy to such stockholder's immediate family or to any custodian or trustee for the account of such stockholder or such stockholder's immediate family or to any limited partnership of which the stockholder, members of such stockholder's immediate family or any trust for the account of such stockholder or such stockholder's immediate family will be the general or limited partner(s) of such partnership. "Immediate family" as used herein shall mean spouse, lineal descendant, father, mother, brother, or sister of the stockholder making such transfer.

(2) A stockholder's bona fide pledge or mortgage of any shares with a commercial lending institution, provided that any subsequent transfer of said shares by said institution shall be conducted in the manner set forth in this bylaw.

(3) A stockholder's transfer of any or all of such stockholder's shares to the corporation or to any other stockholder of the corporation.

(4) A stockholder's transfer of any or all of such stockholder's shares to a person who, at the time of such transfer, is an officer or director of the corporation.

(5) A corporate stockholder's transfer of any or all of its shares pursuant to and in accordance with the terms of any merger, consolidation, reclassification of shares or capital reorganization of the corporate stockholder, or pursuant to a sale of all or substantially all of the stock or assets of a corporate stockholder.

(6) A corporate stockholder's transfer of any or all of its shares to any or all of its stockholders.

(7) A transfer by a stockholder that is a limited or general partnership to any or all of its partners or former partners.

In any such case, the transferee, assignee, or other recipient shall receive and hold such stock subject to the provisions of this bylaw, and there shall be no further transfer of such stock except in accord with this bylaw.

(g) The provisions of this bylaw may be waived with respect to any transfer either by the corporation, upon duly authorized action of its Board of Directors, or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation (excluding the votes represented by those shares to be transferred by the transferring stockholder). This bylaw may be amended or repealed either by a duly authorized action of the Board of Directors or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation.

(h) Any sale or transfer, or purported sale or transfer, of securities of the corporation shall be null and void unless the terms, conditions, and provisions of this bylaw are strictly observed and followed.

(i) The foregoing right of first refusal shall terminate on either of the following dates, whichever shall first occur:

(1) On January 30, 2012; or

(2) Upon the date securities of the corporation are first offered to the public pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Securities Act of 1933, as amended.

(j) The certificates representing shares of stock of the corporation shall bear on their face the following legend so long as the foregoing right of first refusal remains in effect:

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION AND/OR ITS ASSIGNEE(S), AS PROVIDED IN THE BYLAWS OF THE CORPORATION."

ARTICLE XV

LOANS TO OFFICERS

Section 47. Loans to Officers. The corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a Director of the corporation or its

subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute. (Del. Code Ann., tit. 8, § 143)

ARTICLE XVI

MISCELLANEOUS

Section 48. Annual Report.

(a) Subject to the provisions of paragraph (b) of this Bylaw, the Board of Directors shall cause an annual report to be sent to each stockholder of the corporation not later than one hundred twenty (120) days after the close of the corporation's fiscal year. Such report shall include a balance sheet as of the end of such fiscal year and an income statement and statement of changes in financial position for such fiscal year, accompanied by any report thereon of independent accounts or, if there is no such report, the certificate of an authorized officer of the corporation that such statements were prepared without audit from the books and records of the corporation. When there are more than 100 stockholders of record of the corporation's shares, as determined by Section 605 of the CGCL, additional information as required by Section 1501(b) of the CGCL shall also be contained in such report, provided that if the corporation has a class of securities registered under Section 12 of the 1934 Act, that Act shall take precedence. Such report shall be sent to stockholders at least fifteen (15) days prior to the next annual meeting of stockholders after the end of the fiscal year to which it relates.

(b) If and so long as there are fewer than 100 holders of record of the corporation's shares, the requirement of sending of an annual report to the stockholders of the corporation is hereby expressly waived.

CODEXIS, INC.
FIFTH AMENDED AND RESTATED
INVESTOR RIGHTS AGREEMENT
March 4, 2009

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CODEXIS, INC.

FIFTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

This Fifth Amended and Restated Investor Rights Agreement (the "Agreement") is entered into as of March 4, 2009, by and among Codexis, Inc., a Delaware corporation (the "Company") and the investors listed on Exhibit A hereto, referred to hereinafter as the "Investors" and each individually as an "Investor."

RECITALS

WHEREAS, certain of the Investors hold shares of the Company's Series A Preferred Stock, \$.0001 par value per share (the "Series A Stock"), Series B Preferred Stock, \$.0001 par value per share (the "Series B Stock"), Series C Preferred Stock, \$.0001 par value per share (the "Series C Stock"), Series D Preferred Stock, \$.0001 par value per share (the "Series D Stock") and/or Series E Preferred Stock, \$.0001 par value per share (the "Series E Stock"), and possess registration rights, information rights, rights of first offer, and other rights pursuant to that certain Fourth Amended and Restated Investors' Rights Agreement dated as of November 13, 2007, as amended, by and among the Company and such Investors (the "Prior Agreement");

WHEREAS, certain of the Investors and the Company are parties to that certain Series F Preferred Stock Purchase Agreement of even date herewith (the "Purchase Agreement") which contemplates the sale of Series F Preferred Stock, \$.0001 par value per share (the "Series F Stock") to such Investors (the "Financing");

WHEREAS, the parties to the Prior Agreement desire to terminate the Prior Agreement and accept the rights and covenants hereof in lieu of their rights and covenants under the Prior Agreement;

WHEREAS, the obligations in the Purchase Agreement are conditioned upon the execution and delivery of this Agreement; and

WHEREAS, in connection with the consummation of the Financing, the parties desire to enter into this Agreement in order to grant registration, information rights and other rights to the Investors as set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the representations, warranties, covenants and agreements contained in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree that the Prior Agreement shall be superseded and replaced in its entirety by this Agreement, and the parties hereto further agree as follows:

SECTION 1. GENERAL.

1.1 Definitions. As used in this Agreement the following terms shall have the following respective meanings:

- (a) "Affiliate" means any corporation or other entity that is directly or indirectly controlling, controlled by or under common control with a party hereto, or any investment funds with the same manager or advisor as a party hereto. For the purpose of this definition, "control" shall mean the direct or indirect ownership of at least fifty percent (50%) of the outstanding shares or other voting rights of the subject entity to elect directors or the equivalent governing body, or if not meeting the preceding, any entity owned or controlled by or owning or controlling the maximum control or ownership right permitted in the country where such entity exists.
- (b) "Exchange Act" means the Securities Exchange Act of 1934, as amended.
- (c) "Form S-3" means such form under the Securities Act as in effect on the date hereof or any successor or similar registration form under the Securities Act subsequently adopted by the SEC that permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.
- (d) "Holder" means any person owning of record Registrable Securities that have not been sold to the public or any assignee of record of such Registrable Securities in accordance with Section 2.10 hereof.
- (e) "Initial Offering" means the Company's first firm commitment underwritten public offering of its Common Stock registered under the Securities Act that results in the Preferred Stock being converted into Common Stock.
- (f) "Initiating Holders" shall mean Holders of Registrable Securities who in the aggregate hold not less than thirty percent (30%) of the outstanding Registrable Securities.
- (g) "Preferred Stock" means the Series A Stock, the Series B Stock, the Series C Stock, the Series D Stock, the Series E Stock and the Series F Stock.
- (h) "Register," "registered," and "registration" refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement or document.
- (i) "Registrable Securities" means (a) Common Stock of the Company issued or issuable upon conversion of the Shares and the exercise of any warrants and (b) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, such above-described securities. Notwithstanding the foregoing, Registrable Securities shall not include any securities sold by a person to the public either pursuant to a registration statement or Rule 144 or sold in a private transaction in which the transferor's rights under Section 2 of this Agreement are not assigned.

(j) "Registrable Securities then outstanding" shall be the number of shares determined by calculating the total number of shares of the Company's Common Stock that are Registrable Securities and either (a) are then issued and outstanding or (b) are issuable pursuant to then exercisable or convertible securities.

(k) "Registration Expenses" shall mean all expenses incurred by the Company in complying with Sections 2.2, 2.3, 2.4 and 2.6 hereof, including, without limitation, all registration and filing fees, printing expenses, fees and disbursements of counsel for the Company, reasonable fees and disbursements of counsel for the Holders not to exceed (a) fifty thousand dollars (\$50,000) in the aggregate in the case of a registration on Form S-1 or its equivalent or (b) twenty five thousand dollars (\$25,000) in the aggregate in the case of a registration on Form S-3 or its equivalent, blue sky fees and expenses and the expense of any special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company, which shall be paid in any event by the Company).

(l) "SEC" or "Commission" means the Securities and Exchange Commission.

(m) "Securities Act" shall mean the Securities Act of 1933, as amended.

(n) "Selling Expenses" shall mean all underwriting discounts and selling commissions applicable to the sale.

(o) "Senior Officer" shall mean the Chief Executive Officer, Chief Financial Officer, General Counsel, President or any Senior Vice President of the Company.

(p) "Shares" shall mean the Company's Series F Stock issued pursuant to the Purchase Agreement and the Series A Stock, Series B Stock, Series C Stock, the Series D Stock and the Series E Stock of the Company held by certain Investors listed on Exhibit A hereto and their permitted assigns.

(q) "Special Registration Statement" shall mean (i) a registration statement relating to any employee benefit plan or (ii) with respect to any corporate reorganization or transaction under Rule 145 of the Securities Act, including any registration statements related to the resale of securities issued in such a transaction or (iii) a registration related to stock issued or issuable upon conversion of debt securities.

SECTION 2. REGISTRATION; RESTRICTIONS ON TRANSFER.

2.1 Restrictions on Transfer.

(a) Each Holder agrees not to make any disposition of all or any portion of the Shares or Registrable Securities unless and until:

(i) There is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with such registration statement; or

(ii)(A) The transferee has agreed in writing to be bound by the terms of this Agreement, (B) such Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and (C) if reasonably requested by the Company, such Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, that such disposition will not require registration of such shares under the Securities Act. It is agreed that the Company will not require opinions of counsel for transactions made pursuant to Rule 144, except in unusual circumstances. After its Initial Offering, the Company will not require the transferee to be bound by the terms of Section 2.1(a)(ii) of this Agreement.

(iii) Notwithstanding the provisions of paragraphs (i) and (ii) above, no such registration statement or opinion of counsel shall be necessary for a transfer by a Holder that is (A) a partnership transferring to its partners or former partners in accordance with partnership interests, (B) a corporation transferring to a wholly-owned subsidiary or a parent corporation that owns all of the capital stock of the Holder, (C) a limited liability company transferring to its members or former members in accordance with their interest in the limited liability company, (D) an individual transferring to the Holder's family member or trust for the benefit of an individual Holder, or (E) an Affiliate; provided, however, that in each case the transferee will be subject to the terms of this Agreement to the same extent as if he were an original Holder hereunder.

(b) Each certificate representing Shares or Registrable Securities shall (unless otherwise permitted by the provisions of the Agreement) be stamped or otherwise imprinted with a legend substantially similar to the following (in addition to any legend required under applicable state securities laws):

THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO THE TERMS AND CONDITIONS OF AN INVESTOR RIGHTS AGREEMENT THAT PLACES CERTAIN RESTRICTIONS ON THE TRANSFER OF THE SHARES REPRESENTED HEREBY. A COPY OF SUCH INVESTOR RIGHTS AGREEMENT WILL BE FURNISHED TO THE RECORD HOLDER OF THIS CERTIFICATE WITHOUT CHARGE UPON WRITTEN REQUEST TO THE COMPANY AT ITS PRINCIPAL PLACE OF BUSINESS.

(c) The Company shall be obligated to reissue promptly unlegended certificates at the request of any Holder thereof if the Holder shall have obtained an opinion of counsel (which counsel may be counsel to the Company) reasonably acceptable to the Company to the effect that the securities proposed to be disposed of may lawfully be so disposed of without registration, qualification or legend.

(d) Any legend endorsed on an instrument pursuant to applicable state securities laws and the stop-transfer instructions with respect to such securities shall be removed upon receipt by the Company of an order of the appropriate blue sky authority authorizing such removal.

2.2 Demand Registration.

(a) Subject to the conditions of this Section 2.2, if the Company shall receive a written request from the Initiating Holders that the Company file a registration statement under the Securities Act covering the registration of Registrable Securities with an anticipated aggregate offering price, net of underwriting discounts and commissions, of at least ten million dollars (\$10,000,000) (a “Qualified Public Offering”), then the Company shall, within thirty (30) days of the receipt thereof, give written notice of such request to all Holders, and subject to the limitations of this Section 2.2, effect, as expeditiously as reasonably possible, the registration under the Securities Act of all Registrable Securities that the Holders request to be registered.

(b) If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to this Section 2.2 or any request pursuant to Section 2.4 and the Company shall include such information in the written notice referred to in Section 2.2(a) or Section 2.4(a), as applicable. In such event, the right of any Holder to include its Registrable Securities in such registration shall be conditioned upon such Holder’s participation in such underwriting and the inclusion of such Holder’s Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by a majority in interest of the Initiating Holders (which underwriter or underwriters shall be reasonably acceptable to the Company). Notwithstanding any other provision of this Section 2.2 or Section 2.4, if the underwriter advises the Company that marketing factors require a limitation of the number of securities to be underwritten (including Registrable Securities) then the Company shall so advise all Holders of Registrable Securities that would otherwise be underwritten pursuant hereto, and the number of shares that may be included in the underwriting shall be allocated to the Holders of such Registrable Securities on a *pro rata* basis based on the number of Registrable Securities held by all such Holders (including the Initiating Holders); provided, however, that the number of shares of Registrable Securities to be included in such underwriting and registration shall not be reduced unless all other securities of the Company are first entirely excluded from the underwriting and registration. Any Registrable Securities excluded or withdrawn from such underwriting shall be withdrawn from the registration.

(c) The Company shall not be required to effect a registration pursuant to this Section 2.2:

(i) prior to the earlier of (A) March 4, 2012 or (B) one hundred eighty (180) days following the effective date of the registration statement pertaining to the Initial Offering;

(ii) after the Company has effected two (2) registrations pursuant to this Section 2.2, and such registrations have been declared or ordered effective;

(iii) during the period starting with the date of filing of, and ending on the date one hundred eighty (180) days following the effective date of the registration statement pertaining to the Initial Offering; provided, however, that the Company makes reasonable best efforts to cause such registration statement to become effective;

(iv) if within thirty (30) days of receipt of a written request from Initiating Holders pursuant to Section 2.2(a), the Company gives notice to the Holders of the Company's intention to file a registration statement for its Initial Offering within ninety (90) days;

(v) if the Company shall furnish to Holders requesting a registration statement pursuant to this Section 2.2, a certificate signed by the Chairman of the Board stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such registration statement to be effected at such time, in which event the Company shall have the right to defer such filing for a period of not more than one hundred twenty (120) days after receipt of the request of the Initiating Holders; provided that such right to delay a request shall be exercised by the Company not more than once in any twelve (12) month period; or

(vi) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

2.3 Piggyback Registrations. The Company shall notify all Holders of Registrable Securities in writing at least fifteen (15) days prior to the filing of any registration statement under the Securities Act for purposes of a public offering of securities of the Company (including, but not limited to, registration statements relating to secondary offerings of securities of the Company, but excluding Special Registration Statements) and will afford each such Holder an opportunity to include in such registration statement all or part of such Registrable Securities held by such Holder. Each Holder desiring to include in any such registration statement all or any part of the Registrable Securities held by it shall, within seven (7) days after the above-described notice from the Company, so notify the Company in writing. Such notice shall state the intended method of disposition of the Registrable Securities by such Holder. If a Holder decides not to include all of its Registrable Securities in any registration statement thereafter filed by the Company, such Holder shall nevertheless continue to have the right to include any Registrable Securities in any subsequent registration statement or registration statements as may be filed by the Company with respect to offerings of its securities, all upon the terms and conditions set forth herein.

(a) Underwriting. If the registration statement under which the Company gives notice under this Section 2.3 is for an underwritten offering, the Company shall so advise the Holders of Registrable Securities. In such event, the right of any such Holder to be included in a registration pursuant to this Section 2.3 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their Registrable Securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company. Notwithstanding any other provision of this Agreement, if the underwriter determines in good faith that marketing factors require a limitation of the number of shares to be underwritten, the number of shares that

may be included in the underwriting shall be allocated, first, to the Company; second, to the Holders on *pro rata* basis based on the total number of Registrable Securities held by the Holders; and third, to any stockholder of the Company (other than a Holder) on a *pro rata* basis. No such reduction shall reduce the amount of securities of the selling Holders included in the registration below twenty-five percent (25%) of the total amount of securities included in such registration, unless such offering is the Initial Offering and such registration does not include shares of any other selling stockholders, in which event any or all of the Registrable Securities of the Holders may be excluded in accordance with the immediately preceding sentence. If any Holder disapproves of the terms of any such underwriting, such Holder may elect to withdraw therefrom by written notice to the Company and the underwriter, delivered at least ten (10) business days prior to the effective date of the registration statement. Any Registrable Securities excluded or withdrawn from such underwriting shall be excluded and withdrawn from the registration. For any Holder that is a partnership, limited liability company or corporation, the partners, retired partners, members, retired members and stockholders of such Holder, or the estates and family members of any such partners, retired partners, member and retired members and any trusts for the benefit of any of the foregoing person shall be deemed to be a single "Holder," and any *pro rata* reduction with respect to such "Holder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "Holder," as defined in this sentence.

(b) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.3 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration. The Registration Expenses of such withdrawn registration shall be borne by the Company in accordance with Section 2.5 hereof.

2.4 Form S-3 Registration . In case the Company shall receive from any Holder or Holders of Registrable Securities a written request or requests that the Company effect a registration on Form S-3 (or any successor to Form S-3) or any similar short-form registration statement and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, the Company will:

(a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders of Registrable Securities; and

(b) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Holder's or Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a written request given within fifteen (15) days after receipt of such written notice from the Company; provided, however, that the Company shall not be obligated to effect any such registration, qualification or compliance pursuant to this Section 2.4:

(i) if Form S-3 is not available for such offering by the Holders;

(ii) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public of less than one million dollars (\$1,000,000);

(iii) if within thirty (30) days of receipt of a written request from any Holder or Holders pursuant to this Section 2.4, the Company gives notice to such Holder or Holders of the Company's intention to make a public offering within ninety (90) days, other than pursuant to a Special Registration Statement;

(iv) if the Company shall furnish to the Holders a certificate signed by the Chairman of the Board of Directors of the Company stating that in the good faith judgment of the Board of Directors of the Company, it would be seriously detrimental to the Company and its stockholders for such Form S-3 registration to be effected at such time, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than ninety (90) days after receipt of the request of the Holder or Holders under this Section 2.4; provided, that such right to delay a request shall be exercised by the Company not more than once in any twelve (12) month period;

(v) if the Company has, within the twelve (12) month period preceding the date of such request, already effected two (2) registrations on Form S-3 for the Holders pursuant to this Section 2.4; or

(vi) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

(c) Subject to the foregoing, the Company shall file a Form S-3 registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the requests of the Holders. Registrations effected pursuant to this Section 2.4 shall not be counted as demands for registration or registrations effected pursuant to Sections 2.2 or 2.3, respectively. All Registration Expenses incurred in connection with registrations requested pursuant to this Section 2.4 after the first two (2) registrations shall be paid by the selling Holders *pro rata* in proportion to the number of shares sold by each such Holder.

2.5 Expenses of Registration. Except as specifically provided herein, all Registration Expenses incurred in connection with any registration, qualification or compliance pursuant to Section 2.2 or any registration under Section 2.3 or Section 2.4 herein shall be borne by the Company. All Selling Expenses incurred in connection with any registrations hereunder shall be borne by the holders of the securities so registered *pro rata* on the basis of the number of shares so registered. The Company shall not, however, be required to pay for expenses of any registration proceeding begun pursuant to Section 2.2 or 2.4, the request of which has been subsequently withdrawn by the Initiating Holders unless (a) the withdrawal is based upon material adverse information concerning the Company of which the Initiating Holders were not aware at the time of such request or (b) the Holders of a majority of Registrable Securities agree to forfeit their right to one requested registration pursuant to Section 2.2 or Section 2.4, as

applicable, in which event such right shall be forfeited by all Holders. If the Holders are required to pay the Registration Expenses, such expenses shall be borne by the holders of securities (including Registrable Securities) requesting such registration in proportion to the number of shares for which registration was requested. If the Company is required to pay the Registration Expenses of a withdrawn offering pursuant to clause (a) above, then the Holders shall not forfeit their rights pursuant to Section 2.2 or Section 2.4 to a demand registration.

2.6 Obligations of the Company. Whenever required to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) Prepare and file with the SEC a registration statement with respect to such Registrable Securities and use all reasonable best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for up to one hundred twenty (120) days or, if earlier, until the Holder or Holders have completed the distribution related thereto; provided, however, that at any time, upon written notice to the participating Holders and for a period not to exceed sixty (60) days thereafter (the "Suspension Period"), the Company may delay the filing or effectiveness of any registration statement or suspend the use or effectiveness of any registration statement (and the Initiating Holders hereby agree not to offer or sell any Registrable Securities pursuant to such registration statement during the Suspension Period) if the Company reasonably believes that the Company may, in the absence of such delay or suspension hereunder, be required under state or federal securities laws to disclose any corporate development the disclosure of which could reasonably be expected to have an adverse effect upon the Company, its stockholders, a potentially significant transaction or event involving the Company, or any negotiations, discussions, or proposals directly relating thereto. No more than two (2) such Suspension Periods shall occur in any twelve (12) month period. In the event that the Company shall exercise its rights hereunder, the applicable time period during which the registration statement is to remain effective shall be extended by a period of time equal to the duration of the Suspension Period. The Company may extend the Suspension Period for an additional consecutive sixty (60) days with the consent of the holders of a majority of the Registrable Securities proposed to be sold by the Initiating Holders, which consent shall not be unreasonably withheld. If so directed by the Company, the Initiating Holders shall use their reasonable efforts to deliver to the Company (at the Company's expense) all copies, other than permanent file copies then in such Initiating Holders' possession, of the prospectus relating to such Registrable Securities current at the time of receipt of such notice.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement for the period set forth in paragraph (a) above.

(c) Furnish to the Holders such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them.

(d) Use its reasonable best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; provided, however that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter(s) of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing. The Company will use reasonable best efforts to amend or supplement such prospectus in order to cause such prospectus not to include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing.

(g) Furnish, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, (i) an opinion, dated as of such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, if any, and (ii) a letter, dated as of such date, from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering addressed to the underwriters.

2.7 Termination of Registration Rights. All registration rights granted under this Section 2 shall terminate and be of no further force and effect five (5) years after the date of the Company's Initial Offering. In addition, a Holder's registration rights shall expire if (a) the Company has completed its Initial Offering and is subject to the provisions of the Exchange Act, (b) such Holder (together with its affiliates) holds less than 1% of the Company's outstanding Common Stock (treating all shares of convertible Preferred Stock on an as converted basis) and (c) all Registrable Securities held by and issuable to such Holder (and its affiliates) may be sold under Rule 144 promulgated under Securities Act during any ninety (90) day period.

2.8 Delay of Registration; Furnishing Information.

(a) No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

(b) It shall be a condition precedent to the obligations of the Company to take any action pursuant to Section 2.2, 2.3 or 2.4 that the selling Holders shall furnish to the Company such information regarding themselves, the Registrable Securities held by them and the intended method of disposition of such securities as shall be required to effect the registration of their Registrable Securities.

(c) The Company shall have no obligation with respect to any registration requested pursuant to Section 2.2 or Section 2.4 if, due to the operation of subsection 2.2(b), the anticipated aggregate offering price of the Registrable Securities to be included in the registration does not equal or exceed the anticipated aggregate offering price required to originally trigger the Company's obligation to initiate such registration as specified in Section 2.2 or Section 2.4, whichever is applicable.

2.9 Indemnification. In the event any Registrable Securities are included in a registration statement under Sections 2.2, 2.3 or 2.4:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, the partners, members, officers and directors of each Holder, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively, "Violations") by the Company: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law in connection with the offering covered by such registration statement; and the Company will pay as incurred to each such Holder, partner, member, officer, director, underwriter or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the indemnity agreement contained in this Section 2.9(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable in any such case for any such loss, claim, damage, liability or action to the extent that it arises out of or is based upon a Violation that occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by such Holder, partner, member, officer, director, underwriter or controlling person of such Holder.

(b) To the extent permitted by law, each Holder will, severally but not jointly, if Registrable Securities held by such Holder are included in the securities as to which such registration qualifications or compliance is being effected, indemnify and hold harmless the Company, each of its directors, its officers and each person, if any, who controls the Company

within the meaning of the Securities Act, any underwriter and any other Holder selling securities under such registration statement or any of such other Holder's partners, members, directors or officers or any person who controls such Holder, against any losses, claims, damages or liabilities to which the Company or any such director, officer, controlling person, underwriter or other such Holder, or partner, member, director, officer or controlling person of such other Holder may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder under an instrument duly executed by such Holder and stated to be specifically for use in connection with such registration; and each such Holder will pay as incurred any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, underwriter or other Holder, or partner, member, officer, director or controlling person of such other Holder in connection with investigating or defending any such loss, claim, damage, liability or action if it is judicially determined that there was such a Violation; provided, however, that the indemnity agreement contained in this Section 2.9(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; provided further, that in no event shall any indemnity under this Section 2.9 exceed the net proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.9 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.9, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party shall have the right to retain its own counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if materially prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.9, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.9.

(d) If the indemnification provided for in this Section 2.9 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages or liabilities referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall to the extent permitted by applicable law contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the Violation(s) that resulted in such loss, claim, damage or liability, as well as any other relevant equitable

considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; provided, that, in no event shall any contribution by a Holder hereunder exceed the net proceeds from the offering received by such Holder.

(e) The obligations of the Company and Holders under this Section 2.9 shall survive completion of any offering of Registrable Securities in a registration statement and the termination of this Agreement. No indemnifying party, in the defense of any such claim or litigation, shall, except with the consent of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation.

2.10 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned by a Holder to a transferee or assignee of Registrable Securities that (a) is a subsidiary, parent, general partner, limited partner, retired partner, member or retired member of a Holder, (b) is a Holder's family member or trust for the benefit of an individual Holder, or (c) acquires at least fifty thousand (50,000) shares of Registrable Securities (as adjusted for stock splits and combinations); or (d) is an Affiliate of such Holder provided, however, (i) the transferor shall, within ten (10) days after such transfer, furnish to the Company written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned and (ii) such transferee shall agree in writing to be subject to all restrictions set forth in this Agreement.

2.11 Limitation on Subsequent Registration Rights. Other than as provided in Section 5.11, after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of at least two-thirds of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would grant such holder registration rights *pari passu* or senior to those granted to the Holders hereunder, other than the right to a Special Registration Statement ("Subsequent Registration Rights").

2.12 "Market Stand-Off" Agreement. Each Holder hereby agrees that such Holder shall not sell, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any Common Stock (or other securities) of the Company held by such Holder (other than those included in the registration and Common Stock purchased by a Holder in the open market after the effective date of such registration statement) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of a registration statement of the Company filed under the Securities Act (or such longer period, not to exceed thirty-four (34) days after the expiration of the 180-day period as the underwriters or the Company shall request in order to facilitate compliance with National Association of Securities Dealers Rule 2711); provided that:

(i) such agreement shall apply only to the Company's Initial Offering; and

(ii) all executive officers and directors of the Company and holders of at least one percent (1%) of the Company's capital stock (on an as converted basis) and all other persons with registration rights (whether or not pursuant to this Agreement) enter into similar agreements.

2.13 Agreement to Furnish Information. Each Holder agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter that are consistent with the Holder's obligations under Section 2.12 or that are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, each Holder shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in Section 2.12 and this Section 2.13 shall not apply to a Special Registration. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of the one hundred eighty (180) day (or two hundred fourteen (214) day) period, if applicable. Each Holder agrees that any transferee of any shares of Registrable Securities shall be bound by Sections 2.12 and 2.13. The underwriters of the Company's stock are intended third party beneficiaries of Sections 2.12 and 2.13 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

2.14 Rule 144 Reporting. With a view to making available to the Holders the benefits of certain rules and regulations of the SEC that may permit the sale of the Registrable Securities to the public without registration, the Company agrees to use its reasonable best efforts to:

- (a) Make and keep public information available, as those terms are understood and defined in SEC Rule 144 or any similar or analogous rule promulgated under the Securities Act, at all times after the effective date of the first registration filed by the Company for an offering of its securities to the general public;
- (b) File with the SEC, in a timely manner, all reports and other documents required of the Company under the Exchange Act; and
- (c) So long as a Holder owns any Registrable Securities, furnish to such Holder forthwith upon request: a written statement by the Company as to its compliance with the reporting requirements of Rule 144 of the Securities Act, and of the Exchange Act (at any time after it has become subject to such reporting requirements); a copy of the most recent annual or quarterly report of the Company; and such other reports and documents as a Holder may reasonably request in availing itself of any rule or regulation of the SEC allowing it to sell any such securities without registration.

SECTION 3. COVENANTS OF THE COMPANY

3.1 Basic Financial Information and Reporting

(a) The Company will maintain true books and records of account in which full and correct entries will be made of all its business transactions pursuant to a system of accounting established and administered in accordance with United States generally accepted accounting principles consistently applied, and will set aside on its books all such proper accruals and reserves as shall be required under generally accepted accounting principles consistently applied.

(b) As soon as practicable after the end of each fiscal year of the Company, and in any event within one hundred and twenty (120) days thereafter, the Company will furnish each Investor a balance sheet of the Company, as at the end of such fiscal year, and a statement of income and a statement of cash flows of the Company, for such year, all prepared in accordance with United States generally accepted accounting principles consistently applied and setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail. Such financial statements shall be accompanied by a report and opinion thereon by independent public accountants of national standing selected by the Company's Board of Directors.

(c) The Company will furnish each Investor, as soon as practicable after the end of the first, second and third quarterly accounting periods in each fiscal year of the Company, and in any event within forty-five (45) days thereafter, a balance sheet of the Company as of the end of each such quarterly period and a statement of income of the Company for such period and for the current fiscal year to date, prepared in accordance with United States generally accepted accounting principles, with the exception that no notes need be attached to such statements and year-end audit adjustments may not have been made.

(d) So long as an Investor (with its Affiliates) shall own not less than one hundred thousand (100,000) shares of Registrable Securities (as adjusted for stock splits and combinations) (a "Major Investor"), the Company will furnish each such Major Investor: (i) at least sixty (60) days prior to the beginning of each fiscal year an annual budget and operating plans for such fiscal year (and as soon as available, any subsequent revisions thereto); and (ii) as soon as practicable after the end of each month, and in any event within thirty (30) days thereafter, a statement of income of the Company for such month and for the current fiscal year to date, including a comparison to plan figures for such period, prepared in accordance with United States generally accepted accounting principles consistently applied, with the exception that no notes need be attached to such statements and year-end audit adjustments may not have been made.

3.2 Stockholder/Option Lists. The Company will furnish each Major Investor, upon written request, a stockholder list for the Company and an option holder list for the Company.

3.3 Inspection Rights. Each Major Investor shall have the right to visit and inspect any of the properties of the Company or any of its subsidiaries, and to discuss the affairs, finances and accounts of the Company or any of its subsidiaries with its officers, and to review such information as is reasonably requested all at such reasonable times and as often as may be

reasonably requested; provided, however, that the Company shall not be obligated under this Section 3.3 with respect to a competitor of the Company or with respect to information that the Board of Directors determines in good faith is confidential and should not, therefore, be disclosed.

3.4 Confidentiality of Records. Each Holder agrees to use, and to use reasonable efforts to ensure that its authorized representatives use, the same degree of care as such recipient uses to protect its own confidential information to keep confidential any information furnished to it pursuant to this Section 3 and any other information identified as proprietary or confidential except such information that (i) was in the public domain prior to the time it was furnished to such recipient, (ii) is or becomes (through no willful or improper action or inaction by such recipient) generally available to the public, (iii) was in its possession or known by such recipient (as evidenced by written records) without restriction prior to receipt from the Company, (iv) was rightfully disclosed to such recipient by a third party without restriction or (v) was independently developed (as evidenced by written records) without any use of the Company's confidential information. Furthermore, nothing contained herein shall prevent any Holder or Permitted Disclosee (as defined below) from (a) entering into any business, entering into any agreement with a third party, or investing in or engaging in investment discussions with any other company (whether or not competitive with the Company), provided that such Holder or Permitted Disclosee does not, except as permitted in accordance with this Section 3.4, disclose any proprietary or confidential information of the Company in connection with such activities, or (b) making any disclosures required by law, rule, regulation or court or other governmental order. Notwithstanding the foregoing, any such Holder may disclose such proprietary or confidential information to any former, current or prospective partner, affiliated company, limited partner, general partner or management company of such Holder (or any employee or representative of any of the foregoing) (each of the foregoing persons, a "Permitted Disclosee") or legal counsel, accountants or representatives for such Holder or Permitted Disclosee, so long as such Permitted Disclosees are subject to equivalent confidentiality obligations. Notwithstanding the foregoing confidentiality provisions, a Holder (and any of the Holder's respective employees, representatives, or other agents) may disclose to any and all persons, without limitation of any kind, the tax treatment and tax structure of the transaction contemplated by the Purchase Agreement and all materials of any kind (including opinions or other tax analyses) that are provided relating to such tax treatment and tax structure. In addition, at no time will a Holder be subject to any restriction concerning its consultation with its tax advisors regarding the tax treatment or tax structure of the transaction contemplated by the Purchase Agreement.

3.5 Reservation of Common Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the conversion of the Preferred Stock, all Common Stock issuable from time to time upon such conversion.

3.6 Stock Vesting. Unless otherwise approved by the Board of Directors, all stock options and other stock equivalents issued after the date of this Agreement to employees, directors, consultants and other service providers shall be subject to vesting as follows: (a) twenty-five percent (25%) of such stock shall vest at the end of the first year following the earlier of the date of issuance or such person's services commencement date with the company, and (b) seventy-five percent (75%) of such stock shall vest over the remaining three (3) years. With respect to any shares of stock purchased by any such person, the Company's repurchase

option shall provide that upon such person's termination of employment or service with the Company, with or without cause, the Company or its assignee shall have the option to purchase at cost any unvested shares of stock held by such person.

3.7 Proprietary Information and Inventions Agreement. The Company shall require all employees and consultants to execute and deliver the Company's standard form Proprietary Information and Inventions Agreement.

3.8 Approval of Director/Management Transactions. The Company shall not, without the approval of a majority of the non-interested directors, authorize or enter into any transactions with any director or management employee, or such director's or employee's immediate family.

3.9 Approval of Maxygen Transactions. From and after October 1, 2002, the Company has not and shall not authorize or enter into any contracts or agreements with Maxygen, Inc. ("Maxygen") or its Affiliates without the approval of a majority of the non-interested directors.

3.10 Directors' Liability and Indemnification. The Company's Certificate of Incorporation and Bylaws shall provide (a) for elimination of the liability of directors to the maximum extent permitted by law and (b) for indemnification of directors for acts on behalf of the Company to the maximum extent permitted by law. In addition, the Company shall enter into and at all times maintain indemnification contracts substantially in the form attached as Exhibit B hereto with each of its directors to indemnify such directors to the maximum extent permissible under Delaware law

3.11 Compensation Committee. The Company shall maintain a compensation committee of the Board of Directors. The approval of the compensation committee will be required to (i) hire or terminate any Senior Officer, (ii) change the base salary of any Senior Officer or (iii) grant any cash bonus to any Senior Officer.

3.12 Budget Approval. The Company shall not, without the approval of the Board of Directors, approve any annual budget of the Company or any formal amendment thereto.

3.13 Observer Rights. As long as Biomedical Sciences Investment Fund Pte Ltd ("Bio*One") owns not less than fifty percent (50%) of the number of shares of Series D Preferred Stock (or an equivalent amount of Common Stock issued upon conversion thereof) originally purchased by Bio*One, the Company shall invite a representative of Bio*One to attend all meetings of its Board of Directors in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents and other materials that it provides to its directors; provided, however, that such representative shall agree to hold in confidence and trust and to act in a fiduciary manner with respect to all information so provided; and, provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof (i) to protect confidential proprietary information, or (ii) if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or would result in disclosure of trade secrets to such representative or if such Investor or its representative is or is affiliated with a direct competitor of the Company.

3.14 Termination of Covenants. All covenants of the Company contained in Section 3 of this Agreement shall expire and terminate as to each Investor upon the earlier of (i) the effective date of the registration statement pertaining to the Initial Offering that results in the Preferred Stock being converted into Common Stock or (ii) upon (a) the sale, lease or other disposition of all or substantially all of the assets of the Company or (b) an acquisition of the Company by another corporation or entity by consolidation, merger or other reorganization in which the holders of the Company's outstanding voting stock immediately prior to such transaction own, immediately after such transaction, securities representing less than fifty percent (50%) of the voting power of the corporation or other entity surviving such transaction, provided, however, that this Section 3.14(ii)(b) shall not apply to a merger effected exclusively for the purpose of changing the domicile of the Company (a "Change in Control").

SECTION 4. SUBSCRIPTION RIGHT

4.1 Subsequent Offerings. Each Investor shall have a subscription right to purchase its *pro rata* share of all Equity Securities, as defined below, that the Company may, from time to time, propose to sell and issue after the date of this Agreement, other than the Equity Securities excluded by Section 4.6 hereof. Each Investor's *pro rata* share is equal to the ratio of (a) the sum of the number of shares of the Company's Common Stock issued or issuable upon conversion of the Series B Stock, the Series C Stock, the Series D Stock, the Series E Stock and/or the Series F Stock which such Investor is deemed to be a holder immediately prior to the issuance of such Equity Securities plus the number of shares of Common Stock issuable upon the exercise of warrants or options held by such Investor to (b) the total number of shares of the Company's outstanding Common Stock (including all shares of Common Stock issued or issuable upon conversion of the Shares or upon the exercise of any outstanding warrants or options) immediately prior to the issuance of the Equity Securities. The term "Equity Securities" shall mean (i) any Common Stock, Shares or other security of the Company, (ii) any security convertible, with or without consideration, into any Common Stock, Shares or other security (including any option to purchase such a convertible security), (iii) any security carrying any warrant or right to subscribe to or purchase any Common Stock, Shares or other security or (iv) any such warrant or right.

4.2 Exercise of Rights. If the Company proposes to issue any Equity Securities, it shall give each Investor written notice ("Notice") of its bona fide intention, describing the Equity Securities, the price and the terms and conditions upon which the Company proposes to issue the same. Each Investor shall have fifteen (15) days from the giving of such Notice to agree to purchase up to that portion of such Equity Securities that equals the proportion that the number of shares of Common Stock issued and held, or issuable upon conversion of the Series B Stock, the Series C Stock, the Series D Stock, the Series E Stock and/or the Series F Stock then held by such Investor bears to the total number of shares of Common Stock issued and held, or issuable upon conversion of the Series B Stock, the Series C Stock, the Series D Stock, the Series E Stock and/or the Series F Stock then outstanding, for the price and upon the terms and conditions specified in the Notice by giving written notice to the Company and stating therein the quantity of Equity Securities to be purchased. The Company shall promptly, in writing, inform each Investor that purchases all the shares available to it ("Fully Exercising Investor") of any other Investor's failure to do likewise. During the ten (10) day period commencing after receipt of such information, each Fully Exercising Investor shall be entitled to obtain that portion of the

shares subject to such subscription right and not subscribed for by the Investors that is equal to the proportion that the number of shares of Common Stock issued and held, or issuable upon conversion of the Series B Stock, the Series C Stock, the Series D Stock, the Series E Stock and/or the Series F Stock then held, by such Fully Exercising Investor bears to the total number of shares of Common Stock issued and held, or issuable upon conversion of Series B Stock, the Series C Stock, the Series D Stock, the Series E Stock and the Series F Stock then held, by all Fully Exercising Investors who wish to purchase some of the unsubscribed shares. Notwithstanding the foregoing, the Company shall not be required to offer or sell such Equity Securities to any Investor who would cause the Company to be in violation of applicable federal securities laws by virtue of such offer or sale.

4.3 Issuance of Equity Securities to Other Persons. If the Investors fail to exercise in full the subscription rights, the Company shall have ninety (90) days thereafter to sell the Equity Securities in respect of which the Investor's rights were not exercised, at a price and upon general terms and conditions materially no more favorable to the purchasers thereof than specified in the Company's notice to the Investors pursuant to Section 4.2 hereof. If the Company has not sold such Equity Securities within ninety (90) days of the notice provided pursuant to Section 4.2, the Company shall not thereafter issue or sell any Equity Securities, without first offering such securities to the Investors in the manner provided above.

4.4 Termination and Waiver of Subscription Rights. The subscription rights established by this Section 4 shall not apply to, and shall terminate upon the earlier of (i) the effective date of the registration statement pertaining to the Company's Initial Offering or (ii) a Change in Control.

4.5 Transfer of Subscription Rights. The subscription rights of each Investor under this Section 4 may be transferred to the same persons described in Section 2.10, and shall be subject to the same restrictions, as any transfer of registration rights pursuant to Section 2.10.

4.6 Excluded Securities. The subscription rights established by this Section 4 shall have no application to any of the following Equity Securities (the "Excluded Securities"):

(a) options, warrants or other Common Stock purchase rights and the Common Stock issued pursuant to such options, warrants or other rights (as adjusted for any stock dividends, combinations, splits, recapitalizations and the like after the filing of the Company's Second Amended and Restated Certificate of Incorporation) issued or to be issued after the date of this Agreement to employees, officers or directors of, or consultants or advisors to the Company or any subsidiary pursuant to stock purchase or stock option plans or other arrangements, where the primary purpose of such is not to raise additional equity capital;

(b) stock issuable pursuant to any rights or agreements outstanding as of the date of this Agreement, options and warrants outstanding as of the date of this Agreement; and stock issued pursuant to any such rights or agreements granted after the date of this Agreement; provided, however, that the subscription rights established by this Section 4 applied with respect to the initial sale or grant by the Company of such rights or agreements;

(c) any Equity Securities issued pursuant to a merger, consolidation, acquisition or similar business combination approved by the Board of Directors;

(d) shares of Common Stock issued in connection with any stock split, stock dividend or recapitalization by the Company;

(e) shares of Common Stock issued upon conversion of the Shares;

(f) any Equity Securities issued pursuant to any equipment leasing, real property leasing or loan arrangement, or debt financing from a bank or similar financial or lending institution approved by the Board of Directors;

(g) any Equity Securities issued pursuant to any licensing transaction approved by the Board of Directors; and

(h) any Equity Securities issued in connection with strategic alliances, joint ventures, manufacturing, marketing or distribution arrangements or technology transfer or development arrangements; provided, however, that such strategic transactions and the issuance of shares therein, has been approved by the Company's Board of Directors.

4.7 Waiver of Subscription Rights To the extent that any Investor is deemed to have had subscription rights with respect to the Series F Preferred Stock issued pursuant to the terms of the Purchase Agreement, each Investor hereby waives any and all such subscription rights pursuant to this Section 4, including any notice provisions relating thereto, on behalf of all Investors, with respect to the issuance of the Series F Preferred Stock pursuant to the Purchase Agreement.

SECTION 5. MISCELLANEOUS.

5.1 Governing Law. This Agreement shall be governed by and construed under the laws of the State of California as applied to agreements among California residents entered into and to be performed entirely within California.

5.2 Survival. The representations, warranties, covenants, and agreements made herein shall survive the closing of the transactions contemplated hereby. All statements as to factual matters contained in any certificate or other instrument delivered by or on behalf of the Company pursuant hereto in connection with the transactions contemplated hereby shall be deemed to be representations and warranties by the Company hereunder solely as of the date of such certificate or instrument.

5.3 Successors and Assigns. Except as otherwise expressly provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors, and administrators of the parties hereto and shall inure to the benefit of and be enforceable by each person who shall be a holder of Registrable Securities from time to time; provided, however, that prior to the receipt by the Company of adequate written notice of the transfer of any Registrable Securities specifying the full name and address of the transferee, the Company may deem and treat the person listed as the holder of such shares in its records as the absolute owner and holder of such shares for all purposes, including the payment of dividends or any redemption price.

5.4 Entire Agreement . This Agreement, the Exhibits and Schedules hereto, the Purchase Agreement and the other documents delivered pursuant thereto constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof and no party shall be liable or bound to any other in any manner by any representations, warranties, covenants and agreements except as specifically set forth herein and therein.

5.5 Severability. In the event one or more of the provisions of this Agreement should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.

5.6 Amendment and Waiver.

(a) Except as otherwise expressly provided, this Agreement may be amended or modified only upon the written consent of (i) the Company and (ii) the holders of at least a majority of the Preferred Stock, voting together as a single class on an as-converted basis and including any Common Stock issued upon conversion; provided, however, that no amendment of this Agreement shall materially and adversely affect the rights of an Investor in a manner that materially and disproportionately discriminates against such Investor in relation to the other Investors without such Investor's written consent; provided, further, however, that the addition of new parties to this Agreement or the proportionate adjustment in rights that would result from adding new parties shall not be deemed to be amendments which materially and disproportionately discriminate against such Investor.

(b) Except as otherwise expressly provided, the obligations of the Company and the rights of the Holders under this Agreement may be waived only with the written consent of (i) the Company and (ii) the holders of at least a majority of the Preferred Stock voting together as a single class on an as-converted basis and including any Common Stock issued upon conversion; provided, however, that no waiver of this Agreement shall materially and adversely affect the rights of an Investor in a manner that materially and disproportionately discriminates against such Investor in relation to the other Investors without such Investor's written consent; provided, further, however, that the addition of new parties to this Agreement or the proportionate adjustment in rights that would result from adding new parties shall not be deemed to be a waiver which materially and disproportionately discriminate against such Investor.

(c) For the purposes of determining the number of Holders or Investors entitled to vote or exercise any rights hereunder, the Company shall be entitled to rely solely on the list of record holders of its stock as maintained by or on behalf of the Company.

5.7 Delays or Omissions. It is agreed that no delay or omission to exercise any right, power, or remedy accruing to any Holder, upon any breach, default or noncompliance of the Company under this Agreement shall impair any such right, power, or remedy, nor shall it be construed to be a waiver of any such breach, default or noncompliance, or any acquiescence therein, or of any similar breach, default or noncompliance thereafter occurring. It is further agreed that any waiver, permit, consent, or approval of any kind or character on any Holder's part of any breach, default or noncompliance under the Agreement or any waiver on such

Holder's part of any provisions or conditions of this Agreement must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement, by law, or otherwise afforded to Holders, shall be cumulative and not alternative.

5.8 Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the party to be notified at the address as set forth on the signature pages hereof or Exhibit A hereto or at such other address as such party may designate by ten (10) days advance written notice to the other parties hereto.

5.9 Attorneys' Fees. In the event that any suit or action is instituted to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the losing party all fees, costs and expenses of enforcing any right of such prevailing party under or with respect to this Agreement, including without limitation, such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

5.10 Titles and Subtitles. The titles of the sections and subsections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

5.11 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company shall issue additional shares of its Preferred Stock pursuant to the Purchase Agreement, any purchaser of such shares of Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and shall be deemed an "Investor," a "Holder" and a party hereunder. Notwithstanding anything to the contrary contained herein, if the Company shall issue Equity Securities in accordance with Section 4.6 (c), (f), (g) or (h) of this Agreement, any purchaser of such Equity Securities may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and shall be deemed an "Investor," a "Holder" and a party hereunder.

5.12 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

5.13 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates or persons or persons or entities under common management or control shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

5.14 Specific Performance. The parties hereto hereby declare that it is impossible to measure in money the damages that will accrue to a party hereto or to their heirs, personal representatives, or assigns by reason of a failure to perform any of the obligations under this Agreement, that such a breach would cause irreparable harm to the parties and agree that the

terms of this Agreement shall be specifically enforceable by equitable remedies, including, but not limited to, temporary, preliminary and injunctive relief, specific performance and the right to compel the breaching party to vote his or its capital stock of the Company in accordance with the provisions of the Agreement. If any party hereto or his heirs, personal representatives, or assigns institutes any action or proceeding to specifically enforce the provisions hereof, any person against whom such action or proceeding is brought hereby waives the claim or defense therein that such party or such personal representative has an adequate remedy at law, and such person shall not offer in any such action or proceeding the claim or defense that such remedy at law exists.

(Signature Page Follows)

IN WITNESS WHEREOF, the parties hereto have executed this **FIFTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

CODEXIS, INC.

By: /s/ Alan Shaw
Name: Alan Shaw
Title: President

**SIGNATURE PAGE TO
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MAXYGEN, INC.

By: /s/ Russell J. Howard
Name: Russell J. Howard
Title: CEO

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MALAYSIAN LIFE SCIENCES CAPITAL FUND, LTD.

By: /s/ Dr. Roger Earl Wyse
Malaysian Life Sciences Capital Fund Management
Company Ltd, its Manager
Name: Dr. Roger Earl Wyse
Title: Co-Chairman

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CMEA VENTURES LIFE SCIENCES 2000, L.P.

By: /s/ Karl Handelsman
Name: Karl Handelsman
Title: General Partner

CMEA VENTURES LIFE SCIENCES 2000, CIVIL LAW PARTNERSHIP

By: /s/ Karl Handelsman
Name: Karl Handelsman
Title: General Partner

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FIRSTMARK III, L.P.
(formerly, Pequot Private Equity Fund III, L.P.)

By: /s/ [Illegible]
Name:
Title:

FIRSTMARK III Offshore Partners, L.P.
(formerly, Pequot Offshore Private Equity Partners III, L.P.)

By: /s/ [Illegible]
Name:
Title:

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PFIZER IRELAND PHARMACEUTICALS
(formerly, Pfizer Overseas Pharmaceuticals)

By: /s/ Paul Duffy
Name: Paul Duffy
Title: Director

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BIOMEDICAL SCIENCES INVESTMENT FUND PTE LTD

By: /s/ Chu Swee Yeok

Name: Chu Swee Yeok

Title: Director

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ROBERT W. CRANMER-BROWN

By: /s/ Robert W. Cranmer-Brown _____

Name: Robert W. Cranmer-Brown

**SIGNATURE PAGE TO
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IN WITNESS WHEREOF, the parties hereto have executed this **FIFTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

THE CONUS FUND, L.P.

By: /s/ Andrew D. Zacks
Name: Andrew D. Zacks
Title: Managing Member, General Partner
Conus Capital, LLC

THE CONUS FUND OFFSHORE MASTER FUND LTD.

By: /s/ Andrew D. Zacks
Name: Andrew D. Zacks
Title: Managing Director, Investment Manager
Conus Partners, Inc.

THE CONUS FUND (QP) L.P.

By: /s/ Andrew D. Zacks
Name: Andrew D. Zacks
Title: Managing Member, General Partner
Conus Capital, LLC

**SIGNATURE PAGE TO
FIFTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT**

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EQUILON ENTERPRISES LLC DBA SHELL OIL PRODUCTS US

By: /s/ Richard M. Oblath
Name: Richard M. Oblath
Title: Attorney in Fact

**SIGNATURE PAGE TO
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COOK INLET REGION, INC.

By: /s/ Stig A. Colberg
Name: Stig A. Colberg
Title: Vice President, Business Development

**SIGNATURE PAGE TO
FIFTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT**

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MALAYSIAN TECHNOLOGY DEVELOPMENT CORPORATION SDN. BHD.

By: /s/ Norhalim Yunus
Name: Norhalim Yunus
Title:

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IN WITNESS WHEREOF, the parties hereto have executed this **FIFTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

GREENER CAPITAL PARTNERS, L.P.

By: Greener Capital Equity, L.L.C.
Its general partner

By: /s/ Charles H. Finnie
Name: Charles H. Finnie
Title: Managing Partner
Greener Capital Partners, L.P.

**SIGNATURE PAGE TO
FIFTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT**

SCHEDULE OF INVESTORS

Maxygen, Inc.
CMEA Ventures Life Sciences 2000, L.P.
CMEA Ventures Life Sciences 2000, Civil Law Partnership
CTTV Investments LLC
FirstMark Capital III, L.P.
FirstMark Capital III Offshore Partners, L.P.
Pfizer Overseas Pharmaceuticals
Biomedical Sciences Investment Fund Pte Ltd
Robert W. Cranmer-Brown
The Conus Fund, L.P.
The Conus Fund Offshore Master Fund Ltd.
The Conus Fund (QP) L.P.
Equilon Enterprises LLC dba Shell Oil Products US
GPSF Securities Inc.
Malaysian Life Sciences Capital Fund, Ltd.
AFAC Equity, L.P.
Cook Inlet Region, Inc.
Malaysian Technology Development Corporation Sdn. Bhd.
Greener Capital Partners, L.P.

EXHIBIT B

FORM OF INDEMNIFICATION AGREEMENT

INDEMNIFICATION AGREEMENT

This Indemnification Agreement (the "Agreement") is made as of [DATE] by and between Codexis, Inc., a Delaware corporation (the "Company"), and [INDEMNITEE] (the "Indemnitee").

RECITALS

The Company and Indemnitee recognize the increasing difficulty in obtaining liability insurance for directors, officers and key employees, the significant increases in the cost of such insurance and the general reductions in the coverage of such insurance. The Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting directors, officers and key employees to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited. Indemnitee does not regard the current protection available as adequate under the present circumstances, and Indemnitee and agents of the Company may not be willing to continue to serve as agents of the Company without additional protection. The Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, and to indemnify its directors, officers and key employees so as to provide them with the maximum protection permitted by law. The Company and Indemnitee desire to terminate any and all prior indemnification agreements and accept the rights and covenants hereof in lieu of their rights and covenants under such prior agreements.

AGREEMENT

In consideration of the mutual promises made in this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, the Company and Indemnitee hereby agree as follows:

1. Indemnification.

(a) **Third Party Proceedings.** The Company shall indemnify Indemnitee if Indemnitee is or was a party to or witness or other participant in or is threatened to be made a party to or witness or other participant in any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that might reasonably be expected to lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Company) by reason of (or arising in part out of) any event or occurrence related to the fact that Indemnitee is or was a director, officer, employee, agent, fiduciary or controlling person of the Company, or any subsidiary of the Company, by reason of any action or inaction on the part of Indemnitee while an officer, director, employee, agent, fiduciary or controlling person or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee, agent, fiduciary or controlling person of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably

withheld, conditioned or delayed) actually and reasonably incurred by Indemnitee in connection with such action, suit, proceeding or alternative dispute resolution mechanism if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe Indemnitee's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, or, with respect to any criminal action or proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

(b) **Proceedings By or in the Right of the Company** The Company shall indemnify Indemnitee if Indemnitee was or is a party to or other witness or participant in or is threatened to be made a party to or witness or other participant in any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that might reasonably be expected to lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, by or in the right of the Company or any subsidiary of the Company to procure a judgment in its favor by reason of the fact that Indemnitee is or was a director, officer, employee, agent fiduciary or controlling person of the Company, or any subsidiary of the Company, by reason of any action or inaction on the part of Indemnitee while an officer, director, employee, agent, fiduciary or controlling person or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee, agent, fiduciary or controlling person of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) and, to the fullest extent permitted by law, amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld, conditioned or delayed), in each case to the extent actually and reasonably incurred by Indemnitee in connection with the defense or settlement of such action, suit, proceeding or alternative dispute resolution mechanism if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company and its stockholders, except that no indemnification shall be made in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudicated by court order or judgment (after all appeals) to be liable to the Company in the performance of Indemnitee's duty to the Company and its stockholders unless and only to the extent that the court in which such action or proceeding is or was pending shall determine upon application that, in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper.

(c) **Contribution.** If the indemnification provided for in Section 1(a) or Section 1(b) above for any reason is held by a court of competent jurisdiction to be unavailable to Indemnitee in respect of any losses, claims, damages, expenses or liabilities referred to therein, then the Company, in lieu of indemnifying Indemnitee thereunder, shall contribute to the amount paid or payable by Indemnitee as a result of such losses, claims, damages, expenses or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the Company and Indemnitee, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits

referred to in clause (i) above but also the relative fault of the Company and Indemnitee in connection with the action or inaction that resulted in such losses, claims, damages, expenses or liabilities, as well as any other relevant equitable considerations. In connection with the registration of the Company's securities, the relative benefits received by the Company and Indemnitee shall be deemed to be in the same respective proportions that the net proceeds from the offering (before deducting expenses) received by the Company and Indemnitee, in each case as set forth in the table on the cover page of the applicable prospectus, bear to the aggregate public offering price of the securities so offered. The relative fault of the Company and Indemnitee shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or Indemnitee and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and Indemnitee agree that it would not be just and equitable if contribution pursuant to this Section 1(c) were determined by pro rata or per capita allocation or by any other method of allocation that does not take account of the equitable considerations referred to in the immediately preceding paragraph. In connection with the registration of the Company's securities, other than in the case of fraud or willful misconduct, in no event shall Indemnitee be required to contribute any amount under this Section 1(c) in excess of the lesser of: (i) that proportion of the total of such losses, claims, damages or liabilities that are indemnified against, equal to the proportion of the total securities sold under such registration statement that is being sold by Indemnitee or (ii) the proceeds received by Indemnitee from its sale of securities under such registration statement. No person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act of 1933, as amended) shall be entitled to contribution from any person who was not found guilty of such fraudulent misrepresentation.

(d) **Mandatory Payment of Expenses.** To the extent that Indemnitee has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Section 1(a) or Section 1(b) or the defense of any claim, issue or matter therein, Indemnitee shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by Indemnitee in connection therewith.

2. **No Employment Rights.** Nothing contained in this Agreement is intended to create in Indemnitee any right to continued employment.

3. **Expenses; Indemnification Procedure.**

(a) **Advancement of Expenses.** The Company shall advance all expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any civil or criminal action, suit, proceeding or alternative dispute resolution mechanism referred to in Section 1(a) or Section 1(b) hereof (including amounts actually paid in settlement of any such action, suit or proceeding). Indemnitee hereby undertakes to repay such amounts advanced only if, and to the extent that, it shall ultimately be determined that Indemnitee is not entitled to be indemnified by the Company as authorized hereby. Indemnitee's obligation to reimburse the Company for any expenses shall be unsecured and no interest shall be charged thereon.

(b) **Notice/Cooperation by Indemnitee.** Indemnitee shall, as a condition precedent to his or her right to be indemnified under this Agreement, give the Company notice in writing as soon as practicable of any claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the Chief Executive Officer of the Company and shall be given in accordance with the provisions of Section 12(d) below. In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

(c) **Procedure.** Any indemnification and advances provided for in Section 1 and this Section 3 shall be made no later than twenty (20) days after receipt of the written request of Indemnitee. If a claim under this Agreement, under any statute, or under any provision of the Company's Certificate of Incorporation or Bylaws providing for indemnification, is not paid in full by the Company within twenty (20) days after a written request for payment thereof has first been received by the Company, Indemnitee may, but need not, at any time thereafter bring an action against the Company to recover the unpaid amount of the claim and, subject to Section 11 of this Agreement, Indemnitee shall also be entitled to be paid for the expenses (including attorneys' fees) of bringing such action. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in connection with any action, suit or proceeding in advance of its final disposition) that Indemnitee has not met the standards of conduct which make it permissible under applicable law for the Company to indemnify Indemnitee for the amount claimed, but the burden of proving such defense shall be on the Company and Indemnitee shall be entitled to receive interim payments of expenses pursuant to Section 3(a) unless and until such defense may be finally adjudicated by court order or judgment from which no further right of appeal exists. It is the parties' intention that if the Company contests Indemnitee's right to indemnification, the question of Indemnitee's right to indemnification shall be for the court to decide, and neither the failure of the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct required by applicable law, nor an actual determination by the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) that Indemnitee has not met such applicable standard of conduct, shall create a presumption that Indemnitee has or has not met the applicable standard of conduct.

(d) **Notice to Insurers.** If, at the time of the receipt of a notice of a claim pursuant to Section 3(b) hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(e) **Selection of Counsel.** In the event the Company shall be obligated under Section 3(a) hereof to pay the expenses of any proceeding against Indemnitee, the Company, if appropriate, shall be entitled to assume the defense of such proceeding, with counsel approved by Indemnitee, upon the delivery to Indemnitee of written notice of its election so to do. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such

counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same proceeding, provided that (i) Indemnitee shall have the right to employ counsel in any such proceeding at Indemnitee's expense; and (ii) if (A) the employment of counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense or (C) the Company shall not, in fact, have employed counsel to assume the defense of such proceeding, then the fees and expenses of Indemnitee's counsel shall be at the expense of the Company.

4. Additional Indemnification Rights: Nonexclusivity.

(a) **Scope.** Notwithstanding any other provision of this Agreement, the Company hereby agrees to indemnify the Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In the event of any change, after the date of this Agreement, in any applicable law, statute, or rule which expands the right of a Delaware corporation to indemnify a member of its board of directors or an officer, such changes shall be deemed to be within the purview of Indemnitee's rights and the Company's obligations under this Agreement. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify a member of its board of directors or an officer, such changes, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement shall have no effect on this Agreement or the parties' rights and obligations hereunder.

(b) **Nonexclusivity.** The indemnification provided by this Agreement shall not be deemed exclusive of any rights to which Indemnitee may be entitled under the Company's Certificate of Incorporation, its Bylaws, any agreement, any vote of stockholders or disinterested members of the Company's Board of Directors, the General Corporation Law of the State of Delaware, or otherwise, both as to action in Indemnitee's official capacity and as to action in another capacity while holding such office. The indemnification provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnified capacity even though he or she may have ceased to serve in any such capacity at the time of any action, suit or other covered proceeding.

5. **Partial Indemnification.** If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of the expenses, judgments, fines or penalties actually or reasonably incurred in the investigation, defense, appeal or settlement of any civil or criminal action, suit or proceeding, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such expenses, judgments, fines or penalties to which Indemnitee is entitled.

6. **Mutual Acknowledgment.** Both the Company and Indemnitee acknowledge that in certain instances, Federal law or public policy may override applicable state law and prohibit the Company from indemnifying its directors and officers under this Agreement or otherwise. For example, the Company and Indemnitee acknowledge that the Securities and Exchange Commission (the "SEC") has taken the position that indemnification is not permissible for

liabilities arising under certain federal securities laws, and federal legislation prohibits indemnification for certain ERISA violations. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the SEC to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

7. **Officer and Director Liability Insurance.** The Company shall, from time to time, make the good faith determination whether or not it is practicable for the Company to obtain and maintain a policy or policies of insurance with reputable insurance companies providing the officers and directors of the Company with coverage for losses from wrongful acts, or to ensure the Company's performance of its indemnification obligations under this Agreement. Among other considerations, the Company will weigh the costs of obtaining such insurance coverage against the protection afforded by such coverage. In all policies of director and officer liability insurance, Indemnitee shall be named as an insured in such a manner as to provide Indemnitee the same rights and benefits as are accorded to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer; or of the Company's key employees, if Indemnitee is not an officer or director but is a key employee. Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain such insurance if the Company determines in good faith that such insurance is not reasonably available, if the premium costs for such insurance are disproportionate to the amount of coverage provided, if the coverage provided by such insurance is limited by exclusions so as to provide an insufficient benefit, or if Indemnitee is covered by similar insurance maintained by a parent or subsidiary of the Company.

8. **Severability.** Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to court order, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. The provisions of this Agreement shall be severable as provided in this Section 8. If this Agreement or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Company shall nevertheless indemnify Indemnitee to the full extent permitted by any applicable portion of this Agreement that shall not have been invalidated, and the balance of this Agreement not so invalidated shall be enforceable in accordance with its terms.

9. **Exceptions.** Any other provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) **Claims Initiated by Indemnitee.** To indemnify or advance expenses to Indemnitee with respect to proceedings or claims initiated or brought voluntarily by Indemnitee and not by way of defense, except with respect to proceedings brought to establish or enforce a right to indemnification under this Agreement or any other statute or law or otherwise as required under Section 145 of the Delaware General Corporation Law, but such indemnification or advancement of expenses may be provided by the Company in specific cases if the Board of Directors finds it to be appropriate;

(b) **Lack of Good Faith.** To indemnify Indemnitee for any expenses incurred by Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by Indemnitee in such proceeding was not made in good faith or was frivolous;

(c) **Insured Claims.** To indemnify Indemnitee for expenses or liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement) to the extent such expenses or liabilities have been paid directly to Indemnitee by an insurance carrier under a policy of officers' and directors' liability insurance maintained by the Company; or

(d) **Claims under Section 16(b).** To indemnify Indemnitee for expenses or the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute.

10. Construction of Certain Phrases.

(a) For purposes of this Agreement, references to the "Company" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that if Indemnitee is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(b) For purposes of this Agreement, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "servicing at the request of the Company" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

11. **Attorneys' Fees.** In the event that any action is instituted by Indemnitee under this Agreement to enforce or interpret any of the terms hereof, Indemnitee shall be entitled to be paid all court costs and expenses, including reasonable attorneys' fees, incurred by Indemnitee with respect to such action, unless as a part of such action, the court of competent jurisdiction determines that each of the material assertions made by Indemnitee as a basis for such action were not made in good faith or were frivolous. In the event of an action instituted by or in the name of the Company under this Agreement or to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all court costs and expenses, including attorneys' fees, incurred by Indemnitee in defense of such action (including with respect to

Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action the court determines that each of Indemnitee's material defenses to such action were made in bad faith or were frivolous.

12. **Indemnification of Venture Capital Funds.** If (i) Indemnitee is affiliated with one or more venture capital funds that has invested in the Company (each a "VC Fund"), (ii) a VC Fund is a party to or a participant in any legal proceeding, and (iii) the VC Fund's involvement in the legal proceeding arises solely as a result of Indemnitee's service to the Company as a director of the Company, then the VC Fund shall be entitled to all of the indemnification rights and remedies under this Agreement to the same extent as Indemnitee.

13. **Miscellaneous.**

(a) **Governing Law.** This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of Delaware, without giving effect to principles of conflict of law.

(b) **Entire Agreement; Enforcement of Rights.** This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter herein. No modification or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this Agreement shall not be construed as a waiver of any rights of such party.

(c) **Construction.** This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly, this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(d) **Notices.** Any notice, demand or request required or permitted to be given under this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by telegram or forty-eight (48) hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified at such party's address as set forth below or as subsequently modified by written notice.

(e) **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

(f) **Successors and Assigns.** This Agreement shall be binding upon the Company and its successors and assigns, and inure to the benefit of Indemnitee and Indemnitee's heirs, legal representatives and assigns.

(g) **Subrogation.** In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company to effectively bring suit to enforce such rights.

[Signature Page Follows]

The parties hereto have executed this Agreement as of the day and year set forth on the first page of this Agreement.

CODEXIS, INC.

By: _____
ALAN SHAW
President and Chief Executive Officer

Address: 200 Penobscot Drive
Redwood City, California 94063

AGREED TO AND ACCEPTED:

[INDEMNITEE]

Address: [ADDRESS]

[CODEXIS, INC. INDEMNIFICATION AGREEMENT SIGNATURE PAGE]

THIS WARRANT HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "1933 ACT"), OR ANY APPLICABLE STATE SECURITIES LAWS, AND MAY NOT BE SOLD OR TRANSFERRED UNLESS SUCH SALE OR TRANSFER IS IN ACCORDANCE WITH THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS OR SOME OTHER EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS IS AVAILABLE WITH RESPECT THERETO.

COMMON STOCK PURCHASE WARRANT

Warrant No. _____

Number of Shares: _____

CODEXIS, INC.

Effective as of February 12, 2004

Void after February 12, 2011

1. Issuance. This Common Stock Purchase Warrant (the "Warrant") is issued to _____ by CODEXIS, INC., a Delaware corporation (hereinafter with its successors called the "Company").

2. Purchase Price; Number of Shares. The registered holder of this Warrant (the "Holder"), commencing on the date hereof, is entitled upon surrender of this Warrant with the subscription form annexed hereto duly executed, at the principal office of the Company, to purchase from the Company at a price per share of _____ (the "Purchase Price"), _____ fully paid and nonassessable shares of Common Stock, \$0.0001 par value, of the Company (the "Common Stock").

Until such time as this Warrant is exercised in full or expires, the Purchase Price and the securities issuable upon exercise of this Warrant are subject to adjustment as hereinafter provided. The person or persons in whose name or names any certificate representing shares of Common Stock is issued hereunder shall be deemed to have become the holder of record of the shares represented thereby as at the close of business on the date this Warrant is exercised with respect to such shares, whether or not the transfer books of the Company shall be closed.

3. Payment of Purchase Price. The Purchase Price may be paid (a) in cash or by check, or (b) by any combination of the foregoing.

4. Net Issue Election. The Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Common Stock equal to the value of this Warrant or any portion hereof by the surrender of this Warrant or such portion to the Company, with the net issue election notice annexed hereto duly executed, at the principal office of the Company. Thereupon, the Company shall issue to the Holder such number of fully paid and nonassessable shares of Common Stock as is computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

where: X = the number of shares of Common Stock to be issued to the Holder pursuant to this **Section 4**.

Y = the number of shares of Common Stock covered by this Warrant in respect of which the net issue election is made pursuant to this **Section 4**.

A = the Fair Market Value (defined below) of one share of Common Stock as determined at the time the net issue election is made pursuant to this **Section 4**.

B = the Purchase Price in effect under this Warrant at the time the net issue election is made pursuant to this **Section 4**.

“Fair Market Value” of a share of Common Stock as of the date that the net issue election is made (the “*Determination Date*”) shall mean:

(i) If the net issue election is made in connection with and contingent upon the closing of the sale of the Company’s Common Stock to the public in a public offering pursuant to a Registration Statement under the 1933 Act (a “*Public Offering*”), and if the Company’s Registration Statement relating to such Public Offering (“*Registration Statement*”) has been declared effective by the Securities and Exchange Commission, then the initial “Price to Public” specified in the final prospectus with respect to such offering.

(ii) If the net issue election is not made in connection with and contingent upon a Public Offering, then as follows:

(a) If traded on a securities exchange or the Nasdaq National Market, the fair market value of the Common Stock shall be deemed to be the average of the closing or last reported sale prices of the Common Stock on such exchange or market over the five day period ending five trading days prior to the Determination Date;

(b) If otherwise traded in an over-the-counter market, the fair market value of the Common Stock shall be deemed to be the average of the closing ask prices of the Common Stock over the five day period ending five trading days prior to the Determination Date; and

(c) If there is no public market for the Common Stock, then fair market value shall be determined in good faith by the Company’s Board of Directors.

5. Partial Exercise. This Warrant may be exercised in part, and the Holder shall be entitled to receive a new warrant, which shall be dated as of the date of this Warrant, covering the number of shares in respect of which this Warrant shall not have been exercised.

6. Fractional Shares. In no event shall any fractional share of Common Stock be issued upon any exercise of this Warrant. If, upon exercise of this Warrant in its entirety, the

Holder would, except as provided in this **Section 6**, be entitled to receive a fractional share of Common Stock, then the Company shall pay cash equal to the product of such fraction multiplied by the Common Stock's fair market value (as determined by the Board of Directors) on the date of exercise.

7. Expiration Date; Automatic Exercise. This Warrant shall expire at the close of business on February 12, 2011, and shall be void thereafter. Notwithstanding the foregoing, this Warrant shall automatically be deemed to be exercised in full pursuant to the provisions of **Section 4** hereof, without any further action on behalf of the Holder, immediately prior to the time this Warrant would otherwise expire pursuant to the preceding sentence.

8. Reserved Shares; Valid Issuance. The Company covenants that it will at all times from and after the date hereof reserve and keep available such number of its authorized shares of Common Stock, free from all preemptive or similar rights therein, as will be sufficient to permit the exercise of this Warrant in full. The Company further covenants that such shares as may be issued pursuant to such exercise will, upon issuance in accordance with the terms hereof, be duly and validly issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issuance thereof.

9. Stock Splits and Dividends. If after the date hereof the Company shall subdivide the Common Stock, by split-up or otherwise, or combine the Common Stock, or issue additional shares of Common Stock in payment of a stock dividend on the Common Stock, the number of shares of Common Stock issuable on the exercise of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination, and the Purchase Price shall forthwith be proportionately decreased in the case of a subdivision or stock dividend, or proportionately increased in the case of a combination.

10. Antidilution Rights. The other antidilution rights applicable to the Common Stock of the Company are set forth in the Amended and Restated Certificate of Incorporation, as amended from time to time (the "*Articles*"), a true and complete copy in its current form which is attached hereto as *Exhibit A*. Such rights shall not be restated, amended or modified in any manner which affects the Holder differently than the holders of Common Stock without such Holder's prior written consent. The Company shall promptly provide the Holder hereof with any restatement, amendment or modification to the Articles promptly after the same has been made.

11. Dissolutions, Liquidations, Mergers or Changes in Control.

(a) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Company shall notify the Holder as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, the Warrant will terminate immediately prior to the consummation of such proposed action.

(b) Merger or Change in Control. In the event of a merger of the Company with or into another corporation, or a Change in Control, the Warrant shall be assumed or an equivalent warrant substituted by the successor corporation or a parent or subsidiary of the

successor corporation. In the event that the successor corporation or parent or subsidiary of the successor corporation in a merger or Change in Control refuses to assume or substitute for the Warrant, then the Company shall notify the Holder in accordance with the provisions of **Section 13** hereof of the pending Change of Control and Holder may then elect to exercise the Warrant not less than three (3) days prior to the effective date of the Change of Control.

(c) “*Change in Control*” means the occurrence of any of the following events:

(i) Any “person” (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the *Exchange Act*)) becomes the “beneficial owner” (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company’s then outstanding voting securities; or

(ii) The consummation of the sale or disposition by the Company of all or substantially all of the Company’s assets; or

(iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation.

12. Certificate of Adjustment. Whenever the Purchase Price is adjusted, as herein provided, the Company shall promptly deliver to the Holder a certificate of the Company’s chief financial officer setting forth the Purchase Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

13. Notices of Record Date, Etc. In the event of:

(a) any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, or any right to subscribe for, purchase, sell or otherwise acquire or dispose of any shares of stock of any class or any other securities or property, or to receive any other right;

(b) any reclassification of the capital stock of the Company, capital reorganization of the Company, consolidation or merger involving the Company, or sale or conveyance of all or substantially all of its assets; or

(c) any voluntary or involuntary dissolution, liquidation or winding-up of the Company;

then in each such event the Company will provide or cause to be provided to the Holder a written notice thereof. Such notice shall be provided at least ten (10) days prior to the date specified in such notice on which any such action is to be taken.

14. Representations, Warranties and Covenants. This Warrant is issued and delivered by the Company and accepted by each Holder on the basis of the following representations, warranties and covenants made by the Company as of the date of issuance of this initial Warrant to the initial Holder:

(a) The Company has all necessary authority to issue, execute and deliver this Warrant and to perform its obligations hereunder. This Warrant has been duly authorized issued, executed and delivered by the Company and is the valid and binding obligation of the Company, enforceable against the Company in accordance with its terms.

(b) The shares of Common Stock issuable upon the exercise of this Warrant have been duly authorized and reserved for issuance by the Company and, when issued in accordance with the terms hereof, will be validly issued, fully paid and nonassessable.

(c) The issuance, execution and delivery of this Warrant do not, and the issuance of the shares of Common Stock upon the exercise of this Warrant in accordance with the terms hereof will not, (i) violate or contravene the Company's Articles or by-laws, or any law, statute, regulation, rule, judgment or order applicable to the Company, (ii) violate, contravene or result in a breach or default under any contract, agreement or instrument to which the Company is a party or by which the Company or any of its assets are bound or (iii) require the consent or approval of or the filing of any notice or registration with any person or entity.

(d) As long as obligations under the _____ (the "*Loan Agreement*") are outstanding, the Company will provide to the Holder the financial and other information described in the Loan Agreement.

(e) As of the date hereof, the authorized capital stock of the Company consists of (i) 18,500,000 shares of Common Stock, of which 1,003,427 shares are issued and outstanding, 2,996,573 shares are reserved for issuance upon the exercise of options issued pursuant to the Company's 2002 Stock Plan and 46,176 shares are reserved for issuance upon the exercise of warrant, (ii) 6,000,000 shares of Series A Preferred Stock, of which 6,000,000 are issued and outstanding shares, and (iii) 8,101,102 shares of Series B Redeemable Preferred Stock, of which 8,101,101 are issued and outstanding shares. Attached hereto as *Exhibit B* is a capitalization table summarizing the capitalization of the Company. At Holder's request, not more than once per calendar quarter, the Company will provide Holder with a current capitalization table indicating changes, if any, to the number of outstanding shares of common stock and preferred stock.

15. Amendment. The terms of this Warrant may be amended, modified or waived only with the written consent of the Holder and the Company.

16. Representations and Covenants of the Holder. This Common Stock Purchase Warrant has been entered into by the Company in reliance upon the following representations, warranties and covenants of the Holder, which by its execution hereof each Holder hereby confirms:

(a) **Investment Purpose.** The right to acquire Common Stock contained herein will be acquired for investment and not with a view to the sale or distribution of any part thereof, and the Holder has no present intention of selling or engaging in any public distribution of the same except pursuant to a registration or exemption.

(b) Accredited Investor. Holder is an “accredited investor” within the meaning of the Securities and Exchange Rule 501 of Regulation D, as presently in effect.

(c) Private Issue. The Holder understands (i) that the Common Stock issuable upon exercise of the Holder’s rights contained herein is not registered under the 1933 Act or qualified under applicable state securities laws on the ground that the issuance contemplated by this Warrant will be exempt from the registration and qualifications requirements thereof, and (ii) that the Company’s reliance on such exemption is predicated on the representations set forth in this **Section 16**.

(d) Financial Risk. The Holder has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment and has the ability to bear the economic risks of its investment.

17. Notices, Transfers, Etc.

(a) Any notice or written communication required or permitted to be given to the Holder may be given by certified mail or delivered to the Holder at the address most recently provided by the Holder to the Company.

(b) Subject to compliance with applicable federal and state securities laws, this Warrant may be transferred by the Holder with respect to any or all of the shares purchasable hereunder. Upon surrender of this Warrant to the Company, together with the assignment notice annexed hereto duly executed, for transfer of this Warrant as an entirety by the Holder, the Company shall issue a new warrant of the same denomination to the assignee. Upon surrender of this Warrant to the Company, together with the assignment hereof properly endorsed, by the Holder for transfer with respect to a portion of the shares of Common Stock purchasable hereunder, the Company shall issue a new warrant to the assignee, in such denomination as shall be requested by the Holder hereof, and shall issue to such Holder a new warrant covering the number of shares in respect of which this Warrant shall not have been transferred.

(c) In case this Warrant shall be mutilated, lost, stolen or destroyed, the Company shall issue a new warrant of like tenor and denomination and deliver the same (i) in exchange and substitution for and upon surrender and cancellation of any mutilated Warrant, or (ii) in lieu of any Warrant lost, stolen or destroyed, upon receipt of an affidavit of the Holder or other evidence reasonably satisfactory to the Company of the loss, theft or destruction of such Warrant.

18. No Impairment. The Company will not, by amendment of its Articles or through any reclassification, capital reorganization, consolidation, merger, sale or conveyance of assets, dissolution, liquidation, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance of performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder.

19. Governing Law. The provisions and terms of this Warrant shall be governed by and construed in accordance with the internal laws of the State of California.

20. Successors and Assigns. This Warrant shall be binding upon the Company's successors and assigns and shall inure to the benefit of the Holder's successors, legal representatives and permitted assigns.

21. Business Days. If the last or appointed day for the taking of any action required of the expiration of any rights granted herein shall be a Saturday or Sunday or a legal holiday in California, then such action may be taken or right may be exercised on the next succeeding day which is not a Saturday or Sunday or such a legal holiday.

22. Value. The Company and the Holder agree that the value of this Warrant on the date of grant is \$50.

CODEXIS, INC.

By: _____
Name: _____
Title: _____

Subscription

To: _____

Date: _____

The undersigned hereby subscribes for _____ shares of Common Stock covered by this Warrant. The certificate(s) for such shares shall be issued in the name of the undersigned or as otherwise indicated below:

Signature

Name for Registration

Mailing Address

Net Issue Election Notice

To: _____

Date: _____

The undersigned hereby elects under **Section 4** to surrender the right to purchase _____ shares of Common Stock pursuant to this Warrant. The certificate(s) for such shares issuable upon such net issue election shall be issued in the name of the undersigned or as otherwise indicated below:

Signature

Name for Registration

Mailing Address

Assignment

For value received _____ hereby sells, assigns and transfers unto _____

[Please print or typewrite name and address of Assignee]

the within Warrant, and does hereby irrevocably constitute and appoint _____
its attorney to transfer the within Warrant on the books of the within named Company with full power of substitution on the premises.

Dated: _____

In the Presence of:

COMMON STOCK PURCHASE WARRANT

NEITHER THIS WARRANT NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE TRANSFERRED UNLESS COVERED BY AN EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT, A "NO ACTION" LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION WITH RESPECT TO SUCH TRANSFER, A TRANSFER MEETING THE REQUIREMENTS OF RULE 144 OF THE SECURITIES AND EXCHANGE COMMISSION, OR AN OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE COMPANY TO THE EFFECT THAT ANY SUCH TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE 9,100 SHARES OF COMMON STOCK

Dated: October 25, 2005

THIS CERTIFIES THAT, for value received, Oxford Finance Corporation, ("Holder") is entitled to subscribe for and purchase Nine Thousand One Hundred (9,100) shares of the fully paid and non-assessable shares of Common Stock ("the Shares") of Codexis, Inc., a Delaware corporation (the "Company"), at the Warrant Price (as hereinafter defined), subject to the provisions and upon the terms and conditions hereinafter set forth. As used herein, the term "Common Stock" shall mean the Company's currently authorized Common Stock, and any stock into which such Common Stock may hereafter be exchanged.

1. Warrant Price. The Warrant Price shall initially be seventy one-hundredths dollars (\$.70) per share, subject to adjustment as provided in Section 7 below.
2. Conditions to Exercise. The purchase right represented by this Warrant may be exercised at any time, or from time to time, in whole or in part, during the term commencing on the date hereof and ending on the earlier of:
 - (a) 5:00 P.M. Eastern Standard time on the seventh annual anniversary of this Warrant Agreement; or
 - (b) the earlier termination of this Warrant pursuant to Section 3(e).

In the event that, although the Company shall have given notice of a transaction pursuant to subparagraph (b) hereof, the transaction does not close within 60 days after the day specified by the Company, unless otherwise elected by the Holder any exercise of the Warrant subsequent to the giving of such notice shall be rescinded and the Warrant shall again be exercisable until terminated in accordance with this Paragraph 2.

3. Method of Exercise; Payment; Issuance of Shares; Issuance of New Warrant

- (a) Cash Exercise. Subject to Section 2 hereof, the purchase right represented by this Warrant may be exercised by the Holder hereof, in whole or in part, by the surrender of this Warrant (with a duly executed Notice of Exercise in the form attached hereto) at the principal office of the Company (as set forth in Section 19 below) and by payment to the Company, by check, of an amount equal to the then applicable Warrant Price per share multiplied by the number of shares then being purchased. In the event of any exercise of the rights represented by this Warrant, certificates for the shares of stock so purchased shall be in the name of, and delivered to, the Holder hereof, or as such Holder may direct (subject to the terms of transfer contained herein and upon payment by such Holder hereof of any applicable transfer taxes). Such delivery shall be made promptly after exercise of the Warrant and at the Company's

expense and, unless this Warrant has been fully exercised or expired, a new Warrant having terms and conditions substantially identical to this Warrant and representing the portion of the Shares, if any, with respect to which this Warrant shall not have been exercised, shall also be issued to the Holder hereof promptly after exercise of the Warrant.

- (b) Net Issue Exercise. In lieu of exercising this Warrant pursuant to Section 3(a), Holder may elect to receive shares equal to the value of this Warrant (or of any portion thereof remaining unexercised) by surrender of this Warrant at the principal office of the Company together with notice of such election, in which event the Company shall issue to Holder the number of shares of the Company's Common Stock computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where :

X = the number of shares of Common Stock to be issued to Holder in connection with the applicable net issue exercise.

Y = the number of shares of Common Stock purchasable under this Warrant (at the date of such calculation).

A = the Fair Market Value (defined below) of one share of the Company's Common Stock (at the date of such calculation).

B = Warrant Price (as adjusted to the date of such calculation).

- (c) Fair Market Value. For purposes of this Section 3, Fair Market Value of one share of the Company's Common Stock shall mean:

(i) Subject to (iv) below, if the Common Stock is publicly traded, the average, over the ten (10) trading days prior to the date of determination of fair market value, of (x) the average of the closing bid and asked prices of the Common Stock quoted in the Over-The-Counter Market Summary, or (y) the last reported sale price of the Common Stock or the closing price quoted on the Nasdaq National Market System ("NMS") or on any exchange on which the Common Stock is listed, whichever is applicable (with respect to both (x) or (y), as published in The Wall Street Journal or

(ii) [paragraph intentionally omitted]

(iii) Subject to (iv) below, if the Common Stock is not publicly traded, the per share fair market value of the Common Stock as determined in good faith by the Company's Board of Directors.

(iv) In the event of an exercise in connection with the Company's initial public offering, the per share public offering price as set forth on the cover page of the final prospectus relating to such offering (prior to underwriter discounts, commissions, concessions and expenses).

In the event of 3(c)(iii), above, the Company shall deliver to the Holder a certificate, to be signed by an authorized officer of the Company, setting forth the per share Fair

Market Value of the Common Stock as determined by the Company's Board of Directors. In connection with a proposed Acquisition (as defined in Section 3(e)), such certification of the Fair Market Value must be made to Holder at least ten (10) business days prior to the proposed closing of such Acquisition.

(d) Automatic Exercise. To the extent this Warrant is not previously exercised, it shall be automatically exercised in accordance with Sections 3(b) and 3(c) hereof (even if not surrendered) immediately before its expiration.

(e) Treatment of Warrant Upon Acquisition of Company.

(i) Upon the written request of the Company, Holder agrees that, in the event of an Acquisition (as defined below) in which the sole consideration is cash, either (a) Holder shall exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Acquisition or (b) if Holder elects not to exercise the Warrant, this Warrant will expire upon the closing of such Acquisition. The Company shall provide the Holder with written notice of its request relating to the foregoing (together with such reasonable information as the Holder may request in connection with such contemplated Acquisition giving rise to such notice), which is to be delivered to Holder not less than ten (10) days prior to the closing of the proposed Acquisition.

(ii) Upon written request of the Company, Holder agrees that, in the event of a stock for stock Acquisition of the Company by a publicly traded acquirer if, on the record date for the Acquisition, the fair market value of the Shares (or other securities issuable upon exercise of this Warrant) is equal to or greater than three (3x) times the Warrant Price, Company may require the Warrant to be deemed automatically exercised and the Holder shall participate in the Acquisition as a holder of the Shares (or other securities issuable upon exercise of the Warrant) on the same terms as other holders of the same class of securities of the Company.

(iii) Upon the closing of any Acquisition other than those particularly described in subsections (i) or (ii) above, the successor entity shall assume the obligations of the Warrant, and the Warrant shall be exercisable for the same securities, cash, and property as would be payable for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on the record date for the Acquisition and subsequent closing. The Warrant Price and/or number of Shares shall be adjusted accordingly.

(iv) For the purpose of this Warrant, "Acquisition" means any sale, license, or other disposition of all or substantially all of the assets of the Company, or any reorganization, consolidation, or merger of the Company where the holders of the Company's securities before the transaction beneficially own less than 50% of the outstanding voting securities of the surviving entity after the transaction, other than in connection with an initial public offering.

4. Representations and Warranties of Holder and Restrictions on Transfer Imposed by the Securities Act of 1933

(a) Representations and Warranties of Holder. The Holder represents and warrants to the Company with respect to this purchase as follows:

- (i) The Holder has substantial experience in evaluating and investing in private placement transactions of securities of companies similar to the Company so that the Holder is capable of evaluating the merits and risks of its investment in the Company and has the capacity to protect its interests.
- (ii) The Holder is acquiring the Warrant and the Shares of Common Stock issuable upon exercise of the Warrant (collectively the "Securities") for investment for its own account and not with a view to, or for resale in connection with, any distribution thereof. The Holder understands that the Securities have not been registered under the Securities Act of 1933, as amended (the "Act") by reason of a specific exemption from the registration provisions of the Act, which depends upon, among other things, the bona fide nature of the investment intent as expressed herein. In this connection, the Holder understands that, in the view of the Securities and Exchange Commission (the "SEC"), the statutory basis for such exemption may be unavailable if this representation was predicated solely upon a present intention to hold the Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities or for a period of one year or any other fixed period in the future.
- (iii) The Holder acknowledges that the Securities must be held indefinitely unless subsequently registered under the Act or an exemption from such registration is available. The Holder is aware of the provisions of Rule 144 promulgated under the Act ("Rule 144") which permits limited resale of securities purchased in a private placement subject to the satisfaction of certain conditions, including, in case the securities have been held for more than one but less than two years, the existence of a public market for the shares, the availability of certain public information about the Company, the resale occurring not less than one year after a party has purchased and paid for the security to be sold, the sale being through a "broker's transaction" or in a transaction directly with a "market maker" (as provided by Rule 144(f)) and the number of shares or other securities being sold during any three-month period not exceeding specified limitations.
- (iv) The Holder further understands that at the time the Holder wishes to sell the Securities there may be no public market upon which such a sale may be effected, and that even if such a public market exists, the Company may not be satisfying the current public information requirements of Rule 144 and that in such event, the Holder may be precluded from selling the Securities under Rule 144 unless a) a one-year minimum holding period has been satisfied and b) the Holder was not at the time of the sale nor at any time during the three-month period prior to such sale an affiliate of the Company.
- (v) The Holder has had an opportunity to discuss the Company's business, management and financial affairs with its management and an opportunity to review the Company's facilities. The Holder understands that such discussions, as well as the written information issued by the Company, were intended to describe the aspects of the Company's business and prospects which it believes to be material but were not necessarily a thorough or exhaustive description.
- (b) Legends. Each certificate representing the Shares issuable upon exercise of this Warrant, or upon any transfer of such Shares (other than a transfer registered under the Act), shall be endorsed with the following legend:

COMMON STOCK PURCHASE WARRANT

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE TRANSFERRED UNLESS COVERED BY AN EFFECTIVE REGISTRATION STATEMENT UNDER SAID ACT, A "NO ACTION" LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION WITH RESPECT TO SUCH TRANSFER, A TRANSFER MEETING THE REQUIREMENTS OF RULE 144 OF THE SECURITIES AND EXCHANGE COMMISSION, OR AN OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE COMPANY TO THE EFFECT THAT ANY SUCH TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

The Company need not enter into its stock register a transfer of Securities unless the conditions specified in the foregoing legend are satisfied. The Company may also instruct its transfer agent not to register the transfer of any of the Shares unless the conditions specified in the foregoing legend are satisfied.

- (c) Removal of Legend and Transfer Restrictions. The legend relating to the Act endorsed on a certificate pursuant to paragraph 4(b) of this Warrant and the stop transfer instructions with respect to the Securities represented by such certificate shall be removed and the Company shall issue a certificate without such legend to the Holder of the Securities if (i) the Securities are registered under the Act and a prospectus meeting the requirements of Section 10 of the Act is available or (ii) the Holder provides to the Company an opinion of counsel for the Holder in form and substance satisfactory to the Company, or a no-action letter or interpretive opinion of the staff of the SEC reasonably satisfactory to the Company, to the effect that public sale, transfer or assignment of the Securities may be made without registration and without compliance with any restriction such as Rule 144.

5. Condition of Transfer or Exercise of Warrant. It shall be a condition to any transfer or exercise of this Warrant that at the time of such transfer or exercise, the Holder (with respect to any exercises) or the transferee (with respect to any transfer) shall provide the Company with a representation in writing that the Holder or transferee is acquiring this Warrant (as applicable) and the shares of Common Stock to be issued upon exercise, for investment purposes only and not with a view to any sale or distribution, or will provide the Company with a statement of pertinent facts covering any proposed distribution. As a further condition to any transfer of this Warrant or any or all of the shares of Common Stock issuable upon exercise of this Warrant, other than a transfer registered under the Act, the Company must have received a legal opinion, in form and substance satisfactory to the Company and its counsel, reciting the pertinent circumstances surrounding the proposed transfer and stating that such transfer is exempt from the registration and prospectus delivery requirements of the Act.

As further condition to each transfer, the Holder shall surrender this Warrant to the Company and the transferee shall receive and accept a Warrant, of like tenor and date, executed by the Company.

6. [paragraph intentionally omitted]

7. Stock Fully Paid; Reservation of Shares. All Shares, which may be issued upon the exercise of the rights represented by this Warrant, will, upon issuance, be fully paid and non-assessable, and free from all taxes, liens, and charges with respect to the issue thereof. During the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized, and reserved for issuance upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of shares of its Common Stock to provide for the exercise of the rights represented by this Warrant.

8. (a) Adjustment for Certain Events. In the event of changes in the outstanding Common Stock by reason of stock dividends, split-ups, recapitalizations, reclassifications, mergers, consolidations, combinations or exchanges of shares, separations, reorganizations, liquidations, or the like, the number and class of shares available under the Warrant in the aggregate and the Warrant Price shall be correspondingly adjusted, as appropriate, by the Board of Directors of the Company. The adjustment shall be such as will give the Holder of this Warrant upon exercise for the same aggregate Warrant Price the total number, class and kind of shares as it would have owned had the Warrant been exercised prior to the event and had it continued to hold such shares until after the event requiring adjustment.

(b) [paragraph intentionally omitted]

9. Notice of Adjustments. Whenever any Warrant Price shall be adjusted pursuant to Section 8 hereof, the Company shall prepare a certificate signed by its chief financial officer setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated, and the Warrant Price and number of shares issuable upon exercise of the Warrant after giving effect to such adjustment, and shall cause copies of such certificate to be mailed (by certified or registered mail, return receipt required, postage prepaid) within thirty (30) days of such adjustment to the Holder of this Warrant as set forth in Section 19 hereof.

10. "Market Stand-Off" Agreement. Holder hereby agrees that for a period of up to 180 days following the effective date of the first registration statement of the Company covering common stock (or other securities) to be sold on behalf of the Company in an underwritten public offering, it will not, to the extent requested by the Company and any underwriter, sell or otherwise transfer or dispose of (other than to designees or transferees who agree to be similarly bound) any of the Shares at any time during such period except common stock included in such registration. Upon request by the underwriters of such offering, Holder agrees to enter into an agreement with such underwriters providing for "market stand-off" or "lockup" restrictions substantially similar to all officers and directors of the Company who hold securities of the Company or options to acquire securities of the Company and all holders of one percent (1%) or more of the Company's capital stock, on an as-converted to Common Stock basis.

11. Transferability of Warrant. This Warrant is transferable on the books of the Company at its principal office by the registered Holder hereof upon surrender of this Warrant properly endorsed, subject to compliance with Section 5 and applicable federal and state securities laws. The Company shall issue and deliver to the transferee a new Warrant representing the Warrant so transferred. Upon any partial transfer, the Company will issue and deliver to Holder a new Warrant with respect to the Warrant not so transferred. Holder shall not have any right to transfer any portion of this Warrant to any direct competitor of the Company.

12. No Fractional Shares. No fractional share of Common Stock will be issued in connection with any exercise hereunder, but in lieu of such fractional share the Company shall make a cash payment therefor upon the basis of the Warrant Price then in effect.

13. Charges, Taxes and Expenses. Issuance of certificates for shares of Common Stock upon the exercise of this Warrant shall be made without charge to the Holder for any United States or state of the United States documentary stamp tax or other incidental expense with respect to the issuance of such certificate, all of which taxes and expenses shall be paid by the Company, and such certificates shall be issued in the name of the Holder.

14. No Stockholder Rights Until Exercise. This Warrant does not entitle the Holder hereof to any voting rights or other rights as a stockholder of the Company prior to the exercise hereof.

COMMON STOCK PURCHASE WARRANT

15. Registry of Warrant. The Company shall maintain a registry showing the name and address of the registered Holder of this Warrant. This Warrant may be surrendered for exchange or exercise, in accordance with its terms, at such office or agency of the Company, and the Company and Holder shall be entitled to rely in all respects, prior to written notice to the contrary, upon such registry.

16. Loss, Theft, Destruction or Mutilation of Warrant. Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft, or destruction, of indemnity reasonably satisfactory to it, and, if mutilated, upon surrender and cancellation of this Warrant, the Company will execute and deliver a new Warrant, having terms and conditions substantially identical to this Warrant, in lieu hereof.

17. Miscellaneous.

- (a) Issue Date. The provisions of this Warrant shall be construed and shall be given effect in all respect as if it had been issued and delivered by the Company on the date hereof.
- (b) Successors. This Warrant shall be binding upon any successors or assigns of the Company.
- (c) Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California.
- (d) Headings. The headings used in this Warrant are used for convenience only and are not to be considered in construing or interpreting this Warrant.
- (e) Saturdays, Sundays, Holidays. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday or a Sunday or shall be a legal holiday in the State of California, then such action may be taken or such right may be exercised on the next succeeding day not a legal holiday.

18. No Impairment. The Company shall not by any action including, without limitation, amending its certificate of incorporation or by-laws, any reorganization, transfer of assets, consolidation, merger, share exchange dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of the Warrants or impair the ability of the Holder(s) to realize upon the intended economic value hereof, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate to protect the rights of the Holder(s) hereof against impairment.

19. Addresses. Any notice required or permitted hereunder shall be in writing and shall be mailed by overnight courier, registered or certified mail, return receipt required, and postage prepaid, or otherwise delivered by hand or by messenger, addressed as set forth below, or at such other address as the Company or the Holder hereof shall have furnished to the other party.

If to the Company: Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Attn: Finance Director

If to the Holder: Oxford Finance Corporation
133 N. Fairfax Street
Alexandria, VA 22314
Attn: Chief Financial Officer

COMMON STOCK PURCHASE WARRANT

IN WITNESS WHEREOF, Codexis, Inc. has caused this Warrant to be executed by its officers thereunto duly authorized.

Dated as of October 25, 2005.

Codexis, Inc.

By: /s/ Tassos Gianakakos
Name: Tassos Gianakakos
Title: Senior Vice President

NOTICE OF EXERCISE

TO: _____

1. The undersigned, Oxford Finance Corporation ("Holder") elects to acquire shares of the Common Stock of Codexis, Inc. (the "Company"), pursuant to the terms of the Common Stock Purchase Warrant dated October 25, 2005 (the "Warrant").

2. The Holder exercises its rights under the Warrant as set forth below:

- () The Holder elects to purchase _____ shares of Common Stock as provided in Section 3(a) and 3(c) of the Warrant and tenders herewith a check in the amount of \$_____ as payment of the purchase price.
- () The Holder elects to convert the purchase rights into shares of Common Stock as provided in Section 3(b) and 3(c) of the Warrant.

3. The Holder surrenders the Warrant with this Notice of Exercise.

4. The Holder represents that it is acquiring the aforesaid shares of Common Stock for investment and not with a view to or for resale in connection with, distribution and that the Holder has no present intention of distributing or reselling the shares.

5. Please issue a certificate representing the shares of Common Stock in the name of the Holder or in such other name as is specified below:

Name: _____

Address: _____

Taxpayer I.D.: _____

Oxford Finance Corporation

By: _____

Name: _____

Title: _____

Date: _____

THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. NO SALE OR DISPOSITION MAY BE EFFECTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE COMPANY OR WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL FOR THE HOLDER, SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR RECEIPT OF A NO-ACTION LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION.

THE SALE OF THESE SECURITIES HAS NOT BEEN QUALIFIED WITH ANY STATE SECURITIES AUTHORITIES. THE RIGHTS OF ALL PARTIES TO THIS WARRANT ARE EXPRESSLY CONDITIONED UPON SUCH QUALIFICATION BEING OBTAINED UNLESS THE SALE IS SO EXEMPT.

THIS WARRANT MAY NOT BE EXERCISED EXCEPT IN COMPLIANCE WITH ALL APPLICABLE FEDERAL AND STATE SECURITIES LAWS TO THE REASONABLE SATISFACTION OF THE COMPANY AND LEGAL COUNSEL FOR THE COMPANY.

Void after May 25, 2013

CODEXIS, INC.

STOCK PURCHASE WARRANT

THIS CERTIFIES THAT, for value received, _____ and its registered assigns (hereinafter called the "**Holder**") is entitled to purchase from Codexis, Inc., a Delaware corporation (the "**Company**") whose address is 200 Penobscot Drive, Redwood City, California 94063, at any time after the date specified in Section 1 hereof and ending at 5:00 p.m. Pacific Standard Time on the Expiration Date, as such term is defined in Section 1 hereof, a number of shares of the Company's New Preferred Stock (the "**Warrant Shares**") equal to the quotient obtained by dividing (A) the product of (i) 0.30 and (ii) the Note Amount, by (B) the Effective Price (for purposes herein, the "**Warrant Price**"). This Warrant is a "**Warrant**" as defined in that certain Bridge Loan Agreement (the "**Loan Agreement**"), dated as of May 25, 2006 by and among the Company and the investors set forth therein. This Warrant may be exercised in whole or in part, at the option of the Holder of this Warrant. Unless otherwise defined herein, defined terms in this Warrant shall have the meanings ascribed to them in the Loan Agreement.

1. Term. This Warrant shall be exercisable through May 25, 2013 (the "**Expiration Date**").

2. Method of Exercise; Payment; Issuance of New Warrant. Subject to Section 1 hereof, the purchase right represented by this Warrant may be exercised by the Holder, in whole or in part, by:

2.1 The surrender of this Warrant (with the notice of exercise form attached hereto as Attachment A and the Investment Representation Statement attached hereto as Attachment B duly executed) at the principal office of the Company; and

2.2 The payment to the Company, by check, wire transfer, forgiveness of indebtedness, or any combination of the foregoing of an amount equal to the then applicable Warrant Price per share multiplied by the number of Warrant Shares then being purchased.

If this Warrant should be exercised in part only, the Company shall, upon surrender of this Warrant, execute and deliver a new Warrant evidencing the rights of the Holder thereof to purchase the balance of the Warrant Shares purchasable hereunder. Upon receipt by the Company of this Warrant and such notice of exercise, together with, if applicable, the aggregate Warrant Price, at such office, or by the stock transfer agent or warrant agent of the Company at its office, the Holder shall be deemed to be the holder of record of the applicable Warrant Shares, notwithstanding that the stock transfer books of the Company shall then be closed or that certificates representing such Warrant Shares shall not then be actually delivered to the Holder. The Company shall pay any and all documentary stamp or similar issue or transfer taxes payable in respect of the issue or delivery of the Warrant Shares.

2.3 Net Exercise.

(a) In addition to and without limiting the rights of the Holder under the terms of this Warrant, the Holder may elect to convert this Warrant or any portion thereof (the "Conversion Right") into Warrant Shares, the aggregate value of which Warrant Shares shall be equal to the value of this Warrant or the portion thereof being converted. The Conversion Right may be exercised by the Holder by surrender of this Warrant at the principal office of the Company together with notice of the Holder's intention to exercise the Conversion Right, in which event the Company shall issue to the Holder a number of Warrant Shares computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where:

- X- The number of Warrant Shares to be issued to the holder upon exercise of Conversion Right.
- Y- The number of Warrant Shares issuable upon exercise of this Warrant (or such lesser number as are being exercised).
- A- The fair market value of one Warrant Share as at the time the Conversion Right is exercised pursuant to this Section 2.
- B- Effective Price for one Warrant Share under this Warrant (as adjusted to the date of such calculations).

Notwithstanding the foregoing, the Warrant shall be deemed to have converted into Warrant Shares pursuant to this Section 2.3(a) upon the Expiration Date if not previously exercised or converted before such date.

(b) Fair Market Value. For purposes of Section 2.3, “fair market value of one Warrant Share” shall mean, as of any date:

(i) the last closing price per share of the Company’s Common Stock on the principal national securities exchange on which the Common Stock is listed or admitted to trading;

(ii) the last reported sales price per share of the Company’s Common Stock on the Nasdaq National Market or the Nasdaq Small-Cap Market (collectively, “Nasdaq”) if the Company’s Common Stock is not listed or traded on any such exchange;

(iii) the average of the bid and asked price per share as reported in the “pink sheets” published by the National Quotation Bureau, Inc. (the “pink sheets”) if the Company’s Common Stock is not listed or traded on any exchange or Nasdaq; or

(iv) if such quotations are not available, the fair market value per share of the New Preferred Stock issued in the Next Financing on the date such notice was received by the Company, as reasonably determined in good faith by the Board of Directors of the Company.

3. Stock Fully Paid; Reservation of Warrant Shares All shares of stock which may be issued upon the exercise of the rights represented by this Warrant will, upon issuance, be fully paid and nonassessable, and free from all taxes, liens and charges with respect to the issue thereof. During the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved for the purpose of issue upon exercise of the purchase rights evidenced by this Warrant, a sufficient number of shares of its stock to provide for the exercise of the rights represented by this Warrant. In the event that there is an insufficient number of Warrant Shares reserved for issuance pursuant to the exercise of this Warrant, the Company will take appropriate action to authorize an increase in its capital stock to allow for such issuance or similar issuance acceptable to the Holder.

4. Adjustment of Warrant Price and Number of Warrant Shares The number and kind of Warrant Shares purchasable upon the exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

4.1 Reclassification; Merger. In case of any reclassification or change of outstanding securities of the class issuable upon exercise of this Warrant (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination), or in case of any consolidation or merger of the Company with or into another corporation (other than a merger with another corporation in which the Company is a continuing corporation and which does not result in any reclassification or change of outstanding securities issuable upon exercise of this Warrant), or any other corporate reorganization in which the Company shall not be the continuing or surviving entity of such consolidation, merger or reorganization, or any transaction in which in excess of 50% of the Company’s voting power is transferred, or any sale of all or substantially all of the stock or assets of the Company, the Company shall, as condition precedent to such transaction, execute a new Warrant or cause such successor or purchasing corporation, as the case may be, to execute

a new Warrant, providing that the Holder shall have the right to exercise such new Warrant and upon such exercise to receive, in lieu of each share of stock theretofore issuable upon exercise of this Warrant, the kind and amount of shares of stock, other securities, money and property receivable upon such reclassification, change, merger or acquisition by a holder of one share of stock theretofore issuable upon the exercise of this Warrant. Such new Warrant shall provide for adjustments which shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 4. The provisions of this Section 4.1 shall similarly apply to successive reclassifications, changes, mergers, and acquisitions.

4.2 Subdivision or Combination of Warrant Shares. If the Company at any time while this Warrant remains outstanding and unexpired shall subdivide or combine its stock, the Warrant Price shall be proportionately decreased in the case of a subdivision or increased in the case of a combination.

4.3 Stock Dividends. If the Company at any time while this Warrant is outstanding and unexpired shall pay a dividend with respect to stock payable in, or make any other distribution with respect to stock (except any distribution specifically provided for in the foregoing Sections 4.1 and 4.2) of, stock, then the Warrant Price shall be adjusted, from and after the date of determination of shareholders entitled to receive such dividend or distribution, to that price determined by multiplying the Warrant Price in effect immediately prior to such date of determination by a fraction (i) the numerator of which shall be the total number of shares of stock outstanding immediately prior to such dividend or distribution, and (ii) the denominator of which shall be the total number of shares of stock outstanding immediately after such dividend or distribution.

4.4 Adjustment of Number of Warrant Shares. Upon each adjustment in the Warrant Price, the number of shares of stock purchasable hereunder shall be adjusted, to the nearest whole share, to the product obtained by multiplying the number of Warrant Shares purchasable immediately prior to such adjustment in the Warrant Price by a fraction, the numerator of which shall be the Warrant Price immediately prior to such adjustment and the denominator of which shall be the Warrant Price immediately thereafter.

5. Fractional Warrant Shares. No fractional Warrant Shares will be issued in connection with any exercise hereunder, but in lieu of such fractional shares the Company shall make a cash payment therefor upon the basis of the Warrant Price then in effect.

6. Compliance with Securities Act; Non-transferability of Warrant; Disposition of Shares of Stock.

6.1 Compliance with Securities Act. The Holder, by acceptance hereof, agrees that this Warrant and the Warrant Shares are being acquired for investment and that he, she or it will not offer, sell or otherwise dispose of this Warrant or any Warrant Shares except under circumstances which will not result in a violation of the Securities Act of 1933, as amended (the "Act"). Upon exercise of this Warrant, the Holder hereof shall confirm in writing, in a form attached hereto as Attachment B, that the Warrant Shares so purchased are being acquired for investment and not with a view toward distribution or resale. In addition, the Holder shall provide such additional information regarding such Holder's financial and investment

background, as the Company may reasonably request, as is relevant for purposes of determining the Holder's suitability with respect to a purchase of the Warrant Shares. This Warrant and all Warrant Shares (unless registered under the Act) shall be stamped or imprinted with a legend in substantially the following form:

THIS SECURITY HAS NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. NO SALE OR DISPOSITION MAY BE EFFECTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE COMPANY AND WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL FOR THE HOLDER, SATISFACTORY TO THE COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR RECEIPT OF A NO-ACTION LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION.

6.2 This Warrant may not be transferred or assigned in whole or in part without compliance with all applicable federal and state securities laws by the transferor and the transferee (including the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, if such are requested by the Company). Notwithstanding the foregoing, no investment representation letter or opinion of counsel shall be required for any transfer of this Warrant (or any portion thereof) or any shares of New Preferred Stock issued upon exercise hereof (or shares of Common Stock issuable upon conversion thereof) (i) in compliance with customary transactions pursuant to Rule 144 or Rule 144A of the Act, or (ii) by gift, will or intestate succession by the Holder to his or her spouse or lineal descendants or ancestors or any trust for any of the foregoing or by the Holder to its managers, partners, members, affiliates (as defined under Rule 404 promulgated under the Act) or subsidiaries, as applicable; provided, that in each of the foregoing cases, the transferee agrees in writing to be subject to the terms of this Section 6.2. In addition, if the holder of the Warrant (or any portion thereof) or any New Preferred Stock issued upon exercise hereof delivers to the Company an unqualified opinion of counsel that no subsequent transfer of such Warrant or New Preferred Stock shall require registration under the Act, the Company shall, upon such contemplated transfer, promptly deliver new documents/certificates for such Warrant or New Preferred Stock that do not bear the legend set forth in Section 6.1 above. Subject to the provisions of this Warrant with respect to compliance with the Act, title to this Warrant may be transferred by endorsement (by the Holder executing an assignment form) and delivery in the same manner as a negotiable instrument transferable by endorsement and delivery. Notwithstanding the foregoing, with respect to any offer, sale or other disposition of this Warrant or of securities into which this Warrant may be converted or for which it may be exercised, the Holder will give written notice to the Company, describing briefly the manner thereof. Unless the Company reasonably determines that such transfer would violate applicable securities laws, and notifies the Holder thereof within ten (10) business days after receiving notice of the transfer, the Holder may effect such transfer. Each Warrant thus transferred and each certificate representing the securities thus transferred shall bear a legend as to the applicable restrictions on transferability in order to ensure compliance with the Act, unless in the opinion of counsel for the Company, such legend is not required in order to ensure compliance with the Act. The Company may issue stop transfer instructions to its transfer agent in connection with such restrictions.

6.3 Disposition of Warrant Shares. Upon exercise of the Warrant Shares, the Holder will be entitled to any registration rights granted to all holders of the New Preferred Stock issued in the Next Financing. With respect to any offer, sale or other disposition of any Warrant Shares prior to registration of such shares, the Holder and each subsequent Holder of this Warrant agrees to give written notice to the Company prior thereto, describing briefly the manner thereof, together with a written opinion of such Holder's counsel, if reasonably requested by the Company, to the effect that such offer, sale or other disposition may be effected without registration or qualification (under the Act as then in effect or any federal or state law then in effect) of such Warrant Shares and indicating whether or not under the Act certificates for such shares to be sold or otherwise disposed of require any restrictive legend as to applicable restrictions on transferability in order to ensure compliance with the Act; provided, however, that no such opinion of counsel or no-action letter shall be necessary for a transfer without consideration by a Holder which is a partnership to a partner of such partnership, so long as such transfer is made pursuant to the terms of the partnership agreement, or to the transfer by gift, will or intestate succession by the Holder to his or her spouse or lineal descendants or ancestors or any trust for the benefit of any of the foregoing if the transferee agrees in writing to be subject to the terms hereof to the same extent as if he/she were an original Holder hereunder. Notwithstanding the foregoing, such Warrant Shares may be offered, sold or otherwise disposed of in accordance with Rule 144.

7. Rights of Shareholders. No Holder of this Warrant shall be entitled to vote or receive dividends or be deemed the holder of stock or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder of this Warrant, as such, any of the rights of a shareholder of the Company or any right to vote for the election of directors or upon any matter submitted to shareholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value or change of stock to no par value, consolidation, merger, conveyance, or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights or otherwise until this Warrant has been exercised and the Warrant Shares shall have become deliverable, as provided herein.

8. Governing Law. The terms and conditions of this Warrant and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with California law, without giving effect to principles of conflicts of law.

9. Miscellaneous. The headings in this Warrant are for purposes of convenience and reference only, and shall not be deemed to constitute a part hereof. Neither this Warrant nor any term hereof may be changed, waived, discharged or terminated orally, but only by an instrument in writing signed by the Company and the registered Holder. Upon any Acquisition (as defined in the Restated Certificate), or any stock dividend, combination, stock split, reclassification or recapitalization of the capital stock of the Company, or the Company's initial public offering of its Common Stock, the Company shall provide to each Holder at such time, ten (10) days' prior

notice to the closing of such events; provided, however, that the Majority Holders may waive such notice on behalf of all Holders. All notices and other communications from the Company to the Holder shall be delivered by hand or mailed by first class registered or certified mail, postage prepaid, to the address furnished to the Company in writing by the Holder.

10. Loan Agreement. This Warrant is a Warrant referred to in the Loan Agreement and is entitled to all the benefits provided therein.

(Remainder of Page Intentionally Left Blank)

IN WITNESS WHEREOF, the Company has caused this Warrant to be duly executed by its officers, thereunto duly authorized this 25th day of May, 2006.

CODEXIS INC.

By: _____

SIGNATURE PAGE TO WARRANT

ATTACHMENT A
NOTICE OF EXERCISE

TO: CODEXIS, INC.

1. The undersigned hereby elects to purchase _____ shares of New Preferred Stock of CODEXIS, INC. as defined in and pursuant to the terms of the attached Warrant, and tenders herewith payment of the purchase price of such shares in full, together with all applicable transfer taxes, if any.

1. The undersigned hereby elects to convert the attached Warrant into Warrant Shares in the manner specified in Section 2.3 of the Warrant. This conversion is exercised with respect to _____ of the Shares covered by the Warrant.

[Strike paragraph above that does not apply]

2. Please issue a certificate or certificates representing said shares of stock in the name of the undersigned or in such other name as is specified below:

Name: _____

Address: _____

3. The undersigned represents that the aforesaid shares of stock are being acquired for the account of the undersigned for investment and not with a view to, or for resale in connection with, the distribution thereof and that the undersigned has no present intention of distributing or reselling such shares. In support thereof, the undersigned has executed an Investment Representation Statement attached hereto as Attachment B.

WARRANTHOLDER

(signature)

(title)

Date: _____

ATTACHMENT B

INVESTMENT REPRESENTATION STATEMENT

PURCHASER :
COMPANY : CODEXIS, INC.
SECURITY :
AMOUNT :
DATE :

In connection with the purchase of the above-listed securities and underlying stock (the "**Securities**"), I, the Purchaser, represent to the Company the following:

(a) I am purchasing these Securities for my own account for investment purposes only and not with a view to, or for the resale in connection with, any "distribution" thereof for purposes of the Securities Act of 1933 ("**Act**").

(b) I understand that the Securities have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of my investment intent as expressed herein. In this connection, I understand that, in the view of the Securities and Exchange Commission ("**SEC**"), the statutory basis for such exemption may be unavailable if my representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future.

(c) I further understand that the Securities must be held indefinitely unless subsequently registered under the Act or unless an exemption from registration is otherwise available. Moreover, I understand that the Company is under no obligation to register the Securities. In addition, I understand that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel for the Company.

(d) I am aware of the provisions of Rule 144, promulgated under the Act, which, in substance, permits limited public resale of "restricted securities" acquired, directly or indirectly, from the issuer thereof (or from an affiliate of such issuer), in a non-public offering subject to the satisfaction of certain conditions.

(e) I further understand that at the time I wish to sell the Securities there may be no public market upon which to make such a sale.

WARRANTHOLDER

(signature)

(title)

Date: _____

NEITHER THIS WARRANT NOR THE SECURITIES ISSUABLE UPON EXERCISE OF THIS WARRANT HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. SUBJECT TO SECTION 6 BELOW, NO SALE OR DISPOSITION MAY BE EFFECTED EXCEPT IN COMPLIANCE WITH RULE 144 UNDER SAID ACT OR WITHOUT (I) AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO, (II) AN OPINION OF COUNSEL FOR HOLDER, SATISFACTORY TO COMPANY, THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR (III) RECEIPT OF A NO-ACTION LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION.

WARRANT TO PURCHASE SHARES OF SERIES D CONVERTIBLE PREFERRED STOCK

September 28, 2007

THIS CERTIFIES THAT, for value received, _____ (“Holder”) is entitled to subscribe for and purchase the Specified Number (as defined below) of shares of fully paid and nonassessable Series D Convertible Preferred Stock of **Codexis, Inc.**, a Delaware corporation (the “Company”), at the Warrant Price (as hereinafter defined), subject to the provisions and upon the terms and conditions hereinafter set forth. As used herein, the term “Series D Preferred” shall mean Company’s presently authorized Series D Convertible Preferred Stock, \$.0001 par value per share, and any stock into which such Series D Preferred may hereafter be converted or exchanged and the term “Warrant Shares” shall mean the shares of Series D Preferred which Holder may acquire pursuant to this Warrant and any other shares of stock into which such shares of Series D Preferred may hereafter be converted or exchanged.

1. Warrant Price and Specified Number.

(a) The “Warrant Price” shall initially be _____ (_____) per share, subject to adjustment as provided in Section 7 below.

(b) The “Specified Number” shall initially be _____ (_____) shares on the date hereof, subject to adjustment as provided in Section 7 below. Further, the “Specified Number” shall increase by _____ (_____) shares for each One Million Dollars (\$1,000,000) of additional loans made by the Holder to Company after the date hereof pursuant to that certain Loan and Security Agreement, dated as of the date hereof, by and among the Company, the Holder, the other lenders party thereto, and General Electric Capital Corporation, as agent; provided, however, that in no event shall the “Specified Number” exceed _____ (_____) shares.

2. Conditions to Exercise. The purchase right represented by this Warrant may be exercised at any time, or from time to time, in whole or in part during the term commencing on the date hereof and ending at 5:00 P.M. Pacific time on the later of (a) the tenth anniversary of the date of this Warrant and (b) the fifth anniversary of the date of an initial public offering (the “Initial Public Offering”) of Company (such later date, the “Expiration Date”).

3. Method of Exercise or Conversion; Payment; Issuance of Shares; Issuance of New Warrant.

(a) Cash Exercise. Subject to Section 2 hereof, the purchase right represented by this Warrant may be exercised by Holder hereof, in whole or in part, by the surrender of the original of this Warrant (together with a duly executed Notice of Exercise in substantially the form attached hereto) at the principal office of Company (as set forth in Section 19 below) and by payment to Company, by certified or bank check, or wire transfer of immediately available funds, of an amount equal to the then applicable Warrant Price per share multiplied by the number of Warrant Shares then being purchased. In the event of any exercise of the rights represented by this Warrant, certificates for the shares of stock so purchased shall be in the name of, and delivered to, Holder hereof, or as such Holder may direct (subject to the terms of transfer contained herein and upon payment by such Holder hereof of any applicable transfer taxes). Such delivery shall be made within 30 days after exercise of this Warrant and at Company's expense and, unless this Warrant has been fully exercised or expired, a new Warrant having terms and conditions substantially identical to this Warrant and representing the portion of the Warrant Shares, if any, with respect to which this Warrant shall not have been exercised, shall also be issued to Holder hereof within 30 days after exercise of this Warrant.

(b) Conversion. In lieu of exercising this Warrant as specified in Section 3(a), Holder may from time to time convert this Warrant, in whole or in part, into Warrant Shares by surrender of the original of this Warrant (together with a duly executed Notice of Exercise in substantially the form attached hereto) at the principal office of Company, in which event Company shall issue to Holder the number of Warrant Shares computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

Where:

X = the number of Warrant Shares to be issued to Holder.

Y = the number of Warrant Shares purchasable under this Warrant (at the date of such calculation).

A = the Fair Market Value of one share of Company's Series D Preferred (at the date of such calculation).

B = Warrant Price (as adjusted to the date of such calculation).

(c) Fair Market Value. For purposes of this Section 3, Fair Market Value of one share of Company's Series D Preferred shall mean:

(i) In the event of an exercise in connection with an Initial Public Offering, the per share Fair Market Value for the Series D Preferred shall be the offering price at which the underwriters initially sell common stock of Company ("Common Stock") to the public multiplied by the number of shares of Common Stock into which each share of Series D Preferred is then convertible;

(ii) The average of the closing bid and asked prices of Common Stock quoted in the Over-The-Counter Market Summary, the last reported sale price quoted on the Nasdaq Stock Market or on any other exchange on which the Common Stock is listed, whichever is applicable, as published in the Western Edition of the Wall Street Journal for the three (3) trading days prior to the date of determination of Fair Market Value, multiplied by the number of shares of Common Stock into which each share of Series D Preferred is then convertible;

(iii) In the event of an exercise in connection with a merger, acquisition or other consolidation in which Company is not the surviving entity, the per share Fair Market Value for the Series D Preferred shall be the value to be received per share of Series D Preferred by all holders of the Series D Preferred in such transaction as determined by the Board of Directors; or

(iv) In any other instance, the per share Fair Market Value for the Series D Preferred shall be as determined in the reasonable good faith judgment of Company's Board of Directors.

In the event of 3(c)(iii) or 3(c)(iv), above, Company's Board of Directors shall prepare a certificate, to be signed by an authorized officer of Company, setting forth in reasonable detail the basis for and method of determination of the per share Fair Market Value of the Series D Preferred. The Board of Directors will also certify to Holder that this per share Fair Market Value will be applicable to all holders of Company's Series D Preferred. Such certification must be made to Holder at least thirty (30) business days prior to the proposed effective date of the merger, consolidation, sale, or other triggering event as defined in 3(c)(iii) or 3(c)(iv).

(d) Automatic Exercise. To the extent this Warrant is not previously exercised, it shall be deemed to have been automatically converted in accordance with Sections 3(b) and 3(c) hereof (even if not surrendered) as of immediately before its expiration, involuntary termination or cancellation if the then-Fair Market Value of a Warrant Share exceeds the then-Warrant Price, unless Holder notifies Company in writing to the contrary prior to such automatic exercise.

4. Representations and Warranties of Holder and Company.

(a) Representations and Warranties by Holder. Holder represents and warrants to Company with respect to this purchase as follows:

(i) Evaluation. Holder has substantial experience in evaluating and investing in private placement transactions of securities of companies similar to Company so that Holder is capable of evaluating the merits and risks of its investment in Company and has the capacity to protect its interests.

(ii) Resale. Except for transfers to an affiliate of Holder, Holder is acquiring this Warrant and the Warrant Shares issuable upon exercise of this Warrant (collectively the "Securities") for investment for its own account and not with a view to, or for resale in connection with, any distribution thereof. Holder understands that the Securities have not been registered under the Securities Act of 1933, as amended (the "Act") by reason of a specific exemption from the registration provisions of the Act which depends upon, among other things, the bona fide nature of the investment intent as expressed herein.

(iii) Rule 144. Holder acknowledges that the Securities must be held indefinitely unless subsequently registered under the Act or an exemption from such registration is available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

(iv) Accredited Investor. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

(v) Opportunity To Discuss. Holder has had an opportunity to discuss Company's business, management and financial affairs with its management and an opportunity to review Company's facilities. Holder understands that such discussions, as well as the written information issued by Company, were intended to describe the aspects of Company's business and prospects which Company believes to be material but were not necessarily a thorough or exhaustive description.

(b) Representations and Warranties by Company. Company hereby represents and warrants to Holder that the statements in the following paragraphs of this Section 4(b) are true and correct (a) as of the date hereof and (b) except where any such representation and warranty relates specifically to an earlier date, as of the date of any exercise of this Warrant.

(i) Corporate Organization and Authority. Company (a) is a corporation duly organized, validly existing, and in good standing in its jurisdiction of incorporation, (b) has the corporate power and authority to own and operate its properties and to carry on its business as now conducted and as proposed to be conducted; and (c) is qualified as a foreign corporation in all jurisdictions where such qualification is required.

(ii) Corporate Power. Company has all requisite legal and corporate power and authority to execute, issue and deliver this Warrant, to issue the Warrant Shares issuable upon exercise or conversion of this Warrant, and to carry out and perform its obligations under this Warrant and any related agreements.

(iii) Authorization; Enforceability. All corporate action on the part of Company, its officers, directors and shareholders necessary for the authorization, execution, delivery and performance of its obligations under this Warrant and for the authorization, issuance and delivery of this Warrant and the Warrant Shares

issuable upon exercise of this Warrant has been taken and this Warrant constitutes the legally binding and valid obligation of Company enforceable in accordance with its terms.

(iv) Valid Issuance of Warrant and Warrant Shares. This Warrant has been validly issued and is free of restrictions on transfer other than restrictions on transfer set forth herein and under applicable state and federal securities laws. The Warrant Shares issuable upon conversion of this Warrant, when issued, sold and delivered in accordance with the terms of this Warrant for the consideration expressed herein, will be duly and validly issued, fully paid and nonassessable, and will be free of restrictions on transfer other than restrictions on transfer under this Warrant and under applicable state and federal securities laws. Subject to applicable restrictions on transfer, the issuance and delivery of this Warrant and the Warrant Shares issuable upon exercise or conversion of this Warrant are not subject to any preemptive or other similar rights or any liens or encumbrances except as specifically set forth in Company's Certificate of Incorporation or this Warrant. The offer, sale and issuance of the Warrant Shares, as contemplated by this Warrant, are exempt from the prospectus and registration requirements of applicable United States federal and state security laws, and neither Company nor any authorized agent acting on its behalf has or will take any action hereafter that would cause the loss of such exemption.

(v) No Conflict. The execution, delivery, and performance of this Warrant will not result in (a) any violation of, be in conflict with, or constitute a default under, with or without the passage of time or the giving of notice (1) any provision of Company's Certificate of Incorporation or by-laws; (2) any provision of any judgment, decree, or order to which Company is a party, by which it is bound, or to which any of its material assets are subject; (3) any contract, obligation, or commitment to which Company is a party or by which it is bound; or (4) any statute, rule, or governmental regulation applicable to Company, or (b) the creation of any lien, charge or encumbrance upon any assets of Company.

(vi) Capitalization. The capitalization table of Company attached hereto as Annex A is complete and accurate as of the date hereof (after giving effect to the issuance of this Warrant) and reflects (a) all outstanding capital stock of Company and (b) all outstanding warrants, options, conversion privileges, preemptive rights or other rights or agreements to purchase or otherwise acquire or issue any equity securities or convertible securities of Company. Company has reserved 11,154,802 shares of Common Stock for issuance upon conversion of the Series D Preferred.

5. Legends.

(a) Legend. Each certificate representing the Warrant Shares shall be endorsed with substantially the following legend:

THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"). NO SALE OR DISPOSITION MAY BE EFFECTED EXCEPT IN COMPLIANCE WITH THE ACT AND ANY REGULATIONS PROMULGATED THEREUNDER OR WITHOUT (I) AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO, (II) AN OPINION OF COUNSEL FOR HOLDER SATISFACTORY TO THE ISSUER THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE ACT OR (III) RECEIPT OF A NO-ACTION LETTER FROM THE SECURITIES AND EXCHANGE COMMISSION.

Company need not enter into its stock records a transfer of Warrant Shares unless the conditions specified in the foregoing legend are satisfied. Company may also instruct its transfer agent not to allow the transfer of any of the Warrant Shares unless the conditions specified in the foregoing legend are satisfied.

(b) Removal of Legend and Transfer Restrictions. The legend relating to the Act endorsed on a certificate pursuant to paragraph 5(a) of this Warrant shall be removed and Company shall issue a certificate without such legend to Holder if (i) the Securities are registered under the Act and a prospectus meeting the requirements of Section 10 of the Act is available or (ii) Holder provides to Company an opinion of counsel for Holder reasonably satisfactory to Company, a no-action letter or interpretive opinion of the staff of the Securities and Exchange Commission ("SEC") reasonably satisfactory to Company, or other evidence reasonably satisfactory to Company, to the effect that public sale, transfer or assignment of the Securities may be made without registration and without compliance with any restriction such as Rule 144.

6. Condition of Transfer or Exercise of Warrant. It shall be a condition to any transfer or exercise of this Warrant that at the time of such transfer or exercise, Holder (with respect to an exercise) or transferee (with respect to a transfer) shall provide Company with a representation in writing that Holder or transferee is acquiring this Warrant and the shares of Series D Preferred to be issued upon exercise for investment purposes only and not with a view to any sale or distribution, or will provide Company with a statement of pertinent facts covering any proposed distribution. As a further condition to any transfer of this Warrant or any or all of the shares of Series D Preferred issuable upon exercise of this Warrant, other than a transfer registered under the Act, Company may request a legal opinion, in form and substance satisfactory to Company and its counsel, reciting the pertinent circumstances surrounding the proposed transfer and stating that such transfer is exempt from the registration and prospectus delivery requirements of the Act. Company shall not require Holder to provide an opinion of counsel if the transfer is to an affiliate of Holder or without payment or promise of consideration. As further condition to each transfer, at the request of Company, Holder shall surrender this Warrant to Company and the transferee shall receive and accept a Warrant, of like tenor and date, executed by Company.

7. Adjustment for Certain Events. The number and kind of securities purchasable upon the exercise of this Warrant and the Warrant Price shall be subject to adjustment from time to time upon the occurrence of certain events, as follows:

(a) Reclassification, Merger or Sale (i) In the event of (A) any reclassification or change of securities of the class issuable upon exercise of this Warrant (other than a change in par value, or from par value to no par value, or from no par value to par value, or as a result of a subdivision or combination) or (B) (1) any merger of Company with or into another corporation (other than a merger with another corporation in which Company is the acquiring and the surviving corporation and which does not result in any reclassification or change of outstanding securities issuable upon exercise of this Warrant) (herein called a "Merger") or (2) any sale of all or substantially all of the assets of Company (herein called a "Sale"), and if on the record date for such Merger or Sale the fair market value of a share of Series D Preferred (or other securities issuable upon exercise of this Warrant) based on the amount to be paid to holders of the Warrant Shares if the Warrant had been exercised, is less than 300% of the Warrant Price, Company, or such successor or purchasing corporation, as the case may be, shall duly execute and deliver to Holder a new Warrant (in form and substance satisfactory to Holder of this Warrant), or Company shall make appropriate provision without the issuance of a new Warrant, so that Holder shall have the right to receive, at a total purchase price not to exceed that payable upon the exercise of the unexercised portion of this Warrant, and in lieu of the Warrant Shares theretofore issuable upon exercise or conversion of this Warrant, the kind and amount of shares of stock, other securities, money and property receivable upon such reclassification, change, Merger or Sale by a holder of the number of shares of Series D Preferred then purchasable under this Warrant, or in the case of such Merger or Sale in which the consideration paid consists all or in part of assets other than securities of the successor or purchasing corporation, at the option of Holder, the securities of the successor or purchasing corporation having a value at the time of the transaction equivalent to the value of the Warrant Shares purchasable upon exercise of this Warrant at the time of the transaction. Any new Warrant shall provide for adjustments that shall be as nearly equivalent as may be practicable to the adjustments provided for in this Section 7. Subject to Sections 7(a)(ii) and 7(a)(iii) below, the provisions of this subparagraph (a) shall similarly apply to successive reclassifications, changes, Mergers and Sales.

(ii) In the event of a Merger or Sale where, on the record date for such Merger or Sale, the fair market value of a share of Series D Preferred (or other securities issuable upon exercise of this Warrant) based on the amount to be paid to holders of the Warrant Shares if the Warrant had been exercised, is equal to or greater than 300% of the Warrant Price, Holder may either (A) exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Merger or Sale or (B) subject to Section 3(d) above, permit the Warrant to expire upon the consummation of such Merger or Sale.

(iii) Notwithstanding anything in this Section 7(a) to the contrary, in the event of a Sale where 80% or more of the aggregate consideration for such Sale is comprised of cash, Holder may either (A) exercise its conversion or purchase right under this Warrant and such exercise will be deemed effective immediately prior to the consummation of such Sale or (B) subject to Section 3(d) above, permit the Warrant to expire upon the consummation of such Sale.

(iv) Company shall provide Holder with written notice of any proposed Merger or Sale together with such reasonable information as Holder may request in connection with such contemplated Merger or Sale giving rise to such notice, which is to be delivered to Holder not less than ten (10) business days prior to the closing of the proposed Merger or Sale.

(b) Subdivision or Combination of Shares. If Company at any time while this Warrant remains outstanding and unexpired shall subdivide or combine its outstanding shares of Series D Preferred, the Warrant Price shall be proportionately decreased and the number of Warrant Shares issuable hereunder shall be proportionately increased in the case of a subdivision and the Warrant Price shall be proportionately increased and the number of Warrant Shares issuable hereunder shall be proportionately decreased in the case of a combination.

(c) Stock Dividends and Other Distributions. If Company at any time while this Warrant is outstanding and unexpired shall (i) pay a dividend with respect to Series D Preferred payable in Series D Preferred, then the Warrant Price shall be adjusted, from and after the date of determination of shareholders entitled to receive such dividend or distribution, to that price determined by multiplying the Warrant Price in effect immediately prior to such date of determination by a fraction (A) the numerator of which shall be the total number of shares of Series D Preferred outstanding immediately prior to such dividend or distribution, and (B) the denominator of which shall be the total number of shares of Series D Preferred outstanding immediately after such dividend or distribution; or (ii) make any other distribution with respect to Series D Preferred (except any distribution specifically provided for in Sections 7(a) and 7(b)), then, in each such case, provision shall be made by Company such that Holder shall receive upon exercise of this Warrant a proportionate share of any such dividend or distribution as though it were Holder of the Warrant Shares as of the record date fixed for the determination of the shareholders of Company entitled to receive such dividend or distribution.

(d) Adjustment of Number of Shares. Upon each adjustment in the Warrant Price, the number of Warrant Shares purchasable hereunder shall be adjusted, to the nearest whole share, to the product obtained by multiplying the number of Warrant Shares purchasable immediately prior to such adjustment in the Warrant Price by a fraction, the numerator of which shall be the Warrant Price immediately prior to such adjustment and the denominator of which shall be the Warrant Price immediately thereafter.

(e) Adjustment for Dilutive Issuance. The number of shares of Common Stock issuable upon conversion of the Warrant Shares, shall be subject to adjustment, from time to time in the manner set forth in Company's Certificate of Incorporation as if the Warrant Shares were issued and outstanding on and as of the date of any such required adjustment. The provisions set forth for the Warrant Shares in Company's Certificate of Incorporation relating to the above in effect as of the date hereof may not be amended, modified or waived, without the prior written consent of Holder unless such amendment, modification or waiver affects the rights associated with the Warrant Shares in the same manner as such amendment, modification or waiver affects the rights associated with all other shares of the same series and class as the Warrant Shares.

(f) Adjustment for Pay-to-Play Transaction. In the event that Company's Certificate of Incorporation provides, or is amended to so provide, for the amendment or modification of the rights, preferences or privileges of the Series D Preferred, or the reclassification, conversion or exchange of the Series D Preferred, in the event that a holder thereof fails to participate in an equity financing transaction (a "Pay-to-Play Provision"), and in the event that such Pay-to-Play Provision becomes operative, this Warrant shall automatically and without any action required become exercisable for that number and type of shares of equity securities as would have been issued or exchanged, or would have remained outstanding, in respect of the Warrant Shares issuable hereunder had this Warrant been exercised in full prior to such event, and had Holder participated in the equity financing to the maximum extent permitted.

(g) Adjustments Upon Conversion of Series D Preferred. If all of the Series D Preferred is converted into shares of Common Stock (including without limitation pursuant to the automatic conversion provisions of Company's certificate of incorporation providing for the conversion of the Series D Preferred into Common Stock in connection with a qualified initial public offering of Company's securities), then this Warrant shall automatically become exercisable for that number of shares of Common Stock equal to the number of shares of Common Stock that would have been received if this Warrant had been exercised in full and the shares of Series D Preferred received thereupon had been simultaneously converted into shares of Common Stock immediately prior to such event, and the Warrant Price shall be automatically adjusted to equal the amount obtained by dividing the then existing Warrant Price by the number of shares of Common Stock into which one share of Series D Preferred is converted. For avoidance of doubt, the aggregate Warrant Price shall not be adjusted in connection with any adjustments pursuant to this Section 7(g).

8. Notice of Adjustments. Whenever any Warrant Price or the kind or number of securities issuable under this Warrant shall be adjusted pursuant to Section 7 hereof, Company shall prepare a certificate signed by an officer of Company setting forth, in reasonable detail, the event requiring the adjustment, the amount of the adjustment, the method by which such adjustment was calculated, and the Warrant Price and number or kind of shares issuable upon exercise of this Warrant after giving effect to such adjustment, and shall cause copies of such certificate to be mailed (by certified or registered mail, return receipt required, postage prepaid) within thirty (30) days of such adjustment to Holder as set forth in Section 19 hereof.

9. Reserved.

10. Transferability of Warrant. This Warrant is transferable on the books of Company at its principal office by the registered Holder hereof upon surrender of this Warrant properly endorsed, subject to compliance with Section 6 and applicable federal and state securities laws. Company shall issue and deliver to the transferee a new Warrant representing the Warrant so transferred. Upon any partial transfer, Company will issue and deliver to Holder a new Warrant with respect to the Warrant not so transferred. Holder shall not have any right to transfer any portion of this Warrant to any direct competitor of Company.

11. Investor and Co-Sale Rights. Company grants to Holder the rights granted to other holders of the Series D Preferred under that certain Third Amended and Restated Investor Rights Agreement dated August 22, 2006 (the "Investor Rights Agreement") and that certain Second Amended and Restated Right of First Refusal and Co-Sale Agreement dated August 22, 2006 (the "ROFR/Co-Sale Agreement") and agrees that Holder shall be added as a party to the Investor Rights Agreement and ROFR/Co-Sale Agreement, and that the Warrant Shares shall be "Registrable Securities" under the Investor Rights Agreement. Holder further agrees to be bound by the terms and conditions of the market standoff agreement, currently section 2.12, of the Investor Rights Agreement, as it may be amended from time to time (but only to the extent that such Investor Rights Agreement is not amended in a manner that treats the Holder differently than any other holder of the Series D Preferred).

12. No Fractional Shares. No fractional share of Series D Preferred will be issued in connection with any exercise or conversion hereunder, but in lieu of such fractional share Company shall make a cash payment therefor upon the basis of the Warrant Price then in effect.

13. Charges, Taxes and Expenses. Issuance of certificates for shares of Series D Preferred upon the exercise or conversion of this Warrant shall be made without charge to Holder for any United States or state of the United States documentary stamp tax or other incidental expense with respect to the issuance of such certificate, all of which taxes and expenses shall be paid by Company, and such certificates shall be issued in the name of Holder.

14. No Shareholder Rights Until Exercise. Except as expressly provided herein, this Warrant does not entitle Holder to any voting rights or other rights as a shareholder of Company prior to the exercise hereof.

15. Registry of Warrant. Company shall maintain a registry showing the name and address of the registered Holder of this Warrant. This Warrant may be surrendered for exchange or exercise, in accordance with its terms, at such office or agency of Company, and Company and Holder shall be entitled to rely in all respects, prior to written notice to the contrary, upon such registry.

16. Loss, Theft, Destruction or Mutilation of Warrant. Upon receipt by Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and, in the case of loss, theft, or destruction, of indemnity reasonably satisfactory to it, and, if mutilated, upon surrender and cancellation of this Warrant, Company will execute and deliver a new Warrant, having terms and conditions substantially identical to this Warrant, in lieu hereof.

17. Miscellaneous.

(a) Issue Date. The provisions of this Warrant shall be construed and shall be given effect in all respect as if it had been issued and delivered by Company on the date hereof.

(b) Successors. This Warrant shall be binding upon any successors or assigns of Company.

(c) Headings. The headings used in this Warrant are used for convenience only and are not to be considered in construing or interpreting this Warrant.

(d) Saturdays, Sundays, Holidays If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall be a Saturday or a Sunday or shall be a legal holiday in the State of Connecticut, then such action may be taken or such right may be exercised on the next succeeding day not a legal holiday.

(e) Attorney's Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorney's fees.

18. No Impairment. Company will not, by amendment of its Certificate of Incorporation or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of Holder hereof against impairment. Without limiting the breadth of the foregoing, Company will not cause the Series D Preferred into which this Warrant is exercisable or convertible to be converted into Common Stock unless such conversion is effected as part of the conversion of all Company's outstanding series of Series D Preferred and other senior securities into Common Stock.

19. Addresses. Any notice required or permitted hereunder shall be in writing and shall be mailed by overnight courier, registered or certified mail, return receipt requested, and postage prepaid, or otherwise delivered by hand or by messenger, addressed as set forth below, or at such other address as Company or Holder hereof shall have furnished to the other party in accordance with the delivery instructions set forth in this Section 19.

If to Company: Codexis Inc.
 Chief Financial Officer
 200 Penobscot Drive
 Redwood City, CA 94063
 Attention: Mr. Robert Breuil
 Phone: (650) 421-8120
 Facsimile: (650) 298-5837

Codexis, Inc.
General Counsel
200 Penobscot Drive
Redwood City, CA 94063
Attention: Mr. Doug Sheehy
Phone: (650) 421-8160
Facsimile: (650) 421-8108

If to Holder: _____

If mailed by registered or certified mail, return receipt requested, and postage prepaid, notice shall be deemed to be given five (5) days after being sent, and if sent by overnight courier, by hand or by messenger, notice shall be deemed to be given when delivered (if on a business day, and if not, on the next business day).

20. WAIVER OF JURY TRIAL. EACH OF THE PARTIES HERETO HEREBY WAIVES TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS WARRANT OR THE WARRANT SHARES.

21. GOVERNING LAW. THIS WARRANT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, Company has caused this Warrant to be executed by its officer thereunto duly authorized.

CODEXIS, INC.

By: _____

Name: Alan Shaw

Title: President and Chief Executive Officer

Dated as of September 28, 2007.

NOTICE OF EXERCISE

To:

Codexis, Inc.
200 Penobscot Drive
Redwood City, California 04063
Attn: General Counsel

1. The undersigned Warrantholder ("Holder") elects to acquire shares of the Series D Convertible Preferred Stock (the "Series D Preferred") of Codexis, Inc. (the "Company"), pursuant to the terms of the Stock Purchase Warrant dated [_____, 20__] (the "Warrant").

2. Holder exercises its rights under the Warrant as set forth below:

- () Holder elects to purchase _____ shares of Series D Preferred as provided in Section 3(a) and tenders herewith a check in the amount of \$_____ as payment of the purchase price.
- () Holder elects to convert the purchase rights into shares of Series D Preferred as provided in Section 3(b) of the Warrant.

3. Holder surrenders the Warrant with this Notice of Exercise.

Holder represents that it is acquiring the aforesaid shares of Series D Preferred for investment and not with a view to or for resale in connection with distribution and that Holder has no present intention of distributing or reselling the shares.

Please issue a certificate representing the shares of the Series D Preferred in the name of Holder or in such other name as is specified below:

Name: _____
Address: _____
Taxpayer I.D.: _____

[NAME OF HOLDER]

By: _____
Name: _____
Title: _____

Date: _____, 200__

ANNEX A

CAPITALIZATION TABLE

[SEE ATTACHED]

THIS WARRANT AND THE SECURITIES ISSUABLE UPON THE EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR ANY STATE SECURITIES LAWS. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF A REGISTRATION STATEMENT IN EFFECT WITH RESPECT TO THE SECURITIES UNDER SUCH ACT OR AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF SUCH ACT.

Void after February 9, 2016

**WARRANT FOR THE
PURCHASE OF SHARES OF COMMON STOCK**

of

CODEXIS, INC.

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

THIS CERTIFIES THAT, for value received, Alexandria Equities, LLC, a Delaware limited liability company, together with its successors and assigns (each, a "Holder"), is entitled to purchase up to that number of duly authorized, validly issued, fully paid and nonassessable shares of Common Stock par value \$0.0001 per share, (the "Common Stock") of Codexis, Inc., a Delaware corporation (the "Company"), as set forth in Section 1.2 below, at the per share purchase price described in Section 1.3 below, subject to the provisions and upon the terms and conditions hereinafter set forth.

1. Exercise of Warrant. The terms and conditions upon which this Warrant may be exercised, and the Common Stock covered hereby may be purchased, are as follows:

1.1 Term: Put Right.

(a) The purchase right represented by this Warrant may be exercised in whole or in part at any time and from time to time from and after the date hereof and on or before the tenth anniversary hereof; provided, that if the last day on which this Warrant may be exercised is not a Business Day (as defined in Section 12 hereof), this Warrant may be exercised prior to 5:00 p.m. (New York time) on the next succeeding full Business Day with the same force and effect as if exercised on such last day specified herein.

(b) Notwithstanding anything herein to the contrary, in the event that on or prior to January 31, 2011 the Company has not consummated any Liquidity Event (as defined below), then on January 31, 2011 the Company shall repurchase from Holder, at Holder's option (such option being the "Put Right"), this Warrant, at a price of \$8.30 per share of Common Stock then issuable upon exercise of the Warrant. In the event Holder does not elect to exercise Holder's Put Right on or before 12:00 p.m. Pacific time on January 31, 2011, then the Put Right shall expire, and this Warrant shall survive and be governed by all the terms and conditions set forth herein. For purposes hereof, "Liquidity Event" shall mean any sale, lease, license, transfer or other disposition of all or substantially all of the assets of the Company to any

other Person; any consolidation or merger involving the Company; or any firm commitment underwritten public offering of its Common Shares registered under the Act.

1.2 Number of Shares. This Warrant is initially exercisable for that number of shares of Common Stock, subject to adjustment pursuant to Section 2 of this Warrant, equal to three thousand five hundred seventy-seven (3,577).

1.3 Purchase Price. The initial per share purchase price for the shares of Common Stock to be issued upon exercise of this Warrant shall be \$8.30, subject to adjustment as provided for herein (the "Warrant Price").

1.4 Method of Exercise. The exercise of the purchase rights evidenced by this Warrant shall be effected by (a) the surrender of this Warrant, together with a duly executed copy of the form of a subscription attached hereto, to the Company at its principal offices and the delivery of the purchase price (i) by check or bank draft payable to the Company's order or by wire transfer to the Company's account for the number of shares for which the purchase rights hereunder are being exercised or any other form of consideration approved by the Company's Board of Directors or (ii) pursuant to the procedure set forth in Section 1.5.

Each exercise of this Warrant shall be deemed to have been effected immediately prior to the close of business on the day on which this Warrant shall have been surrendered to the Company as provided herein or at such later date as may be specified in the executed form of subscription, and at such time the person or persons in whose name or names any certificate or certificates for shares of Common Stock shall be issuable upon such exercise as provided herein shall be deemed to have become the Holder or Holders of record thereof.

1.5 Cashless Exercise. In addition to and without limiting the rights of the Holder hereof under the terms hereof, at the Holder's option this Warrant may be exercised in whole or in part at any time or from time to time prior to its expiration for a number of shares of Common Stock having an aggregate fair market value on the date of such exercise equal to the difference between (a) the fair market value of the number of shares of Common Stock subject to this Warrant designated for exercise by the Holder hereof on the date of exercise and (b) the aggregate Warrant Price for such shares in effect at such time.

The "fair market value" of shares of Common Stock shall be calculated on the basis of (a) if the Common Stock is then traded on a securities exchange, the average of the closing prices of the Common Stock on such exchange over the 20 trading day period ending three (3) trading days prior to the date of exercise, (b) if the Common Stock is then regularly traded over-the-counter, the average of the sale prices or, if sale prices for the Common Stock are not regularly and publicly reported, then the closing bid of the Common Stock over the 20 trading day period ending three (3) trading days prior to the date of exercise, or (c) if there is no active public market for the Common Stock, the fair market value thereof shall be determined by a nationally recognized investment banking firm chosen in good faith by the Company's Board of Directors. If the Holder of this Warrant exercises this Warrant contingent upon the closing of a public offering, the "fair market value" of a share of Common Stock on the date of exercise shall be equal to the initial price to the public specified in the final prospectus with respect to such public

offering. The following formula illustrates how many shares would be issued upon exercise of this Warrant pursuant to the “cashless exercise” provisions of this Section 1.5:

- Let FMV = Fair market value per share of Common Stock at date of exercise.
PSP = Per share Warrant Price at date of exercise.
N = Number of shares of Common Stock desired to be exercised.
X = Number of shares of Common Stock issued upon exercise.
X = $\frac{(FMV)(N)-(PSP)(N)}{FMV}$

No payment of any cash or other consideration to the Company shall be required from the Holder of this Warrant in connection with any exercise of this Warrant pursuant to this Section 1.5. Such exercise shall be effective upon the date of receipt by the Company of this Warrant surrendered for cancellation and a written request from the Holder hereof that the exercise pursuant to this section be made, or at such later date as may be specified in such request.

1.6 Issuance of Shares. As soon as reasonably practicable after each exercise of this Warrant, in whole or in part, the Company at its expense (including the payment by it of any applicable issue taxes) shall cause to be issued in the name of and delivered to the Holder hereof or as such Holder (upon payment by such Holder of any applicable transfer taxes) may direct, (a) a certificate or certificates for the number of duly authorized, validly issued, fully paid and nonassessable shares of Common Stock to which such Holder shall be entitled upon such exercise, and (b) in case such exercise is in part only, a new Warrant or Warrants of like tenor representing in the aggregate the right to purchase the number of shares of Common Stock equal (without giving effect to any adjustment thereof) to the number of such shares stated in this Warrant minus the number of such shares designated by the Holder upon such exercise as provided herein.

2. Certain Adjustments.

2.1 Mergers, Consolidations or Sale of Assets. If after the date hereof there shall be a capital reorganization (other than a combination or subdivision of Common Stock otherwise provided for herein), or spin-off, or a merger or consolidation of the Company with or into another corporation, a limited liability company, a partnership or other legal entity (each of the foregoing being referred to herein as a “Person”), or the sale of all or substantially all of the Company’s properties and assets to any other Person, then, as a part of such transaction, lawful provision shall be made so that the Holder shall thereafter be entitled to receive upon exercise of this Warrant, during the period specified in this Warrant and upon payment of the purchase price specified by this Warrant, the number of shares of stock or other securities, cash or property of the Company or the successor corporation or other Person resulting from such transaction, to which a Holder of the Common Stock deliverable upon exercise of this Warrant would have been entitled under the provisions of the agreement in such transaction (or otherwise pursuant to such transaction) if this Warrant had been exercised immediately before such transaction. In any

such case, appropriate adjustment (as determined reasonably and in good faith by the Company's Board of Directors) shall be made in the application of the provisions of this Warrant with respect to the rights and interests of the Holder such that the provisions of this Warrant (including adjustment of the Warrant Price then in effect and the number of shares of Common Stock issuable upon exercise hereof) shall be applicable after that event, as near as reasonably may be, in relation to any shares of stock or other property deliverable after that event upon exercise of this Warrant.

2.2 Splits and Subdivisions; Dividends. If the Company should effect or fix a record date for the effectuation of a split or subdivision of the outstanding shares of Common Stock or the determination of the Holders of Common Stock entitled to receive a dividend or other distribution payable in additional shares of Common Stock or other securities or warrants, options or other rights convertible into, or entitling the Holder thereof to receive directly or indirectly, additional shares of Common Stock (hereinafter referred to as "Common Stock Equivalents") without payment of any consideration by such Holder for the additional shares of Common Stock or Common Stock Equivalents (including the additional shares of Common Stock issuable upon conversion or exercise thereof), then, as of such record date (or the date of such distribution, split or subdivision if no record date is fixed), the per share Warrant Price shall be appropriately decreased and the number of shares of Common Stock issuable upon exercise hereof shall be appropriately increased in proportion to such increase of outstanding shares.

2.3 Combination of Shares. If the number of shares of Common Stock outstanding at any time after the date hereof is decreased by a combination of the outstanding shares of Common Stock, the per share Warrant Price shall be appropriately increased and the number of shares of Common Stock issuable upon exercise hereof shall be appropriately decreased in proportion to such decrease in outstanding shares.

2.4 Adjustments for Other Distributions. In the event the Company shall declare a distribution payable in securities of the Company (other than Common Stock or Common Stock Equivalents) or other Persons, evidences of indebtedness issued by the Company or other Persons, assets (including cash dividends) or options or rights not referred to in subsection 2.2, then, in each such case, upon exercise of this Warrant the Holder hereof shall be entitled to a proportionate share of any such distribution as though such Holder was the holder of the number of shares of Common Stock of the Company into which this Warrant may be exercised as of the record date fixed for the determination of the holders of Common Stock of the Company entitled to receive such distribution.

2.5 Issuance of Additional Common Stock.

(a) If, after the date hereof, the Company shall issue or sell

- (i) Additional Shares (defined below) without consideration or for a consideration per share that is less than the higher of (A) the Warrant Price and (B) the fair market value of a share of Common Stock in effect immediately prior to such issue or sale, or

- (ii) Common Stock Equivalents exercisable for Additional Shares with a minimum exercise or exchange price that is less than the higher of (A) the Warrant Price and (B) the fair market value of a share of Common Stock in effect immediately prior to such issue or sale,

then, and in each such case, the Warrant Price shall be reduced, concurrently with such issue or sale, to a price (calculated to the nearest .001 of a cent) determined by multiplying such Warrant Price by a fraction:

- (iii) the numerator of which shall be (A) the number of shares of Common Stock outstanding immediately prior to such issue or sale (including any shares of Common Stock issuable upon conversion of all outstanding shares of preferred stock and issuable upon exercise of outstanding options, warrants or other convertible securities) plus (B) the number of shares of Common Stock that the aggregate consideration received by the Company upon such issuance or sale (or, in the case of Common Stock Equivalents exercisable for Additional Shares, receivable by the Company upon exercise or exchange) would purchase at such Warrant Price, and
- (iv) the denominator of which shall be the number of shares of Common Stock outstanding immediately after such issue or sale (assuming, in the case of Common Stock Equivalents exercisable for Additional Shares, exercise or exchange of all such Common Stock Equivalents and including any shares of Common Stock issuable upon conversion of outstanding shares of preferred stock and issuable upon exercise of outstanding options, warrants or other convertible securities).

(b) For the purposes of this Section 2.5, the consideration for the issue or sale of Additional Shares shall, irrespective of the accounting treatment of such consideration, (i) insofar as it consists of cash, be computed at the net amount of cash received by the Company, and (ii) insofar as it consists of property (including securities) other than cash, be computed at the fair market value thereof at the time of such issue or sale. In the event of a disagreement by the Holder as to the fair market value of any consideration consisting of property proposed to be assigned to such consideration by the Company, the Company shall, at the option of the Holder, engage a consulting firm or investment banking firm mutually agreed to by the Holder and the Company to prepare an independent appraisal of the fair market value of such property to be distributed. The expenses of such appraisal shall be borne by the Company.

(c) Notwithstanding anything contained herein to the contrary, the consideration for any Common Stock Equivalents shall be the total amount of consideration received by the Company for the issuance of such Common Stock Equivalents plus the minimum

amount of consideration payable to the Company upon exercise, conversion or exchange of Common Stock Equivalents (the “Net Consideration”) determined as of the date of issuance of such Common Stock Equivalents. Any obligation, agreement or understanding to issue Common Stock Equivalents at any time in the future shall be deemed to be an issuance at the time such obligation or agreement is made or arises. No adjustment of the Warrant Price shall be made under this Section 2.5 upon the issuance of any shares of Common Stock which are issued pursuant to the exercise, conversion or exchange of any Common Stock Equivalents if any adjustment shall previously have been made upon the issuance of any such Common Stock Equivalents.

Should the Net Consideration for any such Common Stock Equivalents be increased or decreased from time to time, then, upon the effectiveness of such change, the Warrant Price will be that which would have been obtained (i) had the adjustments made upon the issuance of such Common Stock Equivalents been made upon the basis of the actual Net Consideration (as so increased or decreased) of such Common Stock Equivalents, and (ii) had adjustments to such Warrant Price since the date of issuance of such Common Stock Equivalents been made to such Warrant Price as adjusted pursuant to (i) above. Any adjustment of the Warrant Price pursuant to this paragraph which relates to Common Stock Equivalents shall be disregarded if, as, and when all of such Common Stock Equivalents expire or are canceled without being exercised, so that the Warrant Price effective immediately upon cancellation or expiration shall be equal to the Warrant Price in effect at the time of the issuance of the expired or canceled Common Stock Equivalents, with such additional adjustments as would have been made to such Warrant Price had the expired or canceled Common Stock Equivalents not been issued.

(d) “Additional Shares” means all shares of Common Stock, whether or not subsequently reacquired or retired by the Company, other than shares of Common Stock issued or to be issued to directors, officers, employees and consultants of the Company or any subsidiary pursuant to any bona fide qualified or non-qualified stock option plan or agreement, stock purchase plan or agreement, stock restriction agreement, or employee stock ownership plan.

(e) The number of shares of Common Stock that the Holder of this Warrant shall be entitled to receive upon each exercise hereof after any adjustment pursuant to this Section 2.5 shall be determined by multiplying (i) the number of shares of Common Stock that were issuable immediately prior to such adjustment, by (ii) the fraction of which (A) the numerator is the Warrant Price immediately prior to such adjustment and (B) the denominator is the Warrant Price immediately following such adjustment.

2.6 Certificate as to Adjustments. In the case of each adjustment or readjustment of the Warrant Price pursuant to this Section 2, the Company at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and cause a certificate, signed by the Company’s Chief Financial Officer, setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based to be delivered to the Holder of this Warrant. The Company shall furnish or cause to be furnished to such Holder a certificate setting forth (a) such adjustments and readjustments, (b) the Warrant Price in effect after such adjustment and how it was calculated and (c) the number of shares of Common Stock issuable upon exercise hereof after such adjustment and the amount, if any, of other property at the time receivable upon the exercise of the Warrant.

2.7 Other Dilutive Events. If any event shall occur as to which the provisions of Section 2 are not strictly applicable but the failure to make any adjustment would not fairly protect the purchase rights represented by this Warrant in accordance with the essential intent and principles of such sections, then, in each such case, the Board of Directors of the Company shall make such adjustment, if any, on a basis consistent with the essential intent and principles established in Section 2, necessary to preserve, without dilution, the purchase rights represented by this Warrant. The Company shall promptly notify the Holder of any such adjustments and shall take any actions that may be necessary to put the same into effect.

2.8 No Dilution or Impairment. The Company shall not, by amendment of its certificate or articles of incorporation, as applicable, or through any consolidation, merger, reorganization, transfer of assets, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but shall at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder against dilution or other impairment. Without limiting the generality of the foregoing, the Company (a) shall not permit the par value of any shares of stock receivable upon the exercise of this Warrant to exceed the amount payable therefor upon such exercise, (b) shall take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable shares of stock on the exercise of the Warrants from time to time outstanding; and (c) shall not take any action which results in any adjustments of the Warrant Price if the total number of shares of Common Stock issuable after the action upon the exercise of all of the Warrants would exceed the total number of shares of Common Stock then authorized by the Company's certificate or articles of incorporation, as applicable, and available for the purpose of issue upon such exercise.

2.9 Notices of Record Date etc. In the event of:

(a) any taking by the Company of a record of the holders of any class of securities of the Company for the purpose of determining the holders thereof who are entitled to receive any dividend (other than a cash dividend payable out of earned surplus at the same rate as that of the last such cash dividend theretofore paid) or other distribution, or any right to subscribe for, purchase or otherwise acquire any shares of stock of any class or any other securities or property, or to receive any other right;

(b) any capital reorganization of the Company, any reclassification or recapitalization of the capital stock of the Company or Liquidity Event; or

(c) any voluntary or involuntary dissolution, liquidation or winding-up of the Company,

the Company shall mail to the Holder at least thirty (30) days prior to the earliest date specified below, a notice specifying: (i) the date on which any such record is to be taken for the purpose of such dividend, distribution or right, and the amount and character of such dividend,

distribution or right; and (ii) the date on which any such reorganization, reclassification, transfer, consolidation, merger, dissolution, liquidation or winding-up is expected to become effective and the record date for determining stockholders entitled to vote thereon and the time, if any such time is to be fixed, as of which the holders of record of Common Stock shall be entitled to exchange their shares of Common Stock for the securities or other property deliverable upon such reorganization, reclassification, recapitalization, consolidation, merger, transfer, dissolution, liquidation or winding-up.

3. Fractional Shares. No fractional shares shall be issued in connection with any exercise of this Warrant. In lieu of the issuance of any fractional share, the Company shall make a cash payment equal to the then fair market value of such fractional share as determined in accordance with Section 1.5 hereof.

4. Representations and Warranties of the Company.

4.1 Authorization. The Company has full power and authority to enter into this Warrant. This Warrant has been duly authorized, executed and delivered by the Company and constitutes its valid and legally binding obligation, enforceable in accordance with its terms.

4.2 Reservation of Common Stock. The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the exercise of this Warrant, such number of its shares of Common Stock, free from preemptive rights, as shall from time to time be sufficient to effect the exercise of this Warrant, and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the exercise of the entire Warrant, in addition to such other remedies as shall be available to the Holder, the Company shall take such action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes. If any shares of its Common Stock to be reserved for the purpose of issuance upon exercise of the Warrants require registration with or approval of any governmental authority under any applicable law before such shares of Common Stock may be validly issued or delivered, then it shall secure such registration or approval, as the case may be, and maintain such registration or approval in effect so long as so required.

4.3 Adjustment in Number of Shares Issuable and Purchase Price. There has not been nor will there be any adjustment to the number of shares issuable or the purchase price payable upon the exercise of any securities of the Company convertible into or exchangeable for shares of Common Stock resulting from the issuance or exercise of this Warrant.

4.4 Valid Issuance. This Warrant, when issued and delivered in accordance with the terms hereof will be duly authorized and validly issued, and the Common Stock issuable upon the exercise hereof, when issued pursuant to the terms hereof and upon payment of the exercise price, shall, upon such issuance, be duly authorized, validly issued, fully paid and nonassessable.

5. Privilege of Stock Ownership. Prior to the exercise of this Warrant, the Holder shall not be entitled, by virtue of holding this Warrant, to any rights of a stockholder of the Company, including (without limitation) the right to vote, receive dividends or other

distributions, exercise preemptive rights or be notified of stockholder meetings, and such Holder shall not be entitled to any notice or other communication concerning the business or affairs of the Company. Nothing in this Section 5, however, shall limit the right of the Holder to be provided the notices described in Section 2 hereof or to participate in distributions described in Section 2 hereof if the Holder ultimately exercises this Warrant.

6. Limitation of Liability. In the absence of affirmative action by the Holder to purchase the Common Stock in accordance herewith, no mere enumeration herein of the rights or privileges of the Holder hereof shall give rise to an obligation on such Holder to purchase any securities or any liability of such Holder for the purchase price or as a stockholder of the Company, whether such obligation or liability is asserted by the Company or by creditors of the Company.

7. Representations and Warranties of the Holder. Holder hereby represents and warrants to the Company as follows:

7.1 Investment Experience. Holder represents that it can bear the economic risk of its investment and has such knowledge and experience in financial or business matters that it is capable of evaluating the merits and risks of the investment in the Warrant and the Common Stock issuable upon exercise hereof. Holder also represents it has not been organized solely for the purpose of acquiring the Warrant or the Common Stock issuable upon exercise hereof.

7.2 Restricted Securities. Holder understands that the Warrant being issued hereunder and the Common Stock issuable upon exercise hereof are characterized as “restricted securities” under the federal securities laws inasmuch as they are being acquired from the Company in a transaction not involving a public offering and have not been registered under the Act nor qualified under applicable state securities laws and that under such laws and applicable regulations such securities may not be resold without registration under the Act, except in certain limited circumstances. In this connection, Holder represents that it is familiar with Rule 144 promulgated under the Act (“Rule 144”), as presently in effect, and understands the resale limitations imposed thereby and by the Act.

7.3 Accredited Investor. Holder is an “accredited investor” within the meaning of Rule 501 of Regulation D promulgated under the Act.

7.4 Legends. It is understood that the certificates evidencing the Common Stock issuable upon exercise hereof may bear the following or a substantially similar legend:

“THESE SECURITIES HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR ANY STATE SECURITIES LAWS, THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED IN THE ABSENCE OF A REGISTRATION STATEMENT IN EFFECT WITH RESPECT TO THE SECURITIES UNDER SUCH ACT OR AN EXEMPTION FROM THE REGISTRATION REQUIREMENTS OF SUCH ACT.”

8. Additional Agreements.

8.1 Confidentiality. In handling any confidential information provided to the Holder by the Company, the Holder shall exercise the same degree of care that it exercises with respect to its own proprietary information of the same type to maintain the confidentiality thereof, except that disclosure of such information may be made (i) to the subsidiaries or affiliates of Holder in connection with their present or prospective business relations with the Company, (ii) to prospective transferees or purchasers of any interest in this Warrant, provided that they have entered into a comparable confidentiality agreement in favor of the Company, (iii) as may be required in connection with the examination, audit or similar investigation of Holder or (iv) if otherwise required by law. Confidential information hereunder shall mean non-public proprietary information of the Company identified as such prior to disclosure to Holder but shall not include information that either: (a) is in the public domain or in the knowledge or possession of Holder when disclosed to Holder, or (b) is disclosed to Holder by a third party unless Holder has actual knowledge that such third party is prohibited from disclosing such information.

9. Transfers and Exchanges.

9.1 Compliance with Act. Holder agrees not to sell, hypothecate, pledge or otherwise dispose of any interest in the Warrant or the Common Stock issuable upon exercise hereof in the United States, its territories, possessions or any area subject to its jurisdiction, or to any person who is a national thereof or resident therein (including any estate of such person), or any corporation, partnership or other entity created or organized therein, other than in accordance with the Act.

9.2 New Warrants. Upon presentation to the Company's transfer agent of the form of Assignment attached hereto, a new Warrant shall be issued to the new holder hereof. New Warrants issued in connection with transfers or exchanges shall not require the signature of the new Holder hereof and shall be identical in form and provisions to this Warrant except, as applicable, as to the number of shares of Common Stock covered thereby.

9.3 Ownership of Warrants. The Company may treat the person in whose name any Warrant is registered on the register kept at the office of the Company maintained pursuant to Section 9.4(a) as the owner and Holder thereof for all purposes, notwithstanding any notice to the contrary, except that, if and when any Warrant is properly assigned in blank, the Company may (but shall not be obligated to) treat the bearer thereof as the owner of such Warrant for all purposes, notwithstanding any notice to the contrary. A Warrant, if properly assigned, may be exercised by a new Holder without a new Warrant first having been issued.

9.4 Transfer and Exchange of Warrants.

(a) The Company shall serve as its own transfer agent for purposes of this Warrant, to whom notices, presentations and demands in respect of this Warrant may be made, until such time as the Company shall notify the Holders of the Warrants of any change in such transfer agent or in the designated office locations thereof; and

(b) Upon the surrender of any Warrant, properly endorsed, for registration of transfer or for exchange, the Company at its expense will execute and deliver to or

upon the order of the Holder thereof a new Warrant or Warrants of like tenor, in the name of such Holder or as such Holder (upon payment by such Holder of any applicable transfer taxes) may direct, representing the right to purchase in the aggregate the number of shares of Common Stock stated in the Warrant or Warrants so surrendered.

10. Successors and Assigns. The terms and provisions of this Warrant shall be binding upon the Company and the Holder and their respective successors and assigns, subject at all times to the restrictions set forth herein.

11. Loss, Theft, Destruction or Mutilation of Warrant. Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to the Company, and upon reimbursement to the Company of all reasonable expenses incidental thereto, and upon surrender and cancellation of this Warrant, if mutilated, the Company will make and deliver a new warrant of like tenor and dated as of such cancellation, in lieu of this Warrant.

12. Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein is not a Business Day, then such action may be taken or such right may be exercised on the next succeeding full Business Day. For purposes of this Warrant, a Business Day is a day that is not a Saturday or a Sunday, a legal holiday or a day on which banking institutions doing business in the City of New York, or the State of California are authorized by law to close.

13. Amendments and Waivers. Any term of this Warrant may be amended and the observance of any term of this Warrant may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and the Holder. Any such amendment or waiver shall be binding on the parties.

14. Governing Law. The terms and conditions of this Warrant shall be governed by and construed in accordance with Delaware law, without regard to conflict of law provisions.

15. Notices. Except as otherwise provided in this Warrant, any requirement for a notice, demand or request under this Warrant will be satisfied by a writing (a) hand delivered with receipt; (b) mailed by United States registered or certified mail or Express Mail, return receipt requested, postage prepaid; or (c) sent by Federal Express or any other nationally recognized overnight courier service, and addressed as follows: if to the Holder, at its address as shown on the books of the Company, with a copy to Cooley Godward LLP, Five Palo Alto Square, 3000 El Camino Real, Palo Alto, CA 94306, Attn: Vincent P. Pangrazio; and if to the Company, at 200 Penobscot Drive, Redwood City, CA 94063, Attn: Chief Executive Officer, with a copy to Latham & Watkins LLP, 140 Scott Drive, Menlo Park, CA 94025, Attn: Patrick A. Pohlen. All notices that are sent in accordance with this Section 15 will be deemed received by the Holder or the Company on the earliest of the following applicable time period: (i) the date the return receipt is executed; or (ii) the date delivered as documented by the overnight courier service or the hand delivery receipt. Either the Holder or the Company may designate a change of address by written notice to the other party.

16. Registration Rights. The Company agrees that the Common Stock issuable upon exercise of this Warrant shall have certain “piggyback” registration rights pursuant to and as set forth in the Fourth Amended and Restated Investor Rights Agreement, made and entered into as of November 13, 2007 (the “Investor Rights Agreement”) as may be amended from time to time. Holder agrees to become a party to the Investor Rights Agreement for the purposes of this Section 16.

17. Remedies. The Company acknowledges and agrees that irreparable harm, for which there may be no adequate remedy at law and for which the ascertainment of damages would be difficult, would occur in the event any of the provisions of this Warrant were not performed in accordance with its specific terms or were otherwise breached. The Company accordingly agrees that the Holders shall be entitled to an injunction or injunctions to prevent breaches of the provisions of this Warrant and to enforce specifically the terms and provisions hereof in any court of the United States or any state thereof having jurisdiction, in each instance without being required to post bond or other security and in addition to, and without having to prove the inadequacy of other remedies at law.

18. Securities Matters. In order to make available the benefits of certain rules and regulations of the Commission, including without limitation Rule 144 and any successor rule or regulation of the Commission, that may at any time permit the sale of the shares of Common Stock issuable upon exercise of this Warrant to the public without registration, the Company agrees (i) to file in a timely manner all reports, statements and other information and documents required to be filed by it pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and (ii) whether or not the Company is subject to the reporting and other filing requirements of Section 13 or 15(d) of the Exchange Act, to file with the Commission and, within fifteen (15) days after the date it would be required to file such reports with the Commission if it were subject to such reporting and other filing requirements of the Exchange Act, to deliver to the Holder of this Warrant all such reports, information and other documents as it would be required to file with the Commission if it were subject to the requirements of Section 13 or 15(d) of the Exchange Act and otherwise to make and keep publicly available all such information concerning the Company as shall be necessary to enable the Holder to comply with the aforementioned rules and regulations of the Commission.

19. “Market Stand-Off” Agreement. Holder hereby agrees that Holder shall not sell, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any Common Stock (or other securities) of the Company held by Holder (other than those included in the registration and Common Stock purchased by Holder in the open market after the effective date of such registration statement) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of a registration statement of the Company filed under the Securities Act (or such longer period, not to exceed eighteen (18) days after the expiration of the 180-day period as the underwriters or the Company shall request in order to facilitate compliance with National Association of Securities Dealers Rule 2711); provided that:

19.1 such agreement shall apply only to the Company’s Initial Offering; and

19.2 all executive officers and directors of the Company and holders of at least one percent (1%) of the Company's capital stock (on an as converted basis) and all other persons with registration rights (whether or not pursuant to this Agreement) enter into similar agreements.

[signature page follows]

CODEXIS, INC.,
a Delaware corporation

By: _____
Name: Alan Shaw
Title: President and Chief Executive Officer

Dated:

ACCEPTED AND AGREED:

ALEXANDRIA EQUITIES, LLC,
a Delaware limited liability company

By: Alexandria Real Estate Equities, Inc
a Maryland corporation,
its managing member

By: _____
Name: Joel S. Marcus
Title: Chief Executive Officer

Dated: March 27, 2008

SUBSCRIPTION

Codexis, Inc.

Ladies and Gentlemen:

The undersigned, _____, hereby elects to purchase, pursuant to the *[cashless exercise]* provisions of the Warrant, dated July 17, 2007 held by the undersigned, _____ shares of the Common Stock of Codexis, Inc., a Delaware corporation, *and tenders herewith payment of the purchase price of such shares in full.*

In exercising its rights to purchase such Common Stock, the undersigned hereby confirms the investment representations made in Section 7 and the agreements made in Section 8 of such Warrant.

Dated: _____ 200__.

By: _____
Address: _____

[FORM OF ASSIGNMENT]

The undersigned hereby assigns this Warrant to

(Print or type name, address and zip code of assignee)

Please insert Social Security or other
identifying number of assignee

and irrevocably appoints _____ as agent to transfer this Warrant on the books of the Company. The agent may substitute another to act for him or it.

Dated: _____

Signed: _____

(Sign exactly as name appears on the front of this Warrant)

Dated: _____

Signed: _____

Name: _____

Title: _____

A.

REGISTRATION RIGHTS AGREEMENT

This Registration Rights Agreement (the “**Agreement**”) is entered into by and among Codexis, Inc., a Delaware corporation (the “**Company**”) and the shareholders of JFC—Jülich Fine Chemicals GmbH (“**JFC**”), Dr. Matthias Arnold, Dr. Thomas Daußmann, Dr. Thomas Drescher, Dr. Karl Rix, Dr. Falk Schneider, Mr. Horst Leutenberg and Mr. Thomas Kalthoff (including their successors and assigns, each a “**Holder**” and collectively, the “**Holders**”).

RECITALS

WHEREAS, the Holders and the Company are parties to that certain Stock Purchase Agreement recorded today under the role of deeds [•]/2005 of the notary public Dr. Marc Hermanns, Cologne, Germany (the “**Purchase Agreement**”), pursuant to which the Company is acquiring from the Holders the outstanding shares of capital stock of JFC and in consideration therefore, among other things, the Company has agreed, upon the terms and subject to the conditions of the Purchase Agreement, to issue 312,500 shares (the “**Shares**”) of the Company’s common stock (the “**Common Stock**”) to such Holders; and

WHEREAS, in connection with the consummation of the transaction contemplated by the Purchase Agreement, the parties desire to enter into this Agreement in order to grant “piggyback” registration rights to the Holders as set forth below.

NOW, THEREFORE, in consideration of the representations, warranties, covenants and agreements contained in this Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

SECTION 1.
GENERAL

1.1 **Definitions.** As used in this Agreement the following terms shall have the following respective meanings:

- (a) “**Affiliate**” means shall mean any corporation or other entity that is directly or indirectly controlling, controlled by or under the common control with a party hereto. For the purpose of this definition, “control” shall mean the direct or indirect ownership of at least fifty percent (50%) of the outstanding shares or other voting rights of the subject entity to elect directors or equivalent governing body, or if not meeting the preceding, any entity owned or controlled by or owning or controlling at the maximum control or ownership right permitted in the country where such entity exists.
- (b) “**Exchange Act**” means the United States Securities Exchange Act of 1934, as amended

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- (c) **“Investor Rights Agreement”** shall mean the Second Amended and Restated Investor Rights Agreement, dated July 26, 2004, by and among the Company and the investors listed on Exhibit A thereto, as the same may be amended, modified • or supplemented in accordance with its terms after the date hereof
 - (d) **“Investors”** shall have the meaning given such term in the investor Rights Agreement.
 - (e) **“Initial Offering”** means the Company’s first firm commitment underwritten public offering of its Common Stock registered under the Securities Act that results in the Company’s preferred stock being converted into Common Stock.
 - (f) **“register”, “registered”, and “registration”** refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement or document.
 - (g) **“Registrable Securities”** means (a) the Shares and (b) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, such above-described securities. Notwithstanding the foregoing, Registrable Securities shall not include any securities sold by a person to the public either pursuant to a registration statement or Rule 144 or sold in a private transaction in which the transferor’s rights under Section 2 of this Agreement are not assigned.
 - (h) **“Registration Expenses”** shall mean all expenses incurred by the Company in complying with Section 2.1 hereof, including, without limitation, all registration and filing fees, printing expenses, fees and disbursements of counsel for the Company, blue sky fees and expenses and the expense of any special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company, which shall be paid in any event by the Company).
 - (i) **“Securities Act”** shall mean the United States Securities Act of 1933, as amended.
 - (j) **“Selling Expenses”** shall mean all underwriting discounts and selling commissions applicable to the sale, and the fees and disbursements of counsel for the Holders, if any.

SECTION 2.
REGISTRATION RIGHTS

- 2.1 **Piggyback Registrations.** The Company shall notify all Holders in writing at least fifteen (15) days prior to the filing of any registration statement under the Securities Act for purposes of a public offering of securities of the Company (including, but not limited to, registration statements relating to secondary offerings of securities of the Company, but excluding a registration statement (i) relating to any employee benefit plan or (ii) with respect to any corporate reorganization or transaction under Rule 145 of the Securities Act, including any registration statements related to the resale of securities issued in such a transaction or (iii) related to stock issued upon conversion of debt securities) and will afford each such Holder an opportunity to include in such registration statement all or part of such Registrable Securities held by such Holder. Each Holder desiring to include in any such registration statement all or any part of the Registrable Securities held by it shall, within seven (7) days after the above-described notice from the Company, so notify the Company in writing. Such notice shall state the intended method of disposition of the Registrable Securities by such Holder. If a Holder decides not to include all of its Registrable Securities in any registration statement thereafter filed by the Company, or if the Holder's Registrable Securities are excluded therefrom by the provisions of Section 2.1(a), such Holder shall nevertheless continue to have the right to include any Registrable Securities in any subsequent registration statement or registration statements as may be filed by the Company with respect to offerings of its securities, all upon the terms and conditions set forth herein.
- (a) **Underwriting.** If the registration statement under which the Company gives notice under this Section 2.1 is for an underwritten offering, the Company shall so advise the Holders. In such event, the right of any such Holder to be included in a registration pursuant to this Section 2.1 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their Registrable Securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company. Notwithstanding any other provision of this Agreement, if the underwriter determines in good faith that marketing factors require a limitation of the number of shares to be underwritten, the number of shares that may be included in the underwriting shall be allocated, first, to the Company; second, to the Investors in accordance with the terms of the Investor Rights Agreement; third, to the Holders on a *pro rata* basis based on the total number of Registrable Securities held by the Holders; and fourth, to any other stockholder of the Company (other than an Investor or a Holder) on a *pro rata* basis. No such reduction shall reduce the amount of securities of the selling Holders included in the registration below twenty-five percent (25%) of the total amount of securities included in such

registration; provided, however, that if such registration does not include shares of any stockholder of the Company other than Investors any or all of the Registrable Securities of the Holders may be excluded in accordance with the immediately preceding sentence. If any Holder disapproves of the terms of any such underwriting, such Holder may elect to withdraw therefrom by written notice to the Company and the underwriter, delivered at least ten (10) business days prior to the effective date of the registration statement. Any Registrable Securities excluded or withdrawn from such underwriting shall be excluded and withdrawn from the registration. For any Holder that is a partnership or corporation, the partners, retired partners and stockholders of such Holder, or the estates and family members of any such partners and retired partners and any trusts for the benefit of any of the foregoing person shall be deemed to be a single "Holder," and any *pro rata* reduction with respect to such "Holder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "Holder," as defined in this sentence.

- (b) **Right to Terminate Registration.** The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.1 prior to the effectiveness of such registration whether or not any Holder has elected to include securities in such registration. The Registration Expenses of such withdrawn registration shall be borne by the Company in accordance with Section 2.2 hereof.

2.2 **Expenses of Registration.** Except as specifically provided herein, all Registration Expenses incurred in connection with any registration, qualification or compliance pursuant to Section 2.1 shall be borne by the Company. All Selling Expenses incurred in connection with any registrations hereunder, shall be borne by the holders of the securities so registered pro rata on the basis of the number of shares so registered.

2.3 **Termination of Registration Rights.** All registration rights granted under this Section 2 shall terminate and be of no further force and effect five (5) years after the date of the Company's Initial Offering. In addition, a Holder's registration rights shall expire if (a) the Company has completed its Initial Offering and is subject to the provisions of the Exchange Act, and (b) the requirements of paragraphs (c), (e), (f) and (h) of Rule 144 promulgated under the Securities Act do not apply to Registrable Securities held by and issuable to such Holder (and its affiliates) as a result of Rule 144(k) promulgated under the Securities Act.

2.4 **Delay of Registration; Furnishing Information.**

- (a) No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

- (b) It shall be a condition precedent to the obligations of the Company to take any action pursuant to Section 2.1 above that the selling Holders shall furnish to the Company such information regarding themselves, the Registrable Securities held by them and the intended method of disposition of such securities as shall be required to effect the registration of their Registrable Securities.
- 2.5 **Assignment of Registration Rights.** The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned by a Holder to a transferee or assignee of Registrable Securities that (a) is a subsidiary, parent, general partner, limited partner, retired partner, member or retired member of a Holder, (b) is a Holder's family member or trust for the benefit of an individual Holder, or (c) acquires at least fifty thousand (50,000) shares of Registrable Securities (as adjusted for stock splits and combinations); or (d) is an Affiliate of such Holder provided, however, that (i) the transferor shall, within ten (10) days after such transfer, furnish to the Company written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned, and (ii) such transferee shall agree to be subject to all restrictions set forth in this Agreement.
- 2.6 **"Market Stand-Off" Agreement.** Each Holder hereby agrees that such Holder shall not sell, transfer, make any short sale of, grant any option for the purchase of, or enter into any hedging or similar transaction with the same economic effect as a sale, any Common Stock (or other securities) of the Company held by such Holder (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of a registration statement of the Company filed under the Securities Act; provided that:
- i. such agreement shall apply only to the Company's Initial Offering; and
 - ii. all executive officers and directors of the Company and holders of at least one percent (1%) of the Company's capital stock (on an as converted basis) and all other persons with registration rights (whether or not pursuant to this Agreement) enter into similar agreements.
- 2.7 **Agreement to Furnish Information.** Each Holder agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter that are consistent with the Holder's obligations under Section 2.6 or that are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, each Holder shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the

Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in Section 2.6 above and this Section 2.7 shall not apply to a registration statement (i) relating to any employee benefit plan or (ii) with respect to any corporate reorganization or transaction under Rule 145 of the Securities Act, including any registration statements related to the resale of securities issued in such a transaction or (iii) related to stock issued upon conversion of debt securities. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of the one hundred eighty (180) day period. Each Holder agrees that any transferee of any shares of Registrable Securities shall be bound by Sections 2.6 and 2.7. The underwriters of the Company's stock are intended third party beneficiaries of Sections 2.6 and 2.7 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto.

2.8 **Stock Milestone Shares.** In the event that the Company in 2006 issues additional shares of Common Stock to the Holders or any of their transferees as a 2005 stock milestone payment pursuant to Section 2.5(c) of the Purchase Agreement (the "**2005 Stock Milestone Shares**"), the provisions of this Agreement as applicable to the Shares shall also be applicable to such 2005 Stock Milestone Shares.

2.9 **Indemnification.** In the event any Registrable Securities are included in a registration statement under Section 2.1:

- (a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, the partners, officers and directors of each Holder, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively a "**Violation**") by the Company: (1) any untrue statement or alleged untrue statement of a material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law in connection with the offering covered by such registration statement; and the Company will pay as incurred to each such Holder, partner, officer, director, underwriter or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending

any such loss, claim, damage, liability or action; provided, however, that the indemnity agreement contained in this Section 2.9(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable in any such case for any such loss, claim, damage, liability or action to the extent that it arises out of or is based upon a Violation that occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by such Holder, partner, officer, director, underwriter or controlling person of such Holder.

- (b) To the extent permitted by law, each Holder will, if Registrable Securities held by such Holder are included in the securities as to which such registration qualifications or compliance is being effected, indemnify and hold harmless the Company, each of its directors, its officers and each person, if any, who controls the Company within the meaning of the Securities Act, any underwriter and any other Holder selling securities under such registration statement or any of such other Holder's partners, directors or officers or any person who controls such Holder, against any losses, claims, damages or liabilities (joint or several) to which the Company or any such director, officer, controlling person, underwriter or other such Holder, or partner, director, officer or controlling person of such other Holder may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder under an instrument duly executed by such Holder and stated to be specifically for use in connection with such registration; and each such Holder will pay as incurred any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, underwriter or other Holder, or partner, officer, director or controlling person of such other Holder in connection with investigating or defending any such loss, claim, damage, liability or action if it is judicially determined that there was such a Violation; provided, however, that the indemnity agreement contained in this Section 2.9(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; provided further, that in no event shall any indemnity under this Section 2.9 exceed the proceeds from the offering received by such Holder.
- (c) Promptly after receipt by an indemnified party under this Section 2.9 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be

made against any indemnifying party under this Section 2.9, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly notified, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party shall have the right to retain its own counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action, if materially prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.9, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.9.

- (d) If the indemnification provided for in this Section 2.9 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages or liabilities referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall to the extent permitted by applicable law contribute to the amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the Violation(s) that resulted in such loss, claim, damage or liability, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; provided, that in no event shall any contribution by a Holder hereunder exceed the proceeds from the offering received by such Holder.
- (e) The obligations of the Company and Holders under this Section 2.9 shall survive completion of any offering of Registrable Securities in a registration statement and the termination of this Agreement. No indemnifying party, in the defense of any such claim or litigation, shall, except with the consent of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such

indemnified party of a release from all liability in respect to such claim or litigation.

- 2.10 **Rule 144 Reporting.** With a view to making available to the Holders the benefits of certain rules and regulations of the United States Securities and Exchange Commission (the “**Commission**”) that may permit the sale of the Registrable Securities to the public without registration, the Company agrees to use its reasonable best efforts to:
- (a) Make and keep public information available, as those terms are understood and defined in Commission Rule 144 or any similar or analogous rule promulgated under the Securities Act, at all times after the effective date of the first registration filed by the Company for an offering of its securities to the general public;
 - (b) File with the Commission, in a timely manner, all reports and other documents required of the Company under the Exchange Act; and
 - (c) So long as a Holder owns any Registrable Securities, furnish to such Holder forthwith upon request: a written statement by the Company as to its compliance with the reporting requirements of Rule 144 of the Securities Act, and of the Exchange Act (at any time after it has become subject to such reporting requirements); a copy of the most recent annual or quarterly report of the Company; and such other reports and documents as a Holder may reasonably request in availing itself of any rule or regulation of the Commission allowing it to sell any such securities without registration.

**SECTION 3.
MISCELLANEOUS**

- 3.1 **Governing Law.** This Agreement shall be governed by and construed under the laws of the State of California, United States of America, as applied to agreements among California residents entered into and to be performed entirely within California.
- 3.2 **Successors and Assigns.** Except as otherwise expressly provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors, and administrators of the parties hereto and shall inure to the benefit of and be enforceable by each person who shall be a holder of Registrable Securities from time to time; provided, however, that prior to the receipt by the Company of adequate written notice of the transfer of any Registrable Securities specifying the full name and address of the transferee, the Company may deem and treat the person listed as the holder of such shares in its records as the absolute owner and holder of such shares for all purposes, including the payment of dividends or any redemption price.

- 3.3 **Entire Agreement.** This Agreement constitutes the full and entire understanding and agreement between the parties with regard to the subject matter hereof and no party shall be liable or bound to any other in any manner by any representations, warranties, covenants and agreements except as specifically set forth herein and therein.
- 3.4 **Severability.** In the event one or more of the provisions of this Agreement should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.
- 3.5 **Amendment and Waiver.**
- (a) Except as otherwise expressly provided, this Agreement may be amended or modified only upon the written consent of (i) the Company and (ii) the holders of at least a majority of the Shares.
 - (b) Except as otherwise expressly provided, the obligations of the Company and the rights of the Holders under this Agreement may be waived only with the written consent of (i) the Company and (ii) the holders of at least a majority of the Shares.
 - (c) For the purposes of determining the number of Holders entitled to vote or exercise any rights hereunder, the Company shall be entitled to rely solely on the list of record holders of its stock as maintained by or on behalf of the Company.
- 3.6 **Notices.**
- (a) All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the Company or to the Holders' Agent (as defined below under (b)) if to be given to any or all of the Holders, (b) when sent by confirmed facsimile if sent during normal business hours of the Company or the Holders' Agent, respectively; if not, then on the next business day, (c) five (5) days after having been sent to the Company or the Holders' Agent, respectively, by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with an overnight courier, specifying next day delivery to the Company or the Holders' Agent, respectively, with written verification of receipt. All communications shall be sent to the party to be notified, in the case of any or all of the Holders to the Holders' Agent, at the address as set forth below under (c) or at such other address as the Company or the Holders' Agent, as the case may be, may designate by ten (10) days advance written notice to the relevant other party hereto.
 - (b) The Holders hereby jointly appoint Dr. Thomas Drescher as their agent (the "**Holders' Agent**"), until they notify the Company in writing of the

appointment of another Holder as new Holders' Agent; until receipt of that notification Dr. Drescher will be considered the appointed Holders' Agent for purposes of this Agreement. The Holders authorize Dr. Drescher to receive on their behalf all notices, declarations and documents. The Holders hereby release the Holders' Agent from the restrictions of self dealing (including those restrictions under Sec. 181 of the German Civil Code (*BGB*)).

- (c) The initial addresses for service of notices and other declarations to either the Company or the Holders' Agent in accordance with (a) above shall be as follows:

in the case of the **Holders**:

Dr. Thomas Drescher (as *Holders' Agent*)
c/o JFC - Jülich Fine Chemicals GmbH
Prof.-Rehm-Str. 1
52428 Jülich/Germany
FAX: +49 (2461) 980-116;

in the case of the **Company**:

Codexis, Inc.
Attention: Tassos Gianakakos
200 Penobscot Drive
Redwood City, CA 94063 / U.S.A.
FAX: +1 (650) 2985449

- 3.7 **Titles and Subtitles.** The titles of the sections and subsections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.
- 3.8 **Aggregation of Stock.** All shares of Registrable Securities held or acquired by Affiliates or persons or entities under common management or control shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.
- 3.9 **Attorneys' Fees.** In the event that any suit or action is instituted to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the losing party all fees, costs and expenses of enforcing any right of such prevailing party under or with respect to this Agreement, including without limitation, such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

Cologne, February 11, 2005

/s/ Thomas Daußmann
(Dr. Thomas Daußmann)

/s/ Matthias Arnold
(Dr. Matthias Arnold)

/s/ Falk Schneider
(Dr. Falk Schneider)

/s/ Thomas Kalthoff
(Thomas Kalthoff)

/s/ Thomas Drescher
(Dr. Thomas Drescher)

/s/ Karl Rix
(Dr. Karl Rix)

/s/ Horst Leutenberg
(Horst Leutenberg)

/s/ Roland Maaß
(Codexis, Inc.)

— on the basis of power of attorney
dated February 7, 2005

LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT, dated as of September 28, 2007 (as amended, restated, supplemented or otherwise modified from time to time (this "Agreement")) is among GENERAL ELECTRIC CAPITAL CORPORATION ("GECC"), in its capacity as agent for Lenders (as defined below), together with its successors and assigns in such capacity, "Agent", OXFORD FINANCE CORPORATION ("Oxford"), the other financial institutions who are or hereafter become parties to this Agreement as lenders (together with GECC and Oxford, collectively the "Lenders", and each individually, a "Lender") and CODEXIS, INC., a Delaware corporation ("Borrower"). Agent has an office at 83 Wooster Heights Road, Fifth Floor, Danbury, CT 06810 (the "Agent's Office"). Borrower's mailing address and chief executive office is 200 Penobscot Drive, Redwood City, CA 94063.

RECITALS

Borrower wishes to borrow funds from time to time from Lenders, and Lenders desire to make loans, advances and other extensions of credit, severally and not jointly, to Borrower from time to time pursuant to the terms and conditions of this Agreement.

AGREEMENT

Borrower, Agent and Lenders agree as follows:

1. DEFINITIONS.

As used in this Agreement, all capitalized terms shall have the definitions as provided herein. Any accounting term used but not defined herein shall be construed in accordance with generally accepted accounting principles in the United States of America, as in effect from time to time ("GAAP") and all calculations shall be made in accordance with GAAP. The term "financial statements" shall include the accompanying notes and schedules. All other terms used but not defined herein shall have the meaning given to such terms in the Uniform Commercial Code as adopted in the State of New York, as amended and supplemented from time to time (the "UCC").

2. LOANS AND TERMS OF PAYMENT.

2.1. **Promise to Pay.** Borrower promises to pay Agent, for the ratable accounts of Lenders, when due pursuant to the terms hereof, the aggregate unpaid principal amount of all loans, advances and other extensions of credit made severally by the Lenders to Borrower, together with interest on the unpaid principal amount of such loans, advances and other extensions of credit at the interest rates set forth herein.

2.2. Term Loans.

- (a) Commitment. Subject to the terms and conditions hereof, each Lender, severally, but not jointly, agrees to make term loans (each a "Term Loan" and collectively, the "Term Loans") to Borrower from time to time on any Business Day (as defined below) during the period from the Closing Date (as defined below) until March 31, 2008 (the "Commitment Termination Date") in an aggregate principal amount not to exceed such Lender's commitment as identified on Schedule A hereto (such commitment of each

Lender as it may be amended to reflect assignments made in accordance with this Agreement or terminated or reduced in accordance with this Agreement, its "Commitment", and the aggregate of all such commitments, the "Commitments"). Notwithstanding the foregoing, the aggregate principal amount of the Term Loans made hereunder shall not exceed \$15,000,000 (the "Total Commitment"). Each Lender's obligation to fund a Term Loan shall be limited to such Lender's Pro Rata Share (as defined below) of such Term Loan. Subject to the terms and conditions hereof, the initial Term Loan shall be made on the Closing Date in an aggregate principal amount equal to \$10,000,000 (the "Initial Term Loan"). After the Initial Term Loan, Borrower may request no more than five (5) additional Term Loans and such subsequent Term Loan must be in an amount equal to at least \$1,000,000.

- (b) Method of Borrowing. When Borrower desires a Term Loan, Borrower will notify Agent (which notice shall be irrevocable) by facsimile (or by telephone, provided that such telephonic notice shall be promptly confirmed in writing, but in any event on or before the following Business Day) on the date that is ten (10) Business Days prior to the day the Term Loan is to be made (or such shorter period of time as Agent may agree). Agent and Lenders may act without liability upon the basis of such written or telephonic notice believed by Agent to be from Borrower's chief executive officer, chief financial officer, general counsel or controller (each of such officers, a "Proper Officer"). Agent and Lenders shall have no duty to verify the authenticity of the signature appearing on any such written notice.
- (c) Funding of Term Loans. Promptly after receiving a request for a Term Loan, Agent shall notify each Lender of the contents of such request and such Lender's Pro Rata Share of the requested Term Loan. Upon the terms and subject to the conditions set forth herein, each Lender, severally and not jointly, shall make available to Agent its Pro Rata Share of the requested Term Loan, in lawful money of the United States of America in immediately available funds, to the Collection Account (as defined below) prior to 11:00 a.m. Connecticut time on the specified date. Agent shall, unless it shall have determined that one of the conditions set forth in Section 4.1 or 4.2, as applicable, has not been satisfied, by 4:00 p.m. Connecticut time on such day, credit the amounts received by it in like funds to Borrower by wire transfer to, unless otherwise specified in a Disbursement Letter (as defined below), the following deposit account of Borrower (or such other deposit account as specified in writing by a Proper Officer of Borrower and acceptable to Agent) (the "Designated Deposit Account"):

Bank Name: [*]
Bank Address: [*]
ABA#: [*]
Account #: [*]
Account Name: [*]
Ref: [*]

- (d) Notes. The Term Loans of each Lender shall be evidenced by a promissory note substantially in the form of Exhibit A hereto (each a "Note" and, collectively, the "Notes"), and Borrower shall execute and deliver a Note to each Lender. Each Note shall represent the obligation of Borrower to pay to such Lender the amount of such Lender's Commitment or, if less, the aggregate unpaid principal amount of all Term Loans made

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions

by such Lender to or on behalf of Borrower pursuant to this Agreement, in each case together with interest thereon as prescribed in Section 2.3(b).

- (e) Agent May Assume Funding. Unless Agent shall have received notice from a Lender prior to the date of any particular Term Loan that such Lender will not make available to Agent such Lender's Pro Rata Share of such Term Loan, Agent may assume that such Lender has made such amount available to it on the date of such Term Loan in accordance with subsection (c) of this Section 2.2, and may (but shall not be obligated to), in reliance upon such assumption, make available a corresponding amount for the account of Borrower on such date. If and to the extent that such Lender shall not have so made such amount available to Agent, such Lender and Borrower severally agree to repay to Agent forthwith on demand such corresponding amount together with interest thereon, for each day from the day such amount is made available to Borrower until the day such amount is repaid to Agent, at (i) in the case of Borrower, a rate per annum equal to the interest rate applicable thereto pursuant to Section 2.3(a), and (ii) in the case of such Lender, a floating rate per annum equal to, for each day from the day such amount is made available to Borrower until such amount is reimbursed to Agent, the weighted average of the rates on overnight federal funds transactions among members of the Federal Reserve System, as determined by Agent in its sole discretion (the "Federal Funds Rate") for the first Business Day and thereafter, at the interest rate applicable to such Term Loan. If such Lender shall repay such corresponding amount to Agent, the amount so repaid shall constitute such Lender's loan included in such Term Loan for purposes of this Agreement.

2.3. Interest and Repayment.

- (a) Interest. Each Term Loan shall accrue interest in arrears from the date made until such Term Loan is fully repaid at a fixed per annum rate of interest equal to the sum of (i) the greater of (A) the Treasury Rate (as defined below) in effect on the day that is three (3) Business Days prior to the making of such Term Loan as determined by Agent or (B) 4.60%, plus (ii) 4.83%. All computations of interest and fees calculated on a per annum basis shall be made by Agent on the basis of a 360-day year, in each case for the actual number of days occurring in the period for which such interest and fees are payable. Each determination of an interest rate or the amount of a fee hereunder shall be made by Agent and shall be conclusive, binding and final for all purposes, absent manifest error. As used herein, the term "Treasury Rate" means a per annum rate of interest equal to the rate published by the Board of Governors of the Federal Reserve System in Federal Reserve Statistical Release H.15 entitled "Selected Interest Rates" under the heading "U.S. Government Securities/Treasury Constant Maturities" as the three year treasuries constant maturities rate. In the event Release H.15 is no longer published, Agent shall select a comparable publication to determine the U.S. Treasury note yield to maturity.
- (b) Payments of Principal and Interest. For each Term Loan, Borrower shall pay to the Agent, for the ratable benefit of the Lenders, (i) six (6) consecutive payments of interest only (payable in arrears) at the rate of interest determined in accordance with Section 2.3(a) on the first day of each calendar month (a "Scheduled Payment Date") commencing on the first day of the second calendar month occurring after the month during which such Term Loan was made and (ii) thirty-six (36) equal consecutive payments of principal and interest (payable in arrears) at the rate of interest determined in accordance with Section 2.3(a) (a "Scheduled Payment") on each Scheduled Payment

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Date commencing on the first day of the eighth calendar month occurring after the month during which such Term Loan was made. The amount of each such payment of principal and interest shall be calculated by the Agent and shall be sufficient to fully amortize the principal and interest due with respect to the applicable Term Loan over such repayment period. Notwithstanding the foregoing, all unpaid principal and accrued interest with respect to a Term Loan is due and payable in full to Agent, for the ratable benefit of Lenders, on the earlier of (A) the first day of the forty-third (43rd) month following the date such Term Loan was made or (B) the date that such Term Loan otherwise becomes due and payable hereunder, whether by acceleration of the Obligations pursuant to Section 8.2 or otherwise (the earlier of (A) or (B), the "Applicable Term Loan Maturity Date"). Each Scheduled Payment, when paid, shall be applied first to the payment of accrued and unpaid interest on the applicable Term Loan and then to unpaid principal balance of such Term Loan. Without limiting the foregoing, all Obligations shall be due and payable on the Applicable Term Loan Maturity Date for the last Term Loan made.

Notwithstanding any provision in this Agreement to the contrary, all unpaid principal and accrued interest with respect to each Term Loan and all other Obligations hereunder shall become due and payable in full on the earlier to occur of (such earlier date, the "Final Maturity Date"): (1) the Applicable Term Loan Maturity Date for the last Term Loan made hereunder or (2) the date that is 91 days before the first date on which any holders of the Series E preferred stock proposed to be issued by Borrower pursuant to Section 7.2(g) shall have any contractual right or rights set forth in Borrower's organizational documents to redeem or demand repurchase of such preferred stock.

- (c) Interim Interest Payment. For each Term Loan, Borrower shall make an advance payment of interest on the date of funding such Term Loan for the period from such date to and including the last day of the month in which such Term Loan was so made.
- (d) No Reborrowing. Once a Term Loan is repaid or prepaid, it cannot be reborrowed.
- (e) Payments. All payments (including prepayments) to be made by Borrower under any Debt Document shall be made in immediately available funds in U.S. dollars, without setoff or counterclaim to the Collection Account (as defined below) before 1:00 p.m. Connecticut time on the date when due. All payments received by Agent after 1:00 p.m. Connecticut time on any Business Day or at any time on a day that is not a Business Day shall be deemed to be received on the next Business Day. Whenever any payment required under this Agreement would otherwise be due on a date that is not a Business Day, such payment shall instead be due on the next Business Day, and additional fees or interest, as the case may be, shall accrue and be payable for the period of such extension. All regularly scheduled payments due to Agent and Lenders under Section 2.3(b) shall be effected by automatic debit of the appropriate funds from Borrower's operating account specified on the EPS Setup Form (as defined below). As used herein, the term "Collection Account" means the following account of Agent (or such other account as Agent shall identify to Borrower in writing):

Bank Name: [*]
Bank Address: [*]
ABA#: [*]
Account Number: [*]
Account Name: [*]

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions

- (f) **Withholdings and Increased Costs.** All payments shall be made free and clear of any taxes, withholdings, duties, impositions or other charges (other than taxes on the overall net income of any Lender and comparable taxes), such that Agent and Lenders will receive the entire amount of any Obligations (as defined below), regardless of source of payment. If Agent or any Lender shall have determined that the introduction of or any change in, after the date hereof, any law, treaty, governmental (or quasi-governmental) rule, regulation, guideline or order reduces the rate of return on Agent or such Lender's capital as a consequence of its obligations hereunder or increases the cost to Agent or such Lender of agreeing to make or making, funding or maintaining any Term Loan, then Borrower shall from time to time upon written demand by Agent or such Lender (with a copy of such demand to Agent) promptly pay to Agent for its own account or for the account of such Lender, as the case may be, additional amounts sufficient to compensate Agent or such Lender for such reduction or for such increased cost; provided that no Lender shall be entitled to payment of any amounts under this Section 2.3(f) unless it has delivered such statement to Borrower within 180 days after the occurrence of the changes or events giving rise to the increased costs to or reduction in amounts received by such Lender. A certificate as to the amount of such reduction or such increased cost submitted by Agent or such Lender (with a copy to Agent) to Borrower shall be conclusive and binding on Borrower, absent manifest error. This provision shall survive the termination of this Agreement.
- (g) **Loan Records.** Each Lender shall maintain in accordance with its usual practice accounts evidencing the Obligations of Borrower to such Lender resulting from each Term Loan of such Lender from time to time, including the amounts of principal and interest payable and paid to such Lender from time to time under this Agreement. Agent shall maintain in accordance with its usual practice a loan account on its books to record the Term Loans and other extensions of credit made by Lenders hereunder, and all payments thereon made by Borrower. The entries made in the such accounts shall, to the extent permitted by applicable law, be prima facie evidence of the existence and amounts of the Obligations recorded therein; provided, however, that no error in such account and no failure of any Lender or Agent to maintain any such account shall affect the obligations of Borrower to repay the Obligations in accordance with their terms.

2.4. Prepayments. Borrower can voluntarily prepay, upon 3 Business Days' prior written notice to Agent, any Term Loan in full, but not in part. Upon the date of (a) any voluntary prepayment of a Term Loan in accordance with the immediately preceding sentence or (b) any mandatory prepayment of a Term Loan required under this Agreement (whether by acceleration of the Obligations pursuant to Section 8.2 or otherwise), Borrower shall pay to Agent, for the ratable benefit of the Lenders, a sum equal to (i) all outstanding principal plus any unpaid interest accrued through the date of such prepayment with respect to the such Term Loan, (ii) the Final Payment Fee (as such term is defined in Section 2.7(d)) for such Term Loan, and (iii) a prepayment premium (as yield maintenance for loss of bargain and not as a penalty) equal to: (A) 5% on such principal prepayment amount, if such prepayment is made on or before the one year anniversary of such Term Loan, (B) 4% on such principal prepayment amount, if such prepayment is made after the one year anniversary of such Term Loan but on or before the two year anniversary of such Term Loan, and (C) 2% on such principal prepayment amount, if such prepayment is made after the two year anniversary of such Term Loan but before the Applicable Term Loan Maturity Date for such Term Loan; provided, however, that Borrower shall not be obligated to pay the amounts described in clauses (A), (B) or (C) above in connection with a prepayment in full of the Term Loan and

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the other Obligations hereunder in the event that either (i) Borrower has requested in writing that the Requisite Lenders consent to a transaction that is not permitted under Section 7.5 and the Requisite Lenders have not consented to such transaction on or prior to the Response Date (as defined below) or (ii) Borrower has requested in writing that the Requisite Lenders consent to any amendment, modification or waiver of the Maxygen License Agreement for which the consent of the Requisite Lenders is required under Section 7.11(a) and the Requisite Lenders have not consented to such amendment, modification or waiver on or prior to the Response Date. Borrower shall have no obligation upon any prepayment of any Term Loan hereunder to pay, in addition to the amounts specified in this Section 2.4, any yield maintenance with respect to unaccrued interest that would have accrued through the maturity of a Term Loan had such Term Loan not been prepaid.

2.5. Late Fees. If Agent does not receive any Scheduled Payment or other payment under any Debt Document from Borrower within 3 days after its due date, then, at Agent's election, Borrower agrees to pay to Agent for the ratable benefit of all Lenders, a late fee equal to (a) 5% of the amount of such unpaid payment or (b) such lesser amount that, if paid, would not cause the interest and fees paid by Borrower under this Agreement to exceed the Maximum Lawful Rate (as defined below) (the "Late Fee").

2.6. Default Rate. All Term Loans and other Obligations shall bear interest, at the option of Agent or upon the request of the Requisite Lenders (as defined below), from and after the occurrence and during the continuation of an Event of Default (as such terms are defined below), at a rate equal to the lesser of (a) 5% above the rate of interest applicable to such Obligations as set forth in Section 2.3(a) immediately prior to the occurrence of the Event of Default and (b) the Maximum Lawful Rate (the "Default Rate"). The application of the Default Rate shall not be interpreted or deemed to extend any cure period or waive any Default or Event of Default or otherwise limit the Agent's or any Lender's right or remedies hereunder. All interest payable at the Default Rate shall be payable on demand.

2.7. Lender Fees.

- (a) Upfront Payment. Prior to the advance of the Initial Term Loan, in consideration for Lenders' agreement to underwrite the transaction contemplated by this Agreement, Borrower has paid to Agent, for the ratable benefit of Lenders, and Agent hereby acknowledges receipt of, a payment in the amount of \$25,000 (the "Upfront Payment"). The Upfront Payment shall be applied towards the fees and expenses of Agent's counsel incurred in connection with the preparation and negotiation of the Debt Documents on or before the Closing Date. Upon application of the Upfront Payment to such fees and expenses, concurrently with the advance of the Initial Term Loan, Borrower shall reimburse Agent for any such fees and expenses in excess of \$25,000 (which aggregate amount of fees and expenses of Agent's counsel incurred in connection with the preparation and negotiation of the Debt Documents on or before the Closing Date shall not exceed \$65,000).
- (b) Closing Fee. On the Closing Date, Borrower shall pay to Agent, for the ratable benefit of Lenders, a \$50,000 fee which shall be fully earned by Lenders, in accordance with their Pro Rata Shares, and non-refundable when paid.
- (c) Unused Line Fee. On the Commitment Termination Date, Borrower shall pay to Agent, for the ratable benefit of Lenders, a fee equal to 2% of the undrawn amount of the Total Commitment as of such date (the "Unused Line Fee"), which fee shall be fully earned by Lenders, in accordance with their Pro Rata Shares, and non-refundable when

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paid. Notwithstanding the foregoing, a Lender shall not be entitled to receive (and Borrower shall not be obligated to pay) such Lender's Pro Rata Share of the Unused Line Fee to the extent (i) Borrower satisfied all conditions set forth in Section 4.2 with respect to a requested Term Loan and (ii) such Lender failed to advance its Pro Rata Share of such Term Loan.

- (d) **Final Payment Fee.** Upon the repayment in full of all outstanding principal amounts with respect to any Term Loan (whether voluntarily, scheduled or mandatory or otherwise), Borrower shall pay to Agent, for the ratable accounts of Lenders, a fee equal to 4% of the original principal amount of such Term Loan (the "Final Payment Fee").

2.8. **Maximum Lawful Rate.** Anything herein, any Note or any other Debt Document (as defined below) to the contrary notwithstanding, the obligations of Borrower hereunder and thereunder shall be subject to the limitation that payments of interest shall not be required, for any period for which interest is computed hereunder, to the extent (but only to the extent) that contracting for or receiving such payment by Agent and Lenders would be contrary to the provisions of any law applicable to Agent and Lenders limiting the highest rate of interest which may be lawfully contracted for, charged or received by Agent and Lenders, and in such event Borrower shall pay Agent and Lenders interest at the highest rate permitted by applicable law ("Maximum Lawful Rate"); provided, however, that if at any time thereafter the rate of interest payable hereunder or thereunder is less than the Maximum Lawful Rate, Borrower shall continue to pay interest hereunder at the Maximum Lawful Rate until such time as the total interest received by Agent and Lenders is equal to the total interest that would have been received had the interest payable hereunder been (but for the operation of this paragraph) the interest rate payable since the making of the Initial Term Loan as otherwise provided in this Agreement, any Note or any other Debt Document.

3. CREATION OF SECURITY INTEREST.

3.1. **Grant of Security Interest.** As security for the prompt payment and performance, whether at the stated maturity, by acceleration or otherwise, of all Term Loans and other debt, obligations and liabilities of any kind whatsoever of Borrower to Agent and Lenders under the Debt Documents (whether for principal, interest, fees, expenses, prepayment premiums, indemnities, reimbursements or other sums, and whether or not such amounts accrue after the filing of any petition in bankruptcy or after the commencement of any insolvency, reorganization or similar proceeding, and whether or not allowed in such case or proceeding), absolute or contingent, now existing or arising in the future, including but not limited to the payment and performance of any outstanding Notes, and any renewals, extensions and modifications of such Term Loans (such indebtedness under the Notes, Term Loans and other debt, obligations and liabilities in connection with the Debt Documents are collectively called the "Obligations"), Borrower does hereby grant to Agent, on behalf of itself and Lenders, a security interest in the property listed below (all hereinafter collectively called the "Collateral"):

All of Borrower's personal property of every kind and nature (except for Intellectual Property, as defined in, and to the extent excluded pursuant to, Section 3.3) whether now owned or hereafter acquired by, or arising in favor of, Borrower, and regardless of where located, including, without limitation, all accounts, chattel paper (whether tangible or electronic), commercial tort claims, deposit accounts, documents, equipment, financial assets, fixtures, goods, instruments, investment property, inventory, letter-of-credit rights, letters of credit, securities, supporting obligations, cash, cash equivalents, any other contract rights (including, without limitation, rights under any license agreements), or rights to the payment of money, and general intangibles, and all books and records of Borrower relating thereto, and in and against all additions, attachments, accessories and

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accessions to such property, all substitutions, replacements or exchanges therefor, all proceeds, insurance claims, products, profits and other rights to payments not otherwise included in the foregoing (with each of the foregoing terms that are defined in the UCC having the meaning set forth in the UCC).

Notwithstanding anything herein to the contrary, in no event shall the Collateral include or the security interest granted under Section 3.1 hereof attach to:

(a) any lease, license, contract or agreement to which Borrower is a party, and any of its rights or interest thereunder, if and to the extent that a security interest is prohibited by or in violation of (i) any law, rule or regulation applicable to Borrower, or (ii) a term, provision or condition of any such lease, license, contract, property right or agreement (unless such law, rule, regulation, term, provision or condition would be rendered ineffective with respect to the creation of the security interest hereunder pursuant to Sections 9-406, 9-407, 9-408 or 9-409 of the UCC (or any successor provision or provisions) of any relevant jurisdiction or any other applicable law (including the Bankruptcy Code) or principles of equity); provided, however, that the Collateral shall include (and such security interest shall attach) immediately at such time as the contractual or legal prohibition shall no longer be applicable and to the extent severable, shall attach immediately to any portion of such lease, license, contract or agreement not subject to the prohibitions specified in (i) or (ii) above; provided further that the exclusions referred to in clause (a) of this paragraph shall not include any proceeds of any such lease, license, contract or agreement;

(b) more than 65% of the outstanding capital stock of a Controlled Foreign Corporation (as defined in the Internal Revenue Code); or

(c) the equipment specifically listed on Schedule B hereto under "Existing Liens" and financed pursuant to (i) the Loan and Security Agreement, dated as of February 12, 2004, by and between Lighthouse Capital Partners V, L.P. and the Borrower and (ii) Master Security Agreement No. 5081102, dated as of October 25, 2005 by and between Oxford Finance Corporation and the Borrower, and in and against all additions, attachments, accessories, and accessions to such equipment, all substitutions, replacements or exchanges therefore, and all insurance and/or other proceeds thereof.

Borrower hereby represents and covenants that such security interest constitutes a valid, first priority security interest in the presently existing Collateral, and will constitute a valid, first priority security interest in Collateral acquired after the date hereof, in each case with respect to priority only, subject to any Permitted Liens with respect to the Collateral. Borrower hereby covenants that it shall give written notice to Agent promptly upon the acquisition by Borrower or creation in favor of Borrower of any commercial tort claim after the Closing Date.

3.2. Financing Statements. Borrower hereby authorizes Agent to file UCC financing statements with all appropriate jurisdictions to perfect Agent's security interest (for the benefit of itself and the Lenders) granted hereby.

3.3. Grant of Security Interest in Proceeds of Intellectual Property. The Collateral shall not include any of Borrower's intellectual property, which shall be defined as any and all copyright,

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trademark, servicemark, patent, design right, software, trade secret and intangible rights of Borrower and any applications, registrations, claims, products, awards, judgments, amendments, renewals, extensions, improvements and insurance claims related thereto (collectively, "Intellectual Property") now owned or hereafter acquired, or any claims for damages by way of any past, present or future infringement of any of the foregoing; provided, however, that the Collateral shall include all cash, royalty fees, other proceeds, accounts and general intangibles that consist of rights of payment to or on behalf of Borrower or proceeds from the sale, licensing or other disposition of all or any part of, or rights in, the Intellectual Property by or on behalf of Borrower ("Rights to Payment"). Notwithstanding the foregoing, to the extent it is necessary under applicable law in any bankruptcy or insolvency proceeding involving Borrower for Agent (on behalf of itself and Lenders) to have a security interest in the underlying Intellectual Property in order for Agent to have (i) a security interest in the Rights to Payment and (ii) a security interest in any payments with respect to Rights to Payment that are received after the commencement of such bankruptcy or insolvency proceeding, then the Collateral shall automatically, and effective as of the date hereof, include the Intellectual Property only to the extent necessary to permit attachment and perfection of Agent's security interest (on behalf of itself and Lenders) in the Rights to Payment and any payments in respect thereof that are received after the commencement of any bankruptcy or insolvency proceeding. Agent hereby agrees on behalf of itself and the Lenders that, if Agent obtains a security interest in the Intellectual Property pursuant to the immediately preceding sentence, Agent will not exercise any remedies (under the UCC or otherwise) with respect to the Intellectual Property (other than remedies with respect to Rights to Payment or any other proceeds of the Intellectual Property). For the avoidance of doubt, none of the provisions of this Section 3.3 shall be construed to provide Lenders with a consent or other blocking right in connection with licenses granted by Borrower in accordance with the terms and conditions of Section 7.3.

3.4. **Termination of Security Interest.** Subject to Section 10.9, Agent's lien on the Collateral (on behalf of itself and Lenders) shall continue until all of the Obligations are repaid in full in cash and all of the Commitments hereunder are terminated or fulfilled (the "Termination Date"). Upon the Termination Date, Agent shall, at Borrower's sole cost and expense and without any recourse, representation or warranty, release its liens in the Collateral, and all rights remaining therein, if any, shall revert to Borrower.

4. CONDITIONS OF CREDIT EXTENSIONS

4.1. **Conditions Precedent to Initial Term Loan.** No Lender shall be obligated to make the Initial Term Loan, or to take, fulfill, or perform any other action hereunder, until the following have been delivered to the Agent (the date on which the Lenders make the Initial Term Loan after all such conditions shall have been satisfied in a manner satisfactory to Agent or waived in accordance with this Agreement, the "Closing Date"):

- (a) a counterpart of this Agreement duly executed by Borrower;
- (b) a certificate executed by the Secretary of Borrower, the form of which is attached hereto as Exhibit B (the "Secretary's Certificate"), providing verification of incumbency and attaching (i) Borrower's board resolutions approving the transactions contemplated by this Agreement and the other Debt Documents and (ii) Borrower's governing documents;
- (c) Notes duly executed by Borrower in favor of each applicable Lender;

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- (d) filed copies of UCC financing statements, collateral assignments, and terminations statements, with respect to the Collateral, as Agent shall request;
 - (e) certificates of insurance evidencing the insurance coverage, and satisfactory additional insured and lender loss payable endorsements, in each case as required pursuant to Section 6.4 herein;
 - (f) current UCC lien, judgment, bankruptcy and tax lien search results demonstrating that there are no other security interests or liens on the Collateral, other than Permitted Liens (as defined below);
 - (g) a Warrant in favor of each Lender, duly executed by Borrower, substantially in the form provided by Agent;
 - (h) a certificate of good standing of Borrower from the jurisdiction of Borrower's organization and a certificate of foreign qualification from each jurisdiction where Borrower's failure to be so qualified could reasonably be expected to have a Material Adverse Effect (as defined below), in each case as of a recent date acceptable to Agent;
 - (i) a landlord consent and/or bailee letter in favor of Agent executed by the landlord or bailee, as applicable, for any third party location where (i) Borrower's principal place of business, (ii) any of Borrower's books or records or (iii) Collateral with an aggregate value in excess of \$25,000 is located, a form of which is attached hereto as Exhibit C-1 and Exhibit C-2, as applicable ("Access Agreement");
 - (j) a legal opinion of Borrower's counsel, in form and substance satisfactory to Agent;
 - (k) a completed EPS set-up form, a form of which is attached hereto as Exhibit E (the "EPS Setup Form");
 - (l) a completed perfection certificate, duly executed by Borrower, a form of which Agent previously delivered to Borrower (the "Perfection Certificate");
 - (m) one or more Account Control Agreements (as defined below), in form and substance reasonably acceptable to Agent, duly executed by Borrower and the applicable depository or financial institution, for each deposit and securities account (other than accounts used exclusively for payroll and withholding tax purposes) listed on the Perfection Certificate;
 - (n) a pledge agreement, in form and substance satisfactory to Agent, executed by Borrower and pledging to Agent, for the benefit of itself and the Lenders, a security interest in (a) 100% of the shares of the outstanding capital stock, of any class, of each Subsidiary (as defined below) of Borrower that is incorporated under the laws of any State of the United States or the District of Columbia; (b) shares of the outstanding capital stock of any class of each Subsidiary of Borrower that is not incorporated under the laws of any State of the United States or the District of Columbia that constitute 65% of the total combined voting power of all capital stock of all classes of such Subsidiary and (c) any and all Indebtedness owing to Borrower (the "Pledge Agreement");
 - (o) a disbursement instruction letter, in form and substance satisfactory to Agent, executed by Borrower, Agent and each Lender (the "Disbursement Letter");

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- (p) a guaranty and security agreement (the "Guaranty"), in form and substance satisfactory to Agent, executed by Wasabi Acquisition LLC, a Delaware limited liability company (in such capacity, the "Guarantor") and guaranteeing the payment and performance of the Obligations and granting a lien in the collateral described therein (the "Guarantor Collateral");
- (q) all other documents and instruments as Agent may reasonably deem necessary or appropriate to effectuate the intent and purpose of this Agreement (together with the Agreement, the Notes, the Perfection Certificate, the Pledge Agreement, the Secretary's Certificate, the Disbursement Letter and all other agreements, instruments, documents and certificates executed and/or delivered to or in favor of Agent from time to time in connection with this Agreement or the transactions contemplated hereby (excluding the Warrant), the "Debt Documents"); and
- (r) Agent and Lenders shall have received the fees required to be paid by Borrower, if any, in the respective amounts specified in Section 2.7, and Borrower shall have reimbursed Agent and Lenders for all fees, costs and expenses of closing presented as of the date of this Agreement.

4.2. **Conditions Precedent to All Term Loans.** No Lender shall be obligated to make any Term Loan, including the Initial Term Loan, unless the following additional conditions have been satisfied:

- (a) (i) all representations and warranties in Section 5 below shall be true as of the date of such Term Loan; (ii) no Event of Default or any other event, which with the giving of notice or the passage of time, or both, would constitute an Event of Default (such event, a "Default"), has occurred or begun, irrespective of any cure periods therefor, or will result from the making of any Term Loan, without the waiver of Lenders at their sole discretion, and (iii) Agent shall have received a certificate from a Proper Officer of Borrower confirming each of the foregoing;
- (b) Agent shall have received the redelivery or supplemental delivery of the items set forth in the following sections to the extent circumstances have changed since the Initial Term Loan: Sections 4.1(b), (e), (f), (g), (h), (i), (j), (l) and (o);
- (c) with respect to each Term Loan other than the Initial Term Loan, Agent shall have received evidence satisfactory to Agent that Borrower has, at the time of and after giving effect to such Term Loan, either (a) a Cash Burn Amount (defined below) that is greater than zero, or (b) unrestricted cash and Cash Equivalents (as defined below) as shown on the consolidated balance sheet of Borrower and its consolidated Subsidiaries (collectively, "Balance Sheet Cash") in an amount equal to or greater than the product of (A) negative twelve (-12) times (B) the Cash Burn Amount (as defined below); and
- (d) Agent shall have received such other documents, agreements, instruments or information as Agent shall reasonably request.

As used herein, the term "Cash Burn Amount" means, with respect to Borrower and its consolidated Subsidiaries, as of any date of determination and based on the financial statements most recently delivered to Agent and the Lenders in accordance with this Agreement, the difference between:

- (1) the quotient of (i) the sum of, without duplication, (A) net income (loss), plus (B) depreciation and amortization, minus (C) non-financed capital expenditures, in each case of

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clauses (A), (B) and (C), for the immediately preceding twelve month period on a trailing basis, divided by (ii) twelve,

minus

(2) the quotient of (i) the current portion of interest bearing liabilities due and payable in the immediately succeeding 12 months divided by (ii) twelve.

At such times that the Cash Burn Amount is zero or a positive number, Borrower will be deemed to be "Cashflow Positive" for purposes of this Agreement. Conversely, at any time that the Cash Burn Amount is a negative number, Borrower will be deemed to be "Cashflow Negative" for purposes of this Agreement.

5. REPRESENTATIONS AND WARRANTIES OF BORROWER.

Borrower represents, warrants and covenants to Agent and each Lender that:

5.1. **Due Organization and Authorization.** Borrower's exact legal name is as set forth in the preamble of this Agreement and Borrower is, and will remain, duly organized, existing and in good standing under the laws of the State of Delaware, has its chief executive office at the location specified in the preamble, and is, and will remain, duly qualified and licensed in every jurisdiction wherever necessary to carry on its business and operations, except where the failure to be so qualified and licensed could not reasonably be expected to have a Material Adverse Effect. This Agreement and the other Debt Documents have been duly authorized, executed and delivered by Borrower and constitute legal, valid and binding agreements enforceable in accordance with their terms. The execution, delivery and performance by Borrower of each Debt Document executed or to be executed by it is in each case within Borrower's powers.

5.2. **Required Consents.** Except for the filing of a Form D with respect to the issuance of the Warrants, no filing, registration, qualification with, or approval, consent or withholding of objections from, any governmental authority or instrumentality or any other entity or person is required with respect to the entry into, or performance by Borrower of, any of the Debt Documents, except any already obtained.

5.3. **No Conflicts.** The entry into, and performance by Borrower of, the Debt Documents will not (a) violate any of the organizational documents of Borrower, (b) violate any law, rule, regulation, order, award or judgment applicable to Borrower, or (c) result in any breach of or constitute a default under, or result in the creation of any lien, claim or encumbrance on any of Borrower's property (except for liens in favor of Agent, on behalf of itself and Lenders) pursuant to, any indenture, mortgage, deed of trust, bank loan, credit agreement, or other Material Agreement (as defined below) to which Borrower is a party. As used herein, "Material Agreement" shall mean (i) any agreement or contract to which Borrower or any of its Subsidiaries is a party and involving the receipt or payment of amounts in the aggregate exceeding [*] per year, (ii) any agreement or contract to which Borrower or any of its Subsidiaries is a party the termination of which could reasonably be expected to have a Material Adverse Effect and (iii) each agreement relating to the Subordinated Indebtedness (as defined below). A description of all Material Agreements as of the Closing Date is set forth on Schedule B hereto.

5.4. **Litigation.** There are no actions, suits, proceedings or, to Borrower's knowledge, investigations pending against or affecting Borrower before any court, federal, state, provincial, municipal or other governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, or any basis thereof, which involves the possibility of any judgment or liability that could

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reasonably be expected to have a Material Adverse Effect, or which questions the validity of the Debt Documents, or the other documents required thereby or any action to be taken pursuant to any of the foregoing, nor does Borrower have reason to believe that any such actions, suits, proceedings or investigations are threatened. As used in this Agreement, the term "Material Adverse Effect" shall mean a material adverse effect on any of (a) the operations, business, assets, properties or condition (financial or otherwise) of Borrower, individually, or Borrower and its Subsidiaries (as defined below), collectively, but excluding [*], (b) the ability of Borrower to perform any of its obligations under any Debt Document to which it is a party, (c) the legality, validity or enforceability of any Debt Document, (d) the rights and remedies of Agent or Lenders under any Debt Document or (e) the validity, perfection or priority of any lien in favor of Agent, on behalf of itself and Lenders, on any of the Collateral.

5.5. **Financial Statements.** All financial statements delivered to Agent and Lenders pursuant to Section 6.3 have been prepared materially in accordance with GAAP (subject, in the case of unaudited financial statements, to the absence of footnotes and normal year-end and audit adjustments), and since the date of the most recent audited financial statement, no event has occurred which has had or could reasonably be expected to have a Material Adverse Effect. There has been no material adverse deviation from the most recent annual operating plan of Borrower delivered to Agent and Lenders in accordance with Section 6.3.

5.6. **Use of Proceeds.** The proceeds of the Term Loans shall be used for working capital and general corporate purposes.

5.7. **Collateral.** Borrower is, and will remain, the sole and lawful owner, and in possession of, the Collateral, and has the sole right and lawful authority to grant the security interest described in this Agreement. The Collateral is, and will remain, free and clear of all liens, claims and encumbrances of any kind whatsoever, except for (a) liens in favor of Agent, on behalf of itself and Lenders, to secure the Obligations, (b) liens (i) with respect to the payment of taxes, assessments or other governmental charges or (ii) of suppliers, carriers, materialmen, warehousemen, workmen or mechanics and other similar liens, in each case imposed by law and arising in the Ordinary Course of Business, and securing amounts that are not yet due or that are being contested in good faith by appropriate proceedings diligently conducted and with respect to which adequate reserves or other appropriate provisions are maintained on the books of Borrower or its Subsidiaries in accordance with GAAP and which do not involve, in the judgment of Agent, any risk of the sale, forfeiture or loss of any of the Collateral (a "Permitted Contest"), (c) zoning restrictions, easements, rights of way, encroachments or other restrictions on the use of, and other minor defects or irregularities in title with respect to, any real property of Borrower or its Subsidiaries so long as the same do not materially impair the use of such real property by Borrower or such Subsidiary, (d) purported liens evidenced by the filing of precautionary UCC financing statements relating solely to operating leases of personal property entered into in the Ordinary Course of Business, (e) liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods, (f) liens existing on the date hereof and set forth on Schedule B hereto, (g) liens securing Indebtedness (as defined below) permitted under Section 7.2(c) below, provided that (i) such liens exist prior to the acquisition of, or attach substantially simultaneous with, or within 20 days after the, acquisition, repair, improvement or construction of, such property financed by such Indebtedness and (ii) such liens do not extend to any property of Borrower or its Subsidiaries other than the property (and proceeds thereof) acquired or built, or the improvements or repairs, financed by such Indebtedness, and (h) licenses described in Section 7.3(b) below (all of such liens described in the foregoing clauses (a) through (h) are called "Permitted Liens"). "Ordinary Course of Business" means, with respect to Borrower and its Subsidiaries, the operation of the business of Borrower and its Subsidiaries consistent with Borrower's business plan as of the Closing Date, it being understood and acknowledged by the Lenders that the business of Borrower and/or its Subsidiaries involves entering into

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corporate collaborations in the fields of energy, chemicals, carbon management and pharmaceuticals pursuant to exclusive and non-exclusive licenses of Intellectual Property.

5.8. **Compliance with Laws.** Borrower is and will remain in full compliance in all material respects with all laws, statutes, ordinances, rules and regulations applicable to it including, without limitation, (a) for so long as Borrower is a private company, ensuring that no person who owns, directly, or indirectly, 20% or more of the capital stock of Borrower is or shall be (i) listed on the Specially Designated Nationals and Blocked Person List maintained by the Office of Foreign Assets Control (“OFAC”), Department of Treasury, and/or any other similar lists maintained by OFAC pursuant to any authorizing statute, Executive Order or regulation or (ii) a person designated under Section 1(b), (c) or (d) of Executive Order No. 13224 (September 23, 2001), any related enabling legislation or any other similar Executive Orders, (b) compliance with all applicable Bank Secrecy Act (“BSA”) laws, regulations and government guidance on BSA compliance and on the prevention and detection of money laundering violations, (c) meeting the minimum funding requirements of the United States Employee Retirement Income Security Act of 1974 (as amended, “ERISA”) with respect to any employee benefit plans subject to ERISA, (d) Borrower is not an “investment company” or a company “controlled” by an “investment company” within the meaning of the Investment Company Act of 1940 and (e) Borrower is not engaged principally, or as one of the important activities, in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulations T, U and X of the Board of Governors of the Federal Reserve System (the “Federal Reserve Board”).

5.9. **Intellectual Property.** The Intellectual Property is and will remain free and clear of all liens, claims and encumbrances of any kind whatsoever, except for Permitted Liens described in clauses (b)(i) and (e) of Section 5.7. Borrower has not and will not enter into any other agreement or financing arrangement in which a negative pledge in Borrower’s Intellectual Property is granted to any other party except for exclusive licenses in existence as of the date hereof or entered into in compliance with the terms and conditions of Section 7.3(d). As of the Closing Date and each date a Term Loan is advanced to Borrower, Borrower does not have any interest in, or title to any Intellectual Property except as disclosed in the Perfection Certificate. Borrower owns or has rights to use all Intellectual Property material to the conduct of its business as now or heretofore conducted by it or proposed to be conducted by it, without any actual or claimed infringement upon the rights of third parties. Borrower is in full compliance in all material respects with all provisions of (a) that certain License Agreement between Maxygen, Inc. (“Maxygen”) and Borrower dated March 28, 2002 (as heretofore amended, supplemented or otherwise modified from time to time, the “Maxygen License Agreement”) and (b) that certain License and Collaboration Agreement between Maxygen and Novozymes, Inc. dated September 17, 1997, as assigned by Maxygen to Borrower, and as amended from time to time pursuant to the terms and conditions of this Agreement. Borrower has no knowledge of any material breach by Maxygen under the Maxygen License Agreement.

5.10. **Solvency.** Both immediately before and immediately after giving effect to each Term Loan, the transactions contemplated herein, and the payment and accrual of all transaction costs in connection with the foregoing, Borrower is and will be Solvent. As used herein, “Solvent” means, with respect to Borrower on a particular date, that on such date (a) the fair value of the property of Borrower is greater than the total amount of liabilities, including contingent liabilities (excluding the non-current portion of facility leases), of Borrower; (b) the present fair salable value of the assets of Borrower is not less than the amount that will be required to pay the probable liability of Borrower on its debts as they become absolute and matured; (c) Borrower does not intend to, and does not believe that it will, incur debts or liabilities beyond Borrower’s ability to pay as such debts and liabilities mature; (d) Borrower is not engaged in a business or transaction, and is not about to engage in a business or transaction, for which Borrower’s property would constitute an unreasonably small capital; and (e) is not “insolvent” within the

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meaning of Section 101 (32) of the United States Bankruptcy Code (11 U.S.C. § 101, et. seq.), as amended. The amount of contingent liabilities (such as litigation, guaranties and pension plan liabilities) at any time shall be computed as the amount that, in light of all the facts and circumstances existing at the time, represents the amount that can be reasonably be expected to become an actual or matured liability.

5.11. **Taxes; Pension.** All tax returns, reports and statements, including information returns, required by any governmental authority to be filed by Borrower and its Subsidiaries have been filed with the appropriate governmental authority and except as set forth in Section 10 of the Perfection Certificate delivered on or prior to the Closing Date all taxes, levies, assessments and similar charges have been paid prior to the date on which any fine, penalty, interest or late charge may be added thereto for nonpayment thereof (or any such fine, penalty, interest, late charge or loss has been paid), excluding taxes, levies, assessments and similar charges or other amounts which are the subject of a Permitted Contest. Proper and accurate amounts have been withheld by Borrower from its respective employees for all periods in compliance with applicable laws and such withholdings have been timely paid to the respective governmental authorities. Borrower has paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and Borrower has not withdrawn from participation in, and has not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower in excess of \$50,000 in the aggregate, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental authority.

5.12. **Full Disclosure.** Borrower hereby confirms that all of the information disclosed on the Perfection Certificate is true, correct and complete as of the date of this Agreement and true, correct and complete in all material respects as of the date of each Term Loan. No representation, warranty or other statement made by or on behalf of Borrower contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained therein not misleading, it being recognized by Agent and Lenders that the projections and forecasts provided by Borrower in good faith and based upon reasonable and stated assumptions are not to be viewed as facts and that actual results during the period or periods covered by any such projections and forecasts may differ from the projected or forecasted results.

6. AFFIRMATIVE COVENANTS.

6.1. **Good Standing.** Borrower shall maintain its and each of its Subsidiaries' existence and good standing in its jurisdiction of organization and maintain qualification in each jurisdiction in which the failure to so qualify could reasonably be expected to have a Material Adverse Effect. Borrower shall maintain, and shall cause each of its Subsidiaries to maintain, in full force all licenses, approvals and agreements, the loss of which could reasonably be expected to have a Material Adverse Effect. "Subsidiary" means, with respect to Borrower, any entity the management of which is, directly or indirectly controlled by, or of which an aggregate of more than 50% of the outstanding voting capital stock (or other voting equity interest) is, at the time, owned or controlled, directly or indirectly by, Borrower or one or more Subsidiaries of Borrower.

6.2. **Notice to Agent.** Borrower shall provide Agent with (a) notice of the occurrence of any Default or Event of Default, promptly (but within 3 Business Days) after the date any "officer" (as defined in Rule 16a-1 promulgated under the Securities Exchange Act of 1934, as amended) or a Proper Officer (each such "officer" or such Proper Officer, an "Executive Officer") of Borrower becomes aware of the occurrence of any such event the occurrence of any such event, (b) copies of all statements, reports and notices made available generally by Borrower to its securityholders or to any holders of Subordinated Indebtedness (as defined below), all notices sent to Borrower by the holders of such Subordinated

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Indebtedness, and all reports, registration statements and prospectuses filed with the Securities and Exchange Commission (“SEC”) (excluding notices filed by Borrower on behalf of officers and directors pursuant to Section 16 of the Securities Exchange Act of 1934) or any securities exchange or governmental authority exercising a similar function, promptly, but in any event within 5 days of delivering or receiving such information to or from such persons, (c) a report of any legal actions pending or threatened against Borrower or any Subsidiary that could reasonably be expected to result in damages or costs to Borrower or any Subsidiary of [*] or more promptly upon (but within 3 Business Days after) receipt of notice thereof, (d) within 45 days of the end of each calendar quarter, a list of any new applications or registrations that Borrower has made or filed in respect of any Intellectual Property or a change in status of any outstanding application or registration during the immediately preceding calendar quarter, and (e) copies of all material statements, reports and notices delivered to or by Borrower in connection with the Maxygen License Agreement promptly but in any event within 3 Business Days of delivering or receiving such information.

6.3. Financial Statements. If Borrower is a private company, it shall deliver to Agent and Lenders (a) unaudited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements within 45 days of each month end, in a form acceptable to Agent and certified by Borrower’s chief executive officer or chief financial officer, (b) an updated capitalization table of Borrower in the form that Borrower uses with its existing investors within (i) 5 Business Days after the date of each funding of a Term Loan hereunder and (ii) 45 days after each quarter end and (c) beginning with the fiscal year ending December 31, 2008, its complete annual audited consolidated and, if available, consolidating financial statements prepared under GAAP and certified by an independent certified public accountant selected by Borrower and satisfactory to Agent (it being understood that any “Big Four” accounting firm shall be acceptable to Agent) within 120 days of the fiscal year end or, if sooner, at such time as Borrower’s Board of Directors receives the certified audit; provided, however, that Borrower shall deliver the certified audits for the fiscal years ending December 31, 2006 and December 31, 2007 to Agent and Lenders on or prior to the earlier of (x) the date that is 5 days after the date on which Borrower receives the respective certified audit and (y) June 30, 2008. If Borrower is a publicly held company, it shall provide to Agent and Lenders (A) quarterly unaudited consolidated and, if available, consolidating balance sheets, statements of operations and cash flow statements that have been reviewed in accordance with standards of the Public Accounting Oversight Board (United States) by a recognized firm of certified public accounts, and (B) annual audited consolidated and, if available, consolidating balance sheets, statements of operations and cash flows certified by a recognized firm of certified public accountants. The financial statements described in the foregoing clauses (A) and (B) shall be delivered within 5 Business Days after the statements are provided to Borrower in reviewed/certified form by such public accountants, and if Agent requests, Borrower shall deliver to Agent and Lenders monthly unaudited and unreviewed consolidated balance sheets, statements of operations and cash flow statements within 30 days after the end of each month. All such statements are to be materially prepared using GAAP (subject, in the case of unaudited financial statements, to the absence of footnotes and normal year-end and audit adjustments) and, if Borrower is a publicly held company, are to be materially in compliance with applicable SEC requirements. All financial statements delivered pursuant to this Section 6.3 shall be accompanied by a compliance certificate, signed by the chief financial officer of Borrower, in the form attached hereto as Exhibit D. Borrower shall deliver to Agent and Lenders (i) as soon as available and in any event not later than 30 days after the end of each fiscal year of Borrower, an annual operating plan for Borrower, on a consolidated and, if available, consolidating basis, approved by the Board of Directors of Borrower, for the current fiscal year, in form and substance satisfactory to Agent and (ii) such budgets, sales projections, or other financial information as Agent or any Lender may reasonably request from time to time generally prepared by Borrower in the Ordinary Course of Business. Lenders and Agent hereby acknowledge that until all of the information contained in the financial statements provided by Borrower pursuant to this section is fully disclosed in Borrower’s public filings

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with the SEC, such information will remain both material and non-public; for the avoidance of doubt, forward-looking statements, including but not limited to the annual operating plan and sales projections that Borrower will provide to Lenders and Agent pursuant to this section, will be material and non-public information until Borrower has filed with the SEC financial statements reporting results for all of the time periods covered by such plans and projections. The Borrower hereby agrees that, notwithstanding any repayment of the Term Loans or termination of this Agreement, so long as Borrower is a private company Borrower shall continue to deliver to each Lender the documents required under this Section 6.3 until each of the Warrants have either expired by their terms or been exercised. The provisions of the immediately preceding sentence shall survive the termination of this Agreement.

6.4. Insurance. Borrower, at its expense, shall maintain, and shall cause each Subsidiary to maintain, insurance (including, without limitation, comprehensive general liability, hazard, and business interruption insurance) with respect to all of its properties and businesses (including, the Collateral), in such amounts and covering such risks as is carried generally in accordance with sound business practice by companies in similar businesses similarly situated and in any event with deductible amounts, insurers and policies that shall be reasonably acceptable to Agent. Borrower shall deliver to Agent within fourteen (14) days after the Closing Date certificates of insurance evidencing such coverage, together with endorsements to such policies naming Agent as a lender loss payee or additional insured, as appropriate, in form and substance satisfactory to Agent (except that Agent shall not be named as loss payee with respect to insurance covering equipment described in clause (c) of Section 3.1 hereof). Each policy shall provide that coverage may not be canceled or altered by the insurer except upon 10 days prior written notice to Agent and shall not be subject to co-insurance (except for retentions and deductibles that are customarily set forth in such policies). Borrower appoints Agent as its attorney-in-fact to make, settle and adjust all claims under and decisions with respect to Borrower's policies of insurance, and to receive payment of and execute or endorse all documents, checks or drafts in connection with insurance payments only to the extent necessary to satisfy all Obligations hereunder. Agent shall not act as Borrower's attorney-in-fact unless an Event of Default has occurred and is continuing. The appointment of Agent as Borrower's attorney in fact is a power coupled with an interest and is irrevocable until all of the Obligations are indefeasibly paid in full. Proceeds of insurance shall be applied, at the option of Agent, to repair or replace the Collateral or to reduce any of the Obligations.

6.5. Taxes. Borrower shall, and shall cause each Subsidiary that is incorporated under the laws of any State of the United States or the District of Columbia to, timely file all tax reports and pay and discharge all federal taxes and material state and local taxes, assessments and governmental charges or levies imposed upon it, or its income or profits or upon its properties or any part thereof, before the same shall be in default and before the date on which penalties attach thereto except to the extent such taxes, assessments or governmental charges or levies are the subject of a Permitted Contest.

6.6. Agreement with Landlord/Bailee. Borrower shall obtain and maintain such Access Agreement(s) with respect to any real property on which (a) Borrower's principal place of business, (b) any of Borrower's books or records or (c) Collateral with an aggregate value in excess of \$25,000 is located (other than real property owned by Borrower) as Agent may require.

6.7. Protection of Intellectual Property. Borrower shall take all necessary actions to: (a) protect, defend and maintain the validity and enforceability of its Intellectual Property to the extent material to the conduct of its business now or heretofore conducted by it or proposed to be conducted by it, (b) promptly advise Agent in writing of material infringements of its Intellectual Property of which any Executive Officer of Borrower has knowledge and, should the Intellectual Property be material to Borrower's business and should Borrower have enforcement rights with respect to such Intellectual Property, promptly sue for infringement, misappropriation or dilution and to recover any and all damages

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for such infringement, misappropriation or dilution, (c) not allow any Intellectual Property material to Borrower's business to be abandoned, forfeited or dedicated to the public without Agent's written consent, and (d) notify Agent reasonably promptly (but in any event within 3 Business Days) if it knows or has reason to know that any application or registration relating to any patent, trademark or copyright (now or hereafter existing) material to its business may become abandoned or dedicated, or if any adverse determination or development (including the institution of, or any such determination or development in, any proceeding in the United States Patent and Trademark Office, the United States Copyright Office or any court) regarding Borrower's ownership of any Intellectual Property material to its business, its right to register the same, or to keep and maintain the same. Borrower shall remain liable under each of its Intellectual Property licenses pursuant to which it is a licensee ("Licenses") to observe and perform all of the conditions and obligations to be observed and performed by it thereunder. None of Agent or any Lender shall have any obligation or liability under any such License by reason of or arising out of this Agreement, the granting of a lien, if any, in such License or the receipt by Agent (on behalf of itself and Lenders) of any payment relating to any such License. None of Agent or any Lender shall be required or obligated in any manner to perform or fulfill any of the obligations of Borrower under or pursuant to any License, or to make any payment, or to make any inquiry as to the nature or the sufficiency of any payment received by it or the sufficiency of any performance by any party under any License, or to present or file any claims, or to take any action to collect or enforce any performance or the payment of any amounts which may have been assigned to it or which it may be entitled at any time or times.

6.8. Special Collateral Covenants.

- (a) Until the occurrence of any Event of Default, Borrower shall remain in possession of the Collateral at the location(s) specified on the Perfection Certificate; except that Agent, on behalf of itself and Lenders, shall have the right to possess (i) any chattel paper or instrument that constitutes a part of the Collateral, and (ii) any other Collateral in which Agent's security interest (on behalf of itself and Lenders) may be perfected only by possession. Agent may inspect (and representatives of any Lender may accompany Agent on any such inspection) any of the Collateral during normal business hours, and in the absence of a Default or an Event of Default, with reasonable frequency and after giving Borrower reasonable prior notice. If Agent asks, Borrower will promptly notify Agent in writing of the location of any Collateral.
- (b) Borrower shall (i) use the Collateral only in its trade or business, (ii) maintain all of the Collateral in good operating order and repair, normal wear and tear excepted, and (iii) use and maintain the Collateral only in compliance with manufacturers' recommendations and all applicable laws.
- (c) Agent and Lenders do not authorize and Borrower agrees it shall not (i) part with possession of any of the Collateral (except to Agent (on behalf of itself and Lenders), for maintenance and repair or for a Permitted Disposition), or (ii) remove any of the Collateral from the continental United States.
- (d) Borrower shall pay promptly when due all taxes, license fees, assessments and public and private charges levied or assessed on any of the Collateral, on its use, or on this Agreement or any of the other Debt Documents. At its option, Agent may discharge taxes, liens, security interests or other encumbrances at any time levied or placed on the Collateral and may pay for the maintenance, insurance and preservation of the Collateral and effect compliance with the terms of this Agreement or any of the other Debt Documents. Borrower agrees to reimburse Agent, on demand, all reasonable costs and

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expenses incurred by Agent in connection with such payment or performance and agrees that such reimbursement obligation shall constitute Obligations.

- (e) Borrower shall, at all times, keep accurate and complete records of the Collateral that has an acquisition cost of \$2,500 or more, and Agent shall have the right to (i) inspect and make copies of all of Borrower's books and records relating to the Collateral during normal business hours and (ii) contact Borrower's accountants, and in the absence of a Default or an Event of Default, after giving Borrower reasonable prior notice.
- (f) Borrower agrees and acknowledges that any third person who may at any time possess all or any portion of the Collateral shall be deemed to hold, and shall hold, the Collateral as the agent of, and as pledge holder for, Agent (on behalf of itself and Lenders). Agent may at any time give notice to any third person described in the preceding sentence that such third person is holding the Collateral as the agent of, and as pledge holder for, Agent (on behalf of itself and Lenders).

6.9. **Further Assurances.** Borrower shall, upon request of Agent, furnish to Agent such further information, execute and deliver to Agent such documents and instruments (including, without limitation, UCC financing statements) and shall do such other acts and things as Agent may at any time reasonably request relating to the perfection or protection of the security interest created by this Agreement or for the purpose of carrying out the intent of this Agreement and the other Debt Documents.

6.10. **Additional Subsidiaries.** Promptly (and in any event within thirty (30) days) after the formation or acquisition of any Subsidiary of Borrower, Borrower shall cause to be executed and delivered to Agent the following: (i) by such new Subsidiary other than a Foreign Subsidiary (as hereinafter defined), a Guaranty pursuant to which such Subsidiary shall guarantee the payment and performance of all of the Obligations and pursuant to which Agent, for the benefit of itself and the Lenders, shall be granted a first priority (subject to Permitted Liens) and perfected security interest in all assets of such Subsidiary of the same types constituting "Collateral" under Section 3.1 hereof to secure the Obligations, (ii) by the Borrower or any Guarantor (as applicable) that is such Subsidiary's direct parent company, an amendment to the Pledge Agreement delivered on the Closing Date or a new Pledge Agreement substantially in the form of the Pledge Agreement delivered on the Closing Date (or otherwise in form and substance reasonably satisfactory to Lender), as applicable, and pursuant to which either (1) all of the capital stock of such new Subsidiary (if such Subsidiary is not a Foreign Subsidiary) or (2) 65% of the capital stock of such new Subsidiary (if such Subsidiary is a Foreign Subsidiary) shall be pledged to Agent, for the benefit of the Lenders, on a first priority and perfected basis to secure the Obligations, and (iii) by the Borrower, such other related documents (including closing certificates, legal opinions and other similar documents) as Agent may reasonably request, all in form and substance reasonably satisfactory to Agent; provided, however, that this Section 6.10 shall not operate as a consent to any formation or acquisition of a Subsidiary that is not expressly permitted under this Agreement.

7. NEGATIVE COVENANTS

7.1. **Liens.** Borrower shall not, and shall not permit any Subsidiary to, create, incur, assume or permit to exist any lien, security interest, claim or encumbrance or grant any negative pledges on any Collateral or Intellectual Property, except Permitted Liens, and with respect to Intellectual Property, except as contemplated by Section 7.3(d).

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7.2. **Indebtedness.** Borrower shall not, and shall not permit any Subsidiary to, directly or indirectly create, incur, assume, permit to exist, guarantee or otherwise become or remain directly or indirectly liable with respect to, any Indebtedness (as hereinafter defined), except for the following:

- (a) the Obligations;
- (b) Indebtedness existing on the date hereof and set forth on Schedule B to this Agreement and any modification, replacement, refinancing, refunding, renewal or extension thereof, provided that the principal amount thereof does not exceed the principal amount thereof immediately prior to such modification, replacement, refinancing, refunding, renewal or extension plus other reasonable amounts paid and fees and expenses incurred in connection with such modification, replacement, refinancing, refunding, renewal or extension;
- (c) Indebtedness incurred on or after the Closing Date consisting of non-real estate capitalized lease obligations and non-real estate purchase money Indebtedness, in each case incurred by Borrower or any of its Subsidiaries to finance the acquisition, repair, improvement or construction of fixed or capital assets of such person, provided that (i) the aggregate outstanding principal amount of all such Indebtedness incurred on or after the Closing Date under this clause (c) at any time does not exceed (1) at any time that Borrower is Cash Flow Positive, an amount equal to twenty percent (20%) of Balance Sheet Cash of the Borrower at such time, and (2) at any time that Borrower is Cash Flow Negative, an amount equal to the lesser of (A) \$5,000,000 and (B) twenty percent (20%) of Balance Sheet Cash of the Borrower at such time, and (ii) the principal amount of such Indebtedness does not exceed the lower of the cost or fair market value of the property so acquired or built or of such repairs or improvements financed with such Indebtedness (each measured at the time of such acquisition, repair, improvement or construction is made);
- (d) unsecured Indebtedness in an aggregate amount not to exceed (i) at any time that Borrower is Cash Flow Positive, an amount equal to twenty percent (20%) of Balance Sheet Cash of the Borrower at such time, and (ii) at any time that Borrower is Cash Flow Negative, an amount equal to the lesser of (1) \$2,000,000 and (2) twenty percent (20%) of Balance Sheet Cash of the Borrower at such time, provided that all unsecured Indebtedness under this clause (d) is subordinated to the Obligations on terms and conditions reasonably acceptable to Agent ("Subordinated Indebtedness");
- (e) the incurrence of any Indebtedness by any Subsidiary of Borrower to Borrower, or the incurrence of any Indebtedness of Borrower to any Subsidiary of Borrower, provided that (i) Borrower and any such Subsidiary shall have executed and delivered to Borrower, or such Subsidiary, as applicable, a demand note (each, an "Intercompany Note") to evidence such intercompany loans or advances owing at any time by such Subsidiary to Borrower or by Borrower to such Subsidiary, which Intercompany Note shall be in form and substance reasonably satisfactory to Agent and in the case of any Intercompany Note evidencing a loan or advance by Borrower or any Guarantor to the Borrower or any Subsidiary, as applicable, shall be pledged and delivered to Agent pursuant to the Pledge Agreement as additional Collateral for the Obligations, (ii) any and all Indebtedness of Borrower or any Guarantor to any Subsidiary of Borrower shall be subordinated to the Obligations pursuant to the subordination terms set forth in each Intercompany Note, (iii) the aggregate principal amount of any Indebtedness issued under this clause (e) in any

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fiscal quarter and owing to Borrower or any Guarantor by those Subsidiaries of Borrower organized under the laws of a jurisdiction other than any state of the United States or the District of Columbia (such Subsidiaries, the “Foreign Subsidiaries”), when added to the aggregate amount of any investments by Borrower or any Guarantor in the Foreign Subsidiaries made in such fiscal quarter pursuant to Section 7.7(d)(v), shall not exceed the amount equal to twenty percent (20%) of the Balance Sheet Cash of the Borrower as of the first day of the fiscal quarter in which such loan or advance is made, and (iv) no Default or Event of Default would occur both before and after giving effect to any such Indebtedness;

- (f) Indebtedness of Foreign Subsidiaries under working capital lines of credit or similar credit facilities, provided that such Indebtedness is not guaranteed by Borrower or Guarantor;
- (g) Indebtedness consisting of Series E preferred stock of the Borrower that are subject to mandatory redemption or repurchase rights, provided that: (i) the mandatory redemption or repurchase rights of such preferred stock are not exercisable by the holders of such preferred stock until 91 days after the Applicable Term Loan Maturity Date for the last Term Loan advanced hereunder, (ii) such preferred stock is issued within six (6) months after the Closing Date, (iii) such preferred stock is issued at an offering price of not less than \$5.50 per share (as adjusted from time to time for stock splits, stock combinations, stock dividends and the like), and (iv) such preferred stock is issued for aggregate cash proceeds to the Borrower of not more than \$60,000,000; and
- (h) Indebtedness consisting of the repurchase and redemption rights of shares of Series D Preferred Stock of the Borrower issued in connection with the exercise of the Warrants.

As used in this Agreement, the term “Indebtedness” shall mean, with respect to any person, at any date, without duplication, (1) all obligations of such person for borrowed money, (2) all obligations of such person evidenced by bonds, debentures, notes or other similar instruments, or upon which interest payments are customarily made, (3) all obligations of such person to pay the deferred purchase price of property or services, but excluding obligations to trade creditors incurred in the Ordinary Course of Business and not past due by more than 90 days, (4) all capital lease obligations of such person, (5) the principal balance outstanding under any synthetic lease, tax retention operating lease, off-balance sheet loan or similar off-balance sheet financing product, (6) all obligations of such person to purchase securities (or other property) which arise out of or in connection with the issuance or sale of the same or substantially similar securities (or property), (7) all contingent or non-contingent obligations of such person to reimburse any bank or other person in respect of amounts paid under a letter of credit or similar instrument, (8) all equity securities of such person subject to repurchase or redemption otherwise than at the sole option of such person, (9) all “earnouts” and similar payment obligations of such person, (10) all indebtedness secured by a lien on any asset of such person, whether or not such indebtedness is otherwise an obligation of such person, (11) all obligations of such person under any foreign exchange contract, currency swap agreement, interest rate swap, cap or collar agreement or other similar agreement or arrangement designed to alter the risks of that person arising from fluctuations in currency values or interest rates, in each case whether contingent or matured, and (12) all obligations or liabilities of others guaranteed by such person. Without limiting the generality of the immediately preceding sentence, “Indebtedness” shall not include (A) any obligations owing under operating leases for real property leased by Borrower or any of its Subsidiaries or (B) any landlord-financed tenant improvements that are capitalized into such operating leases.

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7.3. **Dispositions.** Borrower shall not, and shall not permit any Subsidiary to, convey, sell, rent, lease, sublease, mortgage, license, transfer or otherwise dispose of (collectively, "Transfer") any of the Collateral or any Intellectual Property, except for the following (collectively, "Permitted Dispositions"): (a) sales of Inventory in the Ordinary Course of Business, (b) non-exclusive licenses for the use of Borrower's Intellectual Property, in each case in the Ordinary Course of Business, (c) dispositions by Borrower or any of its Subsidiaries of tangible assets for cash and fair value that are no longer used or useful in the business of Borrower or such Subsidiary so long as (i) no Default or Event of Default exists at the time of such disposition or would be caused after giving effect thereto and (ii) the fair market value of all such assets disposed of does not exceed \$50,000 in the aggregate during any calendar year, and (d) exclusive licenses for the use of Borrower's Intellectual Property, so long as, with respect to each such exclusive license, (i) no Default or Event of Default exists at the time of such Transfer, (ii) the license constitutes an arms-length transaction made in the Ordinary Course of Business and the terms of which, on their face, do not provide for a sale or assignment of any Intellectual Property, (iii) the Borrower delivers no later than 10 days prior to execution of definitive documents, written notice and a brief summary as of such date of the terms of the license to Agent, (iv) the Borrower delivers to Agent copies of the final executed licensing documents in connection with the license promptly upon consummation of the license, and (v) all royalties, milestone payments or other proceeds arising from the licensing agreement are paid to a deposit account that is governed by an Account Control Agreement.

7.4. **Change in Name, Location or Executive Office; Change in Business; Change in Fiscal Year.** Borrower shall not, and shall not permit any Subsidiary to, (a) change its name or its state of organization, (b) relocate its chief executive office without 30 days prior written notification to Agent, (c) engage in any business other than or reasonably related or incidental to the businesses currently engaged in by Borrower or any of its Subsidiaries, or (d) change its fiscal year end. Borrower shall not, and taken together with its Subsidiaries as a whole shall not, cease to conduct business substantially in the manner conducted by Borrower or any of its Subsidiaries as of the date of this Agreement.

7.5. **Mergers or Acquisitions.** Borrower shall not merge or consolidate, or permit any Subsidiary to merge or consolidate, with or into any other person or entity (other than mergers of a Subsidiary into Borrower in which Borrower is the surviving entity) or acquire, or permit any Subsidiary to acquire, all or substantially all of the capital stock or property of another person or entity. Notwithstanding the foregoing, Borrower any of its Subsidiaries may acquire all or substantially all of the assets or stock of another person or entity (such person or entity, the "Target") so long as (a) Agent and each Lender shall receive at least ten (10) Business Days' prior written notice of such proposed acquisition, which notice shall include a reasonably detailed description of such proposed acquisition; (b) such acquisition shall only comprise a business, or those assets of a business, substantially of the type engaged in by Borrower or its Subsidiaries as of the Closing Date, or in the fields of energy, chemicals, carbon management and pharmaceuticals or natural extensions thereof or technologies related thereto; (c) such acquisition shall be consensual and shall have been approved by Target's board of directors or similar governing body (as applicable); (d) that portion of the purchase price paid and/or payable in cash and Cash Equivalents in connection with all acquisitions during the term of this Agreement (less any cash or Cash Equivalents acquired from Target, but including all transaction costs and all Indebtedness, liabilities and contingent obligations incurred or assumed in connection therewith or otherwise reflected in a consolidated balance sheet of Borrower and Target) shall not exceed the greater of (1) \$10,000,000 and (2) thirty-five percent (35%) of the net cash proceeds from all public offerings of common stock of the Borrower; (e) if at the time of and after giving effect to such acquisition Borrower is, or on a pro forma basis will become, Cash Flow Negative, Agent shall have received evidence satisfactory to Agent that Borrower has, at the time of and after giving effect to such acquisition, Balance Sheet Cash in an amount equal to or greater than the product of (i) negative eighteen times (ii) the Cash Burn Amount; (f) the business and assets acquired in such Permitted Acquisition shall be free and clear of all liens (other

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than Permitted Liens); (g) at or prior to the closing of any permitted acquisition (other than an acquisition by a Foreign Subsidiary or by Borrower or Guarantor of a Foreign Subsidiary), Agent will be granted a first priority perfected lien (subject to Permitted Liens) in all assets acquired pursuant thereto or in the assets and stock of Target, and Borrower or Guarantor (as applicable) and Target shall have executed such documents and taken such actions as may be required by Agent in connection therewith; (h) on or prior to the date of such acquisition, Agent shall have received, in form and substance reasonably satisfactory to Agent, copies of the acquisition agreement and related agreements and instruments, and all opinions, certificates, lien search results and other documents reasonably requested by Agent; and (i) at the time of such acquisition and after giving effect thereto, no Default or Event of Default has occurred and is continuing.

7.6. Restricted Payments. Borrower shall not, and shall not permit any Subsidiary to, (a) declare or pay any dividends or make any other distribution or payment on account of or redeem, retire, defease or purchase any capital stock (other than (i) the payment of dividends to Borrower or any Guarantor, (ii) absent the occurrence and the continuance of a Default or Event of Default before and after giving effect to any such payment, the payment of dividends with respect to the Series B Preferred Stock and the Series D Preferred Stock, so long as such dividends do not exceed \$500,000 in the aggregate during any calendar year, (iii) the distribution of dividends payable solely in capital stock of the Borrower, and (iv) absent the occurrence and the continuance of a Default or Event of Default before and after giving effect to any such repurchase payment, the repurchase of shares, options or warrants thereof from employees, former employees, directors, former directors, consultants, former consultants, advisors or former advisors and their permitted transferees or estates, of Borrower or any of its Subsidiaries upon their death, termination of their employment or service period or retirement, so long as such repurchase payments do not exceed \$250,000 in the aggregate during any calendar year, and (iv) dividends payable exclusively in the capital stock of the Borrower), (b) make any payment in respect of management fees or consulting fees (or similar fees) to any equityholder or other affiliate of Borrower other than (i) fees for general and administrative services provided to Borrower and its Subsidiaries by Maxygen in an aggregate amount not to exceed [*] during any calendar year and (ii) royalties or other payments in connection with Intellectual Property licenses from Maxygen in an amount not to exceed the amounts calculated to be paid under the Maxygen License Agreement as may be amended pursuant to Section 7.11, (c) be a party to or bound by an agreement that restricts a Subsidiary from paying dividends or otherwise distributing property to Borrower, (d) make any payments of intercompany Indebtedness that is owing by Borrower or any Guarantor (except as provided in the subordination terms of the applicable Intercompany Note then in effect with respect to such intercompany Indebtedness) or (e) purchase or make any payment on or with respect to any Subordinated Indebtedness, except as expressly permitted by the subordination terms thereof that have been approved by Agent.

7.7. Investments. Borrower shall not, and shall not permit any Subsidiary to, directly or indirectly (a) acquire or own, or make any loan, advance or capital contribution (an "Investment") in or to any person or entity, (b) acquire any Subsidiary (other than pursuant to the terms and conditions of Section 7.5 and upon the satisfaction of each of the conditions set forth in Section 6.10) or create any Subsidiary (unless each of the conditions set forth in Section 6.10 are satisfied), or (c) engage in any joint venture or partnership with any other person or entity, other than, with respect to each of the foregoing clauses (a), (b) and (c): (i) Investments existing on the date hereof and set forth on Schedule B to this Agreement, (ii) Investments in cash and Cash Equivalents (as defined below), (iii) Investments by way of intercompany loans to the extent permitted under Section 7.2(d), (iv) loans or advances to employees of Borrower or any of its Subsidiaries to finance travel, entertainment and relocation expenses and other ordinary business purposes in the ordinary course of business as presently conducted, provided that the aggregate outstanding principal amount of all loans and advances permitted pursuant to this clause (iv) shall not exceed \$25,000 at any time, (v) capital contributions by the Borrower or any Guarantor to the

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Borrower or any Guarantor; and (vi) capital contributions by Borrower or any Guarantor to the Foreign Subsidiaries (A) in an aggregate amount in any fiscal quarter which, when added to the aggregate amount of any loans made by Borrower or any Guarantor to the Foreign Subsidiaries in such fiscal quarter pursuant to Section 7.2(e), shall not exceed twenty percent (20%) of the Balance Sheet Cash of the Borrower as of the first day of the fiscal quarter in which such investment is made and (B) so long as no Default or Event of Default would occur both before and after giving effect to any such capital contribution. The term “Cash Equivalents” means (u) any readily-marketable securities (i) issued by, or directly, unconditionally and fully guaranteed or insured by the United States federal government or (ii) issued by any agency of the United States federal government the obligations of which are fully backed by the full faith and credit of the United States federal government, (v) any readily-marketable direct obligations issued by any other agency of the United States federal government, any state of the United States or any political subdivision of any such state or any public instrumentality thereof, in each case having a rating of at least “A-1” from S&P or at least “P-1” from Moody’s, (w) any commercial paper rated at least “A-1” by S&P or “P-1” by Moody’s and issued by any entity organized under the laws of any state of the United States, (x) any U.S. dollar-denominated time deposit, insured certificate of deposit, overnight bank deposit or bankers’ acceptance issued or accepted by (i) Agent or (ii) any commercial bank that is (A) organized under the laws of the United States, any state thereof or the District of Columbia, (B) “adequately capitalized” (as defined in the regulations of its primary federal banking regulators) and (C) has Tier 1 capital (as defined in such regulations) in excess of \$250,000,000, (y) shares of any United States money market fund that (i) has substantially all of its assets invested continuously in the types of investments referred to in clause (u), (v), (w) or (x) above with maturities as set forth in the proviso below, (ii) has net assets in excess of \$500,000,000 and (iii) has obtained from either S&P or Moody’s the highest rating obtainable for money market funds in the United States; provided, however, that the maturities of all obligations specified in any of clauses (u), (v), (w) and (x) above shall not exceed 365 days, and (z) in the case of Investments by any Foreign Subsidiary, Cash Equivalents shall also include (i) direct obligations of the sovereign nation (or any agency thereof) in which such Foreign Subsidiary is organized and is conducting business or where such Investment is made, or in obligations fully and unconditionally guaranteed by such sovereign nation (or any agency thereof), in each case maturing within 365 days after such date and having, at the time of the acquisition thereof, a rating equivalent to at least A-1 from S&P and at least P-1 from Moody’s, (ii) investments of the type and maturity described in clauses (u) through (y) above of foreign obligors, which Investments or obligors (or the parents of such obligors) have ratings described in such clauses or equivalent ratings from comparable foreign rating agencies, (iii) shares of money market mutual or similar funds which invest exclusively in assets otherwise satisfying the requirements of this definition (including this proviso) and (iv) other short-term investments utilized by Foreign Subsidiaries in accordance with normal investment practices for cash management in investments analogous to the foregoing investments in clauses (u) through (y).

7.8. Transactions with Affiliates. Borrower shall not, and shall not permit any Subsidiary to, directly or indirectly enter into or permit to exist any transaction with any Affiliate (as defined below) of Borrower or any Subsidiary except for transactions that are in the Ordinary Course of Business, upon fair and reasonable terms that are no more favorable to such Affiliate of Borrower or such Subsidiary than would be obtained in an arm’s length transaction. Without limiting the generality of the immediately preceding sentence, the following transactions and agreements shall be deemed to be in compliance with this Section 7.8: (1) the Maxygen License Agreement (as amended or modified from time to time in accordance with the terms and conditions of this Agreement) and (2) any agreements between the Borrower and Shell entered into from time to time after the Closing Date and relating to either (A) an equity investment by Shell in the Borrower and the grant by the Borrower of investor rights to Shell (including without limitation, one or more board of director seats and/or attendant rights) and (B) a licensing and/or joint venture arrangement related to one or more of the following fields: conversion of

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biomass to chemicals, fuel additives, lubricants or fuels; conversion of sugars to chemicals, fuel additives, lubricants or fuels; and carbon management, including, but not limited to, conversion of carbon to biomass and sequestration of carbon to storage materials. As used herein, “Affiliate” shall mean, with respect to Borrower or any Subsidiary, (a) each person that, directly or indirectly, owns or controls 5% or more of the stock or membership interests having ordinary voting power in the election of directors or managers of Borrower or any Subsidiary, and (b) each person that controls, is controlled by or is under common control with Borrower or any Subsidiary.

7.9. **Compliance.** Borrower shall not, and shall not permit any Subsidiary to (a) fail to comply in all material respects with the laws and regulations described in clauses (a) through and including (d) of Section 5.8 herein, (b) use any portion of the Term Loans to purchase or carry margin stock (within the meaning of Regulation U of the Federal Reserve Board) or (c) fail to comply with or violate any other law or regulation, the failure or violation of which law or regulation described in this clause (c) could reasonably be expected to have a Material Adverse Effect, or permit any Subsidiary to do any of the foregoing.

7.10. **Deposit Accounts and Securities Accounts.** Other than with respect to deposit accounts used solely to fund payroll and withholding taxes, Borrower will not directly or indirectly maintain or establish any deposit account or securities account, unless Agent, Borrower and the depository institution or securities intermediary at which the account is or will be maintained enter into a deposit account control agreement or securities account control agreement, as the case may be (an “Account Control Agreement”), in form and substance satisfactory to Agent (which agreement shall provide that such depository institution or securities intermediary shall comply with all instructions of Agent without further consent of Borrower, including, without limitation, an instruction by Agent to follow a notice of exclusive control or similar notice (such notice, a “Notice of Exclusive Control”), prior to or concurrently with the establishment of such deposit account or securities account (or in the case of any such deposit account or securities account maintained as of the date hereof, prior to or concurrently with the entering into this Agreement). Agent may give a Notice of Exclusive Control with respect to any deposit account or securities account at any time at which an Event of Default has occurred and is continuing.

7.11. **Amendments to Certain Material Agreements.** Borrower shall not amend, modify or waive any provision of (a) the Maxygen License Agreement (unless the net effect of such amendment, modification or waiver of the Maxygen License Agreement in the reasonable business judgment of the Borrower is not materially adverse to Borrower and its Subsidiaries taken as a whole) or (b) any document relating to any of the Subordinated Indebtedness, in each case without the prior written consent of Agent and the Requisite Lenders.

8. DEFAULT AND REMEDIES.

8.1. **Events of Default.** Borrower shall be in default under this Agreement and each of the other Debt Documents if (each of the following, an “Event of Default”):

- (a) Borrower shall fail to pay (i) any principal when due, or (ii) any interest, fees or other Obligations (other than as specified in clause (i) within a period of 3 Business Days after the due date thereof (other than on the Applicable Term Loan Maturity Date));
- (b) Borrower or, to the extent such obligations are incorporated into the Guaranty, Guarantor breaches any of its obligations under Section 6.1 (solely as it relates to maintaining its existence), Section 6.2, Section 6.3, Section 6.4 or Article 7;

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- (c) Borrower or, subject to Section 8.1(b), Guarantor breaches any of their other respective obligations under any of the Debt Documents or the Warrant and fails to cure such breach within 30 days after the earlier of (i) the date on which an Executive Officer of Borrower or Guarantor, as applicable, becomes aware, or but for such officer's gross negligence should have become aware, of such failure and (ii) the date on which notice shall have been given to Borrower from Agent;
- (d) any warranty, representation or statement made or deemed made by or on behalf of Borrower or Guarantor in any of the Debt Documents or otherwise in connection with any of the Obligations in writing shall be false or misleading in any material respect;
- (e) any of the Collateral or the Guarantor Collateral with a value in excess of \$50,000 in the aggregate is subjected to attachment, execution, levy, seizure or confiscation in any legal proceeding or otherwise, and such attachment, execution, levy, seizure or confiscation continues unremedied for a period of 20 days;
- (f) one or more judgments, orders or decrees shall be rendered against Borrower or Guarantor that exceeds by more than \$150,000 any insurance coverage applicable thereto (to the extent the relevant insurer has been notified of such claim and has not denied coverage therefor) and either (i) enforcement proceedings shall have been commenced by any creditor upon any such judgment, order or decree or (ii) such judgment, order or decree shall not have been vacated or discharged for a period of 30 consecutive days and there shall not be in effect (by reason of a pending appeal or otherwise) any stay of enforcement thereof;
- (g) [intentionally omitted];
- (h) (i) Borrower or any Subsidiary shall generally not pay its debts as such debts become due, shall admit in writing its inability to pay its debts generally, shall make a general assignment for the benefit of creditors, or shall cease doing business as a going concern, (ii) any proceeding shall be instituted by or against Borrower or any Subsidiary seeking to adjudicate it a bankrupt or insolvent or seeking liquidation, winding up, reorganization, arrangement, adjustment, protection, relief, composition of it or its debts or any similar order, in each case under any law relating to bankruptcy, insolvency or reorganization or relief of debtors or seeking the entry of an order for relief or the appointment of a custodian, receiver, trustee, conservator, liquidating agent, liquidator, other similar official or other official with similar powers, in each case for it or for any substantial part of its property and, in the case of any such proceedings instituted against (but not by or with the consent of) Borrower or such Subsidiary, either such proceedings shall remain undismissed or unstayed for a period of 60 days or more or any action sought in such proceedings shall occur or (iii) Borrower or any Subsidiary shall take any corporate or similar action or any other action to authorize any action described in clause (i) or (ii) above;
- (i) Borrower or Guarantor files any amendment or termination statement relating to a filed financing statement describing the Collateral or the Guarantor Collateral;
- (j) an event or development occurs which has a Material Adverse Effect;
- (k) (i) any provision of any Debt Document shall fail to be valid and binding on, or enforceable against, Borrower, (ii) any Debt Document purporting to grant a security

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interest to secure any Obligation shall fail to create a valid and enforceable security interest on any Collateral with a value in excess of \$25,000 in the aggregate purported to be covered thereby or such security interest shall fail or cease to be a perfected lien with the priority required in the relevant Debt Document or (iii) any subordination provision set forth in any document evidencing or relating to the Subordinated Indebtedness shall, in whole or in part, terminate or otherwise fail or cease to be valid and binding on, or enforceable against, or any agent for or holder of the Subordinated Indebtedness (or such person shall so state in writing), or Borrower shall state in writing that any of the events described in clause (i), (ii) or (iii) above shall have occurred;

- (l) (i) Borrower or any Subsidiary defaults under any Specified Agreement (after any applicable grace period contained therein), (ii) (A) Borrower or any Subsidiary fails to make (after any applicable grace period) any payment when due (whether due because of scheduled maturity, required prepayment provisions, acceleration, demand or otherwise) on any Indebtedness of Borrower or such Subsidiary and, in each case, such failure relates to Indebtedness having a principal amount of \$500,000 or more (“Material Indebtedness”), (B) any other event shall occur or condition shall exist under any contractual obligation relating to any such Material Indebtedness, if the effect of such event or condition is to accelerate, or to permit the acceleration of, the maturity of such Material Indebtedness or (C) any such Material Indebtedness shall become or be declared to be due and payable, or be required to be prepaid, redeemed, defeased or repurchased (other than by a regularly scheduled required prepayment), prior to the stated maturity thereof or prior to the first date on which the same could be mandatorily redeemed, or (iii) Borrower or any Subsidiary fails to make any payment when due (after any applicable grace period) or otherwise materially defaults under any obligation for payments due under any lease agreement for real property (after any grace period contained therein) which requires payments by the Borrower or such Subsidiary in excess of \$1,000,000 in any fiscal year; “Specified Agreement” shall mean (1) while the Borrower is a private company, any Material Agreement to which Borrower or any Subsidiary is a party and involving the receipt or payment of amounts in the aggregate exceeding \$1,000,000 per year and (2) while the Borrower is a public company, any commercial agreement with a third party which is or would be deemed a “material contract” (as such term is defined in Item 601 of Regulation S-K promulgated under the United States securities laws) of the Borrower or its Subsidiaries; or
- (m) (i) any of the chief executive officer, the chief financial officer or the chief scientific officer of Borrower as of the date hereof shall cease to be involved in the day to day operations (including research development) or management of the business of Borrower, and a successor of such officer reasonably acceptable to Agent is not appointed on terms reasonably acceptable to Agent within 90 days of such cessation or involvement, (ii) the acquisition, directly or indirectly, by any person or group (as such term is used in Section 13(d)(3) of the Exchange Act) of more than forty percent (40%) of the voting power of the voting stock of Borrower by way of merger or consolidation or otherwise (other than in connection with an initial public offering of Borrower), (iii) during any period of twelve consecutive calendar months, individuals who at the beginning of such period constituted the board of directors of Borrower (together with any new directors whose election by the board of directors of Borrower or whose nomination for election by the stockholders of Borrower was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of such period or whose election or nomination for election was previously so approved) cease for any

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reason other than death or disability to constitute a majority of the directors then in office (other than in connection with an initial public offering of Borrower), (iv) Borrower ceases to own and control, directly or indirectly, (A) 100% of the economic and voting rights associated with the outstanding voting capital stock (or other voting equity interest) of each Subsidiary of Borrower that is incorporated under the laws of any State of the United States or the District of Columbia and (B) with respect to Subsidiaries of Borrower that are not incorporated under the laws of any State of the United States or the District of Columbia, the maximum allowable ownership percentage of economic and voting rights allowable under applicable law, or (v) the occurrence of any “change of control” or any term of similar effect under any Subordinated Indebtedness document.

8.2. Lender Remedies. Upon the occurrence of any Event of Default, Agent may, and at the written request of the Requisite Lenders shall, terminate the Commitments with respect to further Term Loans and declare any or all of the Obligations to be immediately due and payable, without demand or notice to Borrower and the accelerated Obligations shall bear interest at the Default Rate pursuant to Section 2.6, provided that, upon the occurrence of any Event of Default specified in Section 8.1(h) above, the Obligations shall be automatically accelerated. After the occurrence of an Event of Default, Agent shall have (on behalf of itself and Lenders) all of the rights and remedies of a secured party under the UCC, and under any other applicable law. Without limiting the foregoing, Agent shall have the right to, and at the written request of the Requisite Lenders shall, (a) notify any account debtor of Borrower or any obligor on any instrument which constitutes part of the Collateral to make payments to Agent (for the benefit of itself and Lenders), (b) with or without legal process, enter any premises where the Collateral may be and take possession of and remove the Collateral from the premises or store it on the premises, (c) sell the Collateral at public or private sale, in whole or in part, and have the right to bid and purchase at such sale, or (d) lease or otherwise dispose of all or part of the Collateral, applying proceeds from such disposition to the Obligations in accordance with Section 8.4. If requested by Agent, Borrower shall promptly assemble the Collateral and make it available to Agent at a place to be designated by Agent. Agent may also render any or all of the Collateral unusable at Borrower’s premises and may dispose of such Collateral on such premises without liability for rent or costs. Any notice that Agent is required to give to Borrower under the UCC of the time and place of any public sale or the time after which any private sale or other intended disposition of the Collateral is to be made shall be deemed to constitute reasonable notice if such notice is given in accordance with this Agreement at least 10 days prior to such action. Effective only upon the occurrence and during the continuance of an Event of Default, Borrower hereby irrevocably appoints Agent (and any of Agent’s designated officers or employees) as Borrower’s true and lawful attorney to: (i) take any of the actions specified above in this paragraph; (ii) endorse Borrower’s name on any checks or other forms of payment or security that may come into Agent’s possession; (iii) settle and adjust disputes and claims respecting the accounts directly with account debtors, for amounts and upon terms which Agent determines to be reasonable; and (iv) do such other and further acts and deeds in the name of Borrower that Agent may deem necessary or desirable to enforce its rights in or to any of the Collateral or to perfect or better perfect Agent’s security interest (on behalf of itself and Lenders) in any of the Collateral. The appointment of Agent as Borrower’s attorney in fact is a power coupled with an interest and is irrevocable until the Termination Date.

8.3. Additional Remedies. In addition to the remedies provided in Section 8.2 above, Borrower hereby grants to Agent (on behalf of itself and Lenders) and any transferee of Collateral, for purposes of exercising its remedies as provided herein, an irrevocable, nonexclusive license (exercisable without payment of royalty or other compensation to Borrower and subject to any exclusive licenses granted in compliance with the terms and conditions of Section 7.3(d)) to use, license or sublicense any Intellectual Property now owned or hereafter acquired by Borrower, and wherever the same may be located, and

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including in such license access to all media in which any of the licensed items may be recorded or stored and to all computer software and programs used for the compilation or printout thereof.

8.4. **Application of Proceeds.** Proceeds from any Transfer of the Collateral or the Intellectual Property (other than Permitted Dispositions) and all payments made or proceeds of Collateral received by Agent during the continuance of an Event of Default may be applied in Agent's sole discretion: (a) first, to pay all fees, costs, indemnities, reimbursements and expenses then due to Agent under the Debt Documents in its capacity as Agent under the Debt Documents, (b) second, to pay all fees, costs, indemnities, reimbursements and expenses then due to Lenders under the Debt Documents in accordance with their respective Pro Rata Shares, until paid in full, (c) third, to pay all interest on the Term Loans then due to Lenders in accordance with their respective Pro Rata Shares, until paid in full (other than interest accrued after the commencement of any proceeding referred to in Section 8.1(h) if a claim for such interest is not allowable in such proceeding), (d) fourth, to pay all principal on the Term Loans then due to Lenders in accordance with their respective Pro Rata Shares, until paid in full (e) fifth, to pay all other Obligations then due to Lenders in accordance with their respective Pro Rata Shares, until paid in full (including, without limitation, all interest accrued after the commencement of any proceeding referred to in Section 8.1(h) whether or not a claim for such interest is allowable in such proceeding), and (f) sixth, to Borrower or as otherwise required by law. Borrower shall remain fully liable for any deficiency.

9. THE AGENT.

9.1. Appointment of Agent.

- (a) Each Lender hereby appoints GECC (together with any successor Agent pursuant to Section 9.9) as Agent under the Debt Documents and authorizes the Agent to (a) execute and deliver the Debt Documents and accept delivery thereof on its behalf from Borrower, (b) take such action on its behalf and to exercise all rights, powers and remedies and perform the duties as are expressly delegated to the Agent under such Debt Documents and (c) exercise such powers as are reasonably incidental thereto. The provisions of this Article 9 are solely for the benefit of Agent and Lenders and none of Borrower nor any other person shall have any rights as a third party beneficiary of any of the provisions hereof. In performing its functions and duties under this Agreement and the other Debt Documents, Agent shall act solely as an agent of Lenders and does not assume and shall not be deemed to have assumed any obligation toward or relationship of agency or trust with or for Borrower or any other person. Agent shall have no duties or responsibilities except for those expressly set forth in this Agreement and the other Debt Documents. The duties of Agent shall be mechanical and administrative in nature and Agent shall not have, or be deemed to have, by reason of this Agreement, any other Debt Document or otherwise a fiduciary or trustee relationship in respect of any Lender. Except as expressly set forth in this Agreement and the other Debt Documents, Agent shall not have any duty to disclose, and shall not be liable for failure to disclose, any information relating to Borrower or any of its Subsidiaries that is communicated to or obtained by GECC or any of its affiliates in any capacity.
- (b) Without limiting the generality of clause (a) above, Agent shall have the sole and exclusive right and authority (to the exclusion of the Lenders), and is hereby authorized, to (i) act as the disbursing and collecting agent for the Lenders with respect to all payments and collections arising in connection with the Debt Documents (including in any other bankruptcy, insolvency or similar proceeding), and each person making any payment in connection with any Debt Document to any Lender is hereby authorized to

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make such payment to Agent, (ii) file and prove claims and file other documents necessary or desirable to allow the claims of Agent and Lenders with respect to any Obligation in any proceeding described in any bankruptcy, insolvency or similar proceeding (but not to vote, consent or otherwise act on behalf of such Lender), (iii) act as collateral agent for Agent and each Lender for purposes of the perfection of all liens created by the Debt Documents and all other purposes stated therein, (iv) manage, supervise and otherwise deal with the Collateral, (v) take such other action as is necessary or desirable to maintain the perfection and priority of the liens created or purported to be created by the Debt Documents, (vi) except as may be otherwise specified in any Debt Document, exercise all remedies given to Agent and the other Lenders with respect to the Collateral, whether under the Debt Documents, applicable law or otherwise and (vii) execute any amendment, consent or waiver under the Debt Documents on behalf of any Lender that has consented in writing to such amendment, consent or waiver; provided, however, that Agent hereby appoints, authorizes and directs each Lender to act as collateral sub-agent for Agent and the Lenders for purposes of the perfection of all liens with respect to the Collateral, including any deposit account maintained by Borrower with, and cash and cash equivalents held by, such Lender, and may further authorize and direct the Lenders to take further actions as collateral sub-agents for purposes of enforcing such liens or otherwise to transfer the Collateral subject thereto to Agent, and each Lender hereby agrees to take such further actions to the extent, and only to the extent, so authorized and directed. Agent may, upon any term or condition it specifies, delegate or exercise any of its rights, powers and remedies under, and delegate or perform any of its duties or any other action with respect to, any Debt Document by or through any trustee, co-agent, employee, attorney-in-fact and any other person (including any Lender). Any such person shall benefit from this Article 9 to the extent provided by Agent.

- (c) If Agent shall request instructions from Requisite Lenders or all affected Lenders with respect to any act or action (including failure to act) in connection with this Agreement or any other Debt Document, then Agent shall be entitled to refrain from such act or taking such action unless and until Agent shall have received instructions from Requisite Lenders or all affected Lenders, as the case may be, and Agent shall not incur liability to any person by reason of so refraining. Agent shall be fully justified in failing or refusing to take any action hereunder or under any other Debt Document (a) if such action would, in the opinion of Agent, be contrary to law or any Debt Document, (b) if such action would, in the opinion of Agent, expose Agent to any potential liability under any law, statute or regulation or (c) if Agent shall not first be indemnified to its satisfaction against any and all liability and expense which may be incurred by it by reason of taking or continuing to take any such action. Without limiting the foregoing, no Lender shall have any right of action whatsoever against Agent as a result of Agent acting or refraining from acting hereunder or under any other Debt Document in accordance with the instructions of Requisite Lenders or all affected Lenders, as applicable.

9.2. **Agent's Reliance, Etc.** Neither Agent nor any of its affiliates nor any of their respective directors, officers, agents, employees or representatives shall be liable for any action taken or omitted to be taken by it or them hereunder or under any other Debt Documents, or in connection herewith or therewith, except for damages caused by its or their own gross negligence or willful misconduct as finally determined by a court of competent jurisdiction. Without limiting the generality of the foregoing, Agent: (a) may treat the payee of any Note as the holder thereof until such Note has been assigned in accordance

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with Section 10.1; (b) may consult with legal counsel, independent public accountants and other experts, whether or not selected by it, and shall not be liable for any action taken or omitted to be taken by it in good faith in accordance with the advice of such counsel, accountants or experts; (c) shall not be responsible or otherwise incur liability for any action or omission taken in reliance upon the instructions of the Requisite Lenders, (d) makes no warranty or representation to any Lender and shall not be responsible to any Lender for any statements, warranties or representations made in or in connection with this Agreement or the other Debt Documents; (e) shall not have any duty to inspect the Collateral (including the books and records) or to ascertain or to inquire as to the performance or observance of any provision of any Debt Document, whether any condition set forth in any Debt Document is satisfied or waived, as to the financial condition of Borrower or as to the existence or continuation or possible occurrence or continuation of any Default or Event of Default and shall not be deemed to have notice or knowledge of such occurrence or continuation unless it has received a notice from Borrower or any Lender describing such Default or Event of Default clearly labeled "notice of default"; (f) shall not be responsible to any Lender for the due execution, legality, validity, enforceability, effectiveness, genuineness, sufficiency or value of, or the attachment, perfection or priority of any lien created or purported to be created under or in connection with, any Debt Document or any other instrument or document furnished pursuant hereto or thereto; and (g) shall incur no liability under or in respect of this Agreement or the other Debt Documents by acting upon any notice, consent, certificate or other instrument or writing (which may be by telecopy, telegram, cable or telex) believed by it to be genuine and signed or sent or otherwise authenticated by the proper party or parties.

9.3. **GECC and Affiliates.** GECC shall have the same rights and powers under this Agreement and the other Debt Documents as any other Lender and may exercise the same as though it were not Agent; and the term "Lender" or "Lenders" shall, unless otherwise expressly indicated, include GECC in its individual capacity. GECC and its affiliates may lend money to, invest in, and generally engage in any kind of business with, Borrower, any of Borrower's Subsidiaries, any of their Affiliates and any person who may do business with or own securities of Borrower, any of Borrower's Subsidiaries or any such Affiliate, all as if GECC were not Agent and without any duty to account therefor to Lenders. GECC and its affiliates may accept fees and other consideration from Borrower for services in connection with this Agreement or otherwise without having to account for the same to Lenders. Each Lender acknowledges the potential conflict of interest between GECC as a Lender holding disproportionate interests in the Term Loans and GECC as Agent, and expressly consents to, and waives, any claim based upon, such conflict of interest.

9.4. **Lender Credit Decision.** Each Lender acknowledges that it has, independently and without reliance upon Agent or any other Lender and based on the financial statements referred to in Section 6.3 and such other documents and information as it has deemed appropriate, made its own credit and financial analysis of Borrower and its own decision to enter into this Agreement. Each Lender also acknowledges that it will, independently and without reliance upon Agent or any other Lender and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under this Agreement. Each Lender acknowledges the potential conflict of interest of each other Lender as a result of Lenders holding disproportionate interests in the Term Loans, and expressly consents to, and waives, any claim based upon, such conflict of interest.

9.5. **Indemnification.** Lenders shall and do hereby indemnify Agent (to the extent not reimbursed by Borrower and without limiting the obligations of Borrower hereunder), ratably according to their respective Pro Rata Shares from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements of any kind or nature whatsoever that may be imposed on, incurred by, or asserted against Agent in any way relating to or arising out of this Agreement or any other Debt Document or any action taken or omitted to be taken by Agent in

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connection therewith; provided that no Lender shall be liable for any portion of such liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, expenses or disbursements resulting from Agent's gross negligence or willful misconduct as finally determined by a court of competent jurisdiction. Without limiting the foregoing, each Lender agrees to reimburse Agent promptly upon demand for its Pro Rata Share of any out-of-pocket expenses (including reasonable counsel fees) incurred by Agent in connection with the preparation, execution, delivery, administration, modification, amendment or enforcement (whether through negotiations, legal proceedings or otherwise) of, or legal advice in respect of rights or responsibilities under, this Agreement and each other Debt Document, to the extent that Agent is not reimbursed for such expenses by Borrower. The provisions of this Section 9.5 shall survive the termination of this Agreement.

9.6. Successor Agent. Agent may resign at any time by giving not less than 30 days' prior written notice thereof to Lenders and Borrower. Upon any such resignation, the Requisite Lenders shall have the right to appoint a successor Agent. If no successor Agent shall have been so appointed by the Requisite Lenders and shall have accepted such appointment within 30 days after the resigning Agent's giving notice of resignation, then the resigning Agent may, on behalf of Lenders, appoint a successor Agent, which shall be a Lender, if a Lender is willing to accept such appointment, or otherwise shall be a commercial bank or financial institution or a subsidiary of a commercial bank or financial institution if such commercial bank or financial institution is organized under the laws of the United States of America or of any State thereof and has a combined capital and surplus of at least \$300,000,000. If no successor Agent has been appointed pursuant to the foregoing, within 30 days after the date such notice of resignation was given by the resigning Agent, such resignation shall become effective and the Requisite Lenders shall thereafter perform all the duties of Agent hereunder until such time, if any, as the Requisite Lenders appoint a successor Agent as provided above. Upon the acceptance of any appointment as Agent hereunder by a successor Agent, such successor Agent shall succeed to and become vested with all the rights, powers, privileges and duties of the resigning Agent. Upon the earlier of the acceptance of any appointment as Agent hereunder by a successor Agent or the effective date of the resigning Agent's resignation, the resigning Agent shall be discharged from its duties and obligations under this Agreement and the other Debt Documents, except that any indemnity rights or other rights in favor of such resigning Agent shall continue. After any resigning Agent's resignation hereunder, the provisions of this Section 9 shall inure to its benefit as to any actions taken or omitted to be taken by it while it was acting as Agent under this Agreement and the other Debt Documents.

9.7. Setoff and Sharing of Payments. In addition to any rights now or hereafter granted under applicable law and not by way of limitation of any such rights, upon the occurrence and during the continuance of any Event of Default and subject to Section 9.8(e), each Lender is hereby authorized at any time or from time to time upon the direction of Agent, without notice to Borrower or any other person, any such notice being hereby expressly waived, to offset and to appropriate and to apply any and all balances held by it at any of its offices for the account of Borrower (regardless of whether such balances are then due to Borrower) and any other properties or assets at any time held or owing by that Lender or that holder to or for the credit or for the account of Borrower against and on account of any of the Obligations that are not paid when due. Any Lender exercising a right of setoff or otherwise receiving any payment on account of the Obligations in excess of its Pro Rata Share thereof shall purchase for cash (and the other Lenders or holders shall sell) such participations in each such other Lender's or holder's Pro Rata Share of the Obligations as would be necessary to cause such Lender to share the amount so offset or otherwise received with each other Lender or holder in accordance with their respective Pro Rata Shares of the Obligations. Borrower agrees, to the fullest extent permitted by law, that (a) any Lender may exercise its right to offset with respect to amounts in excess of its Pro Rata Share of the Obligations and may sell participations in such amounts so offset to other Lenders and holders and (b) any Lender so purchasing a participation in the Term Loans made or other Obligations held by other Lenders or holders

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may exercise all rights of offset, bankers' lien, counterclaim or similar rights with respect to such participation as fully as if such Lender or holder were a direct holder of the Term Loans and the other Obligations in the amount of such participation. Notwithstanding the foregoing, if all or any portion of the offset amount or payment otherwise received is thereafter recovered from the Lender that has exercised the right of offset, the purchase of participations by that Lender shall be rescinded and the purchase price restored without interest. The term "Pro Rata Share" means, with respect to any Lender at any time, the percentage obtained by dividing (x) the Commitment of such Lender then in effect (or, if such Commitment is terminated, the aggregate outstanding principal amount of the Term Loans owing to such Lender) by (y) the Total Commitment then in effect (or, if the Total Commitment is terminated, the outstanding principal amount of the Term Loans owing to all Lenders).

9.8. Advances; Payments; Non-Funding Lenders; Information; Actions in Concert.

- (a) Advances; Payments. If Agent receives any payment for the account of Lenders on or prior to 1:00 p.m. Connecticut time on any Business Day, Agent shall pay to each applicable Lender such Lender's Pro Rata Share of such payment on such Business Day. If Agent receives any payment for the account of Lenders after 1:00 p.m. Connecticut time on any Business Day, Agent shall pay to each applicable Lender such Lender's Pro Rata Share of such payment on the next Business Day. To the extent that any Lender has failed to fund any such payments and Term Loans (a "Non-Funding Lender"), Agent shall be entitled to set off the funding short-fall against that Non-Funding Lender's Pro Rata Share of all payments received from Borrower.
- (b) Return of Payments.
- (i) If Agent pays an amount to a Lender under this Agreement in the belief or expectation that a related payment has been or will be received by Agent from Borrower and such related payment is not received by Agent, then Agent will be entitled to recover such amount (including interest accruing on such amount at the Federal Funds Rate for the first Business Day and thereafter, at the rate otherwise applicable to such Obligation) from such Lender on demand without setoff, counterclaim or deduction of any kind.
- (ii) If Agent determines at any time that any amount received by Agent under this Agreement must be returned to Borrower or paid to any other person pursuant to any insolvency law or otherwise, then, notwithstanding any other term or condition of this Agreement or any other Debt Document, Agent will not be required to distribute any portion thereof to any Lender. In addition, each Lender will repay to Agent on demand any portion of such amount that Agent has distributed to such Lender, together with interest at such rate, if any, as Agent is required to pay to Borrower or such other person, without setoff, counterclaim or deduction of any kind.
- (c) Non-Funding Lenders. The failure of any Non-Funding Lender to make any Term Loan or any payment required by it hereunder shall not relieve any other Lender (each such other Lender, an "Other Lender") of its obligations to make such Term Loan, but neither any Other Lender nor Agent shall be responsible for the failure of any Non-Funding Lender to make a Term Loan or make any other payment required hereunder. Notwithstanding anything set forth herein to the contrary, a Non-Funding Lender shall not have any voting or consent rights under or with respect to any Debt Document or constitute a "Lender" (or be included in the calculation of "Requisite Lender" hereunder) for any voting or consent rights under or with respect to any Debt Document. At

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Borrower's request, Agent or a person reasonably acceptable to Agent shall have the right with Agent's consent and in Agent's sole discretion (but shall have no obligation) to purchase from any Non-Funding Lender, and each Non-Funding Lender agrees that it shall, at Agent's request, sell and assign to Agent or such person, all of the Commitments and all of the outstanding Term Loans of that Non-Funding Lender for an amount equal to the principal balance of all Term Loans held by such Non-Funding Lender and all accrued interest and fees with respect thereto through the date of sale, such purchase and sale to be consummated pursuant to an executed Assignment Agreement (as defined below).

- (d) **Dissemination of Information.** Agent shall use reasonable efforts to provide Lenders with any notice of Default or Event of Default received by Agent from, or delivered by Agent to Borrower, with notice of any Event of Default of which Agent has actually become aware and with notice of any action taken by Agent following any Event of Default; provided that Agent shall not be liable to any Lender for any failure to do so, except to the extent that such failure is attributable to Agent's gross negligence or willful misconduct as finally determined by a court of competent jurisdiction. Lenders acknowledge that Borrower is required to provide financial statements to Lenders in accordance with Section 6.3 hereto and agree that Agent shall have no duty to provide the same to Lenders.
- (e) **Actions in Concert.** Anything in this Agreement to the contrary notwithstanding, each Lender hereby agrees with each other Lender that no Lender shall take any action to protect or enforce its rights arising out of this Agreement, the Notes or any other Debt Documents (including exercising any rights of setoff) without first obtaining the prior written consent of Agent and Requisite Lenders, it being the intent of Lenders that any such action to protect or enforce rights under this Agreement and the Notes shall be taken in concert and at the direction or with the consent of Agent and Requisite Lenders.

10. MISCELLANEOUS.

10.1. **Assignment.** Subject to the terms of this Section 10.1, any Lender may make an assignment to an assignee of, or sell participations in, at any time or times, the Debt Documents, its Commitment, Term Loans or any portion thereof or interest therein, including any Lender's rights, title, interests, remedies, powers or duties thereunder. Any assignment by a Lender shall: (i) except in the case of an assignment to a Qualified Assignee (as defined below), require the consent of each Lender (which consent shall not be unreasonably withheld, conditioned or delayed), (ii) in the case of an assignment to an entity that is not a Qualified Assignee (as defined below), require the consent of Borrower (which consent shall not be unreasonably withheld, conditioned or delayed), (iii) require the execution of an assignment agreement in form and substance reasonably satisfactory to, and acknowledged by, Agent (an "Assignment Agreement"); (iv) be conditioned on such assignee Lender representing to the assigning Lender and Agent that it is purchasing the applicable Commitment and/or Term Loans to be assigned to it for its own account, for investment purposes and not with a view to the distribution thereof; (v) be in an aggregate amount of not less than \$1,000,000, unless such assignment is made to an existing Lender or an affiliate of an existing Lender or is of the assignor's (together with its affiliates') entire interest of the Term Loans or is made with the prior written consent of Agent; and (vi) include a payment to Agent of an assignment fee of \$3,500. In the case of an assignment by a Lender under this Section 10.1, the assignee shall have, to the extent of such assignment, the same rights, benefits and obligations as all other Lenders hereunder. The assigning Lender shall be relieved of its obligations hereunder with respect to its Commitment and Term Loans, as applicable, or assigned portion thereof from and after the date of such

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assignment. Borrower hereby acknowledges and agrees that any assignment shall give rise to a direct obligation of Borrower to the assignee and that the assignee shall be considered to be a "Lender". In the event any Lender assigns or otherwise transfers all or any part of the Commitments and Obligations, Agent shall so notify Borrower and Borrower shall, upon the request of Agent, execute new Notes in exchange for the Notes, if any, being assigned. Agent may amend Schedule A to this Agreement to reflect assignments made in accordance with this Section.

As used herein, "Qualified Assignee" means (a) any Lender and any affiliate of any Lender and (b) any commercial bank, savings and loan association or savings bank or any other entity which is an "accredited investor" (as defined in Regulation D under the Securities Act) which extends credit or buys loans as one of its businesses, including insurance companies, mutual funds, lease financing companies and commercial finance companies, in each case, which has a rating of BBB or higher from S&P and a rating of Baa2 or higher from Moody's at the date that it becomes a Lender and in each case of clauses (a) and (b), which, through its applicable lending office, is capable of lending to Borrower without the imposition of any withholding or similar taxes; provided that no person proposed to become a Lender after the Closing Date and determined by Agent to be acting in the capacity of a vulture fund or distressed debt purchaser shall be a Qualified Assignee, and no person or Affiliate of such person proposed to become a Lender after the Closing Date and that holds any subordinated debt or stock issued by Borrower shall be a Qualified Assignee.

10.2. **Notices.** All notices, requests or other communications given in connection with this Agreement shall be in writing, shall be addressed to the parties at their respective addresses set forth on the signature pages hereto below such parties' name or in the most recent Assignment Agreement executed by any Lender (unless and until a different address may be specified in a written notice to the other party delivered in accordance with this Section), and shall be deemed given (a) on the date of receipt if delivered by hand, (b) on the date of sender's receipt of confirmation of proper transmission if sent by facsimile transmission, (c) on the next Business Day after being sent by a nationally-recognized overnight courier, and (d) on the fourth Business Day after being sent by registered or certified mail, postage prepaid. As used herein, the term "Business Day" shall mean and include any day other than Saturdays, Sundays, or other days on which commercial banks in New York, New York are required or authorized to be closed.

10.3. **Correction of Debt Documents.** Agent may correct patent errors and fill in all blanks in this Agreement or the Debt Documents consistent with the agreement of the parties.

10.4. **Performance.** Time is of the essence of this Agreement. This Agreement shall be binding, jointly and severally, upon all parties described as the "Borrower" and their respective successors and assigns, and shall inure to the benefit of Agent, Lenders, and their respective successors and assigns.

10.5. **Payment of Fees and Expenses.** Borrower agrees to pay or reimburse upon demand for all reasonable fees, costs and expenses incurred by Agent and Lenders in connection with (a) the investigation, preparation, negotiation, execution, administration of, or any amendment, modification, waiver or termination of, this Agreement or any other Debt Document, (b) the administration of any transaction contemplated hereby or thereby and (c) the enforcement, assertion, defense or preservation of Agent's and Lenders' rights and remedies under this Agreement or any other Debt Document, in each case of clauses (a) through (c), including, without limitation, reasonable attorney's fees and expenses, reasonable fees of consultants, auditors and appraisers and UCC and other corporate search and filing fees and wire transfer fees; provided that Borrower's reimbursement of the fees and expenses of Agent's counsel incurred in connection with the preparation and negotiation of the Debt Documents on or before the Closing Date shall be subject to the limitations set forth in Section 2.7(a). Borrower further agrees

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that such fees, costs and expenses shall constitute Obligations. This provision shall survive the termination of this Agreement.

10.6. **Indemnity.** Borrower shall and does hereby indemnify and defend Agent, Lenders, and their respective successors and assigns, and their respective directors, officers, employees, consultants, attorneys, agents and affiliates (each an "Indemnitee") from and against all liabilities, losses, damages, expenses, penalties, claims, actions and suits (including, without limitation, related attorneys' fees) of any kind whatsoever arising, directly or indirectly, which may be imposed on, incurred by or asserted against such Indemnitee as a result of or in connection with this Agreement, the other Debt Documents or any of the transactions contemplated hereby or thereby (the "Indemnified Liabilities"); provided that Borrower shall have no obligation to any Indemnitee hereunder with respect to any Indemnified Liabilities to the extent such Indemnified Liabilities arise from the gross negligence, willful misconduct, or bad faith of that Indemnitee or arise from the material breach of the obligations of such Indemnitee hereunder by such Indemnitee, in each case as determined by the final non-appealable judgment of a court of competent jurisdiction. This provision shall survive the termination of this Agreement.

10.7. **Rights Cumulative.** Agent's and Lenders' rights and remedies under this Agreement or otherwise arising are cumulative and may be exercised singularly or concurrently. Neither the failure nor any delay on the part of Agent or any Lender to exercise any right, power or privilege under this Agreement shall operate as a waiver, nor shall any single or partial exercise of any right, power or privilege preclude any other or further exercise of that or any other right, power or privilege. NONE OF AGENT OR ANY LENDER SHALL BE DEEMED TO HAVE WAIVED ANY OF ITS RESPECTIVE RIGHTS UNDER THIS AGREEMENT OR UNDER ANY OTHER AGREEMENT, INSTRUMENT OR PAPER SIGNED BY BORROWER UNLESS SUCH WAIVER IS EXPRESSED IN WRITING AND SIGNED BY AGENT, REQUISITE LENDERS OR ALL LENDERS, AS APPLICABLE. A waiver on any one occasion shall not be construed as a bar to or waiver of any right or remedy on any future occasion.

10.8. **Entire Agreement; Amendments, Waivers.**

- (a) This Agreement and the other Debt Documents constitute the entire agreement between the parties with respect to the subject matter hereof and thereof and supersede all prior understandings (whether written, verbal or implied) with respect to such subject matter. Section headings contained in this Agreement have been included for convenience only, and shall not affect the construction or interpretation of this Agreement.
- (b) Except for actions expressly permitted to be taken by Agent, no amendment, modification, termination or waiver of any provision of this Agreement or any other Debt Document, or any consent to any departure by Borrower therefrom, shall in any event be effective unless the same shall be in writing and signed by Agent, Borrower and Lenders having more than (x) 60% of the aggregate Commitments of all Lenders or (y) if such Commitments have expired or been terminated, 60% of the aggregate outstanding principal amount of the Term Loans (the "Requisite Lenders"); provided, however, that so long as a party that is a Lender hereunder on the Closing Date does not assign any portion of its Commitment or Term Loan, such Lender shall be deemed to be a Requisite Lender. Except as set forth in clause (c) below, all such amendments, modifications, terminations or waivers requiring the consent of any Lenders shall require the written consent of Requisite Lenders.

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- (c) No amendment, modification, termination or waiver of any provision of this Agreement or any other Debt Document shall, unless in writing and signed by Agent and each Lender directly affected thereby: (i) increase or decrease any Commitment of any Lender or increase or decrease the Total Commitment (which shall be deemed to affect all Lenders), (ii) reduce the principal of or rate of interest on any Obligation or the amount of any fees payable hereunder, (iii) postpone the date fixed for any payment of principal of or interest on any Term Loan, or any fees hereunder, (iv) release all or substantially all of the Collateral, except as otherwise expressly permitted in the Debt Documents, (v) subordinate the lien granted in favor of the Agent securing the Obligations, (vi) release Borrower from its obligations hereunder and under the other Debt Documents or any guarantor from its guaranty of the Obligations or (vi) amend, modify, terminate or waive Section 8.4 or 10.8(b) or (c).
- (d) Notwithstanding any provision in this Section 10.8 to the contrary, no amendment, modification, termination or waiver affecting or modifying the rights or obligations of Agent hereunder shall be effective unless signed by Borrower, Agent and Requisite Lenders.
- (e) Subject to the terms and conditions of this Section 10.8, if Agent receives a written notice from Borrower requesting the consent of the Requisite Lenders to a proposed acquisition by Borrower that is not permitted under Section 7.5 or requesting the consent of the Requisite Lenders to a proposed amendment, modification or waiver of the Maxygen License Agreement to the extent required under Section 7.11(a), then, on or before the 15th day after the date on which Agent receives such notice (the "Response Date"), Agent shall advise Borrower in writing whether the consent of the Requisite Lenders to such acquisition or such amendment, modification or waiver has been obtained (the "Response"); provided that if Borrower does not receive a Response from Agent on or prior to the Response Date, Agent and all Lenders shall be deemed to have not consented to such acquisition or such amendment, modification or waiver.

10.9. **Binding Effect.** This Agreement shall continue in full force and effect until the Termination Date; provided, however, that the provisions of Sections 2.3(f), 9.5, 10.5, 10.6 and 10.13 and the other indemnities contained in the Debt Documents shall survive the Termination Date. The surrender, upon payment or otherwise, of any Note or any of the other Debt Documents evidencing any of the Obligations shall not affect the right of Agent to retain the Collateral for such other Obligations as may then exist or as it may be reasonably contemplated will exist in the future. This Agreement and the grant of the security interest in the Collateral pursuant to Section 3.1 shall automatically be reinstated if Agent or any Lender is ever required to return or restore the payment of all or any portion of the Obligations (all as though such payment had never been made).

10.10. **Use of Logo.** Borrower authorizes each Lender to use its name, logo and/or trademark without notice to or consent by Borrower, in connection with certain promotional materials that such Lender may disseminate to the public. The promotional materials may include, but are not limited to, brochures, video tape, internet website, press releases, advertising in newspaper and/or other periodicals, lucites, and any other materials relating the fact that such Lender has a financing relationship with Borrower and such materials may be developed, disseminated and used without Borrower's review. Nothing herein obligates Lenders to use Borrower's name, logo and/or trademark, in any promotional materials of Agent. Borrower shall not, and shall not permit any of its Affiliates to, issue any press release or other public disclosure (other than any document filed with any governmental authority relating to a public offering of the securities of Borrower) using the name, logo or otherwise referring to General

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Electric Capital Corporation, GE Healthcare Financial Services, Inc. or of any of their affiliates, the Debt Documents or any transaction contemplated herein or therein without at least two (2) Business Days prior written notice to and the prior written consent of Agent unless, and only to the extent that, Borrower or such affiliate is required to do so under applicable law and then, only after consulting with Agent prior thereto.

10.11. Waiver of Jury Trial. EACH OF BORROWER, AGENT AND LENDERS UNCONDITIONALLY WAIVE ANY AND ALL RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, ANY OF THE OTHER DEBT DOCUMENTS, ANY OF THE INDEBTEDNESS SECURED HEREBY, ANY DEALINGS AMONG BORROWER, AGENT AND/OR LENDERS RELATING TO THE SUBJECT MATTER OF THIS TRANSACTION OR ANY RELATED TRANSACTIONS, AND/OR THE RELATIONSHIP THAT IS BEING ESTABLISHED AMONG BORROWER, AGENT AND/OR LENDERS. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT. THIS WAIVER IS IRREVOCABLE. THIS WAIVER MAY NOT BE MODIFIED EITHER ORALLY OR IN WRITING. THE WAIVER ALSO SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, RENEWALS, SUPPLEMENTS OR MODIFICATIONS TO THIS AGREEMENT, ANY OTHER DEBT DOCUMENTS, OR TO ANY OTHER DOCUMENTS OR AGREEMENTS RELATING TO THIS TRANSACTION OR ANY RELATED TRANSACTION. THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

10.12. Governing Law. THIS AGREEMENT, THE OTHER DEBT DOCUMENTS AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER AND THEREUNDER SHALL IN ALL RESPECTS BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK (WITHOUT REGARD TO THE CONFLICT OF LAWS PRINCIPLES OF SUCH STATE), INCLUDING ALL MATTERS OF CONSTRUCTION, VALIDITY AND PERFORMANCE, REGARDLESS OF THE LOCATION OF THE COLLATERAL. IF ANY ACTION ARISING OUT OF THIS AGREEMENT OR ANY OTHER DEBT DOCUMENT IS COMMENCED BY AGENT IN THE STATE COURTS OF THE STATE OF NEW YORK OR IN THE U.S. DISTRICT COURT FOR THE DISTRICT OF NEW YORK, BORROWER HEREBY CONSENTS TO THE JURISDICTION OF ANY SUCH COURT IN ANY SUCH ACTION AND TO THE LAYING OF VENUE IN THE STATE OF NEW YORK. ANY PROCESS IN ANY SUCH ACTION SHALL BE DULY SERVED IF MAILED BY REGISTERED MAIL, POSTAGE PREPAID, TO BORROWER AT ITS ADDRESS DESCRIBED IN SECTION 10.2, OR IF SERVED BY ANY OTHER MEANS PERMITTED BY APPLICABLE LAW.

10.13. Confidentiality. All of the financial statements and reports furnished by Borrower to Agent under Section 6.3 hereof shall be deemed confidential and shall not be disclosed by Agent and Lenders to any other persons except as provided herein. Agent and Lenders acknowledge that after the Borrower is a publicly traded company, such financial statements and reports may be material non-public information as more fully described in Section 6.3. In addition, any other information from time to time delivered to Agent and/or the Lenders by Borrower which is identified as confidential and which is not in the public domain shall be held by Agent or such Lender as confidential; provided that Agent and each Lender may make disclosure of such information (i) to its independent accountants and legal counsel (which persons shall be likewise bound by the provisions of this Section 10.13), (ii) pursuant to statutory and regulatory requirements, (iii) pursuant to any mandatory court order or subpoena or in connection with any legal process, (iv) pursuant to any written agreement hereafter made between Agent, any Lender and Borrower to which such information relates, which agreement permits such disclosure, (v) as necessary in connection with the exercise of any remedy by Agent or any Lender under the Debt

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions

Documents, (vi) consisting of general portfolio information that does not identify Borrower or any of its Subsidiaries, (vii) which was heretofore been publicly disclosed or is otherwise available to such Agent and/or Lender on a non-confidential basis from a source that is not, to its knowledge, subject to a confidentiality agreement with Borrower, (viii) in connection with any litigation to which Agent or any Lender or its affiliates is a party, or (ix) subject to an agreement containing provisions substantially the same as those set forth in this Section 10.13, to any assignee of or participant in, or prospective assignee of or participant in, any of the Obligations; provided that Agent shall use reasonable efforts to provide written notice to Borrower of any disclosures of such information made by Agent pursuant to the immediately preceding clauses (ii), (iii) or (viii) so long as Agent is not prohibited from delivering such notice pursuant to any of the matters described in such clauses.

10.14. **Counterparts.** This Agreement may be executed in any number of counterparts and by different parties in separate counterparts, each of which when so executed shall be deemed to be an original and all of which when taken together shall constitute one and the same agreement. Delivery of an executed signature page of this Agreement by facsimile transmission or electronic transmission shall be as effective as delivery of a manually executed counterpart hereof.

[Signature Page Follows]

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IN WITNESS WHEREOF, Borrower, Agent and Lenders, intending to be legally bound hereby, have duly executed this Agreement in one or more counterparts, each of which shall be deemed to be an original, as of the day and year first aforesaid.

BORROWER:

CODEXIS, INC.

By: /s/ Alan Shaw

Name: Alan Shaw

Title: President and Chief Executive Officer

Address For Notices:

Codexis Inc.
Chief Financial Officer
200 Penobscot Drive
Redwood City, CA 94063
Attention: Mr. Robert Breuil
Phone: (650) 421-8120
Facsimile: (650) 298-5837

Codexis, Inc.
General Counsel
200 Penobscot Drive
Redwood City, CA 94063
Attention: Mr. Doug Sheehy
Phone: (650) 421-8160
Facsimile: (650) 421-8108

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CODEXIS, INC.
LOAN & SECURITY AGREEMENT SIGNATURE PAGE
(10174066)

AGENT AND LENDER:

GENERAL ELECTRIC CAPITAL CORPORATION

By: /s/ Scott R. Towers

Name: Scott R. Towers

Title: Duly Authorized Signatory

Address For Notices:

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc., LSF
83 Wooster Heights Road, Fifth Floor
Danbury, Connecticut 06810
Attention: Senior Vice President of Risk
Phone: (203) 205-5200
Facsimile: (203) 205-2192

With a copy to:

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc.
Two Bethesda Metro Center, Suite 600
Bethesda, Maryland 20814
Attention: General Counsel
Phone: (301) 961-1640
Facsimile: (301) 664-9866

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CODEXIS, INC.
LOAN & SECURITY AGREEMENT SIGNATURE PAGE
(10174066)

LENDER:

OXFORD FINANCE CORPORATION

By: /s/ T.A. Lex

Name: T.A. Lex

Title: COO

Address For Notices:

Oxford Finance Corporation
133 North Fairfax Street
Alexandria, VA 22314
Attention: EVP + COO
Phone: (703) 519-4900
Facsimile: (703) 519-6010

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CODEXIS, INC.
LOAN & SECURITY AGREEMENT SIGNATURE PAGE
(10174066)

SCHEDULE A
COMMITMENTS

<u>Name of Lender</u>	<u>Commitment of such Lender</u>	<u>Pro Rata Share</u>
General Electric Capital Corporation	\$ 7,500,000	50%
Oxford Finance Corporation	\$ 7,500,000	50%
TOTAL	\$15,000,000	100%

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SCHEDULE B
DISCLOSURES

[To be scheduled by Borrower]

Existing Liens

Debtor	Secured Party	Collateral	State and Jurisdiction	Filing Date and Number (include original file date and continuations, amendments, etc.)

Existing Indebtedness

Debtor	Creditor	Amount of Indebtedness outstanding as of ____ __, ____	Maturity Date

Existing Investments

Debtor	Type of Investment	Date	Amount Outstanding as of _____

Material Contracts

- 1.
- 2.
- 3.

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FORM OF PROMISSORY NOTE

[September __, 2007]

FOR VALUE RECEIVED, CODEXIS, INC., a Delaware corporation located at the address stated below ("Borrower"), promises to pay to the order of [Lender] or any subsequent holder hereof (each, a "Lender"), the principal sum of _____ and ____/100 Dollars (\$ _____) or, if less, the aggregate unpaid principal amount of all Term Loans made by Lender to or on behalf of Borrower pursuant to the Agreement (as hereinafter defined). All capitalized terms, unless otherwise defined herein, shall have the respective meanings assigned to such terms in the Agreement.

This Promissory Note is issued pursuant to that certain Loan and Security Agreement, dated as of [August __, 2007], among Borrower, General Electric Capital Corporation, as agent and lender, [the other lenders signatory thereto] [, and Lender] (as amended, restated, supplemented or otherwise modified from time to time, the "Agreement"), is one of the Notes referred to therein, and is entitled to the benefit and security of the Debt Documents referred to therein, to which Agreement reference is hereby made for a statement of all of the terms and conditions under which the loans evidenced hereby were made.

The principal amount of the indebtedness evidenced hereby shall be payable in the amounts and on the dates specified in the Agreement. Interest thereon shall be paid until such principal amount is paid in full at such interest rates and at such times as are specified in the Agreement. The terms of the Agreement are hereby incorporated herein by reference.

All payments shall be applied in accordance with the Agreement. The acceptance by Lender of any payment which is less than payment in full of all amounts due and owing at such time shall not constitute a waiver of Lender's right to receive payment in full at such time or at any prior or subsequent time. The payment of any Scheduled Payment prior to its due date shall result in a corresponding increase in the portion of the Scheduled Payment credited to the remaining unpaid principal balance.

All amounts due hereunder and under the other Debt Documents are payable in the lawful currency of the United States of America. Borrower hereby expressly authorizes Lender to insert the date value as is actually given in the blank space on the face hereof and on all related documents pertaining hereto.

This Note is secured as provided in the Agreement and the other Debt Documents. Reference is hereby made to the Agreement and the other Debt Documents for a description of the properties and assets in which a security interest has been granted, the nature and extent of the security interest, the terms and conditions upon which the security interest was granted and the rights of the holder of the Note in respect thereof.

Time is of the essence hereof. If Lender does not receive from Borrower payment in full of any Scheduled Payment or any other sum due under this Note or any other Debt Document within 3 days after its due date, Borrower agrees to pay the Late Fee in accordance with the Agreement. Such Late Fee will be immediately due and payable, and is in addition to any other costs, fees and expenses that Borrower may owe as a result of such late payment.

This Note may be voluntarily prepaid only as permitted under Section 2.4 of the Agreement. After a Default or an Event of Default, this Note shall bear interest at a rate per annum equal to the Default Rate pursuant to Section 2.6 of the Agreement.

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Borrower and all parties now or hereafter liable with respect to this Note, hereby waive presentment, demand for payment, notice of nonpayment, protest, notice of protest, notice of dishonor, and all other notices in connection herewith, as well as filing of suit (if permitted by law) and diligence in collecting this Note or enforcing any of the security hereof, and agree to pay (if permitted by law) all expenses incurred in collection, including reasonable attorneys' fees and expenses.

THIS NOTE SHALL BE CONSTRUED IN ACCORDANCE WITH AND GOVERNED BY THE LAWS OF THE STATE OF NEW YORK.

No variation or modification of this Note, or any waiver of any of its provisions or conditions, shall be valid unless such variation or modification is made in accordance with Section 10.8 of the Agreement. Any such waiver, consent, modification or change shall be effective only in the specific instance and for the specific purpose given.

IN WITNESS WHEREOF, Borrower has duly executed this Note as of the date first above written.

CODEXIS, INC.

By: _____

Name: _____

Title: _____

Federal Tax ID #: _____

Address: 200 Penobscot Drive
Redwood City, CA 94063

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(v) no Default or Event of Default exists under the Agreement, and all representations and warranties of Borrower in the Debt Documents are true and correct in all respects on and as of the date hereof, except to the extent such representations and warranties expressly relate to an earlier date, in which case such representations and warranties were true and correct in all respects on and as of such earlier date.

[Signature page follows]

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IN WITNESS WHEREOF, I have hereunto set my hand as of the first date written above

Name: _____
Title: **[Assistant]** Secretary

The undersigned does hereby certify on behalf of Borrower that he is the duly elected or appointed, qualified and acting **[TITLE]** of Borrower and that **[NAME FROM ABOVE]** is the duly elected or appointed, qualified and acting **[Assistant]** Secretary of Borrower, and that the signature set forth immediately above is his genuine signature.

Name: _____
Title: _____

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EXHIBIT B TO SECRETARY'S CERTIFICATE OF AUTHORITY

FORM OF RESOLUTIONS

BOARD RESOLUTIONS

_____, 2007

WHEREAS, Codexis, Inc., a Delaware corporation ("Borrower") has requested that General Electric Capital Corporation, a Delaware corporation ("GECC"), as agent (in such capacity, the "Agent") and lender, and certain other lenders (GECC and such other lenders, collectively, the "Lenders") provide a credit facility in an original principal amount not to exceed \$15,000,000 (the "Credit Facility"); and

WHEREAS, the terms of the Credit Facility are set forth in a loan and security agreement by and among Borrower, Agent, and the Lenders and certain related agreements, documents and instruments described in detail below; and

WHEREAS, the Board of Directors of Borrower (the "Directors") deems it advisable and in the best interests of Borrower to execute, deliver and perform its obligations under those transaction documents described and referred to below.

NOW, THEREFORE, be it

RESOLVED, that the Credit Facility be, and it hereby is, approved; and further

RESOLVED, that the form of Loan and Security Agreement (the "Loan and Security Agreement"), by and among Borrower, Agent and the Lenders, as presented to the Directors, be and it hereby is, approved and the Chief Executive Officer, Chief Financial Officer, General Counsel and/or Controller of Borrower (collectively, the "Proper Officers") be, and each of them hereby is, authorized and directed on behalf of Borrower to execute and deliver to Agent the Loan and Security Agreement, in substantially the form as presented to the Directors, with such changes as the Proper Officers may approve, such approval to be conclusively evidenced by execution and delivery thereof; and further

RESOLVED, that the form of Promissory Note (the "Note"), as presented to the Directors, be, and it hereby is, approved and the Proper Officers be, and each of them hereby is, authorized and directed on behalf of Borrower to execute and deliver to Lender one or more promissory Notes, in substantially the form as presented to the Directors, with such changes as the Proper Officers may approve, such approval to be conclusively evidenced by execution and delivery thereof; and further

RESOLVED, that the form of Pledge Agreement (the "Pledge Agreement"), by and among Borrower, Agent and the Lenders, as presented to the Directors, be and it hereby is, approved and the Proper Officers be, and each of them hereby is, authorized and directed on behalf of Borrower to execute and deliver to Agent the Pledge Agreement, in substantially the form as presented to the Directors, with such changes as the Proper Officers may approve, such approval to be conclusively evidenced by execution and delivery thereof; and further

RESOLVED, that issuance of a warrant to the Lenders substantially in the form of the Warrant as presented to the Directors (each, a "Warrant"), and the sale and issuance of preferred stock upon exercise of the Warrant as described therein, be, and hereby is, approved and the Proper Officers be, and each of them hereby is, authorized and directed on behalf of Borrower to execute and deliver to the Lenders the

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Warrants, in substantially the form as presented to the Directors, with such changes as the Proper Officers may approve, such approval to be conclusively evidenced by execution and delivery thereof; and further

RESOLVED, that the Proper Officers be, and each of them hereby is, authorized and directed to execute and deliver any and all other agreements, certificates, security agreements, financing statements, indemnification agreements, instruments and documents (together with the Loan and Security Agreement, the Notes, and the Pledge Agreement, the "Debt Documents") and take any and all other further action, in each case, as may be required or which they may deem appropriate, on behalf of Borrower, in connection with the Loan and Security Agreement and carrying into effect the foregoing resolutions, transactions and matters contemplated thereby; and further

RESOLVED, that Borrower is hereby authorized to perform its obligations under the Debt Documents, including, without limitation, the borrowing of any advances made under the Loan and Security Agreement and the granting of any security interest in Borrower's assets contemplated thereby to secure Borrower's obligations in connection therewith; and further

RESOLVED, that in addition to executing any documents approved in the preceding resolutions, the Secretary or any Assistant Secretary of Borrower may attest to such Debt Documents, the signature thereon or the corporate seal of Borrower thereon; and further

RESOLVED, that any actions taken by the Proper Officers prior to the date of these resolutions in connection with the transactions contemplated by these resolutions are hereby ratified and approved; and further

RESOLVED, that these resolutions shall be valid and binding upon Borrower.

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FORM OF LANDLORD CONSENT

[Landlord]

[Address]

[_____, ____]

Ladies and Gentlemen:

General Electric Capital Corporation (together with its successors and assigns, if any, "Agent") and certain other lenders (the "Lenders") have entered into, or is about to enter into, a Loan and Security Agreement, dated as of **[September __, 2007]** (as amended, restated, supplemented or otherwise modified from time to time, the "Agreement") with Codexis, Inc., a Delaware corporation ("Borrower"), pursuant to which Borrower has granted, or will grant, to Agent, on behalf of itself and the Lenders, a security interest in certain assets of Borrower, including, without limitation, all of Borrower's cash, cash equivalents, accounts, books and records, goods, inventory, machinery, equipment, furniture and trade fixtures (such as equipment bolted to floors), together with all addition, substitutions, replacements and improvements to, and proceeds, including, insurance proceeds, of the foregoing, but excluding building fixtures (such as plumbing, lighting and HVAC systems (collectively, the "Collateral"). Some or all of the Collateral is, or will be, located at certain premises known as [_____] in the City or Town of [_____, County of _____ and State of _____] ("Premises"), and Borrower occupies the Premises pursuant to a lease, dated as of **[DATE]**, between Borrower, as tenant, and you, **[NAME]**, as **[owner/landlord/mortgagee/realty manager]** (as amended, restated, supplemented or otherwise modified from time to time, the "Lease").

By your signature below, you hereby agree (and we shall rely on your agreement) that: (i) the Lease is in full force and effect and you are not aware of any existing defaults thereunder; (ii) the Collateral is, and shall remain, personal property regardless of the method by which it may be, or become, affixed to the Premises; (iii) you agree to use your best efforts to provide Agent with written notice of any default by Borrower under the Lease resulting in a termination of the Lease ("Default Notice") and Agent shall have the right, but not the obligation to cure such default within 15 days following Agent's receipt of such Default Notice; (iv) your interest in the Collateral and any proceeds thereof (including, without limitation, proceeds of any insurance therefor) shall be, and remain, subject and subordinate to the interests of Agent and you agree not to levy upon any Collateral or to assert any landlord lien, right of distraint or other claim against the Collateral for any reason; (v) Agent, and its employees and agents, shall have the right, from time to time, to enter into the Premises for the purpose of inspecting the Collateral; and (vi) Agent, and its employees and agents, shall have the right, upon any default by Borrower under the Agreement, to enter into the Premises and to remove or otherwise deal with the Collateral, including, without limitation, by way of public auction or private sale (provided that, if Agent conducts a public auction or private sale of the Collateral at the Premises, Agent shall use reasonable efforts to notify Landlord first and to hold such auction or sale in a manner that would not unduly disrupt Landlord's or any other tenant's use of the Premises). Agent agrees to repair or reimburse you for any physical damage actually caused to the Premises by Agent, or its employees or agents, during any such removal or inspection (other than ordinary wear and tear), provided that it is understood by the parties hereto that Agent shall not be liable for any diminution in value of the Premises caused by the removal or absence of the Collateral therefrom. You hereby acknowledge that Agent shall have no obligation to remove or dispose of the Collateral from the Premises and no action by Agent pursuant to this Consent

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shall be deemed to be an assumption by Agent of any obligation under the Lease and, except as provided in the immediately preceding sentence, Agent shall not have any obligation to you.

You hereby acknowledge and agree that Borrower's granting of a security interest in the Collateral in favor of Agent, on behalf of itself and the Lenders, shall not constitute a default under the Lease nor permit you to terminate the Lease or re-enter or repossess the Premises or otherwise be the basis for the exercise of any remedy available to you.

This Consent and the agreements contained herein shall be binding upon, and shall inure to the benefit of, any successors and assigns of the parties hereto (including any transferees of the Premises). This Consent shall terminate upon the indefeasible payment of Borrower's indebtedness in full in immediately available funds and the satisfaction in full of Borrower's performance of its obligations under the Agreement and the related documents.

This Consent and any amendments, waivers, consents or supplements hereto or in connection herewith may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed an original, but all such counterparts together shall constitute but one and the same instrument; signature pages may be detached from multiple separate counterparts and attached to a single counterpart so that all signature pages are physically attached to the same document. Delivery of an executed signature page of this Consent or any delivery contemplated hereby by facsimile or electronic transmission shall be as effective as delivery of a manually executed counterpart thereof.

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We appreciate your cooperation in this matter of mutual interest.

GENERAL ELECTRIC CAPITAL CORPORATION, as Agent

By: _____
Name: _____
Title: _____

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc., LSF
83 Wooster Heights Road, Fifth Floor
Danbury, Connecticut 06810
Attention: Senior Vice President of Risk
Phone: (203) 205-5200
Facsimile: (203) 205-2192

With a copy to:

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc.
Two Bethesda Metro Center, Suite 600
Bethesda, Maryland 20814
Attention: General Counsel
Phone: (301) 961-1640
Facsimile: (301) 664-9866

AGREED TO AND ACCEPTED BY:

_____, as [owner/landlord/mortgagee/realty manager]

By: _____
Name: _____
Title: _____

Address:

AGREED TO AND ACCEPTED BY:

CODEXIS, INC., as Borrower

By: _____
Name: _____
Title: _____

Interest in the Premises (check applicable box)

- Owner
- Mortgagee
- Landlord
- Realty Manager

Address:

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FORM OF BAILEE CONSENT

[Letterhead of GE Capital]

_____, 200__

[NAME OF BAILEE]

Dear Sirs:

Re: Codexis, Inc. (the "Borrower")

Please accept this letter as notice that we have entered into or may enter into financing arrangements with the Borrower under which the Borrower has granted to us continuing security interests in substantially all personal property and assets of the Borrower and the proceeds thereof, including, without limitation, certain equipment owned by the Borrower held by you at the manufacturing facility (the "Premises") owned by you and located at [_____] (the "Personal Property").

Please acknowledge that as a result of such arrangements, you are holding all of the Personal Property solely for our benefit and subject only to the terms of this letter and our instructions; provided, however, that until further written notice from us, you are authorized to use and/or release any and all of the Personal Property in your possession as directed by the Borrower in the ordinary course of business. The foregoing instructions shall continue in effect until we modify them in writing, which we may unilaterally do without any consent or approval from the Borrower. Upon receipt of our instructions, you agree that (a) you will release the Personal Property only to us or our designee; (b) you will cooperate with us in our efforts to assemble, sell (whether by public or private sale), take possession of, and remove all of the Personal Property located at the Premises; (c) you will permit the Personal Property to remain on the Premises for forty-five (45) days after your receipt of our instructions or at our option, to have the Personal Property removed from the Premises within a reasonable time, not to exceed forty-five (45) days after your receipt of our instructions; (d) you will not hinder our actions in enforcing our liens on the Personal Property; and (e) after receipt of our instructions, you will abide solely by our instructions with respect to the Personal Property, and not those of the Borrower.

You hereby waive and release in our favor: (a) any contractual lien, security interest, charge or interest and any other lien which you may be entitled to whether by contract, or arising at law or in equity against any Personal Property; (b) any and all rights granted under any present or future laws to levy or distrain for rent or any other charges which may be due to you against the Personal Property; and (c) any and all other claims, liens, rights of offset, deduction, counterclaim and demands of every kind which you have or may hereafter have against the Personal Property.

You agree that (i) you have not and will not commingle the Personal Property with any other property of a similar kind owned or held by you in any manner such that the Personal Property is not readily identifiable, (ii) you have not and will not issue any negotiable or non-negotiable documents or instruments relating to the Personal Property, and (iii) the Personal Property is not and will not be deemed to be fixtures.

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Notwithstanding the foregoing, all of your charges of any nature whatsoever shall continue to be charged to and paid by the Borrower and we shall not be liable for such charges.

You hereby authorize us to file at any time such financing statements naming you as the debtor/bailee, Borrower as the secured party/bailor, and us as the Borrower's assignee, indicating as the collateral goods of the Borrower now or hereafter in your custody, control or possession and proceeds thereof, and including any other information with respect to the Borrower required under the Uniform Commercial Code for the sufficiency of such financing statement or for it to be accepted by the filing office of any applicable jurisdiction (and any amendments or continuations with respect thereto).

The arrangement as outlined herein is to continue without modification, until we have given you written notice to the contrary.

EACH OF THE PARTIES HERETO HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS LETTER.

Any notice(s) required or desired to be given hereunder shall be directed to the party to be notified at the address stated herein.

The terms and conditions contained herein are to be construed and enforced in accordance with the laws of the State of Connecticut.

This terms and conditions contained herein shall inure to the benefit of and be binding upon the parties hereto and their respective successors and permitted assigns.

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The Borrower has signed below to indicate its consent to and agreement with the foregoing arrangements, terms and conditions. By your signature below, you hereby agree to be bound by the terms and conditions of this letter.

Very truly yours,

GENERAL ELECTRIC CAPITAL CORPORATION

By: _____
Name: _____
Title: Duly Authorized Signatory

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc., LSF
83 Wooster Heights Road, Fifth Floor
Danbury, Connecticut 06810
Attention: Senior Vice President of Risk
Phone: (203) 205-5200
Facsimile: (203) 205-2192

With a copy to:

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc.
Two Bethesda Metro Center, Suite 600
Bethesda, Maryland 20814
Attention: General Counsel
Phone: (301) 961-1640
Facsimile: (301) 664-9866

Agreed to:
CODEXIS, INC.

By: _____
Name: _____
Title: _____
Address: _____

[NAME OF BAILEE]

By: _____
Name: _____
Title: _____
Address: _____

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COMPLIANCE CERTIFICATE

[DATE]

Reference is made to the Loan and Security Agreement, dated as of [September __, 2007] (as amended, restated, supplemented or otherwise modified from time to time, the "Agreement"), among Codexis, Inc., a Delaware corporation (the "Borrower"), General Electric Capital Corporation, a Delaware corporation ("GECC"), in its capacity as agent (in such capacity, together with its successors and assigns, in such capacity, the "Agent") and lender, and the other lenders signatory thereto (GECC and such other lenders, the "Lenders"). Capitalized terms used but not defined herein are used with the meanings assigned to such terms in the Agreement.

I, [_____], do hereby certify that:

- (i) I am the duly elected, qualified and acting [TITLE] of Borrower;
- (ii) attached hereto as Exhibit A are [the monthly financial statements/annual audited financial statements/quarterly financial statements] as required under Section 6.3 of the Agreement and that such financial statements are materially prepared in accordance with GAAP (subject, in the case of unaudited financial statements, to the absence of footnotes and normal year-end and audit adjustments) and are consistently applied from one period to the next except as explained in an accompanying letter or footnotes;
- (iii) no Default or Event of Default has occurred under the Agreement which has not been previously disclosed, in writing, to Lender; and
- [(iv) all representations and warranties of Borrower stated in the Debt Documents are true and correct in all material respects on and as of the date hereof, except to the extent such representations and warranties expressly relate to an earlier date, in which case such representations and warranties were true and correct in all respects on and as of such earlier date.]¹

IN WITNESS WHEREOF, I have hereunto set my hand as of the first date written above

Name: _____
Title: _____

¹ Subsection (iv) to be included only in Compliance Certificates delivered in connection with quarterly or annual financial statements or in connection with advances of each Term Loan.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions

□

EPS Setup Form

**Submit Via Fax:
ATTN: EPS Facilitator
(262) 798-4530**

GE Healthcare Financial Services
Phone: (262) 798-4494
Fax: (262) 798-4530

1. Sender Information:

Sender Name:
Sender Phone Number:

Instructions To Enroll In EPS Plan:

- A. Complete sections 1 - 7 (signature and all other information is required)
- B. Include a copy of a voided check, on which is noted your bank, branch and account number
- C. **Please submit via Fax to: (262) 798-4530**

2. Authorization Agreement for Pre-Arranged Payment Plan:

- (a) Codexis, Inc., ("Borrower") authorizes General Electric Capital Corporation ("Agent") to initiate debit entries for payment becoming due pursuant to the terms and conditions set forth in the Loan and Security Agreement, dated as of [**September __, 2007**] (as amended, restated, supplemented or otherwise modified from time to time, the "Agreement"), among Borrower, Agent and the lenders signatory thereto.
- (b) Borrower understands that the basic term loan payment and all applicable taxes are solely its responsibility. If payment is not satisfied due to account closure, insufficient funds, or cancellation of any required automated payment services, Borrower agrees to remit payment plus any applicable late charges, as set forth in the Agreement.
- (c) It is incumbent upon Borrower to give written notice to Agent of any changes to this authorization or the below referenced bank account information 10 days prior to payment date; Borrower may revoke this authorization by giving 10 days written notice to Agent unless otherwise stipulated in the Agreement.
- (d) If a deduction is made in error, Borrower has the right to be paid within five business days by Agent the amount of the erroneous deduction, provided Agent is notified in writing of such error.
- (e) Cosigner must also sign if the account is a joint account.

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3. Agent Account Number(s): (Invoice Billing ID, 10-digit number formatted: 1234567-001)

Account:	Account:	Account:	Account:
Account:	Account:	Account:	Account:

4. First Payment Debit Date (mm/dd/yy)	First Payment:
--	----------------

5. Complete ALL Bank and Borrower Information:

BANK INFO	Name of Bank or Financial Institution:	Bank Account Number:	ABA Routing Number (9-digit number)
	Address of Bank or Financial Institution:	City:	State: Zip Code:
BORROWER INFO	Signatures		Company
	Signature of Authorized Signer: Date:	Company Name:	Contact Name:
	Name of Joint Account Holder: (Please Print)	Company Address:	Contact Phone Number:
	Signature of Joint Account Holder: Date:	City:	Contact Fax Number:
	Name of Authorized Signer: (Please Print)	State: Zip Code:	Contact email address:

6. Would you like to have property taxes paid via EPS on above accounts?
 Check (X): YES: NO:

7. Would you like to receive a complementary invoice?
 Check (X): YES: NO:

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FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT

THIS FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT (this "**Amendment**") is dated as of November 9, 2007 (the "**Amendment Date**"), by and among CODEXIS, INC., a Delaware corporation ("**Borrower**"), WASABI ACQUISITION LLC, a Delaware limited liability company ("**Wasabi**"), GENERAL ELECTRIC CAPITAL CORPORATION, a Delaware corporation acting in its capacity as agent (the "**Agent**") for the lenders under the Credit Agreement (as defined below) (the "**Lenders**"), and the Lenders.

WITNESSETH:

WHEREAS, Borrower, the Lenders and Agent are parties to that certain Loan and Security Agreement, dated as of September 28, 2007 (as the same may be amended, supplemented and modified from time to time, the "**Credit Agreement**"; capitalized terms used herein have the meanings given to them in the Credit Agreement except as otherwise expressly defined herein), pursuant to which Lenders have agreed to provide to Borrower certain loans and other extensions of credit in accordance with the terms and conditions thereof;

WHEREAS, Borrower has requested that Agent and Lenders amend certain provisions of the Credit Agreement, in each case in accordance with and subject to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the premises, the covenants and agreements contained herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Borrower, the Lenders and Agent hereby agree as follows:

1. Acknowledgment of Obligations. Borrower hereby acknowledges, confirms and agrees that as of the close of business on the Amendment Date, Borrower is indebted to the Lenders in respect of the Term Loans in the aggregate principal amount of \$15,000,000. All such Term Loans, together with interest accrued and accruing thereon, and fees, costs, expenses and other charges owing by Borrower to Agent and Lenders under the Credit Agreement and the other Debt Documents, are unconditionally owing by Borrower to Agent and Lenders, without offset, defense or counterclaim of any kind, nature or description whatsoever except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting creditor's rights generally.

2. Amendments to Credit Agreement. Subject to the terms and conditions of this Amendment (including, without limitation, the conditions to effectiveness set forth in Section 6 below), and effective as of the Effective Date (as such term is defined in Section 6 below), the Credit Agreement is hereby amended as follows:

(a) The penultimate paragraph in Section 3.1 of the Credit Agreement is hereby amended by (1) deleting the word "or" at the end of clause (b) thereof, (2) deleting the period at

the end of clause (c) thereof and inserting, in lieu thereof, the language “; or”, and (3) inserting the following new clause (d) at the end thereof:

“(d) all funds from time to time on deposit in that certain deposit account number [*] maintained with Wells Fargo Bank, N.A. (such funds, the WF Collateral”, and such account, the WF Cash Collateral Account”); provided, however, that only \$1,750,000 in WF Collateral deposited in the WF Cash Collateral Account shall be subject to exclusion from the Collateral under this clause (d).”

(b) Section 5.7 of the Credit Agreement is hereby deleted in its entirety and the following new Section 5.7 is hereby inserted in lieu thereof:

“ **5.7. Collateral.** Borrower is, and will remain, the sole and lawful owner, and in possession of, the Collateral, and has the sole right and lawful authority to grant the security interest described in this Agreement. The Collateral is, and will remain, free and clear of all liens, claims and encumbrances of any kind whatsoever, except for (a) liens in favor of Agent, on behalf of itself and Lenders, to secure the Obligations, (b) liens (i) with respect to the payment of taxes, assessments or other governmental charges or (ii) of suppliers, carriers, materialmen, warehousemen, workmen or mechanics and other similar liens, in each case imposed by law and arising in the Ordinary Course of Business, and securing amounts that are not yet due or that are being contested in good faith by appropriate proceedings diligently conducted and with respect to which adequate reserves or other appropriate provisions are maintained on the books of Borrower or its Subsidiaries in accordance with GAAP and which do not involve, in the judgment of Agent, any risk of the sale, forfeiture or loss of any of the Collateral (a “Permitted Contest”), (c) zoning restrictions, easements, rights of way, encroachments or other restrictions on the use of, and other minor defects or irregularities in title with respect to, any real property of Borrower or its Subsidiaries so long as the same do not materially impair the use of such real property by Borrower or such Subsidiary, (d) purported liens evidenced by the filing of precautionary UCC financing statements relating solely to operating leases of personal property entered into in the Ordinary Course of Business, (e) liens in favor of customs and revenue authorities arising as a matter of law to secure payment of customs duties in connection with the importation of goods, (f) liens existing on the date hereof and set forth on Schedule B hereto, (g) liens securing Indebtedness (as defined below) permitted under Section 7.2(c) below, provided that (i) such liens exist prior to the acquisition of, or attach substantially simultaneous with, or within 20 days after the, acquisition, repair, improvement or construction of, such property financed by such Indebtedness and (ii) such liens do not extend to any property of Borrower or its Subsidiaries other than the property (and

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proceeds thereof) acquired or built, or the improvements or repairs, financed by such Indebtedness, (h) licenses described in Section 7.3(b) below, and (i) liens of Wells Fargo Bank, N.A. in the WF Collateral maintained in the WF Cash Collateral Account securing the Indebtedness permitted under Section 7.2(i) (all of such liens described in the foregoing clauses (a) through (i) are called "Permitted Liens"). "Ordinary Course of Business" means, with respect to Borrower and its Subsidiaries, the operation of the business of Borrower and its Subsidiaries consistent with Borrower's business plan as of the Closing Date, it being understood and acknowledged by the Lenders that the business of Borrower and/or its Subsidiaries involves entering into corporate collaborations in the fields of energy, chemicals, carbon management and pharmaceuticals pursuant to exclusive and non-exclusive licenses of Intellectual Property."

(c) Section 7.2 of the Credit Agreement is hereby amended by (1) deleting the word "and" at the end of clause (g) thereof, (2) deleting the period at the end of clause (h) thereof and inserting, in lieu thereof, the language "; and", and (3) inserting the following new clause (i) thereto:

"(i) Indebtedness consisting of reimbursement obligations owing to Wells Fargo Bank, N.A. for one or more standby letters of credit issued from time to time in favor of Borrower in a face amount not to exceed \$1,750,000 in the aggregate at any time."

(d) Section 7.10 of the Credit Agreement is hereby deleted in its entirety and the following new Section 7.10 is hereby inserted in lieu thereof:

" **7.10. Deposit Accounts and Securities Accounts.** Other than with respect to (1) deposit accounts used solely to fund payroll and withholding taxes and (2) the WF Cash Collateral Account, Borrower will not directly or indirectly maintain or establish any deposit account or securities account, unless Agent, Borrower and the depository institution or securities intermediary at which the account is or will be maintained enter into a deposit account control agreement or securities account control agreement, as the case may be (an "Account Control Agreement"), in form and substance satisfactory to Agent (which agreement shall provide that such depository institution or securities intermediary shall comply with all instructions of Agent without further consent of Borrower, including, without limitation, an instruction by Agent to follow a notice of exclusive control or similar notice (such notice, a "Notice of Exclusive Control")), prior to or concurrently with the establishment of such deposit account or

securities account (or in the case of any such deposit account or securities account maintained as of the date hereof, prior to or concurrently with the entering into this Agreement). Agent may give a Notice of Exclusive Control with respect to any deposit account or securities account at any time at which an Event of Default has occurred and is continuing. Borrower hereby agrees that it shall not maintain at any time in the WF Cash Collateral Account funds in excess of the lesser of (a) \$1,750,000 and (b) 105% of the aggregate outstanding face amount at such time of all standby letters of credit issued by Wells Fargo Bank, N.A. in favor of Borrower in accordance with the terms and conditions of Section 7.2(i).”

3. Amendment to Perfection Certificate and Post Closing Obligation Letter.

(a) Subject to the terms and conditions of this Amendment (including, without limitation, the conditions to effectiveness set forth in Section 6 below), and effective as of the Effective Date (as such term is defined in Section 6 below), Section 6 and Section 7 of the Perfection Certificate shall be amended in the manner described on Schedule A hereto.

(b) Subject to the terms and conditions of this Amendment (including, without limitation, the conditions to effectiveness set forth in Section 6 below), and effective as of the Effective Date (as such term is defined in Section 6 below), Paragraph 4 of that certain Post Closing Obligations Letter, dated as of September 28, 2007, by and among the parties hereto, is amended to delete the reference to deposit account number [*] maintained by Borrower with Wells Fargo Bank, N.A.

4. No Other Amendments. Except for the amendments set forth and referred to in Section 2 and Section 3 above, the Credit Agreement and the Perfection Certificate shall remain unchanged and in full force and effect. Nothing in this Amendment is intended, or shall be construed, to constitute a novation or an accord and satisfaction of any of Borrower’s Obligations or to modify, affect or impair the perfection or continuity of Agent’s security interests in, security titles to or other liens, for the benefit of itself and the Lenders, on any Collateral for the Obligations.

5. Representations and Warranties. To induce Agent and Lenders to enter into this Amendment, Borrower does hereby warrant, represent and covenant to Agent and Lenders that after giving effect to this Amendment (i) each representation or warranty of the Borrower set forth in the Credit Agreement is hereby restated and reaffirmed as true and correct in all material respects on and as of the Amendment Date as if such representation or warranty were made on and as of the date hereof (except to the extent that any such representation or warranty expressly relates to a prior specific date or period), (ii) no Default or Event of Default has occurred and is continuing as of the date hereof and (iii) Borrower has the power and is duly authorized to enter into, deliver and perform this Amendment and this Amendment is the legal, valid and binding obligation of the Borrower enforceable against the Borrower in accordance with its terms.

6. Condition Precedent to Effectiveness of this Amendment. This Amendment shall become effective as of the Amendment Date, and the amendments set forth in Section 2 and Section 3 hereof shall be deemed to be effective as of September 28, 2007 (the “Effective Date”), upon the receipt by Agent of each of the following, in each case in form and substance

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satisfactory to Agent and Lenders:

- (a) one or more counterparts of this Amendment duly executed and delivered by the Borrower, Agent and Lenders; and
- (b) one or more counterparts of the attached Confirmation duly executed and delivered by Wasabi.

7. Release.

(a) In consideration of the agreements of Agent and Lenders contained herein and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Borrower and Wasabi (by executing the Confirmation attached hereto), on behalf of themselves and their successors, assigns, and other legal representatives, hereby absolutely, unconditionally and irrevocably release, remise and forever discharge Agent and Lenders and their respective successors and assigns, and their respective present and former shareholders, affiliates, subsidiaries, divisions, predecessors, directors, officers, attorneys, employees, the agents and other representatives (Agent and Lenders, and all such other Persons being hereinafter referred to collectively as the “**Releasees**” and individually as a “**Releasee**”), of and from all demands, actions, causes of action, suits, covenants, contracts, controversies, agreements, promises, sums of money, accounts, bills, reckonings, damages and any and all other claims, counterclaims, defenses, rights of set-off, demands and liabilities whatsoever (individually, a “**Claim**” and collectively, “**Claims**”) of every name and nature, known or unknown, suspected or unsuspected, both at law and in equity, which Borrower or Wasabi or any of their respective successors, assigns, or other legal representatives may now or hereafter own, hold, have or claim to have against the Releasees or any of them for, upon, or by reason of any circumstance, action, cause or thing whatsoever which arises at any time on or prior to the day and date of this Amendment, for or on account of, or in relation to, or in any way in connection with this Amendment or transactions thereunder or related thereto.

(b) Each of Borrower and Wasabi (by executing the Confirmation attached hereto) understands, acknowledges and agrees that its release set forth above may be pleaded as a full and complete defense and may be used as a basis for an injunction against any action, suit or other proceeding which may be instituted, prosecuted or attempted in breach of the provisions of such release.

(c) Each of Borrower and Wasabi (by executing the Confirmation attached hereto) agrees that no fact, event, circumstance, evidence or transaction which could now be asserted or which may hereafter be discovered shall affect in any manner the final, absolute and unconditional nature of the release set forth above.

8. Covenant Not To Sue. Each of Borrower and Wasabi (by executing the Confirmation attached hereto), on behalf of themselves and their respective successors, assigns, and other legal representatives, hereby absolutely, unconditionally and irrevocably, covenant and agree with and in favor of each Releasee that it will not sue (at law, in equity, in any regulatory

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proceeding or otherwise) any Releasee on the basis of any Claim released, remised and discharged by Borrower or Wasabi pursuant to Section 7 above. If Borrower or Wasabi or any of their respective successors, assigns or other legal representatives violates the foregoing covenant, Borrower and Wasabi, for itself and its successors, assigns and legal representatives, jointly and severally agrees to pay, in addition to such other damages as any Releasee may sustain as a result of such violation, all attorneys' fees and costs incurred by any Releasee as a result of such violation.

9. Advice of Counsel. Each of the parties represents to each other party hereto that it has discussed this Amendment with its counsel.

10. Severability of Provisions. In case any provision of or obligation under this Amendment shall be invalid, illegal or unenforceable in any applicable jurisdiction, the validity, legality and enforceability of the remaining provisions or obligations, or of such provision or obligation in any other jurisdiction, shall not in any way be affected or impaired thereby.

11. Counterparts. This Amendment may be executed in multiple counterparts, each of which shall be deemed to be an original and all of which when taken together shall constitute one and the same instrument.

12. GOVERNING LAW. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK APPLICABLE TO CONTRACTS MADE AND PERFORMED IN SUCH STATE WITHOUT REGARD TO THE PRINCIPLES THEREOF REGARDING CONFLICTS OF LAWS.

13. Entire Agreement. The Credit Agreement as and when amended through this Amendment embodies the entire agreement between the parties hereto relating to the subject matter thereof and supersedes all prior agreements, representations and understandings, if any, relating to the subject matter thereof.

14. No Strict Construction, Etc. The parties hereto have participated jointly in the negotiation and drafting of this Amendment. In the event an ambiguity or question of intent or interpretation arises, this Amendment shall be construed as if drafted jointly by the parties hereto and no presumption or burden of proof shall arise favoring or disfavoring any party by virtue of the authorship of any provisions of this Amendment. Time is of the essence for this Amendment.

15. Costs and Expenses. Borrower absolutely and unconditionally agree to reimburse Agent for all reasonable and documented out-of-pocket fees, costs and expenses, including all reasonable fees and expenses of one counsel or the allocated cost of internal legal staff, incurred in the preparation, negotiation, execution and delivery of this Amendment and any other Debt Documents or other agreements prepared, negotiated, executed or delivered in

connection with this Amendment or transactions contemplated hereby.

[Signature Page to Follow]

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IN WITNESS WHEREOF, the parties hereto have caused this First Amendment to Loan and Security Agreement to be duly executed and delivered as of the day and year specified at the beginning hereof.

BORROWER:

CODEXIS, INC.

By: /s/ Alan Shaw

Name: Alan Shaw

Title: President & CEO

[Additional signature pages to follow]

SIGNATURE PAGE
FIRST AMENDMENT

AGENT AND LENDER:

GENERAL ELECTRIC CAPITAL CORPORATION

By: /s/ Daniela Gjenero
Name: Daniela Gjenero
Title: Duly Authorized Signatory

LENDER:

OXFORD FINANCE CORPORATION

By: /s/ T.A. Lex
Name: T.A. Lex
Title: COO

SIGNATURE PAGE
FIRST AMENDMENT

CONFIRMATION

The undersigned Guarantor hereby acknowledges and agrees to the terms and performance of the within and foregoing First Amendment to Loan and Security Agreement, and hereby ratifies all the provisions of the Credit Agreement, its Guaranty and any other Debt Documents to which it is a party and confirms that all provisions of each such documents are in full force and effect.

IN WITNESS WHEREOF, the undersigned has executed this Confirmation as of the day and year first above set forth.

WASABI ACQUISITION LLC

By: /s/ Alan Shaw

Name: Alan Shaw

Title: President & CEO

SIGNATURE PAGE
CONFIRMATION AGREEMENT

Schedule A

Amendments to Perfection Certificate

Section 6 of the Perfection Certificate is amended by adding the following disclosure:

Indebtedness of the Borrower arising under the Standby Letter of Credit Agreement, dated as of June 8, 2007 by and between the Borrower and Wells Fargo Bank, National Association and any modifications, replacement, refinancing, refunding, renewal or extension thereof.

Section 7 of the Perfection Certificate is amended by adding the following disclosure:

Name of Holder of Lien/Encumbrance	Description of Property Encumbered	Borrower/Subsidiary
Wells Fargo Bank, National Association	Cash	Codexis, Inc

LICENSE AGREEMENT

This LICENSE AGREEMENT (the "Agreement"), effective as of March 28, 2002 (the "Effective Date"), is made by and between Maxygen, Inc., a Delaware corporation ("MUS"), and Codexis, Inc., a Delaware corporation ("Codexis").

BACKGROUND

A. MUS owns and/or controls certain intellectual property, tangible property and technology potentially useful for discovery, research, development and commercialization of Products (as defined herein) for use in the Codexis Field (as defined herein); and

B. Codexis desires to obtain the right to use such intellectual property, tangible property and technology of MUS in connection with its discovery, research, development and commercialization of Products (as defined herein) in the Codexis Field; and

C. MUS is willing to grant to Codexis, and Codexis is willing to accept, such rights, subject to the terms and conditions set forth in this Agreement; and

D. MUS and Codexis have entered into a Services Agreement, a Patent Assignment Agreement, a Trademark Assignment Agreement and a Stock Issuance and Asset Contribution Agreement, of even date herewith.

NOW THEREFORE, for good and valuable consideration, the sufficiency and receipt of which is hereby acknowledged, the Parties hereby agree as follows:

1. **DEFINITIONS.** The terms defined in this Article 1 shall have the meanings set forth below for purposes of this Agreement:

1.1 "**Affiliate**" shall mean a corporation or other entity that is directly or indirectly controlling, controlled by or under common control with another entity. For the purposes of this definition, "control" shall mean the direct or indirect ownership of fifty percent (50%) or more of the outstanding shares or securities (representing the right to vote for the election of directors or other managing authority) of such corporation or other entity; provided, such corporation or other entity shall be deemed to be an Affiliate only so long as such ownership or control exists.

1.2 "**Agrochemical**" means any chemical intended for plant protection or plant growth applications (e.g., any insecticide, nematocide, insect growth regulator, plant growth regulator, fertilizer or herbicide).

1.3 "**Assignment Agreement**" shall mean that certain Patent Assignment Agreement between MUS and Codexis entered of even date herewith.

1.4 "**Assigned Patents**" shall mean (a) the Patent Applications and Patents assigned to Codexis pursuant to the Assignment Agreement; and (b) those

Patent

Applications and Patents owned by Third Parties, to which MUS obtained license rights for use inside and outside the Codexis Field pursuant to an agreement entered by MUS with a Third Party, which agreement was assigned by MUS to Codexis in connection with the establishment of Codexis, Inc.

1.5 **“Biocatalyst”** shall mean a whole cell (live or dead) of a Microbe or Type II Plant which has been modified using Enabling Technology (whether by Gene Expression Manipulation and/or Metabolic Pathway Manipulation and/or Strain Improvement or otherwise) that can perform enzymatic catalysis of a particular chemical reaction.

1.6 **“Basic Chemical”** shall mean a chemical having a molecular weight of less than [*] which is suitable for use as a feedstock for multiple chemical reactions. By way of illustration and without limitation, a chemical monomer or oligomer suitable for polymerization, or a carbohydrate intended for use as a carbon source in fermentation, would each be a Basic Chemical, if the applicable molecule had a molecular weight of less than [*].

1.7 **“Biocatalyst Commercialization”** shall mean (i) the preparation, screening and commercial use of Biocatalysts for the purpose of allowing the selection and commercialization of Biocatalysts solely for use for Bulk Production, and (ii) the manufacture and commercial sale of Biocatalysts solely for use for Bulk Production.

1.8 **“Building Block”** shall mean any non-polypeptide chemical (optionally containing one or more chiral centers), having a molecular weight of more than [*] and less than [*], that (a) is not a Basic Chemical or a Functional Compound, and (b) is intended for addition to one or more Templates to make a Functional Compound.

1.9 **“Building Block Development”** shall mean the development of one or more Building Blocks for use in Template Decoration.

1.10 **“Bulk Production”** shall mean production by Codexis via enzymatic catalysis (using an Enzyme Product or a Biocatalyst) or fermentation of:

(a) any Enzyme Product or Biocatalyst for sale to a Third Party (other than an Affiliate of Codexis) for manufacture of Catalysis Products,

or

(b) any Catalysis Product or Fermentation Product for sale to a Third Party (other than an Affiliate of Codexis) for further processing or

formulation, or

(c) any Catalysis Product or Fermentation Product which will be formulated by Codexis for sale to a Third Party, which Product contains one or more Functional Compounds approved by a Regulatory Authority for human or veterinary pharmaceutical use, where such Functional Compound(s) (i) is (are) no longer covered by issued patents in the country where such production will occur, or (ii) is (are) covered by issued patents owned or Controlled by a Third Party (other than an Affiliate of Codexis) that has contracted to have Codexis formulate such Product on behalf of such Third Party.

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1.11 “**Catalysis Product**” shall mean a Template, Building Block, Functional Compound and/or Intermediate that, in each case, is produced in substantially pure, noncellular form via enzymatic catalysis using an Enzyme Product or a Biocatalyst.

1.12 “**Codexis Field**” shall mean:

(a) Biocatalyst Commercialization and Enzyme Commercialization, subject to the limitations set forth in Section 2.2.2 and the rights of MUS and Third Parties described in Section 2.8;

(b) Building Block Development; and

(c) Bulk Production, subject to the limitations set forth in Section 2.2.2 and the rights of MUS and Third Parties described in Section 2.8.

1.13 “**Confidential Information**” shall mean (i) any proprietary or confidential information or material in tangible form disclosed by one Party to the other that is marked as “Confidential” or with some similar marking or legend reasonably indicating its confidential nature at the time it is delivered to the receiving Party, or (ii) proprietary or confidential information disclosed orally or in other intangible form by one Party to the other hereunder that is identified as confidential or proprietary when disclosed. Confidential Information may include information of Third Parties.

1.14 “**Control**” or “**Controlled**” shall mean possession of the ability to grant the licenses or sublicenses as provided for herein, or to transfer Materials as provided for herein, without (i) violating the terms of any agreement or other arrangement with any Third Party, and/or (ii) incurring a contractual payment obligation to a Third Party for the grant or practice of such license or sublicense, as the case may be, provided, if such a contractual payment obligation would be due to a Third Party for the grant or practice of such a sublicense to the applicable intellectual property or materials, such intellectual property and Materials shall also be deemed to fall within the scope of this definition, if Codexis or MUS, as the case may be, agrees in writing pursuant to Section 2.1.4(b) to be responsible for any and all payments due to the licensor of such intellectual property or Materials for the grant or practice of such sublicense.

1.15 “**Detection and Research Reagent Field**” shall mean the field set forth on **Exhibit A** hereto.

1.16 “**Discovery**” means the generation, identification and/or assessment of any potential human or veterinary therapeutic or prophylactic or Agrochemical, and/or modification of a potential human or veterinary therapeutic or prophylactic or Agrochemical to improve its suitability for such use.

1.17 “**Enabling Technology**” shall mean all Patent Applications and Patents Controlled by MUS on or before the Separation Event relating to (i) methods of generating genetic diversity (including, without limitation, DNA Shuffling with tangible materials or in silico), or the use thereof, and/or (ii) generally applicable screening techniques, methodologies or processes for identifying genetic variants of interest. Enabling Technology shall include MUS’ interest in Third Party Improvements, if any. A list of Patent Applications

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and Patents within the Enabling Technology existing as of the Effective Date is attached as **Exhibit B** hereto.

1.18 **“Enzyme Commercialization”** shall mean (i) the preparation, screening and commercial use of Enzyme Libraries for the purpose of allowing the selection and commercialization of one or more Enzyme Products solely for use for Bulk Production, and (ii) the manufacture and commercial sale of Enzyme Products solely for use for Bulk Production.

1.19 **“Enzyme Library”** shall mean a set of two or more variant but related enzymes (or genes encoding such enzymes), in each case, that are made using Enabling Technology.

1.20 **“Enzyme Product”** shall mean an enzyme selected from an Enzyme Library.

1.21 **“Excluded Technology”** shall mean the Patent Applications and Patents within the Enabling Technology listed on **Exhibit C** hereto.

1.22 **“Expression Host(s)”** shall mean eukaryotic and/or procaryotic and/or archaeobacter cells of any type.

1.23 **“Fermentation Product”** shall mean any Template, Building Block, Functional Compound and/or Intermediate that is produced via fermentation of a Microbe and/or Category II Plant that has been modified with Enabling Technology (whether by Gene Expression Manipulation and/or Metabolic Pathway Manipulation and/or Strain Improvement or otherwise).

1.24 **“Functional Compound”** shall mean any non-polypeptide, organic chemical produced in substantially pure form, having a molecular weight of less than [*], that is not a Basic Chemical and is used (i) as an active therapeutic agent for the treatment of any human or animal disease or condition, or (ii) to improve the flavor of human food or animal feed products, or (iii) to provide or alter the fragrance of perfumes, cosmetic and skin care products, or (iv) for external application to one or more Plants as an herbicide, pesticide or growth regulator.

1.25 **“Gene”** shall mean a structural gene, including optionally regulatory sequences therefor, including, without limitation, promoters, enhancers and downstream regulatory elements.

1.26 **“Gene Expression Manipulation”** shall mean alteration of one or more Gene(s) (e.g., alteration of a sequence of a structural gene or a sequence of a Gene regulatory element, such as a promoter) to enable and/or facilitate Product development or Bulk Production.

1.27 **“Glaxo Agreement”** shall mean the Affymax/Maxygen Technology Transfer Agreement, effective February 1, 1997, entered by and among Affymax Technologies N.V., Glaxo Group Limited and Maxygen, Inc., as modified on March 1, 1998.

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1.28 **“Government Authority”** shall mean any supranational, national, regional, state or local government, court, governmental agency, authority, board, bureau, instrumentality or regulatory body.

1.29 **“Improvement”** shall mean any improvement of or to the Enabling Technology, which improvement is (a) conceived and reduced to practice or otherwise developed on or before the Separation Event by or on behalf of Codexis or a Third Party that has received a license to the Enabling Technology and is claimed in a published Patent Application or Patent owned or Controlled by Codexis or such Third Party, as the case may be, which Patent Application or Patent is filed on or before the third anniversary of the Separation Event, and (b) within the scope of a claim of a Patent Application or Patent within the Enabling Technology in any country, which claim is entitled to filing priority based on a Patent Application or Patent within the Enabling Technology that was filed on or before the Separation Event.

1.29.1 **“Codexis Improvement”** shall mean an Improvement owned or Controlled (other than through a license from MUS hereunder) by Codexis.

1.29.2 **“Third Party Improvement”** shall mean an Improvement owned by a Third Party and Controlled by MUS.

1.30 **“Intermediate”** shall mean with regard to a particular Functional Compound, a non-polypeptide, chemical produced in substantially pure form, having a molecular weight of less than [*], that is intended as and used as the chemical precursor of such Functional Compound. It is understood and agreed that Intermediate(s) shall not include chemicals having commercial utility for any purpose other than synthesis of the applicable Functional Compound (e.g., Basic Chemicals shall not be Intermediates).

1.31 **“Internal Research Use”** shall mean use by Codexis for internal research to assess the feasibility of producing a particular Product within the Codexis Field. It is understood and agreed that Internal Research Use does not include production of any Product for commercial sale or any other commercial use of any Product or the conduct of any Services.

1.32 **“Know-How”** shall mean any and all ideas, inventions, discoveries, data, information, and corresponding intellectual property rights, including, without limitation, instructions, processes, practices, methods, techniques, specifications, formulations, formulae, know-how, trade secrets, protocols, skill, experience, opinions, results of studies, technical drawings and related copyrights, bioinformatics tools (including software) and related copyrights, and biological, chemical, pharmacological, toxicological, stability, biochemical, pharmaceutical, physical and analytical, pre-clinical and clinical, safety, efficacy, manufacturing and quality control data, documentation and information, in each case, whether or not patentable, and that are (i) not generally known or available to the public, (ii) Controlled by MUS prior to the Separation Event and (iii) reasonably related to the use of Enabling Technology and/or the Product Technology in the Codexis Field.

1.33 **“Materials”** shall mean any chemical or biological substances including any: (i) organic or inorganic chemical element or compound; (ii) nucleic acid; (iii) vector of any type (e.g., cosmid, plasmid, spore, phage, virus, or virus-like particle), and subunits of the foregoing; (iv) host organism, including procaryotic and/or eukaryotic cells or animals; (v) eukaryotic or prokaryotic cell line or expression system; (vi) protein, including any peptide or amino acid sequence, enzyme, antibody or protein conferring targeting properties and any fragment of any of the foregoing; (vii) genetic material, including, without limitation, any genetic nucleic acid construct, marker gene and genetic control element (e.g., promoter, termination signal), gene, genome or variant of any of the foregoing; and/or (viii) assay or reagent, in each case, which are Controlled by MUS prior to the Separation Event and reasonably related to the use of Enabling Technology and/or the Product Technology in the Codexis Field.

1.34 **“Metabolic Pathway Manipulation”** shall mean alteration of one or more single Genes, multiple Genes, genetic pathways and/or genomes by modification of pathway control mechanisms to enable and/or facilitate:

- (a) Product development via (i) altered pathway flux or activity, and/or (ii) altered Product yield; and/or
- (b) Bulk Production.

1.35 **“Microbe”** shall mean whole (live or dead) procaryotic organisms and/or yeasts and/or fungi (excluding those which are Type II Plants), or extracts thereof.

1.36 **“Novo Agreement”** shall mean the License and Commercialization Agreement effective September 17, 1997, entered by and between Maxygen, Inc. and Novo Nordisk A/S, as amended. The Novo Agreement, with the amendments thereto dated June 29, 1998, July 29, 1998 and April 12, 1999, are set forth in Exhibit 10.11 to the Form S-1 effective December 15, 1999 filed by Maxygen, Inc. with the U.S. Securities and Exchange Commission.

1.37 **“Party”** shall mean MUS or Codexis, individually, and **“Parties”** shall mean MUS and Codexis, collectively.

1.38 **“Patent Applications and Patents”** shall mean any and all United States provisional and/or utility patent applications, including, without limitation, all divisions, renewals, continuations in whole or in part, substitutions and patents of addition thereof, and any and all foreign counterparts of any of the foregoing, and any letters patent and/or registrations issuing on any of the foregoing (including, without limitation, all reissues, renewals, extensions, confirmations, re-registrations, re-examinations, re-validations, supplementary protection certificates and/or other governmental actions that extend the term of any such letters patent) which may be granted on any of the foregoing in the United States and/or other any countries or multinational jurisdictions of the world.

1.39 **“Plant(s)”** shall mean whole Plants, Plant seeds, Plant parts, Plant cells and/or Plant cell cultures derived from Category I Plants and/or Category II Plants.

1.39.1 **“Category I Plants”** shall mean:

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(a) land plants, including nonseed plants (Bryophytes, Tracheophytes) such as liverworts, mosses, ferns, and seed plants, such as gymnosperms and angiosperms (monocot and dicots); and/or

(b) non-land plants, including the Prasinophytes, Chlorophyceae, Trebouxiophyceae, Ulvophyceae, Chlorokybales, Streptophyta, Klebsormidiales, Zygnematales, Charales, Coleochaetales and Embryophytes.

1.39.2 “**Category II Plants**” shall mean:

(a) mushrooms (Basidiomycetes); and/or

(b) photosynthetic bacteria, including, but not limited to blue green algae (Cyanobacteria); and/or

(c) eukaryotic photosynthetic algae and microalgae including, but not limited to green algae (Chlorophytes and Euglenophytes), yellow algae (Cyanophytes), brown algae (Phacophytes, Xanthophytes, Eustigmatophytes and Raphidophytes) and red algae (Rhodophytes); and/or

(d) microalgae, including but not limited to diatoms (Chrysophytes and Pyrrophytes).

1.40 “**Product**” shall mean any Catalysis Product, Enzyme Product, Biocatalyst or Fermentation Product that:

(a) is made or developed with the use of Enabling Technology, whether by Gene Expression Manipulation and/or Metabolic Pathway Manipulation and/or Strain Improvement or otherwise (e.g., incorporates any variant gene made with Enabling Technology, and/or any protein or peptide expressed therefrom), and/or

(b) is developed with the use of Product Technology, or incorporates, or is made using, or is substantially derived from, Product Technology.

1.41 “**Product Technology**” shall mean the Patent Applications and Patents Controlled by MUS on or before the Separation Event that are necessary or useful for use in the Codexis Field, that are not included in Enabling Technology. A list of the Patent Applications and Patents within the Product Technology existing as of the Effective Date is attached as **Exhibit D** hereto.

1.42 “**Prosecution Costs**” shall mean all costs (including, without limitation, filing fees and annuities, and attorney, agent and/or expert fees) incurred by MUS in connection with the (a) preparation, filing, prosecution (including, without limitation, any appeal) and/or maintenance of any Patent Application or Patent within the Enabling Technology or the Product Technology in any country or multinational jurisdiction of the world, or (b) conduct of any interference, opposition, re-examination, reissue or similar proceedings with respect to any Patent Application or Patent within the Enabling Technology or the Product Technology in any country or multinational jurisdiction of the world.

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1.43 “**Regulatory Agency**” shall mean the FDA, the Committee on Proprietary Medicinal Products (“CPMP”) of the European Medicines Evaluation Agency, and other Governmental Authority having similar jurisdiction over the development, manufacturing, and marketing of human or veterinary pharmaceuticals and/or food or feed ingredients or products.

1.44 “**Separation Event**” shall mean the first date that the combined ownership of Codexis’ outstanding shares by MUS and its Affiliates falls below fifty percent (50%) of the voting power entitled to vote in the election of Codexis’ directors.

1.45 “**Service**” shall mean any activity conducted by Codexis on behalf of a Third Party in which Enabling Technology and/or Product Technology is used to discover, research or develop or produce any Product(s).

1.46 “**Shuffling**” shall mean the recombination and/or rearrangement and/or mutation of genetic material for the creation of genetic diversity.

1.47 “**Stock Issuance and Asset Purchase Agreement**” shall mean that certain Stock Issuance and Asset Contribution Agreement entered by MUS and Codexis of even date herewith.

1.48 “**Strain Improvement**” shall mean modification of a Microbe or a Category II Plant to enhance its suitability for use in Bulk Production of one or more Fermentation Products.

1.49 “**Sublicensee**” shall mean a Third Party to whom Codexis has granted a sublicense of its rights in Section 2.1.

1.50 “**Template**” shall mean the minimally active, non-polypeptide chemical structure (e.g., a pharmacophore) having a molecular weight of less than [*], that is common to a family of chemical structures, and (a) is known to possess measurable specific bioactivity (e.g., biostimulatory, bioinhibitory, receptor binding, enzyme substrate, channel blocking or similar activities) in a particular *in vitro* or *in vivo* disease model system, and (b) is useful as an Intermediate.

1.51 “**Template Decoration**” shall mean modification of a Template by a Third Party (other than an Affiliate of Codexis) by attaching, via one or more chemical and/or enzymatic steps, one or more Building Blocks to generate an organic chemical product (including, without limitation, a Product or a Functional Compound) having a molecular weight of less than [*].

1.52 “**Third Party**” means any person or entity other than MUS or Codexis (or their successors in interest).

1.53 “**Third Party Agreement**” shall mean any agreement that was entered or is entered by MUS with a Third Party prior to the Separation Event (excluding those agreements assigned to Codexis pursuant to the Stock and Asset Purchase Agreement), pursuant

to which MUS obtained or obtains a license, with the right to sublicense, of Patent Applications and/or Patents within the Enabling Technology useful in the Codexis Field.

2. LICENSE GRANTS TO CODEXIS

2.1 Grants.

2.1.1 Licenses. Subject to the terms and conditions herein, including without limitation Sections 2.2, 2.4, 2.6, 2.7 and 2.8, MUS hereby grants to Codexis, and Codexis hereby accepts, irrevocable (except as, provided in Sections 9.4.1, 12.2, 12.3 and 12.4), worldwide, royalty-free (subject to Section 2.1.5(b)) licenses, as follows:

(a) with respect to the Enabling Technology and related Know-How:

(i) an exclusive license in Microbes to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products and corresponding Services in the Codexis Field; and

(ii) a non-exclusive license in Category II Plants to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products and Services in the Codexis Field; and

(b) with respect to the Enabling Technology and related Know-How, a non-exclusive license to develop, make and use Expression Hosts for Internal Research Use; and

(c) with respect to the Product Technology and related Know-How, an exclusive license to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products and corresponding Services in the Codexis Field.

2.1.2 Bailment. MUS hereby grants to Codexis, and Codexis hereby accepts, a bailment to non-exclusively use the Materials provided by MUS to Codexis to practice the licenses granted in Section 2.1.1.

2.1.3 Further License Grants. In addition to the licenses granted in Section 2.1.1 above, at such time, if any, that MUS assigns to Codexis the Subject Agreements (as defined below), then, subject to the terms and conditions of this Agreement, MUS shall concurrently grant to Codexis, licenses under the Enabling Technology and related Know-How, and Product Technology and related Know-How, to the extent necessary for Codexis to allow it to perform its contractual obligations existing as of the date of assignment with regard to such Subject Agreements, for the sole purpose of allowing Codexis to perform such contractual obligations under such agreements. For purposes of this Section 2.1.3, the "Subject Agreements" shall mean (i) the Novo Agreement; (ii) the Collaborative Research and Development Agreement entered by Maxygen, Inc. and Technological Resources Pty Limited effective January 19, 2000, (iii) the Research Agreement entered by Maxygen, Inc. and Chevron U.S.A, Inc. effective October 11, 2000, (iv) the Collaborative Agreement entered by Maxygen, Inc. and Hercules

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Incorporated effective October 31, 2000; (v) the Collaboration Agreement entered by Maxygen, Inc. and Cargill-Dow L.L.C., effective March 19, 2002; (vi) the Research Agreement entered by Maxygen, Inc. and Pfizer, Inc., effective September 13, 2000, as amended prior to the Effective Date of this Agreement; and (vii) the Agreement entered by Maxygen, Inc. and Gist-Brocades B.V., effective March 15, 1999, as amended prior to the Effective Date of this Agreement.

2.1.4 Know-How. All Know-How licensed to Codexis hereunder shall be treated as Confidential Information of MUS subject to Article 6 below.

2.1.5 Third Party Agreements.

(a) Codexis acknowledges that certain Patent Applications and Patents within the Enabling Technology have been or may be licensed to MUS pursuant to the Third Party Agreement(s), and that the sublicenses granted by MUS to Codexis with respect thereto are subordinate to the terms of any such Third Party Agreement. Codexis further acknowledges that any breach of such terms by Codexis or its Sublicensees may result in damage to MUS and/or other sublicensees of the subject Enabling Technology, which may include, without limitation, loss of license rights to such Enabling Technology and/or monetary damages, and agrees to act reasonably to avoid any breach of such terms.

(b) Codexis further acknowledges that, with respect to Patent Applications and Patents licensed to MUS pursuant to a Third Party Agreement, the sublicense by MUS to Codexis may result in payment obligations to the Third Party for the grant and/or practice of such sublicense to Codexis, and agrees that Codexis shall only receive such a sublicense if it agrees in writing, in a form reasonably acceptable to MUS, to pay any such amounts due for the grant of a sublicense to Codexis or practice of such a sublicense by Codexis or its Sublicensees (which payments, may include milestone payments and/or royalties on product sales), and to otherwise comply with the terms of such Third Party Agreement.

(c) MUS shall promptly notify Codexis of the terms of any such Third Party Agreement as they relate to the licenses granted hereunder to Codexis.

2.2 Limitations on Licenses.

2.2.1 Limited MUS Rights. It is understood and agreed that with respect to any aspect of the Enabling Technology or Product Technology, as the case may be, for which MUS has less than fully exclusive, worldwide rights (i.e., co-exclusive, non-exclusive, limited territorial or otherwise restricted rights) for use in the Codexis Field, the licenses provided in Section 2.1 shall be limited to those rights that MUS Controls and has the right to sublicense to Codexis in the Codexis Field.

2.2.2 No License Rights. Notwithstanding Section 2.1, it is understood and agreed that no license or right is granted with regard to the Enabling Technology or Product Technology, and/or related Know-How and Materials:

(a) to develop, make, have made, use, import, have imported, offer for sale or otherwise commercialize or distribute Products (or Services using such Products):

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(i) that are made in Category I Plants; or

(ii) that are intended to enable or facilitate the performance of any method within the Enabling Technology by a Third Party (other than a Sublicensee), whether in the form of an instrument, a kit, or set of materials or reagents, or instruction set, protocol or software, computer program or any other form; or

(b) to make, have made, use, promote, market, distribute and/or

(i) Licensed Products (as defined in the Novo Agreement) within the exclusive licenses granted to Novo Nordisk for use in the Novo Nordisk Field (as defined in the Novo Agreement); or

(ii) any products (including, without limitation, any Products) intended for use in the Detection and Research Reagent Field; or

(c) to conduct *ab initio* drug Discovery (i.e., discovery or development of novel pharmaceutical products) or otherwise identify or develop potential human or veterinary therapeutic or prophylactic products (e.g., small molecules, proteins (including, without limitation, enzymes) or vaccines); or

(d) to make, have made, sell, distribute and/or otherwise commercialize analogs of any Functional Compound for use in the Discovery of pharmaceutical and/or Agrochemical products; or

(e) to make, have made, sell, distribute and/or otherwise commercialize any organic chemical (including, without limitation, any Product or Functional Compound) or set of organic chemicals to which one or more Building Blocks have been added, in each case, for use in the Discovery of pharmaceutical and/or Agrochemical products; or

(f) to make, have made, use or distribute (by sale, license, lease, placement or otherwise) variant nucleic acids or proteins made with the use of Enabling Technology for: (i) the discovery or identification of the properties of such nucleic acids or proteins (except Enzyme Products and corresponding DNA), (ii) the discovery of ligands, agonists or antagonists of ligands to any such nucleic acids or proteins, (iii) to discover or develop or modify substances for use to cure, treat, prevent or modulate any human or veterinary or plant disease or condition or for production, purification, or formulation of pharmaceuticals, vaccines and/or Agrochemicals, and/or (iv) any use outside the Codexis Field; or

(g) to make, have made, use or distribute (by sale, license, lease, placement or otherwise) of any variant nucleic acids or proteins made with the use of Enabling Technology (except Enzyme Products and corresponding DNA) for the comparative evaluation of the properties of such nucleic acids or proteins or the elucidation of structure-function relationships with respect thereto; or

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(h) to make, have made, use or distribute (by sale, license, lease, placement or otherwise) of any variant nucleic acids or proteins made with the use of Enabling Technology (except Enzyme Products and corresponding DNA) for the discovery of ligands, agonists or antagonists of ligands to any such variant nucleic acids or proteins made with the use of Enabling Technology or the elucidation of related structure-function relationships, in each case, to facilitate discovery of pharmaceuticals, vaccines and/or Agrochemicals.

It is understood and agreed that the license granted Codexis herein shall not include any right or license to use Enabling Technology or Product Technology or related Know-How or Materials to modify any Template, Functional Compound or other compound for discovery by Codexis or any Sublicensee of novel pharmaceutical and/or Agrochemical products.

2.2.3 Acknowledgement. Codexis acknowledges and agrees that MUS shall have the right, without violating any term of this Agreement, to grant to Third Parties, including without limitation Affiliates of MUS, licenses under the Enabling Technology, to develop, make, have made, use, import, have imported, and offer for sale Products (and/or Services) for use in fields outside the Codexis Field.

2.3 Right to Sublicense. Codexis (or its successor) may grant sublicenses to the Enabling Technology, Product Technology and related Know-How to such Third Parties as it deems appropriate, but such sublicenses may only grant rights to practice in the Codexis Field; provided, Codexis may not sublicense the rights granted in Section 2.1.1(b) except in connection with a grant of a sublicense of the rights granted it in Section 2.1.1(a). Codexis (or its successor) may grant licenses to the Assigned Patents as it deems appropriate.

2.4 Continued License Rights. Upon the occurrence of the Separation Event:

(a) all licenses granted under this Agreement in effect as of the Separation Event shall remain in effect, subject to the terms and conditions of this Agreement; and

(b) Codexis shall not receive additional license rights to Patent Applications and Patents within Enabling Technology or Product Technology conceived and reduced to practice or otherwise developed after the Separation Event, except with respect to claims of Patent Applications or Patents within the Enabling Technology or Product Technology (as the case may be) for which MUS is entitled to claim filing priority based on another Patent Application or Patent within the Enabling Technology filed on or before the Separation Event. By way of illustration and without limitation, Codexis would be entitled to license rights to a divisional Patent Application (filed after the Separation Event) of a Patent Application within the Enabling Technology filed prior to the Separation Event, but would not have license rights to those claims of a continuation-in-part Patent Application (filed after the Separation Event) of a Patent Application or Patent within the Enabling Technology filed on or before the Separation Event, which claims relate to subject matter conceived and reduced to practice or otherwise developed after the Separation Event.

2.5 Grantback License to Improvements. Codexis shall grant and hereby grants to MUS a non-exclusive, irrevocable, royalty-free, worldwide license, with the right to grant and authorize sublicenses, with respect to all Codexis Improvements for use outside the Codexis Field. With respect to any and all sublicenses granted by Codexis to Enabling Technology or related Know-How on or before the third anniversary of the Separation Event, Codexis shall use reasonable efforts to retain Control of Improvements made by any such Sublicensee sufficient to convey a license as described in the preceding sentence to MUS. Any and all Codexis Improvements may be sublicensed by MUS, in MUS' sole discretion, for use outside the Codexis Field.

2.6 Prohibition on Transfer. Prior to the Separation Event, neither this Agreement nor the licenses granted to Codexis in Section 2.1 may be assigned by merger, operation of law or otherwise, without the prior express written consent of MUS, which MUS may grant or refuse to grant in its sole discretion.

2.7 Retained Rights.

2.7.1 MUS. Notwithstanding the license grants in Section 2.1, the Parties agree that:

(a) MUS and its wholly-owned Affiliates shall until the Separation Event, retain the right to conduct research with the Enabling Technology and related Know-How in the Codexis Field for the purpose of (i) improving and expanding Enabling Technology, and/or (ii) exploring applications of the Enabling Technology for areas outside the Codexis Field; provided, MUS and its wholly-owned Affiliates shall not use the Enabling Technology for the primary intended purpose of developing any Products or Services for use in the Codexis Field, on its own behalf or on behalf of any Third Party.

(b) At all times during and after this Agreement, nothing herein shall restrict, or be construed to restrict, MUS' right to practice and grant licenses to practice the Enabling Technology and Product Technology and/or use related Know-How, outside the Codexis Field. It is understood and agreed that, at all times, MUS shall retain (i) the right (sublicensable to its Affiliates) to internally use the Enabling Technology, Product Technology and related Know-How to discover, develop and commercialize novel pharmaceutical and/or agrochemical products by any means, which may include, without limitation, the development of Building Blocks, the addition of Building Blocks to Templates and/or analoging of Functional Compounds, and (ii) the sublicensable right to make and/or have made, use, import, have imported, offer for sale and/or sell any such products.

2.7.2 Codexis. Except as expressly set forth in this Agreement, nothing herein shall limit the ability of Codexis to use any other intellectual property, tangible property or technology developed by it or acquired by it (by license, acquisition or otherwise) for any purpose, in or outside the Codexis Field.

2.8 Third Party Rights. Codexis hereby acknowledges that MUS has informed Codexis prior to the Effective Date that:

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2.8.1 In connection with the initial establishment of MUS, in the Glaxo Agreement MUS has granted perpetual, worldwide, non-exclusive licenses to certain entities associated with Glaxo Wellcome to use certain Enabling Technology for internal research purposes only (the "Glaxo Rights"), and Codexis hereby agrees that the rights and licenses granted Codexis in Section 2.1 are subject to the Glaxo Rights.

2.8.2 Prior to the Effective Date, MUS has granted to Third Parties licenses to certain Enabling Technology and related Know-How in fields outside the Codexis Field, and that after the Effective Date, MUS may grant licenses under the Enabling Technology and related Know-How to other Third Parties (including, without limitation, other Affiliates of MUS) for use outside the Codexis Field.

2.8.3 Novo Nordisk has granted to MUS a co-exclusive, worldwide license to certain Patent Applications and Patents within the Enabling Technology to make, have made and use products (including, without limitation, Products) for the development and commercialization of products for the cure, treatment, mitigation and prevention of human or animal diseases.

2.8.4 MUS has granted to Novo Nordisk in the Novo Agreement exclusive rights to use Enabling Technology to make or have made Licensed Products for use in the Novo Nordisk Field and the Preferred Areas (as such terms are defined in the Novo Agreement).

2.8.5 MUS intends to use Enabling Technology itself and/or to grant to one or more other Third Parties rights to use Enabling Technology to discover novel pharmaceutical and/or Agrochemical products, and to develop, make, have made, use and commercialize such products.

2.9 Delivery. Promptly following the Effective Date, at Codexis' written request, MUS shall, to the extent that these are in MUS' possession and MUS Controls the same, deliver to Codexis (a) documents (in electronic or hard copy format) embodying Know-How, as agreed by the Parties, and (b) samples of any Materials necessary to allow Codexis to establish initial stocks of the same, provided, in each case, MUS shall have no on-going obligation to deliver further Know-How or Materials, unless otherwise agreed in writing by the Parties.

2.10 Improvements. Until the third anniversary of the Separation Event, Codexis and MUS shall each annually notify the other of any Patent Applications or Patents claiming one or more Improvements which such Party owns or Controls, and provide to the other Party copies of any of the foregoing which have not been previously provided to such other Party.

2.11 No Implied Rights. No rights, options or licenses with respect to any intellectual property owned by Maxygen or Codexis are granted or will be deemed granted under this Agreement or in connection with it, other than those rights expressly granted in this Agreement.

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2.12 U.S. Rights. Codexis acknowledges that certain of the inventions claimed in the Patent Applications and Patents within the Enabling Technology and/or the Product Technology have been made with funds provided by the U.S. Government, and that with respect thereto the U.S. government retains a non-exclusive license as set forth in 35 U.S.C. §202. At Codexis' written request, MUS will provide to Codexis a list of the Patent Applications and Patents that, to the best of MUS' then-current knowledge, claim inventions made with funds provided by the U.S. Government. In addition, Codexis acknowledges that 35 U.S.C. §200 et seq. sets forth additional obligations with regard to inventions made with U.S. government funds and products based thereon, including, without limitation, a preference for manufacture in the United States pursuant to 35 U.S.C. §204.

3. ASSIGNMENT TO CODEXIS; LICENSE TO MUS

3.1 Assignment. The Parties acknowledge that MUS has assigned to Codexis certain Patent Applications and Patents in the Assignment Agreement.

3.2 License to MUS. In partial consideration for the rights granted herein, Codexis shall grant and hereby grants, and MUS hereby accepts, a non-exclusive, irrevocable (unless in the case of Patent Applications and Patents within the scope of Section 1.4(b), prohibited by the applicable Third Party Agreement), royalty-free (subject to Section 3.3) worldwide license under the Assigned Patents, with the right to grant and authorize sublicenses to licensees of the Enabling Technology and Product Technology, to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products and Services solely outside the Codexis Field.

3.3 Third Party Agreements.

3.3.1 MUS acknowledges that certain Patent Applications and Patents within the Assigned Patents have been or may be licensed to Codexis pursuant to the Third Party Agreement(s), and that the sublicenses granted by Codexis to MUS with respect thereto are subordinate to the terms of any such Third Party agreement. MUS further acknowledges that any breach of such terms by MUS or its sublicensees may result in damage to Codexis and/or other sublicensees of the subject Assigned Patents, which may include, without limitation, loss of license rights to such Assigned Patents and/or monetary damages, and agrees to act reasonably to avoid any breach of such terms.

3.3.2 MUS further acknowledges that, with respect to Patent Applications and Patents licensed to Codexis pursuant to a Third Party agreement, the sublicense by Codexis to MUS may result in payment obligations to the Third Party for the grant and/or practice of such sublicense to MUS, and agrees that MUS shall only receive such a sublicense if it agrees in writing, in a form reasonably acceptable to Codexis, to pay any such amounts due for the grant of a sublicense to MUS or practice of such a sublicense by MUS or its sublicensees (which payments, may include milestone payments and/or royalties on product sales), and to otherwise comply with the terms of such Third Party agreement.

3.3.3 Codexis shall promptly notify MUS of the terms of any such Third Party agreement as they relate to the licenses granted hereunder to MUS.

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4. COVENANTS

4.1 Use Within the Codexis Field. Codexis covenants that it will not knowingly practice its licenses to the Enabling Technology and related Know-How, or its licenses to the Product Technology and related Know-How, for the purpose of developing or commercializing Products or Services for use outside the Codexis Field.

4.2 Use Outside the Codexis Field. MUS covenants that it will not knowingly use its retained rights with regard to the Enabling Technology or the Product Technology, or knowingly practice its license to Codexis Improvements (if any), for the purpose of developing or commercializing Products or Services for use in the Codexis Field; provided that such covenants shall be subject to Section 2.7.1 and further provided that such covenants shall terminate with regard to any Patent Applications and/or Patents for which Codexis' license terminates pursuant to Sections 9.4.1, 12.2, 12.3 and/or 12.4 below.

5. CONSIDERATION. In partial consideration for the rights granted hereunder, Codexis shall issue to MUS one million (1,000,000) shares of Common Stock and six million (6,000,000) shares of Series A Preferred Stock of Codexis pursuant to the Stock Issuance and Asset Contribution Agreement by and between MUS and Codexis of even date hereof.

6. CONFIDENTIALITY

6.1 Confidential Information. Except as expressly provided herein, the Parties agree that, for the term of this Agreement and for five (5) years thereafter, each Party shall keep completely confidential and shall not publish, permit access to or otherwise disclose and shall not use for any purpose except to practice the rights granted in Article 2 or as expressly permitted in this Article 6, any Confidential Information furnished to such Party by the disclosing Party hereto pursuant to this Agreement, except to the extent that it can be established by the receiving Party by competent proof that such Confidential Information:

(a) was already known to the receiving Party, other than under an obligation of confidentiality, at the time of initial disclosure hereunder;

(b) was generally available to the public or otherwise part of the public domain at the time of its initial disclosure to the Receiving Party hereunder;

(c) became generally available to the public or otherwise part of the public domain after its disclosure hereunder and other than through any act of commission or omission of the receiving Party in breach of this Agreement;

(d) was independently developed by the receiving Party without reference to any information or materials disclosed by or on behalf of the disclosing Party, as demonstrated by contemporaneous documentation; or

(e) was subsequently disclosed to the receiving Party by a Third Party without breach of any legal obligation to the disclosing Party.

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6.2 Permitted Disclosures. Each Party may disclose the other Party's Confidential Information, to the extent such disclosure is reasonably necessary in filing or prosecuting Patent Applications within the Enabling Technology and/or Product Technology, prosecuting or defending litigation, complying with applicable laws or regulations or otherwise submitting information to tax or other Government Authorities (including, without limitation, in filings with the U.S. Food & Drug Administration, U.S. Environmental Protection Agency, U.S. Department of Agriculture and/or similar foreign regulatory entities), conducting clinical or field trials, or making a permitted sublicense or otherwise exercising its rights hereunder; provided, after the Separation Event, Codexis may not use Confidential Information received from MUS in connection with filing or prosecuting Patent Applications without MUS' prior written consent. Each time a Party is required to disclose, or in the exercise of its rights hereunder, makes any disclosure of the other Party's Confidential Information, other than pursuant to a confidentiality agreement with confidentiality and non-disclosure obligations at least as restrictive as those set forth in this Agreement, such Party will give reasonable advance notice to such other Party of such contemplated disclosure and, save to the extent inappropriate in the case of Patent Applications, will use reasonable efforts to secure confidential treatment of such information of the other Party prior to each such disclosure (whether through protective orders or otherwise).

6.3 Duty of Care. Each Party agrees (a) to keep in confidence and trust all of the other Party's Confidential Information received by it, (b) not to use Confidential Information of the other Party other than as expressly permitted under the terms of this Agreement or any other agreement between the Parties, (c) to take reasonable steps to prevent unauthorized disclosure or use of the other Party's Confidential Information, and to prevent it from falling into the public domain or the possession of unauthorized persons, and (d) to disclose the Confidential Information only to those persons who need access to the Confidential Information for purposes of the Party carrying out its business as contemplated herein and, except as permitted under Section 6.4, only to those persons who have executed a confidentiality agreement with confidentiality and non-disclosure obligations at least as restrictive as those set forth in this Agreement that protects the other Party's Confidential Information.

6.4 Terms. Except as expressly provided in this Agreement, each Party agrees not to disclose any terms of this Agreement to any Third Party without the written consent of the other Party; provided, disclosures may be made to: (i) its wholly-owned Affiliates; (ii) professional advisors, potential or actual, licensees or sublicensees, acquirors, acquirees or business partners, in each case, so long as they are bound by obligations requiring reasonable precautions be taken to protect the confidentiality and prevent misuse of such information; and/or (iii) the extent required to comply with applicable laws and regulations.

7. REPRESENTATIONS AND WARRANTIES

7.1 MUS. MUS represents and warrants, as of the Effective Date, that:

7.1.1 it has the right to enter this Agreement, has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder, and that the execution, delivery, and performance by MUS of this Agreement, except as otherwise disclosed to Codexis in writing prior to the Effective Date, will not conflict with or result in any

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breach of, or constitute a default under, any security agreement, commitment, contract, or other agreement, instrument or undertaking to which MUS is a party;

7.1.2 MUS owns or Controls the Enabling Technology and the Product Technology;

7.1.3 to the best of its knowledge, except as previously disclosed to Codexis in writing prior to the Effective Date, it has not received a claim from a Third Party alleging that the practice of the Enabling Technology or the Product Technology in the Codexis Field would infringe any patent, copyright, or other intellectual property right of a Third Party; and

7.1.4 it will not during the term of this Agreement violate the covenant in Section 4.2.

7.2 Codexis. Codexis represents and warrants, that:

7.2.1 as of the Effective Date, that it has the right to enter this Agreement, has the power and authority to execute and deliver this Agreement and to perform its obligations hereunder, and that the execution, delivery, and performance by Codexis of this Agreement will not conflict with or result in any breach of, or constitute a default under, any security agreement, commitment, contract, or other agreement, instrument or undertaking to which Codexis is a party; and

7.2.2 it will not during the term of this Agreement violate the covenant in Section 4.1.

7.3 Disclaimers. Nothing in this Agreement shall be construed as:

(a) a representation or warranty of either Party as to the validity or scope or enforceability of any Patent Application or Patent licensed under this Agreement;

(b) a representation or warranty of either Party that any Product or Service developed, made, used, sold or marketed or otherwise commercially exploited under any license granted in this Agreement is or will be free from infringement of Patents of Third Parties;

(c) a requirement that either Party file any Patent Application, secure any Patent, or maintain any Patent in force; or

(d) an obligation to bring or prosecute any actions or suits against Third Parties for patent infringement of any Patent licensed under this Agreement.

7.4 No Warranty. Except as expressly provided in this Article 7, THE ENABLING TECHNOLOGY, PRODUCT TECHNOLOGY, KNOW-HOW AND MATERIALS ARE LICENSED TO CODEXIS "AS IS". EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS ARTICLE 7, MUS SPECIFICALLY DISCLAIMS ALL

WARRANTIES, STATUTORY, EXPRESS OR IMPLIED, OR ARISING FROM A COURSE OF DEALING OR USAGE OF TRADE, WITH REGARD TO THE ENABLING TECHNOLOGY, KNOW-HOW, MATERIALS, IMPROVEMENTS, PRODUCTS AND/OR THE PRODUCT TECHNOLOGY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OF ANY INTELLECTUAL PROPERTY RIGHTS OF A THIRD PARTY.

7.5 Limitation of Liability. NEITHER PARTY SHALL BE LIABLE FOR ANY LOST REVENUES OR PROFITS OF ANY PERSON OR ENTITY OR ANY OTHER INCIDENTAL, SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

8. RIGHT OF NEGOTIATION

8.1 Right of Negotiation. Codexis hereby grants to MUS until the Separation Event a first right of negotiation with regard to any Enzyme Libraries and/or Products developed by Codexis or its Sublicensees as a result of the use or practice of the Enabling Technology and/or related Know-How that have application(s) outside the Codexis Field. Until the Separation Event, Codexis shall notify MUS of such Enzyme Libraries and/or Products prior to their respective first commercial use or sale and, at the request of MUS, the Parties will negotiate in good faith the terms of a license to MUS (or an entity that is then a MUS Affiliate) for the development and commercialization of such Enzyme Library or Product outside the Codexis Field.

8.2 No Agreement. Notwithstanding Section 8.1, if the Parties are unable to reach agreement on the terms of a license within one hundred twenty (120) days of the commencement of such negotiations for the applicable Enzyme Library or Product, Codexis shall have no obligation to grant to MUS or any MUS Affiliate a license with regard to such Enzyme Library or Product.

9. PATENT PROSECUTION

9.1 Enabling Technology.

9.1.1 Intent. The Parties recognize that it is their shared goal to obtain the broadest patent coverage available with regard to the Enabling Technology, consistent with the goal of obtaining patents that are valid and enforceable as against Third Parties. The Parties recognize the value and importance of coordinating the Patent Prosecution (as defined in Section 9.1.2) of Patent Applications and Patents within the Enabling Technology and of MUS' knowledge, prior experience and expertise with the Patent Prosecution of the Enabling Technology. Codexis acknowledges that there will be multiple licensees of the Enabling Technology and that MUS has the responsibility to determine how to best conduct Patent Prosecution of the Patents within the Enabling Technology for the benefit of all licensees, including Third Parties other than Codexis, and Codexis further acknowledges that such responsibility may affect MUS' determination whether to undertake a particular act or elect not

to undertake any particular action in connection with the Patent Prosecution of a particular Patent Application and/or Patent within the Enabling Technology in any particular instance.

9.1.2 Rights. MUS (or its designee) shall have the right, but not the obligation, to prepare, file and prosecute patent applications within the Enabling Technology and to conduct any interferences, oppositions, re-examinations, reissues or similar proceedings, with respect thereto, and to maintain any patents resulting from the foregoing activities ("Patent Prosecution"). MUS shall keep Codexis reasonably informed with respect to such Patent Prosecution activities, and Codexis may consult with MUS and provide advice to MUS regarding such Patent Prosecution activities, but MUS shall have the right to take such acts in connection therewith as MUS, in its sole discretion, deems appropriate.

9.1.3 Sharing of Prosecution Costs. In partial consideration for the grant of the licenses granted in Section 2.1, Codexis shall pay to MUS amounts for Prosecution Costs incurred after the Effective Date in connection with the activities described in Section 9.1.2 as set forth on **Exhibit E** hereto.

9.1.4 Opt Out by MUS. If MUS does not wish to conduct Patent Prosecution with regard to any Patent Application or Patent within the Enabling Technology in a particular country, and believes that the conduct of such activities will not have a material adverse effect on other patent applications and/or patents within the Enabling Technology, and no Third Party has the right to prosecute the applicable Patent Application or Patent, MUS shall notify Codexis (and any other licensees of such Patent Application or Patent) that Codexis (together with any other interested licensees thereof) may conduct such Patent Prosecution, in MUS' name. Within thirty (30) days after the date of such notice, Codexis shall notify MUS whether or not Codexis wishes to participate in the conduct of such Patent Prosecution activities in the applicable country(ies) with regard to the applicable Patent Application or Patent. In such event, (i) the prosecuting entity(ies) (i.e., Codexis and any other interested licensees of the Enabling Technology) shall keep MUS fully informed of all actions and decisions made in connection with such Patent Prosecution (including, without limitation, by promptly providing MUS with copies of all correspondence sent to or received from any patent office), (ii) MUS shall have the right to consult and provide advice with respect to such Patent Prosecution activities, and (iii) Codexis and such other prosecuting entities shall be solely responsible for paying the Prosecution Costs for such activities. It is understood and agreed that if MUS believes that the Patent Prosecution of a particular patent application or patent could have a material adverse effect on other patent applications or patents within the Enabling Technology (e.g., due to issues relating to double patenting) that MUS shall have the right to decline to allow Codexis and Third Parties to conduct Patent Prosecution with respect to the subject Patent Application or Patent.

9.1.5 Opt Out By Codexis

(a) In the event that Codexis does not wish to retain its license rights under this Agreement to any Patent Application or Patent within the Enabling Technology or Product Technology in any country, it shall have the right to terminate its license to such Patent Application and/or Patent with one hundred and twenty (120) days prior written notice to MUS identifying the specific Patent Application(s) and/or Patent(s) (by country or, as

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applicable, multinational jurisdiction) to which it wishes to relinquish its license. In any such event, as of the effective date of such termination, Codexis' license to the applicable Patent Applications and Patents shall terminate, shall not be entitled to further consultation and/or information rights as described in Sections 9.1.2 and 9.1.6, with regard to such Patent Applications and/or Patents, and Codexis shall have no obligation to pay Prosecution Costs incurred after the effective date of termination with respect to the applicable Patent Application and/or Patent. Codexis shall remain obligated to pay its share of any Patent Prosecution expenses incurred prior to the applicable effective date of termination.

(b) If MUS wishes to continue to conduct Patent Prosecution with respect to any Patent Application or Patent to which Codexis has relinquished its rights pursuant to Section 9.1.5(a), MUS may do so, at its own expense and in its own name. In any such case, Codexis shall provide MUS with a power of attorney to the extent necessary to conduct such activities.

9.1.6 Information. If Codexis conducts or otherwise participates in any Patent Prosecution activities pursuant to Section 9.1.4, Codexis shall keep MUS fully informed as to the status of such patent matters, including, without limitation, by providing MUS a reasonable opportunity to review and comment on any documents relating to the applicable Patent Application or Patent which will be filed in any patent office before such filing, and promptly providing to MUS copies of any material documents relating to applicable Patent Applications or Patents which are received from such patent offices, including notice, without limitation, of all interferences, reissues, reexaminations, oppositions or requests for patent term extensions.

9.2 Product Technology.

9.2.1 Rights. Codexis shall have the initial right, but not the obligation, to conduct Patent Prosecution of Patent Applications and Patents within the Product Technology exclusively licensed to it, unless such Patent Applications and Patents claim methods and/or compositions that have substantial, commercially valuable applications outside the Codexis Field, in which case, MUS shall have the initial right but not the obligation to conduct Patent Prosecution of such Patent Applications and Patents.

9.2.2 Sharing of Prosecution Costs. Codexis shall be responsible for all Prosecution Costs in connection with Patent Prosecution activities described in Section 9.2.1 conducted by or under authority of Codexis. If MUS conducts the Patent Prosecution activities described in Section 9.2.1 with regard to any Patent Applications and Patents that are Product Technology, Codexis shall pay to MUS fifty percent (50%) of the Prosecution Costs incurred by MUS after the Effective Date in connection with such activities. Such amounts will be paid to MUS (or its designee) within forty-five (45) days of an invoice therefore.

9.2.3 Opt Out

(a) By MUS. If MUS has the right to conduct Patent Prosecution with regard to any Patent Application or Patent in any particular country or, if applicable, multinational jurisdiction, pursuant to this Section 9.2, but does not wish to conduct

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such activities with regard to any Patent Application or Patent within such country or multinational jurisdiction, as the case may be, it shall notify Codexis (and any other licensees of such Patent Application or Patent), and subject to any Third Party right to prosecute the applicable Patent Application or Patent that was granted prior to the Effective Date, Codexis (and the other licensees) may thereafter notify MUS that such entities wish to conduct such Patent Prosecution activities in the applicable country(ies) with regard to the applicable Patent Application or Patent in MUS' name. In such event, (i) the prosecuting entity(ies) shall keep MUS fully informed of all actions and decisions made in connection with such Patent Prosecution (including, without limitation, by promptly providing MUS with copies of all correspondence sent to or received from any patent office), (ii) MUS shall have the right to consult and provide advice with respect to such Patent Prosecution activities, and Codexis and such Third Parties shall be solely responsible for paying the Prosecution Costs thereof.

(b) By Codexis. If Codexis has the right to conduct Patent Prosecution with regard to any Patent Application or Patent in any particular country or, if applicable, multinational jurisdiction, pursuant to this Section 9.2, but does not wish to conduct such activities with regard to any Patent Application or Patent within such country or multinational jurisdiction, as the case may be, it shall notify MUS (and any other licensees of such Patent Application or Patent), and subject to any Third Party right to prosecute the applicable Patent Application or Patent that was granted prior to the Effective Date, MUS (and the other licensees) may thereafter notify Codexis that such entities wish to conduct such Patent Prosecution activities in the applicable country(ies) with regard to the applicable Patent Application or Patent, and MUS and such Third Parties shall be solely responsible for paying the Prosecution Costs thereof. In such event, Codexis shall have no further license rights under this Agreement with regard to the applicable Patent Applications and/or Patents, shall not be entitled to further consultation and/or information rights as described in Section 9.2.4, with regard to such Patent Applications and/or Patents, and shall have no obligation to pay Prosecution Costs incurred after the effective date of termination with respect to the applicable Patent Application and/or Patent. Codexis shall remain obligated to pay its share of any Patent Prosecution expenses incurred prior to the applicable effective date of termination.

9.2.4 Information. The Party conducting Patent Prosecution activities pursuant to this Section 9.2 shall keep the other Party fully informed as to the status of such patent matters, including, without limitation, by providing the other Party a reasonable opportunity, to review and comment on any documents relating to the applicable Patent Application or Patent which will be filed in any patent office before such filing, and promptly providing the other Party copies of any material documents relating to applicable Patent Applications or Patents which the Party conducting such activities receives from such patent offices, including notice, without limitation, of all interferences, reissues, reexaminations, oppositions or requests for patent term extensions.

9.3 Payments: Interest. All payments due to MUS under this Article 9 shall be paid in U.S. dollars by wire transfer in immediately available funds to a bank account designated by MUS. Any payment or portion thereof that is not paid on the date such payments are due under this Agreement shall bear interest at the lesser of (i) the prime rate as reported by the J.P. Morgan Chase & Co., New York, New York (or its successor) on the date such payment is due, plus an additional two percent (2%), or (ii) the maximum rate permitted by law, in each

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case, per annum calculated from the first date such payment is delinquent to the date such payment is actually made. This Section 9.3 shall in no way limit any other remedies available for late payment.

9.4 Jointly Owned Patent Applications and Patents

9.4.1 Joint Activities. If any invention is jointly owned by the Parties (each a "Joint Invention"), the Parties will (except as the Parties may otherwise agree in writing) cooperate to file, prosecute and maintain Patent Applications covering invention(s) jointly owned by the Parties in the United States, the United Kingdom, France and Germany (e.g., through a European Patent Convention application) and Japan (collectively, the "Core Countries") and other countries or multinational jurisdictions agreed upon in writing by the Parties. The Parties shall agree which Party shall be responsible for conducting such activities with respect to a particular Joint Invention. The Party conducting such activities shall keep the other Party fully informed as to the status of such patent matters, including, without limitation, by providing the other Party a reasonable opportunity, to review and comment on any documents relating to the Joint Invention which will be filed in any patent office before such filing, and promptly providing the other Party copies of any material documents relating to Joint Invention which the Party conducting such activities receives from such patent offices, including notice, without limitation, of all interferences, reissues, reexaminations, oppositions or requests for patent term extensions. Subject to Sections 9.4.2, the Parties will share equally all expenses and fees associated with the filing, prosecution, issuance and maintenance of any Patent Application and resulting Patent for a Joint Invention in the Core Countries and other agreed countries or multinational jurisdictions.

9.4.2 Opt Out. In the event that either Party wishes to seek Patent protection with respect to any Joint Invention outside the Core Countries, it shall notify the other Party hereto. If both Parties wish to seek Patent protection with respect to such Joint Invention in such country or countries, activities shall be subject to Section 9.4.1. If only one Party wishes to seek Patent protection with respect to such Joint Invention in such country or countries, it may conduct Patent Prosecution activities with respect to such Patent Applications and Patents, at its own expense and in its own name. In any such case, the Party declining to participate in such Patent Prosecution activities shall provide the Party that is conducting such activities with a power of attorney to the extent necessary to conduct such activities.

9.5 Improvements. With regard to any Patent Application claiming one or more Improvements, the owner(s) of such Patent Application (or its designee) shall have the exclusive right, but not the obligation, to conduct Patent Prosecution of Patent Applications and Patents, as such owner(s) deem appropriate, at its (their) sole expense, unless such Patent Application claims a Joint Invention, in which event it shall be subject to Section 9.4.

9.6 Separation Event. Within sixty (60) days following the Separation Event, MUS shall provide to Codexis with a written list of all Patent Applications and Patents within the Enabling Technology as of the Separation Event, and Codexis shall provide to MUS a written list of all Patent Applications and Patents within the Codexis Improvements as of the Separation Event. Within thirty (30) days following each of the first three (3) annual

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anniversaries of the Separation Event, Codexis shall update its written list of Patent Applications and Patents within the Codexis Improvements.

9.7 Common Interest. MUS and Codexis acknowledge that in the course of conducting the activities described in Articles 9 and 10 of this Agreement, the Parties may discuss information related to Patent Applications and Patents and other intellectual property rights of the Parties and their Affiliates and/or of Third Parties, and/or conduct by Third Parties that may constitute infringement of one or more of the patents licensed under this Agreement, and the Parties may wish to review documents and information of the other Party that is protected by the attorney-client privilege and/or the attorney work-product doctrine, and agree that disclosure of such documents and information, in confidence, will further the mutual interests of the Parties. Accordingly, the Parties agree that a community of interest exists between MUS and Codexis as to these matters and therefore the disclosure of privileged information in the conduct of activities pursuant to Articles 9 and 10 of this Agreement shall not constitute a waiver of any such privilege. Each Party will treat all such information received from the other Party under this Agreement that is marked, by the Party to which the privilege runs, as “Confidential” or “Privileged” or “Attorney Work Product,” or in a similar manner to reasonably indicate its protected and confidential nature, and will take precautions to preserve the confidentiality and privilege of said information as if it were its own privileged information or attorney work product.

10. PATENT ENFORCEMENT ACTIONS

10.1 Infringement. If Codexis becomes aware of any actual or potential infringement of any Enabling Technology or Product Technology, or if MUS becomes aware of any actual or potential infringement of any Enabling Technology or Product Technology in the Codexis Field or any declaratory judgment action or similar proceeding with respect to any Patent within the Enabling Technology or Product Technology, then such Party shall promptly notify the other Party in writing of such actual or potential infringement or proceeding, providing an explanation of the basis of its conclusion.

10.2 Enabling Technology.

10.2.1 Intent. The Parties recognize that it is their shared goal to maintain the broadest patent coverage available with regard to the Enabling Technology, consistent with the goal of obtaining patents that are valid and enforceable as against Third Parties. The Parties recognize the value and importance of coordinating the enforcement of Patent Applications and Patents within the Enabling Technology and of MUS’ knowledge, prior experience and expertise with the Patent Prosecution and enforcement of Patent Rights. Codexis hereby acknowledges that there will be multiple licensees of the Enabling Technology and that MUS has the responsibility to determine how to best enforce and defend the Patents within the Enabling Technology for the benefit of all licensees, including Third Parties other than Codexis, and Codexis further acknowledges that such responsibility may affect MUS’ determination whether to enforce particular Patent Applications and Patents within the Enabling Technology in any particular instance.

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10.2.2 MUS. As between MUS and Codexis, MUS shall have the initial right, but not the obligation, to enforce and/or defend in any declaratory judgment or similar action, the Patents within Enabling Technology both in and outside of the Codexis Field, except as provided in Section 10.4. Codexis acknowledges that (i) certain patents within the Enabling Technology are and will be owned by Third Parties and, that in some cases, such Third Parties may have retained or may retain the first right, or the sole right to enforce such patents, and (ii) prior to the Effective Date, MUS has granted to Third Parties rights to conduct or participate in the enforcement and/or defense of Patent Applications and/or Patents within the Enabling Technology owned by MUS. In connection with any action brought or defended by MUS pursuant to this Section 10.2.2, MUS shall be responsible for its costs incurred in connection with such actions or proceedings and may retain any recovery obtained in connection therewith.

10.2.3 Codexis. If MUS elects not to pursue an infringement by any Third Party with respect to a patent within the Enabling Technology, and Codexis believes that such infringement would have a material adverse impact on Codexis' exercise of its rights or practice of its license in the Codexis Field, Codexis may, with notice to MUS, request the right to enforce specific patents within the Enabling Technology against such infringement. Any such request shall contain a detailed factual explanation of (i) the specific patent(s) it believes are/have been infringed, (ii) the basis for its belief that infringement has occurred, and (iii) the material adverse impact(s) that it believes such infringement will/has caused Codexis. MUS shall have one hundred and eighty (180) days from its receipt of the foregoing explanation (and such other information as MUS may reasonably request) to notify Codexis whether it intends to commence an enforcement action against such Third Party. Codexis shall have the right (subject to the consent of owner of the applicable patents if these are not owned by MUS, and subject to any rights granted to a Third Party prior to the Effective Date) to enforce the relevant patents within the Enabling Technology against the Third Party identified by Codexis in the Codexis Field, unless within such one hundred and eighty (180) day period, (A) MUS initiates and diligently pursues steps to abate the alleged such infringement, or (B) MUS notifies Codexis that MUS believes that such enforcement may have a material adverse impact on MUS or one or more other licensees of the Enabling Technology, or (C) MUS notifies Codexis that it disagrees with Codexis' factual conclusions provided in its notice described above, in which event the matter shall be submitted to a neutral expert for prompt determination, with the expenses of such neutral assessment being shared equally by MUS and Codexis. In the event that Codexis enforces the applicable patent, MUS agrees to cooperate in connection with such action, including by joinder as a party, if required by applicable law. If Codexis enforces the applicable patent, then Codexis shall pay all costs of conducting any such action, and any recovery shall be allocated as agreed by the Parties.

10.3 Product Technology.

10.3.1 Infringement in the Codexis Field.

(a) So long as it retains an exclusive license to the applicable Patent within the Product Technology and such Patent has applications only in the Codexis Field, Codexis shall have the first right but not the obligation to enforce Patents within the Product Technology against any infringements by Third Parties in the Codexis Field and

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defend any declaratory judgment action. If Codexis fails to initiate a suit to enforce such patent in any jurisdiction against a commercially significant infringement in the Codexis Field within one (1) year of a request by MUS to do so, MUS may initiate suit against such infringement, at its expense. In such event, Codexis agrees to join in such action, if required by applicable law.

(b) If Codexis does not have an exclusive license to the applicable Patent, and/or if such Patent claims inventions having one or more applications outside the Codexis Field, then MUS shall have the first right, but not the obligation, to enforce patents within the Product Technology against any infringements by Third Parties in the Codexis Field and defend any declaratory judgment action with respect thereto. If MUS fails to initiate a suit to enforce such patent in any jurisdiction against a commercially significant infringement in the MUS Field within one (1) year of a request by Codexis to do so, Codexis may initiate suit against such infringement, at its expense. In such event, MUS agrees to join in such action, if required by applicable law.

(c) Notwithstanding Section 10.3.1(b), Codexis acknowledges that (i) certain patents within the Product Technology are and will be owned by Third Parties and, that in some cases, such Third Parties may have retained or may retain the first right, or the sole right to enforce such patents, and (ii) prior to the Effective Date, MUS has granted to Third Parties rights to conduct or participate in the enforcement and/or defense of Patent Applications and/or Patents within the Product Technology owned by MUS.

10.3.2 Infringement Outside the Codexis Field. MUS (or its designee) shall have the right but not the obligation to pursue infringement of Patents within the Product Technology outside the Codexis Field, but shall consult with Codexis before commencing any such suit.

10.3.3 Recoveries. Any recovery by such Party received as a result of any such claim, suit or proceeding brought pursuant to this Section 10.3 shall be used first to reimburse the Party(ies) for all expenses (including attorneys and professional fees) incurred in connection with such claim, suit or proceeding. The remainder shall be divided as follows: (a) in any suit relating primarily to infringement in the Codexis Field, seventy percent (70%) to the Party initiating the suit, and thirty percent (30%) to the other Party, and (b) in any suit primarily relating to infringement outside the Codexis Field, as may be agreed by the Parties in writing.

10.4 Jointly Owned Technology. In the event that any patent that is jointly owned by MUS and Codexis is infringed by a Third Party, Codexis and MUS shall discuss whether, and, if so, how, to enforce or defend such jointly owned Patent in an infringement action, declaratory judgment or other proceeding. In the event only one Party wishes to participate in such proceeding, it shall have the right to proceed alone, at its expense, and may retain any recovery.

10.5 Improvements. The owner of any Patent claiming an Improvement (or its designee) shall have the exclusive right, but not the obligation, to defend and enforce such Patent, at its expense, except as the Parties may otherwise agree in writing.

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10.6 General.

10.6.1 Cooperation. In connection with any such claim, suit or proceeding subject to Sections 10.2, 10.3 and/or 10.4, the Parties shall cooperate with each other and shall keep each other reasonably informed of all material developments in connection with any such claim, suit or proceeding. At the request and expense of the Party initiating any such claim, suit or proceeding, the other Party agrees to cooperate and join in any such claim, suit or proceeding in the event that under applicable law the other Party is necessary or indispensable to such proceedings or such joinder of such Party is otherwise required by applicable law; provided, however, MUS shall not be obligated to participate as a party or otherwise in any proceeding in which MUS would be in an adversarial relationship with any Maxygen Affiliate or another entity which is a licensee of the Enabling Technology.

10.6.2 Settlements; Admissions. Neither Party shall enter into any settlement agreement with any Third Party that would conflict with rights granted to the other Party under this Agreement without the prior written consent of such affected Party, which consent shall not be unreasonably withheld. Neither Party shall enter into any agreement that makes any admission regarding (i) wrongdoing on the part of the other Party, or (ii) the validity/invalidity, enforceability/unenforceability or infringement/absence of infringement of any Patents licensed hereunder, without the prior written consent of the other Party, which consent shall not be unreasonably withheld.

10.7 Infringement Claims.

10.7.1 Notice; Cooperation. If any claim, suit or proceeding is commenced alleging patent infringement against MUS or Codexis due to the manufacture, use, sale, offer for sale or importation of a Product or provision of a Service, such Party shall promptly notify the other Party hereto. The Parties shall cooperate reasonably with each other in connection with any such claim, suit or proceeding and shall keep each other reasonably informed of all material developments in connection with any such claim, suit or proceeding.

10.7.2 MUS Responsibility. If such claim, suit or proceeding subject to this Section 10.7 is based solely on an allegation that the practice of the Enabling Technology infringed a patent owned by a Third Party, then MUS shall have the right and responsibility to conduct the defense of such action, and shall pay the costs of defense of any such action, unless Codexis knew or should have known (through the conduct of reasonable patent and/or literature searches and/or other customary inquiries) of the existence of the enforced Third Party patent prior to the conduct of the allegedly infringing acts.

10.7.3 Codexis Responsibility. If any claim, suit or proceeding subject to this Section 10.7 is not based solely on an allegation that the practice of the Enabling Technology infringed a patent owned by a Third Party, then Codexis shall have the right and responsibility to conduct the defense of such action, and shall pay the costs of defense of any such action.

11. INDEMNIFICATION

11.1 Indemnification by Codexis.

11.1.1 Indemnity Obligation. Codexis agrees to indemnify and hold harmless MUS, and its Affiliates (and with respect to Enabling Technology licensed to MUS by a Third Party, such Third Party) and their respective officers, directors, employees and agents (each a "MUS Indemnitee") from and against all actions, claims, losses, liabilities, costs and expenses (including, without limitation, reasonable attorneys' and expert fees and costs of litigation) and/or judgments finally awarded and/or entered by a court of competent jurisdiction and/or any amounts paid in settlement that any MUS Indemnitee may suffer as a result of any Third Party claims, demands, actions or other proceedings arising out of or in connection with: (i) any practice by Codexis or its Sublicensees of the licenses and rights granted herein to Codexis to the Enabling Technology, Product Technology, Know-How and/or Materials, except as expressly set forth in Section 10.7.2; and/or (ii) any breach of Codexis' representations and warranties in Section 7.2; and/or (iii) any acts (whether of omission or commission) by Codexis and/or its Sublicensees, relating to the development, manufacture, importation, use, offer for sale, sale and/or other commercial exploitation of any products or services (including, without limitation, Products or Services), including, without limitation, product liability and environmental claims, except, in each case, to the extent due to the negligence or willful misconduct of MUS.

11.1.2 Procedure. If MUS intends to claim indemnification under Section 11.1.1, MUS shall promptly notify Codexis in writing of any claim in respect of any MUS Indemnitee for indemnification, and, except as otherwise expressly provided in this Agreement, Codexis shall have control of the defense and/or settlement thereof using counsel reasonably acceptable to MUS. However, if MUS believes that due to potential conflicts of interest between MUS and Codexis representation of MUS by Codexis' counsel would be inappropriate (e.g., due to issues relating to the field or scope of the rights licensed to Codexis in this Agreement, and rights licensed to another entity), MUS may select separate counsel and Codexis shall be responsible for the costs of such representation of MUS. Under all other circumstances, MUS may, in its sole discretion, participate in any such proceeding with separate counsel of its choice, at its own expense. The foregoing indemnity obligation shall not apply to amounts paid by MUS in settlement of any claim if such settlement is effected by MUS without the consent of Codexis, which consent shall not be withheld unreasonably. At Codexis' request and expense, MUS and its employees and agents shall provide reasonable cooperation to Codexis and its legal representatives in the investigation of and preparation for the defense against any action, claim or liability covered by this indemnification. The Indemnitee shall not enter into any settlement or consent to an adverse judgment in any such claim, demand, action or other proceeding that admits wrongdoing on the part of the other Party or its officers, directors, employees and agents, or which imposes additional obligations on the other Party, without the prior express written consent of the other Party, which consent shall not be unreasonably withheld or delayed.

11.2 Indemnification by MUS.

11.2.1 Indemnity Obligation. MUS agrees to indemnify and hold harmless Codexis, and its Affiliates and their respective officers, directors, employees and agents (each a "Codexis Indemnitee") from and against all actions, claims, losses, liabilities, costs and

expenses (including, without limitation, reasonable attorneys' and expert fees and costs of litigation) and/or judgments finally awarded and/or entered by a court of competent jurisdiction and/or any amounts paid in settlement that any Codexis Indemnitee may suffer as a result of any Third Party claims, demands, actions or other proceedings arising out of or in connection with: (i) any practice by Codexis or its licensees of the licenses and rights granted herein to Codexis with regard to the Enabling Technology, to the extent set forth in Section 10.7.2; and/or (ii) any breach of MUS' representations and warranties in Section 7.1, and/or (iii) any practice by MUS of the licenses and rights granted MUS to the Codexis Improvements and Assigned Patents, except, in each case, to the extent due to the negligence or willful misconduct of Codexis.

11.2.2 Procedure. If Codexis intends to claim indemnification under Section 11.2.1, Codexis shall promptly notify MUS in writing of any claim in respect of any Codexis Indemnitee claim for such indemnification, and, except as otherwise expressly provided in this Agreement, MUS shall have control of the defense and/or settlement thereof using counsel reasonably acceptable to Codexis. Under all other circumstances, Codexis may, in its sole discretion, participate in any such proceeding with separate counsel of its choice, at its own expense. The foregoing indemnity obligation shall not apply to amounts paid by Codexis in settlement of any claim if such settlement is effected by Codexis without the consent of MUS, which consent shall not be withheld unreasonably. At MUS' request and expense, Codexis and its employees and agents shall provide reasonable cooperation to MUS and its legal representatives in the investigation of and preparation for the defense against any action, claim or liability covered by this indemnification. The Indemnitor shall not enter into any settlement or consent to an adverse judgment in any such claim, demand, action or other proceeding that admits wrongdoing on the part of the other Party or its officers, directors, employees and agents, or which imposes additional obligations on the other Party, without the prior express written consent of the other Party, which consent shall not be unreasonably withheld or delayed.

12. TERMINATION

12.1 Term. This Agreement shall be effective as of the Effective Date and, unless terminated earlier as provided in this Article 12 or as otherwise agreed by the Parties in writing, shall remain in force and effect until the expiration of the last to expire patent within the Enabling Technology and/or the Product Technology. Thereafter, Codexis shall retain a non-exclusive, royalty-free license to the Know-How and Materials transferred by MUS to Codexis for fifty (50) years following the termination or expiration of this Agreement.

12.2 Termination on Business Cessation. Prior to the Separation Event, (i) in the event of a dissolution or liquidation of Codexis, (ii) upon the institution by Codexis of insolvency, receivership or bankruptcy proceedings or any other proceedings for the settlement of debts, (iii) upon the institution of such proceedings against Codexis, which are not dismissed without prejudice or otherwise resolved in Codexis' favor within sixty (60) days thereafter, (upon Codexis' making a general assignment for the benefit of its creditors, or (iv) in the event that a substantial portion of Codexis' assets or the conduct of Codexis' business shall be substantially encumbered by extraordinary governmental action or by operation of law, MUS may in any of the foregoing circumstances, at its option and in its sole discretion, terminate this Agreement, effective immediately upon giving written notice of termination to Codexis.

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

12.3 Termination for Failure to Pay Patent Prosecution Expenses If Codexis fails to timely pay amounts due with respect to Patent Prosecution of any particular Patent Application or Patent owned by MUS more than three times in any three (3) year period, MUS shall have the right with one hundred and eighty (180) days notice to Codexis, to terminate Codexis' license to such Patent Application or Patent (the "Subject Patent Application or Patent") and all other Patent Applications and Patents licensed to Codexis hereunder in the same Patent family (i.e., that claim filing priority to the same Patent Application(s) or Patent(s) as the Subject Patent Application or Patent).

12.4 Breach of a Third Party Agreement. If Codexis breaches the terms of any Third Party agreement pursuant to which it has license or sublicense rights hereunder, whether by failure to timely pay amounts due under such agreement or otherwise, and after notice from the licensor or MUS of such breach fails to cure such breach within the period for cure provided in the applicable agreement, then MUS shall have the right with thirty (30) days notice to Codexis, to terminate Codexis' license or sublicense, as the case may be, granted hereunder to all Patent Applications and Patents, Know-How and/or Materials covered by such agreement.

12.5 Effect of Termination.

12.5.1 Rights and Obligations. Termination of this Agreement for any reason shall not release any Party hereto from any liability that, at the time of such termination, has already accrued or that is attributable to a period prior to such termination nor preclude either Party from pursuing all rights and remedies it may have hereunder or at law or in equity with respect to any breach of this Agreement.

12.5.2 Licenses. In the event of any termination of this Agreement pursuant to Section 12.2, Codexis' license(s) shall terminate concurrently.

12.6 Survival. The provisions of Sections 2.5, 2.6, 2.7, 2.11, 3.1, 3.2, 3.3, 7.5, 9.4, 10.7, 12.5 and 12.6, and Articles 4, 6, 11, 13 and 14 shall survive the expiration or termination of this Agreement for any reason.

13. DISPUTE RESOLUTION

13.1 Mediation. If a dispute arises out of or relates to this Agreement, or the breach thereof, and if the dispute cannot be settled through negotiation, the Parties agree first to try in good faith to settle the dispute by mediation before resorting legal action.

13.2 Jurisdiction; Venue. All disputes arising out of this Agreement (except any dispute relating to the infringement, validity or enforceability of any patent subject to this Agreement) shall be subject to the exclusive jurisdiction and venue of the California state courts of San Mateo County (or, if there is federal jurisdiction, the United States District Court for the Northern District of California), and the Parties hereby irrevocably consent to the personal jurisdiction of and venue in such courts.

13.3 Legal Expenses. The prevailing Party (if any is determined by the finder of fact) in any legal action brought by one Party against the other shall be entitled, in

addition to any other rights and remedies it may have, to reimbursement for its expenses incurred thereby, including court costs and reasonable attorneys' and expert fees and expenses.

14. MISCELLANEOUS

14.1 Governing Law. This Agreement (and any dispute relating to its construction, performance and/or breach) shall be governed by the laws of the State of California, without reference to conflicts of laws principles of that State or of any other jurisdiction.

14.2 Notices. Any notice provided under this Agreement by one Party to the other Party shall be in writing and shall be deemed to have been effectively given (i) upon receipt when delivered personally, (ii) one day after sending when sent by internationally recognized express mail service (such as Federal Express or DHL), or (iii) five (5) days after sending when sent by regular mail, and in each case sent to the other Party at its address indicated below:

In the case of MUS:

Maxygen, Inc.
515 Galveston Drive
Redwood City, CA 94063
Attn: General Counsel

In the case of Codexis:

Codexis, Inc.
515 Galveston Drive
Redwood City, CA 94063
Attn: President

or to such other address as MUS or Codexis shall have last designated to the other by written notice in accordance with this Section 14.2.

14.3 Independent Contractors. This Agreement does not create or imply a principal agent, employer, employee, partnership, joint venture, or any other relationship except that of independent contractors between the Parties, and neither Party shall have any right, power or authority to create any obligation, express or implied, on behalf of the other in connection with the performance hereunder.

14.4 Non-Waiver. The failure or delay of either Party at any time to require performance by the other Party of any provision hereof shall not affect in any way, or act as a waiver of, the right to require such other Party to perform in accordance with this Agreement at any other time, nor shall the waiver of either Party of a breach of a provision of this Agreement be held or taken to be a waiver of the provision itself or any previous or subsequent breach thereof. No waiver shall be binding unless in writing.

14.5 Severability: Partial Invalidity. If any provision of this Agreement is held to be invalid in whole or in part by a court of competent jurisdiction, then the remaining provisions shall remain, nevertheless, in full force and effect. The Parties agree to renegotiate in good faith any provision held invalid and to be bound by the mutually agreed substitute provision in order to give the most approximate effect originally intended by the Parties.

14.6 Assignment. Prior to a Separation Event, Codexis may not assign this Agreement or any of its rights nor delegate or transfer any of its obligations hereunder without the prior express written consent of MUS, which consent MUS shall not be obligated to give. After a Separation Event, Codexis may upon notice to MUS assign this Agreement to a Third Party in connection with a merger, sale of all or substantially all of its assets, or other corporate reorganization of Codexis. MUS may assign this Agreement and its rights and obligations under this Agreement, without restriction. Any purported assignment not expressly permitted by this Section 14.6 shall be null and void. Subject to the above restrictions, this Agreement shall inure to the benefit of and bind the successors and assigns of the Parties.

14.7 Export Control. In exercising its rights under this Agreement, each Party agrees to comply strictly and fully with all export controls imposed, by any country or organization or nations within whose jurisdiction the Party operates or does business. Each Party agrees not to export or permit exportation of any software products or any related technical data or any direct product of any related technical data, related to or serving as a component of the Products, without complying with the export control laws in the relevant jurisdiction. In particular, the Parties acknowledge that they are subject to United States laws and regulations controlling the export of products or technical information. Codexis agrees that it will not export, directly or indirectly, any technical information acquired under this Agreement or any Products using such technical information to any country for which the United States government or agency thereof at the time of export requires an export license or other governmental approval, without first obtaining the written consent to do so from the Department of Commerce or other agency of the United States government when required by an applicable statute or regulation.

14.8 Further Assurances. At any time or from time to time on and after the date of this Agreement, either Party shall at the request of the other Party (i) deliver to the requesting Party such records, data or other documents consistent with the provisions of this Agreement, (ii) execute, and deliver or cause to be delivered, all such consents, documents or further instruments of assignment, transfer or license, and (iii) take or cause to be taken all such actions, as the requesting Party may reasonably deem necessary or desirable in order for the requesting Party to obtain the full benefits of this Agreement and the transactions contemplated hereby.

14.9 Force Majeure. Neither Party shall lose any rights hereunder or be liable to the other Party for damages or losses (except for payment obligations) on account of failure of performance by the defaulting Party if the failure is occasioned by war, strike, fire, act of terrorism, Act of God, earthquake, flood, lockout, embargo, governmental acts or orders or restrictions, failure of suppliers (including, without limitation, energy suppliers), or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the nonperforming Party and the nonperforming Party has exerted reasonable efforts to avoid or remedy such force majeure;

provided, however, that in no event shall a Party be required to settle any labor dispute or disturbance.

14.10 No Implied Rights. Only the rights granted pursuant to the express terms of this Agreement shall be of any legal force or effect. No other rights shall be created by implication, estoppel or otherwise.

14.11 No Third Party Rights. This Agreement has been entered for the benefit of the Parties and, except as expressly set forth herein or as otherwise may be agreed in writing by the Parties, is not intended to benefit any Third Party.

14.12 Entire Agreement; Modification. This Agreement, including its Exhibits which are incorporated by reference herein, together with the Services Agreement, Patent Assignment Agreement, Trademark Agreement and Stock Issuance and Asset Contribution Agreement, contains the Parties' entire understanding with respect to the subject matter hereof. There are no promises, covenants or undertakings, oral or written, other than those set forth herein with respect to the subject matter hereof, and neither Party is relying upon any representations or warranties except as set forth herein. This Agreement may not be modified except by a writing signed by both Parties.

14.13 Headings. The captions to the several Sections and Articles hereof are not a part of this Agreement, but are included merely for convenience of reference only and shall not affect its meaning or interpretation.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the Effective Date.

MAXYGEN, INC.

By: /s/ Russell J. Howard
Name: Russell J. Howard
Title: CEO

CODEXIS, INC.

By: /s/ Alan Shaw
Name: Alan Shaw
Title: President

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EXHIBIT A

DETECTION AND RESEARCH REAGENT FIELD

“Detection and Research Reagent Field” means making, having made, using, and selling of reagents, instruments, and services for the diagnostics and research supply markets, only as follows: (1) clinical and diagnostic tests, including those conducted to identify genetic disease predisposition, genetic or other disease conditions, and infectious or pathogenic agents, as well as those conducted for other medical, agricultural or veterinary purposes; (2) tests for analytical/bioanalytical purposes, including those conducted for biomedical, chemical, or medical research or treatment purposes, for environmental purposes, and for forensic purposes, including paternity, maternity, or identity tests; and (3) sequencing and sequence analysis of nucleic acids or other biological polymers for any purpose.

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EXHIBIT B
ENABLING TECHNOLOGY

[*]

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EXHIBIT C
EXCLUDED TECHNOLOGY

[*]

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EXHIBIT D

CODEXIS PRODUCT TECHNOLOGY

[*]

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EXHIBIT E

PROSECUTION COSTS FOR ENABLING TECHNOLOGY

In partial consideration for the grant of the licenses granted in Section 2.1 of the Agreement, Codexis shall pay to MUS twenty percent (20%) of the Prosecution Costs incurred after the Effective Date with regard to Enabling Technology. However, during the period until the fourth anniversary of the Effective Date, such payments to MUS shall not exceed the amounts below:

	Maximum Prosecution Costs for Enabling Technology
First 12 months after Effective Date	\$575,000
Next 12 months after Effective Date	\$625,000
Next 12 months after Effective Date	\$675,000
Next 12 months after Effective Date	\$750,000

The applicable amounts will be paid to MUS (or its designee) within forty-five (45) days of an invoice therefor.

Prior to the fourth anniversary of the Effective Date, Codexis and MUS shall negotiate and agree in writing on the amounts Codexis will pay to MUS for Prosecution Costs with regard to the Enabling Technology after the fourth anniversary of the Effective Date. However, unless otherwise agreed by Codexis and MUS, in any calendar year such payments shall not exceed the aggregate amount due to MUS for Prosecution Costs for Enabling Technology for the 12 month period from the third anniversary of the Effective Date until the fourth anniversary of the Effective Date.

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AMENDMENT NO. 1 TO LICENSE AGREEMENT

This Amendment No. 1 ("Amendment No. 1") amends that certain License Agreement effective March 28, 2002 (the "Agreement") entered by and between Maxygen, Inc. ("MUS") and Codexis, Inc. ("Codexis"), and shall be effective as of September 13, 2002 (the "Amendment Date"). MUS and Codexis hereby amend the License Agreement as follows:

1. Article 1 is amended by the addition of the following new definitions:

1.54 "**Category**" shall mean each of the identified categories listed on Exhibit G.

1.55 "**Reserved SubField Termination Date**" shall mean the period commencing on the Amendment Date and ending on the later of (i) five (5) years after the Amendment Date, or (ii) a Separation Event.

1.56 "**Reserved SubFields**" shall mean, in the period from the Amendment Date until the Reserved SubField Termination Date, the subject matter within the SubFields. It is understood and agreed that (i) as of the Reserved SubField Termination Date, one or more of the SubFields may become part of the Codexis Field pursuant to Section 2.1.6(d), and (ii) as of the Reserved SubField Termination Date, the Reserved SubFields (including each Category and SubField) shall be terminated, and shall have no content or force or effect for the remainder of the term of the Agreement.

1.57 "**Scheduled Product**" shall mean any chemical described on Exhibit F.

1.58 "**SubField**" shall mean each of the identified SubFields listed on Exhibit G.

1.59 "**Supplemental Product**" shall mean (a) any chemical within a Category with regard to which Category Codexis conducts a research project meeting the criteria set forth in Section 2.1.6(a) prior to the Reserved SubField Termination Date and (b) each chemical that is within a SubField that becomes part of the Codexis Field as of the Reserved SubField Termination Date pursuant to Section 2.1.6(d).

2. Section 1.10 is amended to provide in its entirety, as follows:

1.10 "**Bulk Production**" shall mean production by Codexis via enzymatic catalysis (using an Enzyme Product or a Biocatalyst) or fermentation of:

(a) any Enzyme Product or Biocatalyst for sale to a Third Party (other than an Affiliate of Codexis) for manufacture of Catalysis Products, or

(b) any Catalysis Product or Fermentation Product for sale to a Third Party (other than an Affiliate of Codexis) for further processing or formulation, or

(c) any Catalysis Product or Fermentation Product that will be formulated by Codexis for sale to a Third Party, which Product contains one or more Functional Compounds approved by a Regulatory Authority for human or veterinary pharmaceutical use, where such Functional Compound(s) (i) is (are) no longer covered by issued patents in the country where such production will occur, or (ii) is (are) covered by issued patents owned or Controlled by a Third Party (other than an Affiliate of Codexis) that has contracted to have Codexis formulate such Product on behalf of such Third Party, or

(d) any Scheduled Product for sale to a Third Party (other than an Affiliate of Codexis) for further processing or formulation, or

(e) any Supplemental Product for sale to a Third Party (other than an Affiliate of Codexis) for further processing or formulation.

3. Section 1.12 is amended to provide in its entirety, as follows:

1.12 **“Codexis Field”** shall mean:

(a) Biocatalyst Commercialization and Enzyme Commercialization, subject to the limitations set forth in Section 2.2.2 and the rights of MUS and Third Parties described in Section 2.8;

(b) Building Block Development;

(c) Bulk Production of Products (except Supplemental Products), subject to the limitations set forth in Section 2.2.2 and the rights of MUS and Third Parties described in Section 2.8;

(d) Bulk Production of Supplemental Products to which Codexis has acquired rights pursuant to Sections 2.1.6(c) or (d), subject to the limitations set forth in Section 2.2.2 and the rights of MUS and Third Parties described in Section 2.8.

4. Section 1.17 is amended to provide in its entirety, as follows:

1.17 **“Enabling Technology”** shall mean all Patent Applications and Patents Controlled by MUS that claim (i) methods of generating genetic diversity (including, without limitation, DNA Shuffling with tangible materials or in silico), or the use thereof, and/or (ii) generally applicable screening techniques, methodologies or processes for identifying genetic variants of interest that: (a) are filed on or before the Separation Event, or (b) claim inventions conceived and reduced to practice or otherwise developed on or before the Separation Event, which Patent Application or Patent is filed on or before the third anniversary of the Separation Event. Enabling Technology shall include MUS’ interest in Third Party Improvements, if any. A list of Patent Applications and Patents within the Enabling Technology existing as of the Effective Date is attached as **Exhibit B** hereto

5. Section 1.40 is amended to provide in its entirety, as follows:

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1.40 **“Product”** shall mean any Catalysis Product, Enzyme Product, Scheduled Product, Supplemental Product, Biocatalyst or Fermentation Product that:

- (a) is made or developed with the use of Enabling Technology, whether by Gene Expression Manipulation and/or Metabolic Pathway Manipulation and/or Strain Improvement or otherwise (e.g., incorporates any variant gene made with Enabling Technology, and/or any protein or peptide expressed therefrom), and/or
- (b) is developed with the use of Product Technology, or incorporates, or is made using, or is substantially derived from, Product Technology.

6. Section 1.41 is amended to provide in its entirety, as follows:

1.41 **“Product Technology”** shall mean the Patent Applications and Patents Controlled by MUS on or before the Separation Event that are necessary or useful for use in the Codexis Field, that are not included in Enabling Technology or the Assigned Patents. A list of the Patent Applications and Patents within the Product Technology existing as of the Effective Date is attached as Exhibit D hereto.

7. Section 2.1.1 is amended to read in its entirety as follows:

2.1.1 Licenses. Subject to the terms and conditions herein, including without limitation Sections 2.2, 2.4, 2.6, 2.7 and 2.8, MUS hereby grants to Codexis, and Codexis hereby accepts, irrevocable (except as provided in Sections 9.4.1, 12.2, 12.3 and 12.4), worldwide, royalty-free (subject to Section 2.1.5(b)) licenses, as follows:

(a) with respect to the Enabling Technology and related Know-How:

(i) an exclusive license in Microbes to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products (including those Supplemental Products that Codexis has acquired rights to pursuant to Section 2.1.6 (c), but excluding, until the Reserved SubField Termination Date, other Supplemental Products) and corresponding Services in the Codexis Field; and

(ii) a non-exclusive license in Category II Plants to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products (including those Supplemental Products that Codexis has acquired rights to pursuant to Section 2.1.6 (c), but excluding, until the Reserved SubField Termination Date, other Supplemental Products) and corresponding Services in the Codexis Field; and

(b) subject to the terms of Section 2.1.6(a), with respect to the Enabling Technology and related Know-How, in the period from the Amendment Date until the Reserved SubField Termination Date:

(i) an exclusive license in Microbes to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Supplemental Products and corresponding Services; and

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(ii) a non-exclusive license in Category II Plants to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Supplemental Products and corresponding Services; and

(c) with respect to the Enabling Technology and related Know-How, a non-exclusive license to develop, make and use Expression Hosts for Internal Research Use; and

(d) with respect to the Product Technology and related Know-How:

(i) an exclusive license in Microbes to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products (including those Supplemental Products that Codexis has acquired rights to pursuant to Section 2.1.6 (c), but excluding, until the Reserved SubField Termination Date, other Supplemental Products) and corresponding Services in the Codexis Field; and

(ii) a non-exclusive license in Category II Plants to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products (including those Supplemental Products that Codexis has acquired rights to pursuant to Section 2.1.6 (c), but excluding, until the Reserved SubField Termination Date, other Supplemental Products) and corresponding Services in the Codexis Field; and

(e) subject to the terms of Section 2.1.6(a), with respect to the Product Technology and related Know-How, in the period from the Amendment Date until the Reserved SubField Termination Date:

(i) an exclusive license in Microbes to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Supplemental Products and corresponding Services; and

(ii) a non-exclusive license in Category II Plants to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Supplemental Products and corresponding Services.

8 Article 2.1 is revised by the addition of new Sections 2.1.6 and 2.1.7:

2.1.6 Reserved SubField. With regard to the Reserved SubFields set forth on Exhibit G:

(a) Until the Reserved SubField Termination Date, Codexis may practice licenses as described in Sections 2.1.1(b) and (e), on a Category-by-Category basis, if for such Category Codexis:

(i) enters into a written contract (including any government grant) with a Third Party that will provide Codexis with at least US\$2,000,000 over a continuous period of 24 months or less from such Third Party to (a) conduct research using the Enabling Technology in the applicable Category, or (b) develop for commercial uses Products subject to Section 1.40(a) in the applicable Category; or

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(ii) expends its own funds in an amount of at least US\$2,000,000 over a continuous period of 24 months or less, to (a) conduct research using Enabling Technology in the applicable Category, or (b) develop for commercial uses Products subject to Section 1.40(a) in the applicable Category; or

(iii) expends its own funds and funds from a Third Party collaborator, which funds total at least US\$2,000,000 over a continuous period of 24 months or less, to conduct (a) research using Enabling Technology in the applicable Category, or (b) develop for commercial uses one or more Products in the applicable Category.

The Codexis Board of Directors (with appropriate recusals for interested party transactions) must approve the transactions and/or Codexis expenditures described in this Section 2.1.6(a).

(b) Commencing on the first anniversary of the Amendment Date and annually thereafter on the anniversary of the Amendment Date until the Reserved SubField Termination Date, and at Codexis' option, at other times, Codexis shall provide MUS with a written report (i) identifying all Supplemental Products and Categories with regard to which Codexis has conducted research subject to Section 2.1.6(a) above, and (ii) reporting, by Category, the amount of funds expended by Codexis to conduct research in each such Category in the preceding twelve (12) month period.

(c) If Codexis has conducted activities subject to Section 2.1.6(a) as to a particular Category, Codexis shall notify MUS in writing (the "Category Notice") providing a detailed explanation of why it believes the Section 2.1.6(a) criteria have been fulfilled with regard to the applicable Category. Within thirty (30) days following the date of such Category Notice, senior business representatives of MUS and Codexis shall jointly prepare and sign a written summary (the "Category Summary") identifying the Category and corresponding Supplemental Product(s) subject to Section 1.59(a). All Supplemental Products in such agreed Category Summary shall be included in the Codexis Field (subject to the applicable SubField exclusions set forth on Exhibit G) for all purposes of this Agreement, as of the date of the applicable agreed Category Summary. Any dispute regarding the subject matter that will be added to the Codexis Field pursuant to this Section 2.1.6(c) shall be resolved as set forth in Article 13.

(d) If Codexis has conducted activities that meet the criteria set forth in Section 2.1.6(a) above with regard to at least one-half of the Categories of any SubField, then, from and after the date of such occurrence (the "Subfield Inclusion Date"), such entire SubField (including all its Categories) shall, subject to the applicable SubField exclusions set forth on Exhibit G, thereafter be included in the Codexis Field for all purposes of this Agreement. Within thirty (30) days following the SubField Inclusion Date, senior business representatives of MUS and Codexis shall jointly prepare a written summary identifying (i) those Supplemental Product(s) subject to Section 1.59(a) within Categories that have not become part of the Codexis Field, and (ii) those Categories and SubFields have become included in the Codexis Field. Any dispute regarding the subject matter that will be added to the Codexis Field shall be resolved as set forth in Article 13.

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(e) After the Reserved SubField Termination Date, Codexis shall retain the right to complete research regarding a particular Supplemental Product that it commenced prior to such date pursuant to Section 2.1.6(a) if it has expended at least \$1,000,000 on such research with respect to such Supplemental Product by the Reserved SubField Termination Date, and to commercialize Supplemental Products resulting from such activities, but otherwise Codexis shall not have any other rights with regard to any Category(ies) or SubField(s) that are not within the Codexis Field after the Reserved SubField Termination Date.

(f) Until the date that Codexis acquires license rights under this Agreement to a particular Supplemental Product pursuant to Sections 2.1.6 (c) or (d), Codexis may not grant any Third Party (i) a sublicense to the Enabling Technology for the development or manufacture of any Supplemental Product, or (ii) an option to (1) obtain a sublicense to the Enabling Technology for use with regard to the development or manufacture of any Supplemental Product, or (2) use the Enabling Technology to develop or manufacture any Supplemental Product. It is understood and agreed that Codexis may grant such sublicenses and options to Supplemental Products which have become included in the Codexis Field pursuant to Section 2.1.6(c) above as a result of Codexis having satisfied the conditions of 2.1.6(a).

(g) Until the Reserved SubField Termination Date, MUS will not (i) itself use the Enabling Technology to develop or manufacture any Supplemental Product, or (ii) grant a Third Party a license to use the Enabling Technology to develop or manufacture any Supplemental Product.

(h) It is understood and agreed that as of the Reserved SubField Termination Date, the Reserved SubFields (including each Category and SubField) shall be terminated and shall have no content or force or effect for the remainder of the term of the Agreement.

2.1.7 Rights to Negotiate for Rights Outside the Codexis Field

(a) Codexis Proposal. If Codexis wishes to use the Enabling Technology outside the then-current scope of the Codexis Field to make a particular commodity chemical or fine chemical, then Codexis shall have a right of negotiation to obtain from MUS a license to use the Enabling Technology to make such specific products via processes proposed by Codexis. In any such event, Codexis shall notify MUS in writing of the particular processes and specific commodity chemical(s) or fine chemical(s). If Codexis notifies MUS that Codexis wishes to negotiate for an expanded license to the Enabling Technology as described in this Section 2.1.7(a), Codexis and MUS shall for a period of one hundred twenty (120) days from Codexis' notice, or such longer period as the parties may agree in writing, negotiate terms and conditions for such license rights.

(b) MUS Notice. If MUS wishes to use or license a Third Party to use the Enabling Technology to make a particular commodity chemical or fine chemical for industrial manufacturing applications outside the then-current scope of the Codexis Field, then until the Separation Event, MUS shall notify Codexis, and Codexis shall have a first right of negotiation to obtain from MUS a license to use the Enabling Technology to make such specific products. In any such event, MUS shall notify Codexis in writing of the particular processes and

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specific commodity chemical(s) or fine chemical(s), subject to any obligations of confidentiality owed to a Third Party. If Codexis notifies MUS in writing within thirty (30) days of notice by MUS pursuant to this Section 2.1.7(b) that Codexis wishes to negotiate for an expanded license to the Enabling Technology for the applicable processes and products, then for a period of one hundred twenty (120) days from MUS' notice, or such longer period as the parties may agree in writing, MUS and Codexis shall negotiate terms and conditions for such license rights. For the avoidance of doubt, it is understood and agreed that this Section 2.1.7(b) shall apply only to proposed uses of Enabling Technology for manufacturing of commodity chemicals or fine chemicals for industrial applications, and shall not apply to any other application outside the Codexis Field, including, without limitation, to any proposed use for discovery, research, development or manufacturing of pharmaceuticals, vaccines or Agrochemicals and/or for any application relating to agriculture, e.g., processing of food or feed.

(c) Agreement on Terms. If the Parties agree upon mutually acceptable terms and conditions pursuant to Section 2.1.7(a) or Section 2.1.7(b), the Parties shall enter into a written amendment to this Agreement modifying the license granted to Codexis as appropriate to include the relevant rights and applicable chemicals. Neither Party shall be obligated to accept or agree to such terms or conditions, or to enter into any agreement regarding such expanded license rights. If MUS and Codexis do not agree upon mutually acceptable terms and conditions within the applicable time period above, Codexis shall have no right or license to use the Enabling Technology outside the then-existing Codexis Field.

9. Section 2.2.2(b)(i) is deleted, such that Section 2.2.2(b) provides in its entirety, as follows:

(b) to make, have made, use, promote, market, distribute and/or sell any products (including, without limitation, any Products) intended for use in the Detection and Research Reagent Field; or

10. Section 2.2.2(c) is revised by the insertion of the word "itself" before the word "develop".

11. Revise Sections 2.2.2(f)(ii) and 2.2.2(h) by changing each occurrence of "discovery" to "Discovery", and revise Section 2.8.5 by changing "discover" to "conduct Discovery of".

12. Section 2.3 is amended to read in its entirety as follows:

2.3 Right to Sublicense. Codexis (or its successor) may grant sublicenses to the Enabling Technology, Product Technology and related Know-How to such Third Parties as it deems appropriate, but such sublicenses may only grant rights to practice in the Codexis Field; provided, Codexis may not (i) sublicense the rights granted in Section 2.1.1(c) except in connection with a grant of a sublicense of the rights granted it in Section 2.1.1(a), or (ii) sublicense the rights granted it in Section 2.1.1(b) or 2.1.1(e). Codexis (or its successor) may grant licenses to the Assigned Patents as it deems appropriate.

13. Section 2.7.1 is amended to provide in its entirety as follows:

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.7.1 MUS. Notwithstanding the license grants in Section 2.1, the Parties agree that:

(a) MUS and its wholly-owned Affiliates shall, until the Separation Event, retain the right to conduct research with the Enabling Technology and related Know-How in the Codexis Field and/or the Reserved SubFields for the purpose of (i) improving and expanding Enabling Technology, and/or (ii) exploring applications of the Enabling Technology for areas outside the Codexis Field and/or the Reserved SubFields; provided, MUS and its wholly-owned Affiliates shall not use the Enabling Technology for the primary intended purpose of developing any Products or Services for use in the Codexis Field and/or the Reserved SubFields, on its own behalf or on behalf of any Third Party.

(b) At all times during and after this Agreement, nothing herein shall restrict, or be construed to restrict, MUS' right to practice and grant licenses to practice the Enabling Technology and Product Technology and/or use related Know-How, outside the Codexis Field and/or the Reserved SubFields.

(c) It is understood and agreed that, at all times, MUS shall retain (i) the right (sublicensable to its Affiliates) to internally use the Enabling Technology, Product Technology and related Know-How to conduct Discovery and development of pharmaceutical and/or Agrochemical products by any means (which may include, without limitation, the development of Building Blocks, the addition of Building Blocks to Templates and/or analoging of Functional Compounds), and to conduct commercialization of such products; and (ii) the sublicensable right to make and/or have made, use, import, have imported, offer for sale and/or sell any such products.

14. Section 2.7.2 is revised to provide in its entirety as follows:

2.7.2 Codexis. Except as expressly set forth in this Agreement, nothing herein shall limit the ability of Codexis to use any intellectual property, tangible property or technology not subject to this Agreement, whether the foregoing is developed by it or acquired by it (by license, acquisition or otherwise) for any purpose, in or outside the Codexis Field.

15. Section 3.2 is amended to provide in its entirety, as follows:

3.2 License to MUS. In partial consideration for the rights granted herein. Codexis shall grant and hereby grants, and MUS hereby accepts, the following licenses:

(a) with respect to Patent Applications and Patents within the scope of Section 1.4(a), an exclusive, worldwide, royalty-free, irrevocable license, with the right to grant and authorize sublicenses; and

(b) with respect to Patent Applications and Patents within the scope of Section 1.4(b), subject to the terms of the applicable Third Party Agreement as described in Section 3.3.1, an exclusive (to the extent permitted by the applicable Third Party Agreement), worldwide (to the extent permitted by the applicable Third Party Agreement), royalty-free (subject to Section 3.3.2), irrevocable (to the extent permitted by the applicable Third Party Agreement) license, with the right to grant and authorize sublicenses.

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in each case, to develop, make, have made, use, import, have imported, offer for sale, sell or otherwise commercialize or distribute Products and Services solely outside the Codexis Field, and until the Reserved Termination Date, the Reserved SubFields.

16. Article 4 is amended to read in its entirety as follows:

4. COVENANTS

4.1 Use Within the Codexis Field. Codexis covenants that it will not knowingly practice its licenses to the Enabling Technology and related Know-How, or its licenses to the Product Technology and related Know-How, for the purpose of developing or commercializing Products or Services for use outside the Codexis Field and/or the Reserved SubField. Codexis further covenants that it will not knowingly make or permit any of its Sublicensees or contractors to knowingly make any release into the environment of any Microbe or any Plant which has been modified with the use of Enabling Technology (e.g., outside a container or containment vessel which precludes exit of any such Microbes or Plants from such container or vessel), without the prior written consent of MUS.

4.2 Use Outside the Codexis Field. MUS covenants that it will not knowingly use its retained rights with regard to the Enabling Technology or the Product Technology, or knowingly practice its license to Codexis Improvements (if any), for the purpose of developing or commercializing Products or Services for use in the Codexis Field and/or the Reserved SubField; provided that such covenants shall be subject to Section 2.7.1 and further provided that such covenants shall terminate with regard to any Patent Applications and/or Patents for which Codexis' license terminates pursuant to Sections 9.2.3(b), 12.2, 12.3 and/or 12.4 below.

17. Section 9.2.1 is amended to provide in its entirety, as follows:

9.2.1 Patent Prosecution

(a) With regard to Patent Applications and Patents within the Product Technology owned by a Third Party, such Third Party shall have the sole right and discretion to conduct Patent Prosecution of such Patent Applications and Patents.

(b) With regard to Patent Applications and Patents within the Product Technology owned by MUS, MUS shall have the initial right, but not the obligation, to conduct Patent Prosecution of such Patent Applications and Patents, unless such Patent Applications and Patents claim only methods and/or compositions that have substantial, commercially valuable applications solely within the Codexis Field and/or the Reserved SubFields, in which case Codexis shall have the right, but not the obligation, to conduct Patent Prosecution of such Patent Applications and Patents.

18. Section 9.2.2 is amended to provide in its entirety, as follows:

9.2.2 Sharing of Prosecution Costs. Codexis shall be responsible for Prosecution Costs in connection with Patent Prosecution activities described in Section 9.2.1, as follows:

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(a) With regard to Patent Applications and Patents within the Product Technology owned by a Third Party, the Third Party and Codexis shall agree on the amounts to be paid by Codexis to the Third Party with regard to the Patent Prosecution of such Patent Application and/or Patent. Unless otherwise agreed in writing, Codexis agrees it shall pay a pro rata share of such Prosecution Costs based on the following formula: Codexis' percentage share of such Prosecution Costs = $100 / (1+X)$, where X equals the number of sublicenses granted by MUS with regard to the applicable Patent Application and/or Patent.

(b) With regard to any Patent Applications and Patents within the Product Technology that are owned by MUS, if MUS conducts the Patent Prosecution activities described in Section 9.2.1(b), Codexis shall pay to MUS a pro rata share of such Prosecution Costs based on the number of sublicenses granted by MUS with regard to the applicable Patent Application and/or Patent.

(c) With regard to any Patent Applications and Patents within the Product Technology that are owned by MUS, if Codexis conducts the Patent Prosecution activities described in Section 9.2.1(b), Codexis shall pay one hundred percent (100%) of the Prosecution Costs incurred after the Effective Date in connection with such activities.

(d) Any amounts for Prosecution Costs subject to this Section 9.2.2 for which Codexis is responsible will be paid by Codexis to the applicable Third Party (or its designee) or to MUS (or its designee), as applicable, within forty-five (45) days of an invoice therefor.

19. Section 9.2 is amended by the addition of new Section 9.2.5:

9.2.5 Opt Out. Notwithstanding Sections 9.2.1 through 9.2.4 above, if Codexis does not wish to retain rights to any Patent Application or Patent within the Product Technology, Codexis may, with sixty (60) days written notice to MUS, relinquish its license rights to such Patent Application and Patent. In such event, Codexis shall have no further license rights under this Agreement with regard to the applicable Patent Applications and/or Patents, (i) shall not be entitled to participate in further Patent Prosecution as described in Section 9.2.2 with respect thereto, and/or further consultation and/or information rights as described in Section 9.2.4, with regard to such Patent Applications and/or Patents, (ii) shall have no obligation to pay Prosecution Costs incurred after the effective date of termination with respect to the applicable Patent Application and/or Patent; (iii) shall have no further enforcement rights described in Section 10.3 with respect to such Patent Application and/or Patent. Codexis shall remain obligated to pay its share of any Patent Prosecution expenses incurred prior to the applicable effective date of termination.

20. Section 10.3 is amended to provide in its entirety, as follows:

10.3 Product Technology.

10.3.1 Infringement in the Codexis Field.

(a) With regard to any Patent within the Product Technology that is owned by a Third Party, such Third Party shall have the first right, but not the obligation to

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enforce such Patent within the Product Technology against any infringements by Third Parties in the Codexis Field and/or the Reserved SubFields and defend any declaratory judgment action.

(b) With regard to any Patent within the Product Technology that is owned by MUS:

(i) So long as Codexis retains an exclusive license to the applicable Patent within the Product Technology and such Patent has applications only in the Codexis Field, Codexis shall have the first right, but not the obligation, to enforce Patents within the Product Technology against any infringements by Third Parties in the Codexis Field and defend any declaratory judgment action. If Codexis fails to initiate a suit to enforce such patent in any jurisdiction against a commercially significant infringement in the Codexis within one (1) year of a request by MUS to do so, MUS may initiate suit against such infringement, at its expense. In such event, Codexis agrees to join in such action, if required by applicable law.

(ii) If Codexis does not have an exclusive license to the applicable Patent and/or if such Patent claims inventions having one or more applications outside the Codexis Field, then MUS shall have the first right, but not the obligation, to enforce such Patent against any infringements by Third Parties in the Codexis Field and defend any declaratory judgment action with respect thereto. If MUS fails to initiate a suit to enforce such Patent in any jurisdiction against a commercially significant infringement in the MUS Field within one (1) year of a request by Codexis to do so, Codexis may initiate suit against such infringement, at its expense. In such event, MUS agrees to join in such action, if required by applicable law.

(c) Notwithstanding Section 10.3.1(b) above, Codexis acknowledges that (i) certain patents within the Product Technology are and will be owned by Third Parties and, that in some cases, such Third Parties may have retained or may retain the first right, or the sole right to enforce such patents, and (ii) prior to the Effective Date, MUS has granted to Third Parties rights to conduct or participate in the enforcement and/or defense of certain Patent Applications and/or Patents within the Product Technology that are owned by MUS.

10.3.2 Infringement Outside the Codexis Field.

(a) With regard to any Patent within the Product Technology that is owned by a Third Party, such Third Party shall have the first right, but not the obligation, at its sole expense, to enforce such Patents against any infringements by Third Parties outside the Codexis Field and/or the Reserved SubFields and defend any declaratory judgment action relating thereto.

(b) With regard to any Patent within the Product Technology that is owned by MUS, MUS (or its designee) shall have the right, but not the obligation, to pursue infringement of such Patents outside the Codexis Field and the Reserved SubFields, but shall consult with Codexis before commencing any such suit.

10.3.3 Recoveries. Any recovery received by a Party hereto as a result of any claim, suit or proceeding brought pursuant to this Section 10.3 shall be used first to reimburse the

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Party(ies), and any involved Third Party, for all expenses (including attorneys and professional fees) incurred in connection with such claim, suit or proceeding. Any amounts recovered by a Third Party in a claim, suit or proceeding pursued solely by such Third Party may be retained by such Third Party. With regard to any other recovery, after reimbursement as described in the preceding sentence, the remainder shall be divided as follows: (a) in any suit relating primarily to infringement in the Codexis Field and/or the Reserved SubFields, seventy percent (70%) to the Party initiating the suit, and thirty percent (30%) to the other Party, and (b) in any suit primarily relating to infringement outside the Codexis Field and/or the Reserved SubFields, as MUS determines or as may be agreed by the Parties in writing.

21. Section 10.7.3 is revised to read in its entirety, as follows:

10.7.3 Codexis Responsibility. If any claim, suit or proceeding subject to this Section 10.7 is based on allegations relating to the conduct or activities of Codexis and/or its Sublicensees, unless such claim, suit or proceeding is based solely on an allegation that the practice of the Enabling Technology infringed a patent owned by a Third Party, then Codexis shall have the right and responsibility to conduct the defense of such action, and shall pay the costs of defense of any such action.

22. Revise Sections 1.31 such that the phrase “within the Codexis Field” shall be amended to read “within the Codexis Field, and until the Reserved SubField Termination Date, the Reserved SubFields”.

23. Revise Sections 1.32, 1.33, 1.41, 1.53, 2.2.1 and 7.1.3 by adding the phrase “and/or the Reserved SubFields” after each occurrence of the phrase “in the Codexis Field”.

24. Revise Sections 2.2.2(f), 2.2.3, 2.5, 2.7.2, 2.8.2, 4.1, 8.1 and 9.2.1 by adding the phrase “and/or the Reserved SubFields” after each occurrence of the phrase “outside the Codexis Field”.

25. Exhibits F and G attached to this Amendment No. 1 shall become exhibits to the Agreement.

26. Except as expressly provided herein, the terms of the Agreement shall remain in full force and effect.

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IN WITNESS WHEREOF, MUS and Codexis have executed this Amendment No. 1 to License Agreement as of the first above written.

MAXYGEN, INC.

By: /s/ Russell J. Howard

Name: Russell J. Howard

Title: Chief Executive Officer

CODEXIS, INC.

By: /s/ Alan Shaw

Name: Alan Shaw

Title: President

EXHIBIT F

SCHEDULED PRODUCTS

1. Products for the following petrochemical applications:

Crude Oil Applications

enhancement of recovery of down-hole crude
reduction of metals or sulfur in crude oil & derivatives
reduction of viscosity in crude oil & derivatives

Refinery Applications (for crude oil derivatives)

aromatic/ring-compound removal
sulfur removal
viscosity modification
bio-the-pene removal from fuels
conversion of glycerine to glycerine derivatives

2. Products for the following textile/paper manufacturing applications:

manufacture of dyes/pigments
manufacture of sizing agents
enhanced fiber bio-degradation
enhanced pulping

3. Products for the following environmental clean-up applications:

Soil/water bioremediation (e.g., hydrocarbons/chlorocarbon contamination)
sulfur/CO₂ sequestration
radioisotope contamination
nuclear waste processing
treatment (i.e., degradation) of effluent waste products from wood product/paper processing
treatment (i.e., degradation) of effluent waste products from grain/oil seed processing

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EXHIBIT G

RESERVED SUBFIELDS

1. **SubField 1:** Manufacture of the [*] monomers specified below, for use to make polymers (excluding polymers for use for [*] and/or [*] applications):

Categories

- (a) [*]
- (b) **carboxylic acids, as follows: amino carboxylic acids, hydroxy carboxylic acids, olefinic carboxylates and hydroxy acids**
- (c) [*]
- (d) [*]
- (e) [*]

2. **SubField 2:** Manufacture of the [*] agents specified below (excluding agents for use for [*] and/or [*] applications):

Categories

- (a) [*]
- (b) [*]
- (c) [*]
- (d) [*]

3. **SubField 3:** Manufacture of the fuels and fuel additives specified below:

Categories

- (a) C7-C20 hydroxyalkanes and/or biomass (cellulose) conversion into ethanol
- (b) bioester fuel oxygenates and/or additives to increase biodegradability of hydrocarbon fuels
- (c) production of [*] for use as a [*]

4. **SubField 4:** [*], as specified below:

Categories

- (a) [*]
- (b) [*]
- (c) [*]

5. **SubField 5:** Manufacture of the following [*], to the extent not covered by SubField 1:

Categories

- (a) [*]
- (b) [*]
- (c) [*]
- (d) [*]

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(e) [*]

6. **SubField 6:** Manufacture of polymers made from the monomers specified below, for use as [*] (excluding any use in, on or for [*] or any other [*] and/or [*] applications):

Categories

- (a) [*]
- (b) [*]
- (c) [*]
- (d) [*]
- (e) [*]
- (f) [*]

7. **SubField 7:** Manufacture of the [*] specified below for [*] uses (excluding any use in, on or for [*] or any other [*] and/or [*] applications):

Categories

- (a) [*]
- (b) [*]
- (c) [*]
- (d) [*]
- (e) [*]

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AMENDMENT NO. 2 TO LICENSE AGREEMENT

This Amendment No. 2 ("Amendment No. 2") amends that certain License Agreement effective March 28, 2002, entered into by and between Maxygen, Inc. ("MUS") and Codexis, Inc. ("Codexis"), as amended by Amendment No. 1 to License Agreement effective September 13, 2002 (as amended, the "Agreement"), and shall be effective as of October 1, 2002. MUS and Codexis hereby amend the Agreement as follows:

1. Section 1.44 of the Agreement shall be amended to provide in its entirety, as follows:

1.44 "**Separation Event**" shall mean the earlier of (i) four (4) years after the Amendment Date, and (ii) the date upon which a Change of Control of Codexis occurs.

2. Article 1 is amended by the addition of the following new definition:

1.59 "**Change of Control of Codexis**" means (i) a dissolution or liquidation of Codexis; (ii) a sale of all or substantially all the assets of Codexis, (iii) any consolidation or merger of Codexis with or into any other corporation or other entity or person, or any other corporate reorganization, in which the stockholders of Codexis immediately prior to such consolidation, merger or reorganization, own less than fifty percent (50%) of the Company's voting power immediately after such consolidation, merger or reorganization, excluding any consolidation, merger or reorganization effected exclusively to change the domicile of Codexis, or (iv) acquisition by any person, entity or group within the meaning of Section 13(d) or 14(d) of the Exchange Act, or any comparable successor provisions (other than MUS, CMEA Ventures Life Sciences 2000, L.P., Chevron Technology Ventures, LLC, Pequot Private Equity Fund III, L.P. and their respective Affiliates (collectively, the "Current Stockholders", or any group including any Current Stockholder that does not include, within the reasonable discretion of Maxygen, a competitor of Codexis) of the beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act, or comparable successor rule) of securities of the Company such that after the acquisition the person, entity or group owns securities of Codexis representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors.

3. Subsections 2.1.1(b)(i) and (ii) and 2.1.1(e)(i) and (ii) are amended to add the words "in the Codexis Field" as the last words of each such clause.

4. As soon as practicable after the date hereof, an Amended and Restated License Agreement will be prepared reflecting the amendments to the Agreement contained in this Amendment No. 2 and the September 13, 2002 amendment to the Agreement, without the need for any additional approval by the Board of Directors of Codexis or any member thereof.

IN WITNESS WHEREOF, MUS and Codexis have executed this Amendment No. 2 to License Agreement as of the first above written.

MAXYGEN, INC.

By: /s/ Russell J. Howard
Name: Russell J. Howard
Title: Chief Executive Officer

CODEXIS, INC.

By: /s/ Alan Shaw
Name: Alan Shaw
Title: President

AMENDMENT NO. 3 TO LICENSE AGREEMENT

This Amendment No. 3 ("Amendment No. 3") amends that certain License Agreement effective March 28, 2002 entered by and between Maxygen, Inc. ("MUS") and Codexis, Inc. ("Codexis"), as previously amended by Amendment No. 1 to License Agreement effective September 13, 2002, and Amendment No. 2 to License Agreement effective October 1, 2002, (as amended, the "Agreement"), and shall be effective as of August __, 2006 (the "Third Amendment Date"). MUS and Codexis hereby amend the Agreement as follows:

1. Article 1 is amended by the addition of the following new definitions:

1.60 "**Consumer Price Index**" or "**CPI**" means the Consumer Price Index, All Urban Consumers, as published by the U.S. Bureau of Labor Statistics

1.61 "**Energy Product**" means any (i) Supplemental Product subject to any Modified SubField, and (ii) Scheduled Product subject to 1 of Exhibit F of the Agreement.

1.62 "**FTE**" means the efforts of one or more employees of Codexis equivalent to the efforts of one Codexis full time employee (i.e., an employee that works at least one thousand seven hundred sixty (1760) hours per year.

1.63 "**Net Sales**" shall mean means the consideration received by Codexis or its Affiliates for the sale or use of Energy Products in arm's length sales to an independent Third Party, after deduction of the following items, provided and to the extent such items are actually incurred and documented and do not exceed reasonable and customary amounts in the market in which such sale occurred: (i) ordinary and customary trade discounts actually allowed; (ii) credits, rebates and returns; (iii) freight, insurance and duties paid for and separately identified on the invoice or other documentation maintained in the ordinary course of business, and (iv) taxes, duties and other compulsory payments to governmental authorities actually paid and separately identified on the invoice or other documentation maintained in the ordinary course of business. All sales or use of Energy Products between Codexis and any of its Affiliates shall be disregarded for purposes of computing Net Sales. A "sale" shall include any transfer or other disposition for consideration, and Net Sales shall include all consideration received by Codexis or its Affiliates in respect of any sale or use of Energy Products, whether such consideration is in cash, payment in kind, exchange or another form.

In the case of discounts on "bundles" of products and/or services which include Energy Products, Codexis may with notice to MUS calculate the Net Sales by discounting the bona fide list price of an Energy Product by no more than the average percentage discount of all products and services of Codexis and/or its Affiliates in a particular "bundle", calculated as follows:

$$\begin{array}{l} \text{Average percentage} \\ \text{discount on a} \\ \text{particular "bundle"} \end{array} = (1 - A/B) \times 100$$

where A equals the total discounted price of a particular "bundle" of products and services, and B equals the sum of the undiscounted bona fide list prices of each unit of every product and service in such "bundle". Codexis shall provide MUS documentation, reasonably acceptable to MUS, establishing such average discount with respect to each "bundle". If Codexis cannot so establish the average discount of a bundle, the Net Sales shall be based on the undiscounted list price of the Energy Product in the bundle. If an Energy Product in a bundle is not sold separately and no bona fide list price exists for such Energy Product, the Parties shall negotiate in good faith an imputed list price for such Energy Product, and Net Sales with respect thereto shall be based on such imputed list price.

2. The following definitions in Article 1 shall be amended to read as follows:

1.55 **"Reserved SubField Termination Date"** shall mean (a) for SubFields 1, 2, 4, 5, 6 and 7, the period commencing on the Amendment Date and ending on the later of (i) five (5) years after Amendment Date, or (ii) a Separation Event, and (b) for SubFields 3, 8, 9 and 10 (the "Modified SubFields"), the period commencing on the Amendment Date and ending six (6) years after the Amendment Date; provided, however, that in the event Codexis has satisfied the criteria set forth in Section 2.1.6(a) as to a particular SubField within the Modified SubFields such that such entire SubField becomes included in the Codexis Field, as provided in Section 2.1.6(d), on or before six (6) years after the Amendment Date, then the Reserved SubField Termination Date shall be extended by one additional year; and further provided that upon the satisfaction of the criteria set forth in Section 2.1.6(d) for each additional SubField within the Modified SubFields, if any, the Reserved SubField Termination Date for the remaining Modified SubFields shall be extended for an additional one (1) year period, up to a maximum of three (3) such additional one (1) year extensions.

1.56 **"Reserved SubFields"** shall mean, in the period from the Amendment Date until the applicable Reserved SubField Termination Date, the subject matter within the applicable SubField(s). It is understood and agreed that as of the applicable Reserved SubField Termination Date, (a) one or more Categories within the Reserved SubFields may become part of the Codexis Field pursuant to Section 2.1.6(c), (b), one or more of the Reserved SubFields may become part of the Codexis Field pursuant to Section 2.1.6(d), and (c) any Category and any Reserved SubField that is not within the scope of the Codexis Field pursuant to subsection (a) or (b) above as of the applicable Reserved SubField Termination Date, shall be terminated, and shall no longer be within the Reserved SubFields.

1.57 **"Scheduled Product"** shall mean any Product described on Exhibit F.

1.59 **"Supplemental Product"** shall mean any Biocatalyst or Enzyme Product, and/or chemical made with the use of a Biocatalyst or Enzyme Product, in each case, that is (a) within a Category, where Codexis conducts with regard to such Category

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a research project meeting the criteria set forth in Section 2.1.6(a) prior to the applicable Reserved SubField Termination Date, and (b) within a Reserved SubField that becomes part of the Codexis Field at any time prior to the applicable Reserved SubField Termination Date pursuant to Section 2.1.6(d).”

3. Section 2.1.1 is amended as follows:

- a. In the first clause, revise the phrase “. . . worldwide, royalty-free (subject to Section 2.1.5(b) licenses, . . .)” to read: “. . . worldwide, royalty-free (subject to Section 2.1.5(b) and the terms of Article 5) licenses, . . .”
- b. Revise Sections 2.1.1(a)(i), 2.1.1(a)(ii), 2.1.1(d)(i) and 2.1.1(d)(ii) by adding the phrase “and/or Section 2.1.6(d)” after each occurrence of the phrase “pursuant to Section 2.1.6(c)”.
- c. Revise Section 2.1.1 by changing each occurrence of “the Reserved SubField Termination Date” to “the applicable Reserved SubField Termination Date”.

4. Section 2.1.6 is amended as follows:

Revise Section 2.1.6 by changing each occurrence of “the Reserved SubField Termination Date” to “the applicable Reserved SubField Termination Date”.

5. Section 2.1.6(h) is amended in its entirety as follows:

“Except with respect to (i) any Category for which Codexis has satisfied the criteria set forth in Section 2.1.6(c), and (ii) any Reserved SubField for which Codexis has satisfied the criteria set forth in Section 2.1.6(d), it is understood and agreed that as of the applicable Reserved SubField Termination Date, the applicable Reserved SubFields (including each Category and SubField) shall be terminated and shall have no content or force or effect for the remainder of the term of the Agreement, and, as of the applicable Reserved SubField Termination Date, MUS (and/or its designee) shall have, as between the Parties, the exclusive rights in and to and shall be free, at its sole discretion, to work in, such Reserved SubField(s) without restriction or obligation to Codexis.”

6. Article 5 shall be revised to read in its entirety as follows:

5.1 Codexis Stock. In partial consideration for the rights granted hereunder, Codexis shall issue to MUS one million (1,000,000) shares of Common Stock and six million (6,000,000) shares of Series A Preferred Stock of Codexis pursuant to the Stock Issuance and Asset Contribution Agreement by and between MUS and Codexis of even date hereof.

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5.2 Energy Products. In consideration for the rights granted to Codexis in this Amendment No. 3, for all Energy Products and/or any grant of rights with regard to the use of any Enabling Technology for the development and commercialization of any Energy Product, Codexis will pay MUS:

5.2.1 Twenty percent (20%) of all consideration received by Codexis from any Sublicensee or Third Party for:

- a. option and/or license fees for rights to use any Enabling Technology to develop and/or make any Energy Product; and
- b. development payments (e.g., milestone payments) in respect of any Energy Product, and/or any product made with the use of any Energy Product; and
- c. royalties and/or other payments for the commercialization of any Energy Product, and/or any product made with the use of any such Energy Product; and

d. the purchase of any equity securities of Codexis; provided, that the consideration received by Codexis from such Sublicensee or Third Party in connection with such purchase shall be deemed to be the amount obtained by multiplying (A) the aggregate number of shares of any equity securities of Codexis purchased by such Sublicensee or Third Party by (B) the amount, if any, by which the price per share of such equity securities exceeds the Original Issue Price (as defined in Codexis' Fifth Amended and Restated Certificate of Incorporation, as amended from time to time) per share of the Series D Preferred Stock (as may be adjusted from time to time); provided that at the time of such purchase such Sublicensee or Third Party has a contractual relationship with Codexis (or proposes to have a contractual relationship with Codexis in connection with such purchase and the contractual relationship thereafter becomes effective), and the primary business purpose of the relationship is the development and/or commercialization of (i) any Energy Product, or (ii) any product made with the use of any Energy Product; and

5.2.2 Notwithstanding anything to the contrary in Section 5.2.1 above, Codexis shall not be required to pay to MUS any share of research and/or development funding received (and not subject to any further performance criteria) by Codexis from a Third Party for the support of Codexis personnel (i.e., payments on an FTE basis to support Codexis employees for activities conducted by Codexis); provided that (i) such payments are actually used by Codexis for FTE funding, and (ii) the applicable rate per FTE does not exceed the Base FTE Rate. The Base FTE Rate for 2006 shall be three hundred fifty thousand dollars (\$350,000) per FTE per year, and shall be revised annually at the beginning of each subsequent calendar year to reflect annual changes in the Consumer Price Index, using September 2006 as the baseline comparison. Codexis shall pay to MUS twenty percent (20%) of any research funding received from a Third Party for the development of any Energy Product, and/or any product made with the use of any Energy Product, in each case only to the extent such funding does not satisfy the criteria listed in subsections (i) and (ii) above.

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5.2.3 If Codexis directly commercializes any Energy Product, Codexis will pay to MUS a royalty of two percent (2%) of (a) Net Sales of such Energy Products sold by Codexis or its Affiliates, and/or (b) amounts received by Codexis or its Affiliates from any Sublicensee or other Third Party for the use of Energy Products, to the extent Codexis or its Affiliates utilize such Product(s) to provide services to such Sublicensee or Third Party, as the case may be.

5.3 Quarterly Reports. Commencing in the first calendar quarter in which Codexis receives any payment subject to Section 5.2, Codexis shall make quarterly written reports to MUS within sixty (60) days after the end of each calendar quarter, stating in each such report the consideration subject to Section 5.2 received by it during such calendar quarter. Such reports shall provide separately for Codexis and each of its Affiliates and Sublicensees, in each case, on a country-by-country and Energy Product-by-Energy Product basis:

- (i) the type (e.g., license fee, milestone payment) and amount of consideration received;
- (ii) for payments based on Energy Products, the quantity and description of each such Energy Product sold or used; and
- (iii) the calculation of amounts due to MUS, accompanied by sufficient information to enable MUS to verify the accuracy of the calculations made by Codexis, and a detailed explanation of the methodology used to determine the applicable payment.

5.4 Payment. Concurrently with providing to MUS each quarterly report described in Section 5.3, Codexis shall pay MUS all amounts due under Section 5.2 for the calendar quarter corresponding to such report.

5.5 Audit. Codexis and its Affiliates shall keep complete, true and accurate books of account and records for the purpose of determining the amounts payable under Section 5.2 of this Agreement. Such books and records shall be kept at the principal place of business of such party, as the case may be, for at least four (4) years following the end of the calendar quarter to which they pertain. Such records will be open for inspection during such four (4) year period by a public accounting firm selected by MUS reasonably acceptable to Codexis, solely for the purpose of verifying the reports and payments hereunder. Such inspections may be made no more than once each calendar year, at reasonable times and on reasonable notice. Inspections conducted under this Section 5.5 shall be at the expense of MUS, unless a variation or error producing an increase exceeding ten percent (10%) of the amount stated for any period covered by the inspection is established in the course of any such inspection, whereupon all reasonable costs relating to the inspection and any unpaid amounts that are discovered will be paid promptly by Codexis together with interest thereon as set forth in Section 5.6 below.

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5.6 Payment Method: Late Payments. All payments due to MUS under this Agreement shall be paid in U.S. dollars by bank wire transfer in immediately available funds to a bank account designated by MUS. Any payment or portion thereof that is not paid on the date such payments are due under this Agreement shall bear interest at the lesser of (i) the prime rate as reported by the Chase Manhattan Bank, New York, New York (or its successor) on the date such payment is due, plus an additional two percent (2%), or (ii) the maximum rate permitted by law, in each case calculated on the number of days such payment is delinquent. This Section 5.6 shall in no way limit any other remedies available for late payment.

5.7 Currency Conversion. All payments due to MUS under this Agreement shall first be determined in local currency and then, if necessary, converted to its equivalent in United States currency. The buying rates of exchange for converting the currencies involved into the currency of the United States quoted by the Wall Street Journal (or its successor in interest) on the last business day of the quarterly period in which the payments were received by Codexis shall be used to determine any such conversion.

5.8 Restrictions on Payment. The obligation of Codexis to pay amounts to MUS under this Agreement with respect to sales of Energy Products in a particular country shall be waived and excused to the extent that statutes, laws, codes or government regulations in a particular country prevent such payments; provided, however, in such event, if legally permissible, Codexis shall pay the amounts owed to MUS by depositing such amounts in a bank account in such country that has been designated by MUS and promptly report such payment to MUS in writing.

5.9 Taxes. Any tax that Codexis is required to withhold and pay on behalf of MUS with respect to amounts payable to MUS under this Agreement shall be deducted from and offset against said payments prior to remittance to MUS; provided, however, that in regard to any tax so deducted, Codexis shall give or cause to be given to MUS such assistance as may reasonably be necessary to enable MUS to claim exemption therefrom or credit therefor, and in each case shall furnish MUS with proper evidence of the taxes paid on its behalf.

5.10 Energy Affiliate.

(a) If (i) Codexis or any of its Affiliates or subsidiaries (each, a "**Codexis Entity**") proposes to form, establish or acquire, directly or indirectly, any Affiliate or subsidiary that engages in a line of business related to the use of any Energy Products, and/or any Enabling Technology in or for any energy application (the "**Energy Rights**"), or any Affiliate or subsidiary of Codexis proposes, at any time, to engage, directly or indirectly, in such line of business (in each case, an "**Energy Affiliate**"); (ii) a Codexis Entity proposes to acquire or obtain, directly or indirectly, by merger, consolidation, acquisition of equity interests or otherwise, any assets, rights or other interests of whatever kind and nature in any business or Third Party (e.g. any individual, corporation, partnership, limited liability company, joint venture or other business

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organization or division thereof) that engages in a line of business related to the use of any of the Energy Rights (or at any time in the future proposes to engage in such line of business); or (iii) a Codexis Entity proposes to acquire or obtain, directly or indirectly, by merger, consolidation, acquisition of equity interests or otherwise, or becomes entitled to, any assets, rights or other interests of whatever kind and nature in any business or Third Party, in whole or partial consideration for the sale, assignment, license, contribution, pledge or other transfer by a Codexis Entity of any assets, interests or rights relating to any of the Energy Rights, then Codexis shall give written notice to MUS at least thirty (30) days prior to the effectiveness or consummation of such event or transaction. The notice shall describe in reasonable detail the proposed event or transaction including, without limitation, the nature of such event or transaction, the consideration to be paid and the amount constituting the applicable MUS Interest (as defined in Section 5.10(b) below).

(b) In consideration for the rights granted to Codexis in this Amendment No. 3, Codexis shall take, or cause to be taken, all actions, and do, or cause to be done, all things necessary, proper and advisable under applicable laws, so as to assign, transfer and deliver the MUS Interest to MUS immediately upon the effectiveness or consummation of any event or transaction described in Section 5.10(a) above or cause the MUS Interest to be so assigned, transferred and delivered, without cost to MUS. For purposes of this Section 5.10, the term “**MUS Interest**” shall mean all legal and beneficial title to the equity interests, assets, rights or other interests of whatever kind and nature (other than consideration received by Codexis subject to Codexis’ payment obligations to MUS pursuant to Section 5.2.1 above) of the Energy Affiliate or Third Party in an amount equal to twenty percent (20%) of each asset, interest or right held, acquired or obtained by the Codexis Entity(ies) in connection with any event, transaction or series of transactions described in Section 5.10(a) above.

(c) If, in connection with the transaction or series of transactions described in Section 5.10(a), a Codexis Entity has provided consideration other than assets, interests or rights relating to the use of any of the Energy Rights (the “**Other Consideration**”), then, as a condition of the transfer to MUS of the portion of the MUS Interest held, acquired or obtained by the Codexis Entity specifically for such Other Consideration, MUS shall reimburse the Codexis Entity for up to twenty percent (20%) of the cash value of the Other Consideration (as of the date of transfer of the Other Consideration by the Codexis Entity). The election to reimburse the Codexis Entity and the amount of such reimbursement (up to the aforementioned 20% limit) shall be determined by MUS in its sole discretion. Upon reimbursement, the Codexis Entity shall transfer to MUS the applicable portion of the MUS Interest attributable to the amount reimbursed by MUS for the Other Consideration. If MUS elects to reimburse the Codexis Entity for a portion of the Other Consideration corresponding to the MUS Interest equal to less than twenty percent (20%) of such Other Consideration, and not for the total twenty percent (20%), MUS’ right to receive additional equity interests, assets, rights or other interests of whatever kind and nature of the applicable Energy Affiliate or Third Party pursuant to Section 5.10(b) that are directly attributable to the equity

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interests, assets, rights or other interests held, acquired or obtained for such Other Consideration will be prorated accordingly. For example, if MUS elects to reimburse the Codexis Entity for ten percent (10%) of the Other Consideration corresponding to the MUS Interest (and not twenty percent (20%)), MUS' right to receive additional equity interests, assets, rights or other interests of whatever kind and nature of the applicable Energy Affiliate or Third Party pursuant to Section 5.10(b) that are directly attributable to the equity interests, assets, rights or other interests held, acquired or obtained for such Other Consideration will be equal to one-half of the amount that MUS would have received if MUS had reimbursed the Codexis Entity for twenty percent (20%) of the Other Consideration corresponding to the MUS Interest. If MUS elects not to pay any amount to the Codexis Entity for the reimbursement of the Other Consideration, MUS' right to receive additional equity interests, assets, rights or other interests of whatever kind and nature of the applicable Energy Affiliate or Third Party pursuant to Section 5.10(b) that are directly attributable to the equity interests, assets, rights or other interests held, acquired or obtained for such Other Consideration shall terminate. Except as otherwise provided in this Section 5.10(c) with respect to an election by MUS to reimburse the applicable Codexis Entity for Other Consideration, MUS shall, in all cases, be entitled to receive, and shall not be required to reimburse any Codexis Entity, Energy Affiliate or Third Party or otherwise pay any amounts to any Codexis Entity, Energy Affiliate or Third Party for, the MUS Interest and any additional equity interests, assets, rights or other interests of the applicable Energy Affiliate or Third Party that are attributable to or received in consideration for any of the Energy Rights (and not attributable to or received in consideration for Other Consideration).

(d) If any Codexis Entity proposes to subsequently sell, assign, or otherwise transfer any assets, rights or interests acquired or obtained in connection with an event, transaction or series of transactions described in Section 5.10(a) above, then Codexis shall give written notice to MUS at least thirty (30) days prior to the effectiveness or consummation of such transaction, which notice shall describe the proposed transaction in reasonable detail, including, without limitation, the nature of such transaction and the consideration to be received. MUS shall have the right, exercisable upon written notice to Codexis within fifteen (15) days after receipt of such notice, to participate in such transaction and to sell, assign or otherwise transfer up to a pro rata portion of the MUS Interest on the same terms and conditions as described in the notice; provided, however, that in no event shall MUS be required to sell, assign or transfer any portion of the MUS Interest to any party, except as required by applicable law; provided, further, that MUS' pro rata portion of the MUS Interest shall be deemed to be twenty percent (20%) of each asset, right or interest proposed to be sold, assigned or transferred by the applicable Codexis Entity(ies).

(e) Notwithstanding the foregoing, if for any reason all or any portion of the MUS Interest is not transferable to MUS in accordance with Section 5.10(b) above, or if the sale, assignment or other transfer by MUS of all or any portion of the MUS Interest in accordance with Section 5.10(d) above is not permitted, then the applicable

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Codexis Entity(ies) shall not consummate or effectuate, directly or indirectly, such event or transaction without the prior written consent of MUS in its sole discretion.

(f) In the event that (i) sufficient information does not exist to determine the value, amount or allocation of any assets, rights or interests for purposes of calculating the applicable MUS Interest, the applicable Other Consideration or any other amount in accordance with this Section 5.10, or (ii) Codexis and MUS cannot otherwise agree as to such value, amount or allocation, such value, amount or allocation shall be determined through an appraisal to be performed by an independent Third Party reasonably acceptable to both Parties, and the expenses incurred in obtaining such appraisal shall be shared equally by Codexis and MUS.

(g) In furtherance of the foregoing, Codexis acknowledges that, in consideration for the rights granted to Codexis in this Amendment No. 3, this Section 5.10 is intended to provide MUS with the applicable portion of any value or potential value attributable to or derived from any business related to energy applications engaged in by any Codexis Entity or otherwise attributable to or derived from any of the Energy Rights and agrees that it shall not authorize, commit or agree to take, and shall not permit any Affiliate, nor any subsidiary, to authorize, commit or agree to take, any action that would be inconsistent with this Section 5.10 or impair any portion of the MUS Interest.

5.11 MUS not an Affiliate. Notwithstanding anything to the contrary, for purposes of this Article 5, MUS shall not be considered, or deemed to be, an Affiliate of Codexis.

7. Article 12 of the Agreement is amended by the addition of new Section 12.7:

12.7 Termination for Cause. In the event that Codexis materially breaches any of its obligations pursuant to Article 5 of the Agreement, and such breach has continued for sixty (60) days after receipt of written notice thereof from MUS, MUS may terminate any and all rights received by Codexis under the terms of this Amendment No. 3.

8. Exhibit F shall be revised such that Exhibit F shall read in its entirety as attached to this Amendment No. 3.

9. Exhibit G shall be revised such that Exhibit G shall read in its entirety as attached to this Amendment No. 3.

10. Except as expressly provided herein, the terms of the Agreement shall remain in full force and effect.

[THE REMAINDER OF THIS PAGE HAS BEEN INTENTIONALLY LEFT BLANK]

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IN WITNESS WHEREOF, MUS and Codexis have executed this Amendment No. 3 to License Agreement as of the first above written.

MAXYGEN, INC.

By: /s/ Russell J. Howard

Name: Russell J. Howard

Title: Chief Executive Officer

CODEXIS, INC.

By: /s/ Alan Shaw

Name: Alan Shaw

Title: President

EXHIBIT F

SCHEDULED PRODUCTS

(REVISED AUGUST __, 2006)

1. Products for the extraction, modification, purification and/or transformation of oil and/or petroleum (including oil shale) with regard to the following applications:
 - Crude Oil and Oil Shale Applications
 - enhancement of recovery of down-hole crude oil
 - metal removal
 - sulfur removal
 - viscosity and/or molecular weight modification
 - Refinery Applications (for crude oil and oil shale derivatives)
 - aromatic/ring-compound removal or addition
 - thiophene removal
 - conversion of glycerine to glycerine derivatives
 - creation of cyclo-paraffins for purposes of improving octane number
 - enhanced energy and combustion properties
 - improved emissions profile
 - metal removal
 - sulfur removal
 - viscosity and/or molecular weight modification
2. Products for the following textile/paper manufacturing applications:
 - manufacture of dyes/pigments
 - manufacture of sizing agents
 - enhanced fiber bio-degradation
 - enhanced pulping
3. Products for the following environmental clean-up applications:
 - soil/water bioremediation (e.g., hydrocarbons/chlorocarbon contamination)
 - sulfur/CO2 sequestration
 - radioisotope contamination
 - nuclear waste processing
 - treatment (i.e., degradation) of effluent waste products from wood product/paper processing
 - treatment (i.e., degradation) of effluent waste products from grain/oil seed processing

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EXHIBIT G

RESERVED SUBFIELDS

(REVISED AUGUST __, 2006)

1. **SubField 1:** Manufacture of the [*] monomers specified below, for use to make polymers (excluding polymers for use for [*] and/or [*] applications):

Categories

- a. [*]
- b. carboxylic acids, as follows: amino carboxylic acids, hydroxy carboxylic acids, olefinic carboxylates and hydroxy acids
- c. [*]
- d. [*]
- e. [*]

2. **SubField 2:** Manufacture of the [*] agents specified below (excluding agents for use for [*] and/or [*] applications):

Categories

- a. [*]
- b. [*]
- c. [*]
- d. [*]

3. **SubField 3:** Manufacture of the [*] (and intermediates thereof) specified below:

Categories

- a. production of [*] for use as a [*]

4. **SubField 4:** [*], as specified below:

Categories

- a. [*]
- b. [*]
- c. [*]

5. **SubField 5:** Manufacture of the following [*], to the extent not covered by SubField 1:

Categories

- a. [*]
- b. [*]
- c. [*]
- d. [*]
- e. [*]

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6. **SubField 6:** Manufacture of polymers made from the monomers specified below, for use as [*] (excluding any use in, on or for [*] or any other [*] applications):

Categories

- a. [*]
- b. [*]
- c. [*]
- d. [*]
- e. [*]
- f. [*]

7. **SubField 7:** Manufacture of the [*] specified below for [*] (excluding any use in, on or for [*] or any other [*] and/or [*] applications):

Categories

- a. [*]
- b. [*]
- c. [*]
- d. [*]
- e. [*]

8. **SubField 8:** Manufacture of fuels and fuel additives (and intermediates thereof) as specified below:

- a. Manufacture of fuel and/or fuel additives, where Biomass (as defined below) is the starting material for the applicable fuel and/or fuel additive, including without limitation the manufacture of compounds (e.g., fermentable sugars) which are intermediates in the process of producing fuel or fuel additives, where Biomass is the starting material for the applicable fuel and/or fuel additive and such intermediates are used solely in the production of fuel or fuel additives, but specifically excluding the fuels and/or fuel additives in Category (b) below.
- b. Conversion of Biomass-derived oils into fuel and/or fuel additives, including without limitation the manufacture of compounds which are intermediates in the process of converting Biomass-derived oils into fuel and/or fuel additives, where such intermediates are used solely in the production of fuel or fuel additives.

For purposes of clarification, as used in this SubField 8 (and with regard to any Supplemental Products that may result due to activation of any Category of SubField 8), “fuel additives” are substances which are intended to be added to fuel to modify the characteristics of such fuel, including, for example, biodegradability, combustibility, viscosity and/or emissions profile.

“**Biomass**” shall mean [*].

Notwithstanding the above, for purposes of this SubField 8, no right or license is granted to Codexis to use any Enabling Technology to alter or modify any gene(s) of any Plant to

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(a) [*], or (b) [*]; provided, however, Codexis may produce in Category II Plants chemicals that are Supplemental Products resulting from the activation of any Category of this SubField 8.

9. **SubField 9:** Manufacture of Products for the [*] for the following specific applications:

- a. [*]
- b. [*]
- c. [*]
- d. [*]
- e. [*]
- f. [*]

10. **SubField 10:** Manufacture of Products for the [*], for the following specific applications:

- a. [*]
- b. [*]
- c. [*]
- d. [*]
- e. [*]
- f. [*]

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EXHIBIT 10.2E

Maxygen, Inc.
200 Penobscot Drive
Redwood City, CA 94063
650.298.5300 main
650.364.2715 fax
www.maxygen.com

maxygen

February 18, 2005

Dr. John Grate
Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063

Dear John:

I acknowledge your letter dated February 17, 2005, retracting the letter dated January 6, 2005 from Tassos Gianakakos.

This will confirm our agreement reached in our meeting of February 18, 2005 that, based on Codexis' representations in its letter dated February 8, 2005 regarding the expenditures made by Codexis, Inc. and Cargill, Inc. with respect to 3-HP, Codexis has satisfied the requirements of Section 2.1.6(a) of the License Agreement entered March 28, 2002, between Codexis and Maxygen, as amended, for Subfield I, Category (b) set forth on Exhibit G to the License Agreement.

Accordingly, Maxygen agrees that, as of the date of this letter, [*] monomers that are amino carboxylic acids, hydroxy carboxylic acids, olefinic carboxylates and/or hydroxy acids, shall be Supplemental Products (as defined in the Agreement) that may be used to make polymers (excluding polymers for use for [*] and/or [*]).

Please indicate Codexis' agreement to the foregoing by countersigning below.

Yours sincerely,

/s/ Michael S. Rabson
Michael S. Rabson

UNDERSTOOD AND AGREED
BY CODEXIS, INC.

By: /s/ John H. Grate

Name: John H. Grate

Title: VP, R&D and CTO

Date: 3-4-05



Maxygen, Inc.
200 Penobscot Drive
Redwood City, CA 94063
650.298.5300 main
650.364.2715 fax
www.maxygen.com

September 11, 2007

Codexis, Inc.
Attn: Doug Sheehy
200 Penobscot Drive
Redwood City, CA 94063

Re: License Agreement effective as of March 28, 2002, by and between Maxygen, Inc. and Codexis, Inc., as amended (the "Agreement")

Dear Doug:

This letter confirms that, based on Codexis' representations in its letter dated March 30, 2007, Codexis has satisfied the requirements of (i) Section 2.1.6(a) of the License Agreement for SubField 8, Category (a), set forth on Exhibit G to the Agreement, and (ii) Section 2.1.6(d) of the Agreement for SubField 8, Category (b), set forth on Exhibit G to the Agreement.

Accordingly, Maxygen agrees that, as of March 30, 2007, the fuels and fuel additives (and intermediates thereof) specified below, shall be Supplemental Products:

- a. Fuel and/or fuel additives, where Biomass is the starting material for the applicable fuel and/or fuel additive, including without limitation the manufacture of compounds (e.g., fermentable sugars) which are intermediates in the process of producing fuel or fuel additives, where Biomass is the starting material for the applicable fuel and/or fuel additive and such intermediates are used solely in the production of fuel or fuel additives, but specifically excluding the fuels and/or fuel additives in Category (b) below.
- b. Fuel and/or fuel additives made by the conversion of Biomass-derived oils into such fuel and/or fuel additives, including without limitation the manufacture of compounds which are intermediates in the process of converting Biomass-derived oils into fuel and/or fuel additives, where such intermediates are used solely in the production of fuel or fuel additives.

For purposes of clarification, "fuel additives" means substances which are intended to be added to fuel to modify the characteristics of such fuel, including, for example, biodegradability, combustibility, viscosity and/or emissions profile.

"Biomass" shall mean organic, non-fossil, Plant-derived matter available on a renewable basis, including, for example, crops and/or trees grown or harvested for use for fuel

and/or fuel additive production, agricultural food and feed crops, aquatic plants and, in each case, organic wastes derived from the foregoing, including municipal wastes (e.g., newspapers).

Notwithstanding the above, no right or license is granted by this letter to Codexis to use any Enabling Technology to alter or modify any gene(s) of any Plant to (a) [*], or (b) [*]; provided, however, Codexis may produce in Category II Plants chemicals that are Supplemental Products as set forth above.

In addition, Maxygen agrees that, in accordance with Section 1.55 of the Agreement, the Reserved SubField Termination Date for the Modified SubFields (i.e., SubFields 3, 8, 9 and 10) is extended until the period ending seven (7) years after the Amendment Date.

Capitalized terms used but not otherwise defined herein shall have the meanings set forth in the Agreement.

Please indicate Codexis' agreement to the foregoing by countersigning below.

Yours sincerely,

/s/ Michael S. Rabson
Michael S. Rabson

UNDERSTOOD AND AGREED
BY CODEXIS, INC.

By: /s/ Douglas Sheehy

Name: Douglas Sheehy

Title: VP, General Counsel

Date: September 12, 2007

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.



Maxygen, Inc.
200 Penobscot Drive
Redwood City, CA 94063
650.298.5300 main
650.364.2715 fax
www.maxygen.com

September 24, 2007

Codexis, Inc.
Attn: Doug Sheehy
200 Penobscot Drive
Redwood City, CA 94063

Re: License Agreement effective as of March 28, 2002, by and between Maxygen, Inc. and Codexis, Inc., as amended (the "Agreement")

Dear Doug:

This letter confirms that, as of the date hereof, SubField 8 of Exhibit G to the Agreement is hereby deleted in its entirety and replaced with the following:

"SubField 8: Manufacture of fuels, fuel additives and lubricants (and intermediates of the foregoing) as specified below:

- a. Manufacture of fuel and/or fuel additives and/or lubricants, where Biomass (as defined below) is the starting material for the applicable fuel and/or fuel additive and/or lubricant, including without limitation the manufacture of compounds (e.g., fermentable sugars) which are intermediates in the process of producing fuel or fuel additives and/or lubricants, where Biomass is the starting material for the applicable fuel and/or fuel additive and/or lubricant and such intermediates are used solely in the production of fuel or fuel additives and/or lubricants, but specifically excluding the fuels and/or fuel additives and/or lubricants in Category (b) below.
- b. Conversion of Biomass-derived oils into fuel and/or fuel additives and/or lubricants, including without limitation the manufacture of compounds which are intermediates in the process of converting Biomass-derived oils into fuel and/or fuel additives and/or lubricants, where such intermediates are used solely in the production of fuel or fuel additives and/or lubricants.

For purposes of clarification, as used in this SubField 8 (and with regard to any Supplemental Products that may result due to activation of any Category of SubField 8), "fuel additives" are substances which are intended to be added to fuel to modify the characteristics of such fuel, including, for example, biodegradability, combustibility, viscosity and/or emissions profile, and "lubricants" are [*].

“Biomass” shall mean organic, non-fossil, Plant-derived matter available on a renewable basis, including, for example, crops and/or trees grown or harvested for use for fuel and/or fuel additive production, agricultural food and feed crops, aquatic plants and, in each case, organic wastes derived from the foregoing, including municipal wastes (e.g., newspapers).

Notwithstanding the above, for purposes of this SubField 8, no right or license is granted to Codexis to use any Enabling Technology to alter or modify any gene(s) of any Plant to (a) [*], or (b) [*]; provided, however, Codexis may produce in Category II Plants chemicals that are Supplemental Products resulting from the activation of any Category of this SubField 8.”

The parties acknowledge and agree that all of Subfield 8, as amended by this letter, is subject to that certain letter dated September 11, 2007, and that all fuels, fuel additives and/or lubricants within amended Subfield 8 shall be Supplemental Products.

Capitalized terms used but not otherwise defined herein shall have the meanings set forth in the Agreement.

Please indicate Codexis’ agreement to the foregoing by countersigning below.

Yours sincerely,

/s/ Michael S. Rabson

Michael S. Rabson

UNDERSTOOD AND AGREED
BY CODEXIS, INC.

By: /s/ Douglas T. Sheehy

Name: Douglas T. Sheehy

Title: VP & General Counsel

Date: September 24, 2007

[*] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

LEASE
BETWEEN
METROPOLITAN LIFE INSURANCE COMPANY (LANDLORD)
AND
CODEXIS, INC. (TENANT)
SEAPORT CENTRE
Redwood City, California

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LEASE
ARTICLE ONE
BASIC LEASE PROVISIONS

1.01 BASIC LEASE PROVISIONS

In the event of any conflict between these Basic Lease Provisions and any other Lease provision, such other Lease provision shall control.

(1) BUILDINGS AND ADDRESSES:

220 Penobscot Drive (17,627 sq. ft.)
Redwood City, California 94063
Building Number 4, located in Phase 1 of Seaport Centre

and

501 Chesapeake Drive (11,158 sq. ft.)
Redwood City, California 94063
Building Number 3, located in Phase 1 of Seaport Centre

and

200 Penobscot Drive (10,597 sq. ft.)
Redwood City, California 94063
Building Number 4, located in Phase 1 of Seaport Centre

(2) LANDLORD AND ADDRESS:

Metropolitan Life Insurance Company,
a New York corporation

Notices to Landlord shall be addressed:

Metropolitan Life Insurance Company
c/o Seaport Centre Manager
701 Chesapeake Drive
Redwood City, CA 94063
with copies to the following:

Metropolitan Life Insurance Company
400 South El Camino Real, Suite 800
San Mateo, CA 94402
Attention: Assistant Vice President

(3) TENANT; CURRENT ADDRESS & TAX ID:

- (a) Name: Codex's, Inc.
- (b) State of incorporation: Delaware
- (c) Tax Identification Number: _____

Tenant shall notify Landlord of any change in the foregoing.

Notices to Tenant shall be addressed:

Codexis, Inc.
200 Penobscot Drive
Redwood City, California 94063
Attention: Tassos Gianakakos

(4) DATE OF LEASE: as of October __, 2003

(5) LEASE TERM: seven (7) years

(6) COMMENCEMENT DATE: February 1, 2004

(7) EXPIRATION DATE: January 31, 2011

(8) MONTHLY BASE RENT (initial monthly installment due upon Tenant's execution):

<u>Period from/to</u>	<u>Monthly</u>	<u>SF of Rentable Area</u>
2/1/04 - 1/31/05	\$50,374	28,785
2/1/05 - 5/31/05	\$51,813	28,785
6/1/05 - 1/31/06	\$68,662	39,382
2/1/06 - 1/31/07	\$70,631	39,382
2/1/07 - 1/31/08	\$72,600	39,382
2/1/08 - 1/31/09	\$74,569	39,382
2/1/09 - 1/31/10	\$76,538	39,382
2/1/10 - 1/31/11	\$78,507	39,382

(9) RENT ADJUSTMENT DEPOSIT (initial monthly rate, until further notice): \$15,083.75 (initial monthly installment due upon Tenant's execution)

(10) TENANT'S RENTABLE AREA OF THE PREMISES: 28,785 square feet 2/1/04 through 5/31/05 and 39,382 square feet 6/1/05 through 1/31/11

(11) TENANTS RENTABLE AREA OF THE BUILDING: 17,627 square feet for Building 4 and 11,158 square feet for Building 3 (2/1/04 through 5/31/05); and 28,224 square feet for Building 4 and 11,158 square feet for Building 3 (6/1/05 through 1/31/11)

(12) TOTAL RENTABLE AREA OF PHASE I: 301,824 square feet

(13) TOTAL RENTABLE AREA OF THE PROJECT: 537,444 square feet

(14) TOTAL RENTABLE AREA OF BUILDING 3: 37,856 square feet

(15) TOTAL RENTABLE AREA OF BUILDING 4: 28,224 square feet

(16) SECURITY DEPOSIT: four hundred fifty thousand and no/100 dollars (\$450,000.00) due upon Tenant's execution

(17) SUITE NUMBER 8/OR ADDRESS OF PREMISES: 220 Penobscot Drive, 501 Chesapeake Drive and 200 Penobscot Drive

(18) TENANTS SHARE

Tenant's Building 3 Share:	29.48% 2/1/04 to 1/31/11
Tenant's Building 4 Share:	62.45% 2/1/04 to 5/31/05
Tenant's Building 4 Share:	100.00% 6/1/05 to 1/31/11
Tenant's Phase 1 Share:	9.54% 2/1/04 to 5/31/05
Tenant's Phase 1 Share:	13.05% 6/1/05 to 1/31/11
Tenant's Project Share:	5.3% 2/1/04 to 5/31/05
Tenants Project Share:	7.33% 6/1/05 to 1/31/11

(19) TENANT'S USE OF PREMISES: General office use, research and development, chemical and biochemical laboratory facilities, and warehousing.

(20) PARKING SPACES: 95 spaces 2/1/04 to 5/31/05 and 130 spaces 6/1/05 to 1/31/11

(21) BROKERS:

Landlord's Broker: Comish & Carey Commercial

Tenants Broker: CB Richard Ellis CRESA

1.02 ENUMERATION OF EXHIBITS

The Exhibits set forth below and attached to this Lease are incorporated in this Lease by this reference:

EXHIBIT A Plan of Premises

EXHIBIT B Workletter Agreement (intentionally omitted)

EXHIBIT C Site Plan of Project

EXHIBIT D Permitted Hazardous Material

EXHIBIT E Maxygen Improvements

EXHIBIT F Approved Providers

EXHIBIT G Tenant's Improvements

EXHIBIT H Form of Landlord's Consent to Lease of Personal Property

1.03 DEFINITIONS

For purposes hereof, the following terms shall have the following meanings:

ADJUSTMENT YEAR: The applicable calendar year or any portion thereof after the Commencement Date of this Lease for which a Rent Adjustment computation is being made.

AFFILIATE: Any Person (as defined below) which is currently owned or controlled by, owns or controls, or is under common ownership or control with Tenant. For purposes of this definition, the word "control," as used above means, with respect to a Person that is a corporation, the right to exercise, directly or indirectly, more than sixty percent (60%) of the voting rights attributable to the shares of the controlled corporation and, with respect to a Person that is not a corporation, the possession, directly or indirectly, of the power at all times to direct or cause the direction of the management and policies of the controlled Person. The word Person means an individual, partnership, trust, corporation, firm or other entity.

BUILDING: Each building in which the Premises is located, as specified in Section 1.01(1).

BUILDING OPERATING EXPENSES: Those Operating Expenses described in Section 4.01.

COMMENCEMENT DATE: The date specified in Section 1.01(6) as the Commencement Date, unless changed by operation of Article Two.

COMMON AREAS: All areas of the Project made available by Landlord from time to time for the general common use or benefit of the tenants of the Building or Project, and their employees and invitees, or the public, as such areas currently exist and as they may be changed from time to time.

DECORATION: Tenant Alterations which do not require a building permit and which do not affect the facade or roof of the Building, or involve any of the structural elements of the Building, or involve any of the Building's systems, including its electrical, mechanical, plumbing, security, heating, ventilating, air- conditioning, communication, and fire and life safety systems.

DEFAULT RATE: Two (2) percentage points above the rate then most recently announced by Bank of America N.T.& SA. at its San Francisco main office as its corporate base lending rate, from time to time announced, but in no event higher than the maximum rate permitted by Law.

DELIVERY DATE: The date for Landlord's delivery to Tenant of possession of the Premises, if different from the Commencement Date.

ENVIRONMENTAL LAWS: All Laws governing the use, storage, disposal or generation of any Hazardous Material or pertaining to environmental conditions on, under or about the Premises or any part of the Project, including the Comprehensive Environmental Response Compensation and Liability Act of 1980, as amended (42 U.S.C. Section 9601 et sm.), and the Resource Conservation and Recovery Act of 1976, as amended (42 U.S.C. Section 6901 et).

EXPIRATION DATE: The date specified in Section 1.01(7) unless changed by operation of Article Two.

FORCE MAJEURE: Any accident, casualty, act of God, war or civil commotion, strike or labor troubles, or any cause whatsoever beyond the reasonable control of Landlord, including water shortages, energy shortages or governmental preemption in connection with an act of God, a national emergency, or by reason of Law, or by reason of the conditions of supply and demand which have been or are affected by act of God, war or other emergency.

HAZARDOUS MATERIAL: Such substances, material and wastes which are or become regulated under any Environmental Law; or which are classified as hazardous or toxic or medical waste or biohazardous waste under any Environmental Law, and explosives, firearms and ammunition, flammable material, radioactive material, asbestos, polychlorinated biphenyls and petroleum and its byproducts.

INDEMNITEES: Collectively, Landlord, any Mortgagee or ground lessor of the Property, the property manager and the leasing manager for the Property and their respective directors, officers, agents and employees.

LAND: The parcel(s) of real estate on which the Building and Project are located. **LANDLORD WORK:** (intentionally omitted)

LAWS OR LAW: All laws, ordinances, rules, regulations, other requirements, orders, rulings or decisions adopted or made by any governmental body, agency, department or judicial authority having jurisdiction over the Property, the Premises or Tenant's activities at the Premises and any covenants, conditions or restrictions of record which affect the Property.

LEASE: This instrument and all exhibits attached hereto, as may be amended from time to time.

LEASE YEAR: The twelve month period beginning on the first day of the first month following the Commencement Date (unless the Commencement Date is the first day of a calendar month in which case beginning on the Commencement Date), and each subsequent twelve month, or shorter, period until the Expiration Date.

MONTHLY BASE RENT: The monthly rent specified in Section 1.01(8).

MORTGAGEE: Any holder of a mortgage, deed of trust or other security instrument encumbering the Property.

NATIONAL HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day and other holidays recognized by the Landlord and the janitorial and other unions servicing the Building in accordance with their contracts.

OPERATING EXPENSES: All Taxes, costs, expenses and disbursements of every kind and nature which Landlord shall pay or become obligated to pay in connection with the ownership, management, operation, maintenance, replacement and repair of the Property (including the amortized portion of any capital expenditure or improvement, together with interest thereon, expenses of changing utility service providers, and any dues, assessments and other expenses pursuant to any covenants, conditions and restrictions, or any reciprocal easements, or any owner's association now or hereafter affecting the Project). Operating Expenses shall be allocated among the categories of Project Operating Expenses, Building Operating Expenses or Phase Operating Expenses as provided in Article Four. If any Operating Expense, though paid in one year, relates to more than one calendar year, at the option of Landlord such expense may be proportionately allocated among such related calendar years (it being understood that those specific items of repairs and replacements, which under Generally Accepted Accounting Principles should be classified as capital expenditures, except that if such repair or replacement is of such a nature that it should be considered under Generally Accepted Accounting Principles a deferred expense and spread over a period of not more than ten (10) years, Operating Expenses for a year shall include the proportionate share of such deferred expense appropriately allocated to such year). Operating Expenses shall include the following, by way of illustration only and not limitation: (1) all Taxes; (2) all insurance premiums and other costs (including deductibles), including the cost of rental insurance; (3) all license, permit and inspection fees; (4) all costs of utilities, fuels and related services, including water, sewer, light, telephone, power and steam connection, service and related charges; (5) all costs to repair, maintain and operate heating, ventilating and air conditioning systems, including preventive maintenance; (6) all janitorial, landscaping and security services; (7) all wages, salaries, payroll taxes, fringe benefits and other labor costs of employees who devote substantially all of his or her time to the Building or Project, including the cost of workers' compensation and disability insurance; (8) all costs of operation, maintenance and repair of all parking facilities and other common areas; (9) all supplies, materials, equipment and tools; (10) dues, assessments and other expenses pursuant to any covenants, conditions and restrictions, or any reciprocal easements, or any owner's association now or hereafter affecting the Project (11) modifications to the Building or the Project occasioned by Laws now or hereafter in effect (12) the total charges of any independent contractors employed in the care, operation, maintenance, repair, leasing and cleaning of the Project, including landscaping, roof maintenance, and repair, maintenance and monitoring of life-safety systems, plumbing systems, electrical wiring and Project signage; (13) the cost of accounting services necessary to compute the rents and charges payable by tenants at the Project (14) exterior window and exterior wall cleaning and painting; (15) managerial and administrative expenses; (16) all costs in connection with the exercise facility at the Project (17) all costs and expenses related to Landlord's retention of consultants in connection with the routine review, inspection, testing, monitoring, analysis and control of Hazardous Material, and retention of consultants in connection with the clean-up of Hazardous Material (to the extent not recoverable from a particular tenant of the Project), and all costs and expenses related to the implementation of recommendations made by such consultants concerning the use, generation, storage, manufacture, production, storage, release, discharge, disposal or clean-up of Hazardous Material on, under or about the Premises or the Project (to the extent not recoverable from a particular tenant of the Project), but only to the extent applicable to Tenant and its use of the Premises; (18) all capital improvements made for the purpose of reducing or controlling other Operating Expenses, and all other capital expenditures, but only as amortized over such reasonable period

as Landlord shall determine, together with interest thereon; (19) all property management costs and fees, including all costs in connection with the Project property management office; and (20) all fees or other charges incurred in conjunction with voluntary or involuntary membership in any energy conservation, air quality, environmental, traffic management or similar organizations. Notwithstanding the foregoing, Operating Expenses shall not include: (a) costs of alterations of space to be occupied by new or existing tenants of the Project; (b) depreciation charges; (c) interest and principal payments on loans (except for loans for capital expenditures or improvements which Landlord is allowed to include in Operating Expenses as provided above); (d) ground rental payments; (e) real estate brokerage and leasing commissions; (f) advertising and marketing expenses; (g) costs of Landlord reimbursed by insurance proceeds; (h) expenses incurred in negotiating leases of other tenants in the Project or enforcing lease obligations of other tenants in the Project; (i) Landlord's or Landlord's property manager's corporate general overhead or corporate general administrative expenses; (j) costs of correcting defects in or inadequacy of the initial design or construction of the Building or Property; (k) costs of a capital nature, including, without limitation, capital improvements, capital repairs, capital equipment and capital tools, all as determined in accordance with generally acceptable accounting principles; (l) any late fees, fines, penalties and interest on past due amounts incurred by Landlord; (m) expenses directly resulting from the gross negligence or willful misconduct of Landlord, its agents or employees; and (n) any cost (such as repairs, improvements, electricity, special cleaning or overtime services) to the extent such costs are expressly reimbursed to Landlord by tenants (as opposed to partial reimbursement in the nature of rent escalation provisions) or are separately charged to and payable by tenants.

"Operating Expenses" shall be reduced by all cash discounts, trade discounts or quantity discounts received by Landlord or Landlord's managing agent in the purchase of any goods, utilities or services in connection with the operation of the Property.

PHASE: Phase means any individual Phase of the Project, as more particularly described in the definition of Project.

PHASE OPERATING EXPENSES: Those Operating Expenses described in Section 4.01.

PREMISES: The space located in the Buildings at the Suite Numbers listed in Section 1.01(15) and depicted on Exhibit A attached hereto. The Premises shall consist of 501 Chesapeake Drive ("Space A"), 220 Penobscot Drive ("Space B") and 200 Penobscot Drive ("Space C").

PROJECT or PROPERTY: As of the date hereof, the Project is known as Seaport Centre and consists of those buildings (including the Building) whose general location is shown on the Site Plan of the Project attached as Exhibit C located in Redwood City, California, associated vehicular and parking areas, landscaping and improvements, together with the Land, any associated interests in real property, and the personal property, fixtures, machinery, equipment, systems and apparatus located in or used in conjunction with any of the foregoing. The Project may also be referred to as the Property. As of the date hereof, the Project is divided into Phase I and Phase II, which are generally designated on Exhibit C each of which may individually be referred to as a Phase. Landlord reserves the right from time to time to add or remove buildings, areas and improvements to or from a Phase or the Project, or to add or remove a Phase to or from the Project. In the event of any such addition or removal which affects the Total Rentable Area of the Project or a Phase, Landlord shall make a corresponding recalculation and adjustment of any affected Tenant's Rentable Area and Tenant's Share.

PROJECT OPERATING EXPENSES: Those Operating Expenses described in Section 4.01.

REAL PROPERTY: The Property excluding any personal property.

RENT: Collectively, Monthly Base Rent, Rent Adjustments and Rent Adjustment Deposits, and all other charges, payments, late fees or other amounts required to be paid by Tenant under this Lease.

RENT ADJUSTMENT: Any amounts owed by Tenant for payment of Operating Expenses. The Rent Adjustments shall be determined and paid as provided in Article Four.

RENT ADJUSTMENT DEPOSIT: An amount equal to Landlord's estimate of the Rent Adjustment attributable to each month of the applicable Adjustment Year. On or before the Commencement Date and the beginning of each subsequent Adjustment Year or with Landlord's Statement (defined in Article Four), Landlord may estimate and notify Tenant in writing of its estimate of Operating Expenses, including Project Operating Expenses, Building Operating Expenses and Phase Operating Expenses, and Tenant's Share of each, for the applicable Adjustment Year. The Rent Adjustment Deposit applicable for the calendar year in which the Commencement Date occurs shall be the amount, if any, specified in Section 1.01(9). Nothing contained herein shall be construed to limit the right of Landlord from time to time during any calendar year to revise its estimates of Operating Expenses and to notify Tenant in writing thereof and of revision by prospective adjustments in Tenant's Rent Adjustment Deposit payable over the remainder of such year. The last estimate by Landlord shall remain in effect as the applicable Rent Adjustment Deposit unless and until Landlord notifies Tenant in writing of a change.

SECURITY DEPOSIT: The funds specified in Section 1.01(16), if any, deposited by Tenant with Landlord as security for Tenant's performance of its obligations under this Lease.

TAXES: All federal, state and local governmental taxes, assessments (including assessment bonds) and charges of every kind or nature, whether general, special, ordinary or extraordinary, which Landlord shall pay or become obligated to pay because of or in connection with the ownership, leasing, management, control or operation of the Property or any of its components (including any personal property used in connection therewith), which may also include any rental or similar taxes levied in lieu of or in addition to general real and/or personal property taxes. For purposes hereof, Taxes for any year shall be Taxes which are assessed for any period of such year, whether or not such Taxes are billed and payable in a subsequent calendar year. There shall be included in Taxes for any year the amount of all fees, costs and expenses (including reasonable attorneys fees) paid by Landlord during such year in seeking or obtaining any refund or reduction of Taxes, but not to exceed any tax savings resulting from such contest. Taxes for any year shall be reduced by the net amount of any tax refund received by Landlord attributable to such year. If a special assessment payable in installments is levied against any part of the Property, Taxes for any year shall include only the installment of such assessment and any interest payable or paid during such year. Taxes shall not include any federal or state inheritance,

general income, franchise, gift or estate taxes, except that if a change occurs in the method of taxation resulting in whole or in part in the substitution of any such taxes, or any other assessment, for any Taxes as above defined, such substituted taxes or assessments shall be included in the Taxes. In addition, Landlord shall be solely responsible for penalties or other charges for late payment of taxes.

TENANT ADDITIONS: Collectively, Tenant Work and Tenant Alterations, but not including Tenant's Personal Property.

TENANT ALTERATIONS: Any alterations, improvements, additions, installations or construction in or to the Premises or any Real Property systems serving the Premises done or caused to be done by Tenant after the date hereof, whether prior to or after the Commencement Date.

TENANT DELAY: (intentionally omitted)

TENANT WORK: All work installed or furnished to the Premises by Tenant in connection with Tenant's initial occupancy.

TENANTS BUILDING SHARE: The share as specified in Section 1.01(18) and Section 4.01.

TENANTS PERSONAL PROPERTY: All movable personal property of Tenant and Tenants trade fixtures (including without limitation, any autoclaves, hoods, animal facility, fermentors, casework, cold rooms, generators, equipment furniture, furnishings, telephone equipment and cabling for any of the foregoing), the costs of which were not paid for by any portion of Landlord's Contribution.

TENANTS PHASE: Phase I.

TENANTS PHASE SHARE: The share as specified in Section 1.01(18) and Section 4.01.

TENANTS PROJECT SHARE: The share as specified in Section 1.01(18) and Section 4.01.

TENANTS RENTABLE AREA OF THE BUILDING: The amount of square footage set forth in Section 1.01(11).

TENANT'S RENTABLE AREA OF THE PREMISES: The amount of square footage set forth in Section 1.01(10).

TENANT'S SHARE: Shall mean collectively, Tenant's respective shares of the respective categories of Operating Expenses, as provided in Section 1.01(18) and Section 4.01.

TERM: The term of this Lease commencing on the Commencement Date and expiring on the Expiration Date.

TERMINATION DATE: The Expiration Date or such earlier date as this Lease terminates or Tenant's right to possession of the Premises terminates.

TOTAL RENTABLE AREA OF BUILDING 3: The amount of square footage set forth in Section 1.01(14).

TOTAL RENTABLE AREA OF BUILDING 4: The amount of square footage set forth in Section 1.01(15).

TOTAL RENTABLE AREA OF PHASE I: The amount of square footage set forth in Section 1.01(12)

TOTAL RENTABLE AREA OF THE PROJECT: The amount of square footage set forth in Section 1.01(13), which represents the sum of the rentable area of all space intended for occupancy In the Project.

WORKLETTER: (intentionally omitted)

ARTICLE TWO
PREMISES, TERM, FAILURE TO GIVE POSSESSION, COMMON AREAS AND PARKING

2.01 LEASE OF PREMISES

Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the Premises for the Term and upon the terms, covenants and conditions provided in this Lease.

2.02 TERM

The Commencement Date shall be February 1, 2004 and Landlord shall deliver possession of (a) Space A on December 10, 2003 (the "First Delivery Date"); (b) Space B on February 1, 2004 (the "Second Delivery Date"); and (c) Space C on February 25, 2005 (the "Third Delivery Date") for the purposes of performing the Tenant Work.

2.03 FAILURE TO GIVE POSSESSION

Tenant acknowledges that it currently has possession of Space A pursuant to its affiliation with the current subtenant of said Space A, however, Tenant's right to do any Tenant Work (as hereinafter defined) in Space A prior to the First Delivery Date is contingent upon Landlord obtaining the prior written consent of Cygnus, Inc., the current tenant of Space A. If the Landlord shall be unable to give direct possession of Space A on the First Delivery Date or Space B on the Second Delivery Date by reason of the following: (i) the holding over or retention of possession of any tenant, tenants or occupants, or (ii) for any other reason, then Landlord shall not be subject to any liability for the failure to give possession on said date. Under such circumstances the Commencement Date shall be delayed by a number of days equal to the days of delay in Landlord's delivery of possession to Tenant. No such failure to give possession on the First Delivery Date or the Second Delivery Date shall affect the validity of this Lease or the obligations of the Tenant hereunder.

If the Landlord shall be unable to give possession of Space C on the Third Delivery Date by reason of the following: (i) the holding over or retention of possession of any tenant, tenants or occupants, or (ii) for any other reason, then Landlord shall not be subject to any liability for the

failure to give possession on said date. Under such circumstances the increase in Monthly Base Rent scheduled for June 1, 2005 pursuant to the provisions of Section 1.01(8) of this Lease with respect only to the increased square footage (and not the rate for the then current square footage) shall be delayed by a number of days equal to the days of delay in Landlord's delivery of possession to Tenant. No such failure to give possession on the Third Delivery Date shall affect the validity of this Lease or the obligations of the Tenant hereunder.

2.04 AREA OF PREMISES

Landlord and Tenant agree that for all purposes of this Lease Tenant's Rentable Area of the Premises, Tenant's Rentable Area of the Building, the Total Rentable Area of Phase I, the Total Rentable Area of the Project, the Total Rentable Area of Building 3 and the Total Rentable Area of Building 4 as set forth in Article One are controlling, and are not subject to revision after the date of this Lease.

2.05 CONDITION OF PREMISES

- (a) Tenant acknowledges and agrees that (i) Tenant has been afforded ample opportunity to inspect the Premises, the Building and the Project, and has investigated their condition to the extent Tenant desires to do so; (ii) Tenant hereby agrees that this Lease is of the Premises in its "AS IS" condition; (iii) no representation regarding the condition of the Premises or the Building or the Project has been made by or on behalf of Landlord; (iv) Landlord has no obligation to remodel or to make any repairs, alterations or improvements to the Premises, Building or the Project in connection with Tenant's initial occupancy or provide Tenant any allowance for any work by Tenant, except for the Landlord's Contribution as provided below-, (v) the Premises shall be delivered in an AS IS condition, including the improvements in place as of the Maxygen Termination Date (as hereinafter defined), a list of such improvements is attached hereto as Exhibit E and the property of Landlord; and (vi) there is no Workletter for this Lease.
- (b) Landlord's Contribution means
 - (i) an amount up to a maximum of Four Hundred Thousand and No/100 Dollars (\$400,000.00) (the "First Contribution") to reimburse Tenant for the actual costs of design, plan review, obtaining at approvals and permits, and construction of Tenant Work in Space A and Space B in order to refurbish Space A and Space B so that (x) approximately 60% of the space is laboratory space, (y) 40% of the space feet is office space and (z) demising walls acceptable to Landlord (in its sole discretion) are constructed between Space B and Space C in the event that a third party, unrelated to Tenant leases or subleases Space C prior to the Third Delivery Date, and shall be payable as provided below. Tenant shall use a portion of the Contribution (no less than One Hundred Thousand and No/100 Dollars (\$100,000.00)] for Work done in Space A and portion of the Contribution (no less than One Hundred Thousand and No/100 Dollars (\$100,000.00)3 for Work done in Space B; and

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- (ii) an amount up to a maximum of Eighty Thousand and No/100 Dollars (\$80,000.00) (the "Second Contribution") to reimburse Tenant for the actual costs of design, plan review, obtaining all approvals and permits, and construction of Tenant Work in Space C as is necessary to refurbish Space C.

In no event shall Landlord's Contribution be used to reimburse any costs of designing, procuring or installing in the Premises Tenant's Personal Property, and the cost of such Tenant's Personal Property shall be paid by Tenant. Landlord's Contribution shall be payable by Landlord to Tenant no more often than monthly for costs based upon the percentage of work completed prior to the date of the request for payment and any balance so payable shall be paid within 30 days after Landlord's receipt of Tenant's request for payment. In each such request, Tenant shall submit to Landlord copies of all invoices and Tenant shall certify that it has paid such invoices, that such request represents costs reimbursable to Tenant for work performed prior to the date of the request, that there are no known mechanic's or materialmen's liens outstanding at the date of a request, that there is no known basis for the filing of any mechanic's or materialmen's liens relating to the work, and that waivers from all subcontractors, mechanics and materialmen have been obtained in such form as to constitute an effective waiver of lien under the laws of the State of California. Tenant shall provide Landlord copies of such waivers. Notwithstanding the foregoing, Tenant shall not request an advance of a portion of Landlord's Contribution in an amount which is less than \$50,000 unless such advance is the final advance to be made hereunder, or Tenant has not requested an advance in the past 60 days. Tenant shall keep full and correct accounts and shall exercise such control as may be necessary or appropriate for the proper financial management of the construction of Tenant Work separately identified as to each of Space A, Space B and Space C or, if the work is done under separate contracts or in smaller separate identifiable segments or phases, then upon completion of and with respect to each separate contract or phase). The final payment of Landlord's Contribution shall be paid to Tenant within 30 days after the later of final completion of the Tenant Work and Landlord's receipt of (i) a certificate of occupancy (if applicable), (ii) final as-built plans and specifications, (iii) full, final, unconditional lien releases, and (iv) reasonable substantiation of costs incurred by Tenant with respect to the Tenant Work. Tenant must prior to expiration of nine months after the Commencement Date submit written request with the items required above for disbursement or reimbursement for any reimbursable costs out of the Landlord's Contribution, and to the extent of any funds for which request has not been made prior to that date or if and to the extent that the reimbursable costs of the Tenant Work are less than the amount of Landlord's Contribution, then Landlord shall retain the unapplied or unused balance of the Landlord's Contribution and shall have no obligation or liability to Tenant with respect to such excess. If the costs of completing the Tenant Work exceeds the First Contribution or the Second Contribution, Tenant shall pay all such costs. After completion of Tenant Work, Tenant shall provide Landlord with a reasonably detailed breakdown of the allocation of the Landlord's Contribution. Until the expiration of eighteen (18) months after Tenant delivers to Landlord the final request for payment of Landlord's Contribution, Landlord, through its Building manager, employees and/or independent accounting firm, shall be afforded reasonable access at the Premises from time to time during normal business hours after reasonable advance written or oral notice, to Tenant's records,

books, correspondence, instructions, drawings, receipts, invoices, purchase orders, agreements (including with contractors, subcontractors and suppliers), vouchers and other information relating to Tenant Work and the use of Landlord's Contribution for the purpose of reviewing, auditing and/or copying such material. Such copying and inspection shall be at Landlord's sole cost.

(a) Tenant's cost of the Tenant Work shall include a fee of two percent (2%) of Landlord's Contribution which shall be retained by Landlord as compensation for supervising the Tenant Work ("Landlord's Construction Management Fee").

(b) Tenant shall be responsible for the suitability for the Tenant's needs and business of the design and function of all Tenant Work and for its construction in compliance with all Law as applicable and as interpreted at the time of construction of the Tenant Work, including all building codes and the ADA (as defined in the Lease). Tenant, through its architects and/or space planners ("Tenant's Architect"), shall prepare all architectural plans and specifications, and engineering plans and specifications, for the real property improvements to be constructed by Tenant in the Premises in sufficient detail to be submitted for approval by Landlord to the extent required pursuant to Article Nine of the Lease and to be submitted by Tenant for governmental approvals and building permits and to serve as the detailed construction drawings and specifications for the contractor, and shall include, among other things, all partitions, doors, heating, ventilating and air conditioning installation and distribution, ceiling systems, light fixtures, plumbing installations, electrical installations and outlets, telephone installations and outlets, any other installations required by Tenant, fire and life-safety systems, wall finishes and floor coverings, whether to be newly installed or requiring changes from the as-is condition of the Premises as of the date of execution of the Lease. Tenant shall be responsible for the oversight, supervision and construction of all Tenant Work in compliance with this Lease, including compliance with all Law as applicable and as interpreted at the time of construction, including all building codes and the ADA.

(c) Tenant hereby acknowledges that all improvements installed in the Premises by Tenant under this Section 2.05 shall, without compensation or credit to Tenant, become part of the Premises and the property of Landlord at the time of their installation and shall remain in the Premises, unless pursuant to an agreement between the parties hereto, Tenant may remove them or is required to remove them at Landlord's request.

2.06 COMMON AREAS & PARKING

(a) Right to Use Common Areas Tenant shall have the non-exclusive right, in common with others, to the use of any common entrances, ramps, drives and similar access and service ways and other Common Areas in the Project. The rights of Tenant hereunder in and to the Common Areas shall at all times be subject to the rights of Landlord and other tenants and owners in the Project who use the same in common with Tenant, and it shall be the duty of Tenant to keep all the Common Areas free and clear of any obstructions created or permitted by Tenant or resulting from Tenant's operations. Tenant shall not use the Common Areas or common facilities of the Building or the Project, including the Building's electrical room, parking lot or trash enclosures, for storage purposes. Nothing herein shall affect the right of Landlord at any time to remove any persons not authorized to use the Common Areas or common facilities from such areas or facilities or to prevent their use by unauthorized persons.

Tenant shall in addition have the nonexclusive right, in common with Landlord and any tenant or other user of all or any portion of the remainder of Building 3 (the "Adjacent Space") to use the area designated on Exhibit A-1 as the common areas (Building Common Areas"). In addition to Tenant's obligations as set forth in this Lease, Tenant shall repair and maintain the Building Common Areas and keep the Building Common Areas clean at all times, the cost thereof to be shared between Tenant and any other tenant in Building 3 ("Adjacent Tenant"), based on relative square footage leased from Landlord under the applicable leases. Landlord agrees to provide in any lease with an Adjacent Tenant, that such Adjacent Tenant shall reimburse Tenant for the Adjacent Tenants share of such repair, maintenance and cleaning costs incurred by Tenant for the Building Common Areas pursuant to this paragraph. Tenant shall be solely responsible for collecting any amounts owed for such costs directly from the Adjacent Tenants.

(b) Changes in Common Areas. Landlord reserves the right, at any time and from time to time to (i) make alterations in or additions to the Common Areas or common facilities of the Project, including constructing new buildings or changing the location, size, shape or number of the driveways, entrances, parking spaces, parking areas, loading and unloading areas, landscape areas and walkways, (ii) designate property to be included in or eliminate property from the Common Areas or common facilities of the Project, (iii) close temporarily any of the Common Areas or common facilities of the Project for maintenance purposes, and (4) use the Common Areas and common facilities of the Project while engaged in making alterations in or additions and repairs to the Project provided, however, that reasonable access to the Premises and parking at or near the Project remains available and that any closure of Common Areas shall be for the minimum amount of time necessary.

(c) Parking. During the Term, Tenant shall have the right to use the number of Parking Spaces specified in Section 1.01(18) for parking on an unassigned basis on that portion of the Project designated by Landlord from time to time for parking. Tenant acknowledges and agrees that the parking spaces in the Project's parking facility may include a mixture of spaces for compact vehicles as well as full-size passenger automobiles, and that Tenant shall not use parking spaces for vehicles larger than the striped size of the parking spaces. Tenant shall not park any vehicles at the Project overnight. Tenant shall comply with any and all parking rules and regulations if and as from time to time established by Landlord and delivered to Tenant. Tenant shall not allow any vehicles using Tenants parking privileges to be parked, loaded or unloaded except in accordance with this Section, including in the areas and in the manner designated by Landlord for such activities. If any vehicle is using the parking or loading areas contrary to any provision of this Section, Landlord shall have the right, in addition to all other rights and remedies of Landlord under this Lease, to remove or tow away the vehicle without prior notice to Tenant, and the cost thereof shall be paid to Landlord within ten (10) days after notice from Landlord to Tenant.

ARTICLE THREE
RENT

Tenant agrees to pay to Landlord at the first office specified in Section 1.01(2), or to such other persons, or at such other places designated by Landlord, without any prior demand therefor in immediately available funds and without any deduction or offset whatsoever, Rent, including Monthly Base Rent and Rent Adjustments in accordance with Article Four, during the Term. Monthly Base Rent shall be paid monthly in advance on the first day of each month of the Term, except that the first installment of Monthly Base Rent shall be paid by Tenant to Landlord concurrently with execution of this Lease. Monthly Base Rent shall be prorated for partial months within the Term. Unpaid Rent shall bear interest at the Default Rate from the date due until paid. Tenant's covenant to pay Rent shall be independent of every other covenant in this Lease.

ARTICLE FOUR
OPERATING EXPENSES, RENT ADJUSTMENTS AND PAYMENTS

4.01 TENANTS SHARE OF OPERATING EXPENSES

Tenant shall pay Tenant's Share of Operating Expenses in the respective shares of the respective categories of Operating Expenses as set forth below.

(a) Tenant's Project Share of Project Operating Expenses, which is the percentage obtained by dividing the rentable square footage of the Premises for the building(s) in which the Premises is located by the rentable square footage of the Project and as of the date hereof equals the percentage set forth in Section 1.01(16);

(b) Tenant's Building Share of Building Operating Expenses, which is the percentage obtained by dividing the rentable square footage of the Premises respectively for each building in which the Premises is located by the total rentable square footage of such building and as of the date hereof equals the percentage set forth in Section 1.01(16);

(c) Tenant's Phase Share of Phase Operating Expenses, which is the percentage obtained by dividing the aggregate rentable square footage of the Premises located in Tenant's Phase by the total rentable square footage of Tenant's Phase and as of the date hereof equals the percentage set forth in Section 1.01(16);

(d) Project Operating Expenses shall mean all Operating Expenses that are not included as Phase Operating Expenses (defined below) and that are not either Building Operating Expenses or operating expenses directly and separately identifiable to the operation, maintenance or repair of any other building located in the Project, but Project Operating Expenses includes operating expenses allocable to any areas of the Building or any other building during such time as such areas are made available by Landlord for the general common use or benefit of all tenants of the Project, and their employees and invitees, or the public, as such areas currently exist and as they may be changed from time to time;

(e) Building Operating Expenses shall mean Operating Expenses that are directly and separately identifiable to each building in which the Premises or part thereof is located;

(f) Phase Operating Expenses shall mean Operating Expenses that Landlord may allocate to a Phase as directly and separately identifiable to all buildings located in the Phase (including but not limited to the Building) and may include Project Operating Expenses that are separately identifiable to a Phase;

(g) Landlord shall have the right to reasonably allocate a particular item or portion of Operating Expenses as any one of Project Operating Expenses, Building Operating Expenses or Phase Operating Expenses; however, in no event shall any portion of Building Operating Expenses, Project Operating Expenses or Phase Operating Expenses be assessed or counted against Tenant more than once; and

(h) Notwithstanding anything to the contrary contained in this Section 4.01, as to each specific category of Operating Expense which one or more tenants of the Building either pays directly to third parties or specifically reimburses to Landlord (for example, separately contracted janitorial services or property taxes directly reimbursed to Landlord), then, on a category by category basis, the amount of Operating Expenses for the affected period shall be adjusted as follows: (1) all such tenant payments with respect to such category of expense and all of Landlord's costs reimbursed thereby shall be excluded from Operating Expenses and Tenant's Building Share, Tenant's Phase Share or Tenant's Project Share, as the case may be, for such category of Operating Expense shall be adjusted by excluding the square footage of all such tenants, and (2) if Tenant pays or directly reimburses Landlord for such category of Operating Expense, such category of Operating Expense shall be excluded from the determination of Operating Expenses for the purposes of this Lease.

4.02 RENT ADJUSTMENTS

Tenant shall pay to Landlord Rent Adjustments with respect to each Adjustment Year as follows:

(a) The Rent Adjustment Deposit representing Tenant's Share of Landlord's estimate of Operating Expenses, as described in Section 4.01, for the applicable Adjustment Year (or portion thereof) monthly during the Term with the payment of Monthly Base Rent, except the first installment which shall be paid by Tenant to Landlord concurrently with execution of this Lease; and

(b) Any Rent Adjustments due in excess of the Rent Adjustment Deposits in accordance with Section 4.02.

4.03 STATEMENT OF LANDLORD

Within one hundred twenty (120) days after the end of each calendar year or as soon thereafter as reasonably possible, Landlord will furnish Tenant a statement ("Landlord's Statement") showing the following: •

(a) Operating Expenses for the last Adjustment Year showing in reasonable detail the actual Operating Expenses categorized among Project Operating Expenses, Building Operating Expenses and Phase Operating Expenses for such period and Tenant's Share of each as described in Section 4.01. above;

(b) The amount of Rent Adjustments due Landlord for the last Adjustment Year, less credit for Rent Adjustment Deposits paid, if any; and

(c) Any change in the Rent Adjustment Deposit due monthly in the current Adjustment Year, including the amount or revised amount due for months preceding any such change pursuant to Landlord's Statement

Tenant shall pay to Landlord within ten (10) days after receipt of such statement any amounts for Rent Adjustments then due in accordance with Landlord's Statement. Any amounts due from Landlord to Tenant pursuant to this Section shall be credited to the Rent Adjustment Deposit next coming due, or refunded to Tenant if the Term has already expired provided Tenant is not in default hereunder. No interest or penalties shall accrue on any amounts which Landlord is obligated to credit or refund to Tenant by reason of this Section 4.02. Landlord's failure to deliver Landlord's Statement or to compute the amount of the Rent Adjustments shall not constitute a waiver by Landlord of its right to deliver such items nor constitute a waiver or release of Tenant's obligations to pay such amounts. The Rent Adjustment Deposit shall be credited against Rent Adjustments due for the applicable Adjustment Year. During the last complete calendar year or during any partial calendar year in which the Lease terminates, Landlord may include in the Rent Adjustment Deposit its estimate of Rent Adjustments which may not be finally determined until after the termination of this Lease. Tenant's obligation to pay Rent Adjustments survives the expiration or termination of the Lease. Notwithstanding the foregoing, in no event shall the sum of Monthly Base Rent and the Rent Adjustments be less than the Monthly Base Rent payable.

4.04 BOOKS AND RECORDS

Landlord shall maintain books and records showing Operating Expenses and Taxes in accordance with sound accounting and management practices, consistently applied. The Tenant or its representative (which representative shall be a certified public accountant licensed to do business in the state in which the Property is located and whose primary business is certified public accounting) shall have the right, for a period of thirty (30) days following the date upon which Landlord's Statement is delivered to Tenant, to examine the Landlord's books and records with respect to the items in the foregoing statement of Operating Expenses and Taxes during normal business hours, upon written notice, delivered at least three (3) business days in advance. If Tenant does not object in writing to Landlord's Statement within sixty (60) days of Tenant's receipt thereof, specifying the nature of the item in dispute and the reasons therefor, then Landlord's Statement shall be considered final and accepted by Tenant. Any amount due to the Landlord as shown on Landlord's Statement, whether or not disputed by Tenant as provided herein shall be paid by Tenant when due as provided above, without prejudice to any such written exception.

In the event such audit discloses (i) errors made during the prior calendar year which, when totaled, established that the sum overcharged to and paid by Tenant exceeds five percent (5%) of the actual (as distinguished from estimated) amount of Tenant's Share of Operating Expenses and Taxes, Tenant's costs of the audit shall be paid by Landlord, or (ii) no errors or an error which equals or is less than five percent (5%), Tenant's costs of the audit shall be paid by Tenant. If the audit determines that any sums are due and owing Tenant, such sums shall be credited to the next payment of Rent unless the Lease has been terminated, in such event Landlord shall promptly pay Tenant such amount.

Tenant acknowledges and agrees that it is a condition of Tenant's right to conduct an audit pursuant to the foregoing, that Tenant and/or its representative, prior to commencement of such audit, execute a confidentiality agreement whereby Tenant and/or its representative agree to keep confidential and not disclose to any other party (other than Tenant's employees involved in such audit, and other professionals directly involved in the audit or results thereof) the results of any such audit or any action taken by Landlord in response thereto, except if required to disclose such information as required by applicable law or court order.

4.05 TENANT OR LEASE SPECIFIC TAXES

In addition to Monthly Base Rent, Rent Adjustments, Rent Adjustment Deposits and other charges to be paid by Tenant, Tenant shall pay to Landlord, upon demand, any and all taxes payable by Landlord (other than federal or state inheritance, general income, gift or estate taxes) whether or not now customary or within the contemplation of the parties hereto; (a) upon, allocable to, or measured by the Rent payable hereunder, including any gross receipts tax or excise tax levied by any governmental or taxing body with respect to the receipt of such rent or (b) upon or with respect to the possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises or any portion thereof; or (c) upon the measured value of Tenants personal property or trade fixtures located in the Premises or in any storeroom or any other place in the Premises or the Property, or the areas used in connection with the operation of the Property, it being the intention of Landlord and Tenant that, to the extent possible, Tenant shall cause such taxes on personal property or trade fixtures to be billed to and paid directly by Tenant; (d) resulting from Tenant Work or Tenant Alterations to the Premises, whether title thereto is in Landlord or Tenant; or (e) upon this transaction. Taxes paid by Tenant pursuant to this Section 4.05 shall not be included in any computation of Taxes as part of Operating Expenses.

ARTICLE FIVE SECURITY DEPOSIT

5.01 CASH DEPOSIT

(a) Tenant shall pay Landlord, concurrently with execution of this Lease, in immediately available funds the amount of the Security Deposit specified in Section 1.01(14) as security ("Security") for the full and faithful performance by Tenant of each and every term, provision, covenant, and condition of this Lease. If Tenant fails timely to perform any of the terms, provisions, covenants and conditions of this Lease or any other document executed by Tenant in connection with this Lease, including, but not limited to, the payment of any Rent or

the repair of damage to the Premises caused by Tenant (excluding normal wear and tear) then Landlord may use, apply, or retain the whole or any part of the Security for the payment of any such Rent not paid when due, for the cost of repairing such damage, for the cost of cleaning the Premises, for the payment of any other sum which Landlord may expend or may be required to expend by reason of Tenant's failure to perform, and otherwise for compensation of Landlord for any other loss or damage to Landlord occasioned by Tenant's failure to perform, including, but not limited to, any loss of future Rent and any damage or deficiency in the reletting of the Premises (whether such loss, damages or deficiency accrue before or after summary proceedings or other reentry by Landlord) and the amount of the unpaid past Rent, future Rent loss, and all other losses, costs and damages, that Landlord would be entitled to recover if Landlord were to pursue recovery under Section 11.02(b) or (c) of this Lease. If Landlord so uses, applies or retains all or part of the Security, Tenant shall within five (5) business days after demand pay or deliver to Landlord in immediately available funds the sum necessary to replace the amount used, applied or retained, except as specified in (c) below. If Tenant shall fully and faithfully comply with all of Tenant's terms, provisions, covenants and conditions of this Lease, the Security (except any amount retained for application by Landlord as provided herein) shall be returned or paid over to Tenant no later than forty-five (45) days after the latest of (i) the Termination Date; (ii) the removal of Tenant from the Premises; (iii) the surrender of the Premises by Tenant to Landlord in accordance with this Lease; or (iv) the date Rent Adjustments owed pursuant to this Lease have been computed by Landlord and paid by Tenant. Provided, however, in no event shall any such return be construed as an admission by Landlord that Tenant has performed all of its obligations hereunder.

(b) The Security shall not be deemed an advance rent deposit or an advance payment of any kind, or a measure of Landlord's damages with respect to Tenant's failure to perform, nor shall any action or inaction of Landlord with respect to it be a waiver of, or bar or defense to, enforcement of any right or remedy of Landlord. Landlord shall not be required to keep the Security separate from its general funds and shall not have any fiduciary or other duties concerning the Security except as set forth in this Section. Tenant shall not be entitled to any interest on the Security. In the event of any sale, lease or transfer of Landlord's interest in the Building, Landlord shall have the right to transfer the Security, or balance thereof, to the vendee, transferee or lessee and any such transfer shall release Landlord from all liability for the return of the Security. Tenant thereafter shall look solely to such vendee, transferee or lessee for the return or payment of the Security. Tenant shall not assign or encumber or attempt to assign or encumber the Security or any interest in it and Landlord shall not be bound by any such assignment, encumbrance, attempted assignment or attempted encumbrance, and regardless of one or more assignments of this Lease, Landlord may return the Security to the original Tenant without liability to any assignee. Tenant hereby waives any and all rights of Tenant under the provisions of Section 1950.7 of the California Civil Code or other Law, now or hereafter enacted, regarding security deposits.

(c) Notwithstanding anything to the contrary contained in the foregoing, the following provisions shall apply to the Security Deposit Within thirty (30) days following the last day of the twenty fourth (24th) month of the Term, Landlord shall return to Tenant the sum of \$45,000 of the Security Deposit ("First Return"), provided that at the time of such First Return, Tenant shall not be in Default under the Lease. The First Return shall be paid to Tenant by cash or check. Within thirty (30) days following the last day of the thirty sixth (36) month of

the Term, Landlord shall return to Tenant the sum of \$45,000 of the Security Deposit ("Second Return"), provided that at the time of such Second Return, Tenant shall not be in Default under the Lease. The Second Return shall be paid to Tenant by cash or check. Within thirty (30) days following the last day of the forty eighth (4e) month of the Term, Landlord shall return to Tenant the sum of \$45,000 of the Security Deposit ("Third Return"), provided that at the time of such Third Return, Tenant shall not be in Default under the Lease. The Third Return shall be paid to Tenant by cash or check. Within thirty (30) days following the last day of the sixtieth (60th) month of the Term, Landlord shall return to Tenant the sum of \$45,000 of the Security Deposit ("Fourth Return"), provided that at the time of such Fourth Return, Tenant shall not be in Default under the Lease. The Fourth Return shall be paid to Tenant by cash or check. Within thirty (30) days following the last day of the seventy second (72m) month of the Term, Landlord shall return to Tenant the sum of \$45,000 of the Security Deposit ("Fifth Return"), provided that at the time of such Fifth Return, Tenant shall not be in Default under the Lease. The Fifth Return shall be paid to Tenant by cash or check.

5.02 LETTER OF CREDIT

Notwithstanding anything to the contrary contained herein, Tenant shall have the option to deliver to Landlord a Letter of Credit (as set forth below) in lieu of the Security Deposit set forth in Section 5.01 above. If Tenant elects to post a Letter of Credit in lieu of the Security Deposit, then the following shall apply:

(a) No later than February 1, 2004, Tenant shall deliver to Landlord the Letter of Credit described below as security for Tenant's performance of all of Tenant's covenants and obligations under this Lease; provided, however, that neither the Letter of Credit nor any Letter of Credit Proceeds (as defined below) shall be deemed an advance rent deposit or an advance payment of any other kind, or a measure of Landlord's damages upon Tenant's default. The Letter of Credit shall be maintained in effect from the date thereof through January 31, 2011 (the "LOC Expiration Date"), and provided that on the LOC Expiration Date, Tenant shall not be in Default, Landlord shall return to Tenant the Letter of Credit and any Letter of Credit Proceeds then held by Landlord (other than those held for application by Landlord on account of a Default as provided below). Landlord shall not be required to segregate the Letter of Credit Proceeds from its other funds and no interest shall accrue or be payable to Tenant with respect thereto. Landlord may (but shall not be required to) draw upon the Letter of Credit and use the proceeds therefrom (the "Letter of Credit Proceeds") or any portion thereof to cure any Default under this Lease, it being understood that any use of the Letter of Credit Proceeds shall not constitute a bar or defense to any of Landlord's remedies set forth in this Lease. In such event and upon written notice from Landlord to Tenant specifying the amount of the Letter of Credit Proceeds so utilized by Landlord and the particular purpose for which such amount was applied, Tenant shall immediately deliver to Landlord an amendment Letter of Credit or a replacement Letter of Credit in an amount equal to the difference between the amount of the required Letter of Credit and the amount so expended. Tenant's failure to deliver such amendment to the Letter of Credit or replacement Letter of Credit to Landlord within five (5) business days of Landlord's notice shall constitute a Default hereunder. If Tenant is not in Default on the LOC Expiration Date, within forty-five (45) days after such date, Landlord shall return to Tenant the Letter of Credit or the balance of the Letter of Credit Proceeds then held by Landlord; provided, however, that in no event shall any such return be construed as an admission

by Landlord that Tenant has performed all of its obligations hereunder. No purchaser at any judicial or private foreclosure sale of the Real Property or any portion thereof, shall be responsible to Tenant for such Letter of Credit or any Letter of Credit Proceeds unless such holder or purchaser shall have actually received the same.

(b) As used herein, Letter of Credit shall mean an unconditional, irrevocable letter of credit (hereinafter referred to as the "Letter of Credit") issued by the San Francisco Bay Area office of a major national bank satisfactory to Landlord (the "Bank"), naming Landlord as beneficiary, in the initial amount of Four Hundred Fifty Thousand and No/100 Dollars (\$450,000.00). The Letter of Credit shall be for not less than a one-year term and shall provide that (i) Landlord may make partial and multiple draws upon the Letter of Credit up to the full amount thereof, as determined by Landlord, (ii) the Bank will pay to Landlord the amount of such draw upon receipt by the Bank of a sight draft signed by Landlord, together with a written certification from Landlord that Tenant is in Default, (iii) Landlord is therefore entitled to draw such amount; and (iv) in the event of Landlord's assignment or other transfer of its interest in this Lease, the Letter of Credit shall be freely transferable by Landlord, without charge and without recourse, to the assignee or transferee of such interest and the Bank shall confirm the same to Landlord and such assignee or transferee. In the event that the Bank shall fail to notify Landlord that the Letter of Credit will be renewed for at least one (1) year beyond the then applicable expiration date, and Tenant shall not have delivered to Landlord, at least thirty (30) days prior to the relevant annual expiration date, a replacement Letter of Credit in the amount required hereunder and otherwise meeting the requirements set forth above, then Landlord shall be entitled to draw on the Letter of Credit as provided above, and shall hold the proceeds of such draw as Letter of Credit Proceeds pursuant to Section 5.02(a) above.

(c) Notwithstanding anything to contrary contained herein, if Tenant is not in Default under the Lease on February 1, 2006, the replacement Letter of Credit may be issued in the amount of Four Hundred Five Thousand and No/100 Dollars (\$405,000.00). If Tenant is not in Default under the Lease on February 1, 2007, the replacement Letter of Credit may be issued in the amount of Three Hundred Sixty Thousand and No/100 Dollars (\$360,000.00). If Tenant is not in Default under the Lease on February 1, 2008, the replacement Letter of Credit may be issued in the amount of Three Hundred Fifteen Thousand and No/100 Dollars (\$315,000.00). If Tenant is not in Default under the Lease on February 1, 2009, the replacement Letter of Credit may be issued in the amount of Two Hundred Seventy Thousand and No/100 Dollars (\$270,000.00). If Tenant is not in Default under the Lease on February 1, 2010, the replacement Letter of Credit may be issued in the amount of Two Hundred Twenty Five Thousand and No/100 Dollars (\$225,000.00).

(d) The cost of the Letter of Credit shall be paid by Tenant.

If Tenant shall fully and faithfully comply with all the terms, provisions, covenants, and conditions of this Lease, the Letter of Credit, or any balance thereof, shall be returned to Tenant after the following:

- (a) the expiration or earlier termination of the Term of this Lease;
- (b) the removal of Tenant and its property from the Premises;

(c) the surrender of the Premises by Tenant to Landlord in accordance with this Lease; and

(d) the payment by Tenant of any outstanding Rent, including, without limitation, all Rent Adjustments due pursuant to the Lease as computed by Landlord.

If Tenant fails timely to perform any obligation under this Article Five, such breach shall constitute a Default by Tenant under this Lease without any right to or requirement of any further notice or cure period under any other Article of this Lease, except such notice and cure period expressly provided under this Article Five.

ARTICLE SIX UTILITIES & SERVICES

6.01 LANDLORD'S GENERAL SERVICES

Landlord shall provide maintenance and services as provided in Article Eight.

6.02 TENANT TO OBTAIN & PAY DIRECTLY

(a) Tenant shall be responsible for and shall pay promptly all charges for gas, electricity, sewer, heat, light, power, telephone, refuse pickup (to be performed on a regularly scheduled basis so that accumulated refuse does not exceed the capacity of Tenant's refuse bins), janitorial service and all other utilities, materials and services furnished directly to or used by Tenant in, on or about the Premises, together with all taxes thereon. Tenant shall contract directly with the providing companies for such utilities and services.

(b) Notwithstanding any provision of the Lease to the contrary, without, in each instance, the prior written consent of Landlord, as more particularly provided in Article Nine, Tenant shall not make any alterations or additions to the electric or gas equipment or systems or other Building systems. Tenant's use of electric current shall at no time exceed the capacity of the wiring, feeders and risers providing electric current to the Premises or the Building. The consent of Landlord to the installation of electric equipment shall not relieve Tenant from the obligation to limit usage of electricity to no more than such capacity.

6.03 TELEPHONE SERVICES

All telegraph, telephone, and communication connections which Tenant may desire to construct or install outside the Premises shall be subject to Landlord's prior written approval, in Landlord's sole discretion, and the location of all wires and the work in connection therewith shall be performed by contractors reasonably approved by Landlord and shall be subject to the direction of Landlord, except that such approval is not required as to Tenant's cabling from the Premises in a route designated by Landlord to any telephone cabinet or panel provided for Tenant's connection to the telephone cable serving the Building, so long as Tenant's equipment does not require connections different than or additional to those to the telephone cabinet or panel provided. As to any such connections or work outside the Premises requiring Landlord's approval, Landlord reserves the right to designate and control the entity or entities providing telephone or other communication cable installation, removal, repair and maintenance outside

the Premises and to restrict and control access to telephone cabinets or panels. In the event Landlord designates a particular vendor or vendors to provide such cable installation, removal, repair and maintenance for the Building, Tenant agrees to abide by and participate in such program. Tenant shall be responsible for and shall pay all costs incurred in connection with the installation of telephone cables and communication wiring in the Premises, including any hook-up, access and maintenance fees related to the installation of such wires and cables in the Premises and the commencement of service therein, and the maintenance thereafter of such wire and cables; and there shall be included *in* Operating Expenses for the Building all installation, removal, hook-up or maintenance costs incurred by Landlord in connection with telephone cables and communication wiring serving the Building which are not allocable to any individual users of such service but are allocable to the Building generally. If Tenant fails to maintain all telephone cables and communication wiring in the Premises and such failure affects or interferes with the operation or maintenance of any other telephone cables or communication wiring serving the Building, Landlord or any vendor hired by Landlord may enter into and upon the Premises forthwith and perform such repairs, restorations or alterations as Landlord deems necessary in order to eliminate any such interference (and Landlord may recover from Tenant all of Landlord's costs in connection therewith). No later than the Termination Date, Tenant agrees to remove all telephone cables and communication wiring installed by Tenant for and during Tenant's occupancy, which Landlord shall request Tenant to remove. Tenant agrees that neither Landlord nor any of its agents or employees shall be liable to Tenant, or any of Tenant's employees, agents, customers or invitees or anyone claiming through, by or under Tenant, for any damages, injuries, losses, expenses, claims or causes of action because of any interruption, diminution, delay or discontinuance at any time for any reason in the furnishing of any telephone or other communication service to the Premises and the Building, except in connection with Landlord's gross negligence or willful misconduct.

6.04 FAILURE OR INTERRUPTION OF UTILITY OR SERVICE

To the extent that any equipment or machinery furnished or maintained by Landlord outside the Premises is used in the delivery of utilities directly obtained by Tenant pursuant to Section 6.02 and breaks down or ceases to function properly, Landlord shall use reasonable diligence to repair same promptly. In the event of any failure, stoppage or interruption of, or change in, any utilities or services supplied by Landlord which are not directly obtained by Tenant, Landlord shall use reasonable diligence to have service promptly resumed. In either event covered by the preceding two sentences, if the cause of any such failure, stoppage or interruption of, or change in, utilities or services is within, the control of a public utility, other public or quasi- public entity, or utility provider outside Landlord's control, notification to such utility or entity of such failure, stoppage or interruption and request to remedy the same shall constitute "reasonable diligence by Landlord to have service promptly resumed. Notwithstanding any other provision of this Section to the contrary, in the event of any failure, stoppage or interruption of, or change in, any utility or other service furnished to the Premises or the Project resulting from any cause, including changes in service provider or Landlord's compliance with any voluntary or similar governmental or business guidelines now or hereafter published or any requirements now or hereafter established by any governmental agency, board or bureau having jurisdiction over the operation of the Property: (a) Landlord shall not be liable for, and Tenant shall not be entitled to, any abatement or reduction of Rent; (b) no such failure, stoppage, or interruption of any such utility or service shall constitute an eviction of Tenant or relieve Tenant

of the obligation to perform any covenant or agreement of this Lease to be performed by Tenant; (c) Landlord shall not be in breach of this Lease nor be liable to Tenant for damages or otherwise.

Notwithstanding the above, except for the interruption of the foregoing services arising by reason of fire or casualty loss provided for in Article 14, any interruption of such services which is within Landlord's reasonable control and which 'materially interferes' with Tenant's use of any part of the Premises for a period of ten (10) consecutive business days after notice by Tenant to Landlord of such interruption of service shall entitle Tenant to abate the Monthly Base Rent and Rent Adjustment under this Lease for that portion of the Premises which are untenable for the period commencing on the eleventh (11th) business day of interruption of such services and terminating on the day of restoration of the services. For purposes of this Section 6.04, material interference with Tenant's use of the Premises shall occur when Tenant shall be prevented from using the Premises for general office purposes, research and development, chemical and biochemical laboratory facilities, and warehousing as a consequence of Landlord's inability to provide the services specified in Section 6.01. In no event shall Landlord be liable for any damages, consequential or otherwise.

6.05 CHOICE OF SERVICE PROVIDER

Tenant acknowledges that Landlord may, at Landlord's sole option, to the extent permitted by applicable law, elect to change, from time to time, the company or companies which provide services (including electrical service, gas service, water, telephone and technical services) to the Property, the Premises and/or its occupants. Notwithstanding anything to the contrary set forth in this Lease, Tenant acknowledges that Landlord has not and does not make any representations or warranties concerning the identity or identities of the company or companies which provide services to the Property and the Premises or its occupants and Tenant acknowledges that the choice of service providers and matters concerning the engagement and termination thereof shall be solely that of Landlord. The foregoing provision is not intended to modify, amend, change or otherwise derogate any provision of this Lease concerning the nature or type of service to be provided or any specific information concerning the amount thereof to be provided. Tenant agrees to cooperate with Landlord and each of its service providers in connection with any change in service or provider and Landlord agrees that any such change shall be at no cost to Tenant and that Landlord and any such service provider shall work together to minimize any impact of such change on Tenant's operations.

6.06 SIGNAGE

Tenant shall not install any signage within the Project, the Building or the Premises without obtaining the prior written approval of Landlord, and Tenant shall be responsible for procurement, installation, maintenance and removal of any such signage installed by Tenant, and all costs in connection therewith. Any such signage shall comply with Landlord's current Project signage criteria and all Laws.

ARTICLE SEVEN
POSSESSION, USE AND CONDITION OF PREMISES

7.01 POSSESSION AND USE OF PREMISES

(a) Tenant shall occupy and use the Premises only for the uses specified in Section 1.01(19) to conduct Tenant's business. Tenant shall not occupy or use the Premises (or permit the use or occupancy of the Premises) for any purpose or in any manner which: (1) is unlawful or in violation of any Law or Environmental Law; (2) may be dangerous to persons or property or which may increase the cost of, or invalidate, any policy of insurance carried on the Building or covering its operations; (3) is contrary to or prohibited by the terms and conditions of this Lease or the rules and regulations as provided in Article Eighteen; (4) contrary to or prohibited by the articles, bylaws or rules of any owner's association affecting the Project (5) is improper, immoral, or objectionable; (6) would obstruct or interfere with the rights of other tenants or occupants of the Building or the Project, or injure or annoy them, or would tend to create or continue a nuisance; or (7) would constitute any waste in or upon the Premises or Project.

(b) Landlord and Tenant acknowledge that the Americans With Disabilities Act of 1990 (42 U.S.C. §12101 et seq.) and regulations and guidelines promulgated thereunder, as all of the same may be amended and supplemented from time to time (collectively referred to herein as the "ADA") establish requirements for business operations, accessibility and barrier removal, and that such requirements may or may not apply to the Premises, the Building and the Project depending on, among other things: (1) whether Tenants business is deemed a "public accommodation" or "commercial facility", (2) whether such requirements are "readily achievable", and (3) whether a given alteration affects a "primary function area" or triggers "path of travel" requirements. The parties hereby agree that: (a) Landlord shall be responsible for ADA Title III compliance in the Common Areas, except as provided below, (b) Tenant shall be responsible for ADA Title III compliance in the Premises, including any leasehold improvements or other work to be performed in the Premises under or in connection with this Lease, (c) Landlord may perform, or require that Tenant perform, and Tenant shall be responsible for the cost of, ADA Title III "path of travel" requirements directly triggered by Tenant Additions in the Premises, and (d) Landlord may perform, or require Tenant to perform, and Tenant shall be responsible for the cost of, ADA Title III compliance in the Common Areas necessitated by the Building being deemed to be a "public accommodation" instead of a "commercial facility" as a result of Tenant's use of the Premises. Tenant shall be solely responsible for requirements under Title I of the ADA relating to Tenants employees.

(c) Landlord and Tenant agree to cooperate and use commercially reasonable efforts to participate in traffic management programs generally applicable to businesses located in or about the area and Tenant shall encourage and support van and car pooling by, and staggered and flexible working hours for, its office workers and service employees to the extent reasonably permitted by the requirements of Tenant's business. Neither this Section or any other provision of this Lease is intended to or shall create any rights or benefits in any other person, firm, company, governmental entity or the public.

(d) Tenant agrees to cooperate with Landlord and to use reasonable efforts to comply with any and all guidelines or controls concerning energy management imposed upon Landlord by federal or state governmental organizations or by any energy conservation association to which Landlord is a party or which is applicable to the Building.

7.02 HAZARDOUS MATERIAL

(a) Tenant shall not use, generate, manufacture, produce, store, handle, release, discharge, or dispose of, on, under or about the Premises or any part of the Project, or transport to or from the Premises or any part of the Project, any Hazardous Material, or allow its employees, agents, contractors, licensees, invitees or any other person or entity ("Tenant Parties") to do so except to the extent expressly provided below. Provided that the Premises are used only for the uses specified in Section 1.01(15) above, Tenant shall be permitted to use and store in, and transport to and from, the Premises Hazardous Material identified on Exhibit D hereto and by this reference incorporated herein ("Permitted Hazardous Material") so long as: (i) each item of the Permitted Hazardous Material is used or stored in, or transported to and from, the Premises only to the extent necessary for Tenant's operation of its business at the Premises; (ii) at no time shall any Permitted Hazardous Material be in use or storage at the Premises in excess of the quantity specified therein in Exhibit D (iii) Tenant shall not install any underground tanks of any type; and (iv) the conditions and provisions set forth in this Section 7.02 are complied with. Tenant shall comply with and shall cause all Tenant Parties to comply with all Environmental Laws and other Laws pertaining to Tenant's occupancy and use of the Premises and concerning the proper use, generation, manufacture, production, storage, handling, release, discharge, removal and disposal of any Hazardous Material introduced to the Premises, the Building or the Property by Tenant or any of the Tenant Parties. Without limiting the generality of the foregoing:

(1) Tenant shall provide Landlord promptly with copies of: (x) all permits, licenses and other governmental and regulatory approvals with respect to the use, generation, manufacture, production, storage, handling, release, discharge, removal and disposal by Tenant or Any of the Tenant Parties of Hazardous Material at the Project; and (y) each hazardous material management plan or similar document ("Plan(s)") with respect to use, generation, manufacture, production, storage, handling, release, discharge, removal or disposal of Hazardous Material by Tenant or any of the Tenant Parties necessary to comply with Environmental Laws or other Laws prepared by or on behalf of Tenant or any of the Tenant Parties (whether or not required to be submitted to a governmental agency).

(2) If Tenant is notified of any investigation or, violation of any Environmental Laws or other Laws arising from any activity of Tenant or any of the Tenant Parties at the Property, or if Tenant knows, or has reasonable cause to believe, that a Hazardous Material has come to be located in, on, under or about the Premises or the Project, other than as previously consented to by Landlord, Tenant shall immediately give written notice of such fact to Landlord, and provide Landlord with a copy of all reports, notices, claims or other documentation which it has concerning the presence of such Hazardous

Material. In such event or in the event Landlord reasonably believes that there exists a violation of this Lease or Environmental Law or other Laws by Tenant or any of the Tenant Parties, Landlord may conduct, at Tenant's expense, such tests and studies as Landlord deems desirable relating to compliance by Tenant or any of the Tenant Parties with this Lease, Environmental Laws, other Laws, or relating to the alleged presence of Hazardous Material introduced to the Premises, the Building or the Property by Tenant or any of the Tenant Parties.

(3) Neither Tenant nor any of the Tenant Parties shall cause or permit any Hazardous Material to be released, discharged or disposed of in, on, under, or about the Premises or the Project (including through the plumbing or sanitary sewer system) and shall promptly, at Tenant's expense, take all investigatory and/or remedial action reasonably recommended, whether or not formally ordered or required, for the cleanup of any contamination of, and for the maintenance, security and/or monitoring of the Premises, the Project or neighboring properties, that was caused or materially contributed to by Tenant, or pertaining to or involving any Hazardous Material brought onto the Premises or the Project by Tenant or any of the Tenant Parties.

(4) Tenant shall, no later than the Termination Date, surrender the Premises to Landlord free of Hazardous Material and with all remedial and/or closure plans completed (and deliver evidence thereof to Landlord).

(b) To the extent permitted by law, Tenant hereby indemnifies and agrees to protect, defend and hold the Indemnitees harmless against all actions, claims, demands, liability, costs and expenses, including attorneys' fees and expenses for the defense thereof, arising from the use, generation, manufacture, production, storage, handling, release, threatened release, discharge, disposal, transportation to or from, or presence of any Hazardous Material on, under or about the Premises or any part of the Project caused by Tenant or by any of the Tenant Parties, whether before, during or after the Term. Tenant's obligations under this Section 7.02 shall survive the expiration or earlier termination of this Lease. In case of any action or proceeding brought against the Indemnitees by reason of any such claim, upon notice from Landlord, Tenant covenants to defend such action or proceeding by counsel chosen by Landlord, in Landlord's sole discretion. Landlord reserves the right to settle, compromise or dispose of any and all actions, claims and demands related to the foregoing indemnity.

(c) The right to use and store the Permitted Hazardous Material in the Premises is personal to Codexis Inc. and may not be assigned or otherwise transferred by Codexis Inc. without the prior written consent of Landlord, which consent may be withheld in Landlord's sole discretion. Notwithstanding the foregoing, Landlord hereby agrees that Tenant may use the services of Maxygen, Inc., a Delaware corporation for the foregoing services, but no other company is currently approved. Landlord hereby agrees that Tenant, with the prior written consent of Landlord, may use another outside provider to transport to and from the Premises the Permitted Hazardous Material. Landlord hereby approves of the outside providers set forth on Exhibit F. Any consent by Landlord pursuant to Article Ten to an assignment, transfer, subletting, mortgage, pledge, hypothecation or encumbrance of this Lease, and any interest therein or right or privilege appurtenant thereto, shall not constitute consent by Landlord to the use or storage at,

or transportation to, the Premises of any Hazardous Material (including a Permitted Hazardous Material) by any such assignee, sublessee or transferee unless Landlord expressly agrees otherwise in writing. Any consent by Landlord to the use or storage at, or transportation to or from the Premises, of any Hazardous Material (including a Permitted Hazardous Material) by an assignee, sublessee or transferee of Tenant shall not constitute a waiver of Landlord's right to refuse such consent as to any subsequent assignee or transferee.

(d) Tenant acknowledges that the sewer piping at the Project is made of ABS plastic. Accordingly, without Landlord's prior written consent, which may be given or withheld in Landlord's sole discretion, only ordinary domestic sewage is permitted to be put into the drains at the Premises. UNDER NO CIRCUMSTANCES SHALL Tenant EVER DEPOSIT ANY ESTERS OR KETONES (USUALLY FOUND IN SOLVENTS TO CLEAN UP PETROLEUM PRODUCTS) IN THE DRAINS AT THE PREMISES. If Tenant desires to put any substances other than ordinary domestic sewage into the drains, it shall first submit to Landlord a complete description of each such substance, including its chemical composition, and a sample of such substance suitable for laboratory testing. Landlord shall promptly determine whether or not the substance can be deposited into the drains and its determination shall be absolutely binding on Tenant. Upon demand, Tenant shall reimburse Landlord for expenses incurred by Landlord in making such determination. If any substances not so approved hereunder are deposited in the drains in Tenant's Premises, Tenant shall be liable to Landlord for all damages resulting therefrom, including but not limited to all costs and expenses incurred by Landlord in repairing or replacing the piping so damaged.

(e) Upon any violation of any of the foregoing covenants, in addition to all remedies available to a landlord against the defaulting tenant, including but not limited to those set forth in Article Eleven of this Lease, Tenant expressly agrees that upon any such violation Landlord may, at its option (i) immediately terminate this Lease by giving written notice to Tenant of such termination, or (ii) continue this Lease in effect until compliance by Tenant with its clean-up and removal covenant (notwithstanding the expiration of the Term). No action by Landlord hereunder shall impair the obligations of Tenant pursuant to this Section 7.02.

7.03 LANDLORD ACCESS TO PREMISES; APPROVALS

(a) Tenant shall permit Landlord to erect, use and maintain pipes, ducts, wiring and conduits in and through the Premises, so long as Tenant's use, layout or design of the Premises is not materially affected or altered. Landlord or Landlord's agents shall have the right to enter upon the Premises in the event of an emergency, or to inspect the Premises, to perform janitorial and other services (if any), to conduct safety and other testing in the Premises and to make such repairs, alterations, improvements or additions to the Premises or the Building or other parts of the Property as Landlord may reasonably deem necessary or desirable (including all alterations, improvements and additions in connection with a change in service provider or providers). Janitorial and cleaning services (if any) shall be performed after normal business hours. Any entry or work by Landlord may be during normal business hours and Landlord shall use reasonable efforts to ensure that any entry or work shall not materially interfere with Tenant's occupancy or quiet enjoyment of the Premises.

(b) If Tenant shall not be personally present to permit an entry into the Premises when for any reason an entry therein shall be necessary or permissible, Landlord (or Landlord's agents), after attempting to notify Tenant (unless Landlord believes an emergency situation exists), may enter the Premises without rendering Landlord or its agents liable therefor, and without relieving Tenant of any obligations under this Lease.

(c) Landlord may enter the Premises for the purpose of conducting such inspections, tests and studies as Landlord may deem desirable or necessary to confirm Tenant's compliance with all Laws and Environmental Laws or for other purposes necessary in Landlord's reasonable judgment to ensure the sound condition of the Property and the systems serving the Property so long as Landlord (i) does not materially, adversely affect Tenant's use and occupancy of the Premises, (ii) does not cause damage to Tenant's equipment and leasehold improvements and (iii) complies with the provisions of this Section 7.03. Landlord's rights under this Section 7.03 (c) are for Landlord's own protection only, and Landlord has not, and shall not be deemed to have assumed, any responsibility to Tenant or any other party as a result of the exercise or non-exercise of such rights, for compliance with Laws or Environmental Laws or for the accuracy or sufficiency of any item or the quality or suitability of any item for its intended use.

(d) Landlord may do any of the foregoing, or undertake any of the inspection or work described in the preceding paragraphs without such action constituting an actual or constructive eviction of Tenant, in whole or in part, or giving rise to an abatement of Rent by reason of loss or interruption of business of the Tenant, or otherwise.

(e) The review, approval or consent of Landlord with respect to any item required or permitted under this Lease is for Landlord's own protection only, and Landlord has not, and shall not be deemed to have assumed, any responsibility to Tenant or any other party, as a result of the exercise or non-exercise of such rights, for compliance with Laws or Environmental Laws or for the accuracy or sufficiency of any item or the quality or suitability of any item for its intended use.

7.04 QUIET ENJOYMENT

Landlord covenants, in lieu of any implied covenant of quiet possession or quiet enjoyment, that so long as Tenant is in compliance with the covenants and conditions set forth in this Lease, Tenant shall have the right to quiet enjoyment of the Premises without hindrance or interference from Landlord or those claiming through Landlord, and subject to the covenants and conditions set forth in the Lease and to the rights of any Mortgagee or ground lessor.

ARTICLE EIGHT MAINTENANCE

8.01 LANDLORD'S MAINTENANCE

Subject to Article Fourteen and Section 8.02, Landlord shall maintain the structural portions of the Building, the roof, exterior walls and exterior doors, foundation, and underslab standard sewer system of the Building in good, clean and safe condition, and shall use reasonable efforts, through Landlord's program of regularly scheduled preventive maintenance, to keep the

Buildings standard heating, ventilation and air conditioning (“HVAC”) equipment in reasonably good order and condition. Notwithstanding the foregoing, Landlord shall have no responsibility to repair the Building’s standard heating, ventilation and air conditioning equipment, and all such repairs shall be performed by Tenant pursuant to the terms of Section 8.02. Landlord shall also (a) maintain the landscaping, parking facilities and other Common Areas of the Project in a first-class manner consistent with other projects in the vicinity of the Premises, and (b) wash the outside of exterior windows at intervals determined by Landlord. Except as provided in Article Fourteen and Article Fifteen, there shall be no abatement of rent, no allowance to Tenant for diminution of rental value and no liability of Landlord by reason of inconvenience, annoyance or any injury to or interference with Tenant’s business arising from the making of or the failure to make any repairs, alterations or improvements in or to any portion of the Project or in or to any fixtures, appurtenances or equipment therein. Tenant waives the right to make repairs at Landlord’s expense under any law, statute or ordinance now or hereafter in effect

8.02 TENANTS MAINTENANCE

Subject to the provisions of Article Fourteen, Tenant shall, at Tenant’s sole cost and expense, make all repairs to the Premises and fixtures therein which Landlord is not required to make pursuant to Section 8.01, including repairs to the interior walls, ceilings and windows of the Premises, the interior doors, Tenant’s signage, and the electrical, fire-safety, plumbing and heating, ventilation and air conditioning systems located within or serving the Premises and shall maintain the Premises, the fixtures and utilities systems therein, and the area immediately surrounding the Premises (including all garbage enclosures), in a good, clean and safe condition. Tenant shall deliver to Landlord a copy of any maintenance contract entered into by Tenant with respect to the Premises. Tenant shall also, at Tenant’s expense, keep any non-standard heating, ventilating and air conditioning equipment and other non-standard equipment in the Building in good condition and repair, using contractors approved in advance, in writing, by Landlord. Notwithstanding Section 8.01 above, but subject to the waivers set forth in Section 16.04, Tenant will pay for any repairs to the Building or the Project which are caused by any negligence or carelessness, or by any willful and wrongful act, of Tenant or its assignees, subtenants or employees, or of the respective agents of any of the foregoing persons, or of any other persons permitted in the Building or elsewhere in the Project by Tenant or any of them. Tenant will maintain the Premises, and will leave the Premises upon termination of this Lease, in a safe, clean, neat and sanitary condition, ordinary wear and tear excepted.

ARTICLE NINE ALTERATIONS AND IMPROVEMENTS

9.01 TENANT ALTERATIONS

(a) The following provisions shall apply to the completion of any Tenant Alterations:

(1) Tenant shall not, except as provided herein, without the prior written consent of Landlord, which consent shall not be unreasonably withheld or delayed, make or cause to be made any Tenant Alterations in or to the Premises or any Property systems serving the Premises. Landlord shall

approve or disapprove of, and notify the Tenant of the reasons for such disapproval, any materials submitted by Tenant with respect obtaining Landlord's consent as set forth above, within ten (10) days after receipt of the same from the Tenant. Prior to making any Tenant Alterations, Tenant shall also give Landlord ten (10) days prior written notice (or such earlier notice as would be necessary pursuant to applicable Law) to permit Landlord sufficient time to post appropriate notices of non-responsibility. Subject to all other requirements of this Article Nine, Tenant may undertake Decoration work without Landlord's prior written consent. Tenant shall furnish Landlord with the names and addresses of all contractors and subcontractors and copies of all contracts. All Tenant Alterations (other than Decorations) shall be completed at such time and in such manner as Landlord may from time to time designate, and only by contractors or mechanics approved by Landlord, which approval shall not be unreasonably withheld or delayed, provided, however, that Landlord may, in its sole discretion, specify the engineers and contractors to perform all work relating to the Building's systems (including the mechanical, heating, plumbing, security, ventilating, air-conditioning, electrical, communication and the fire and life safety systems in the Building). The contractors, mechanics and engineers who may be used are further limited to those whose work will not cause or threaten to cause disharmony or interference with Landlord or other tenants in the Building and their respective agents and contractors performing work in or about the Building. Landlord may further condition its consent upon Tenant furnishing to Landlord and Landlord approving prior to the commencement of any work or delivery of materials to the Premises related to the Tenant Alterations such of the following as specified by Landlord: architectural plans and specifications, opinions from Landlord's engineers stating that the Tenant Alterations will not in any way adversely affect the Building's systems, necessary permits and licenses, certificates of insurance, and such other documents in such form reasonably requested by Landlord. Landlord may, in the exercise of reasonable judgment, request that Tenant provide Landlord with appropriate evidence of Tenants ability to complete and pay for the completion of the Tenant Alterations such as a performance bond or letter of credit. Upon completion of the Tenant Alterations, Tenant shall deliver to Landlord an as-built mylar and digitized (if available) set of plans and specifications for the Tenant Alterations.

(2) Tenant shall pay the cost of all Tenant Alterations and the cost of decorating the Premises and any work to the Property occasioned thereby. In connection with completion of any Tenant Alterations, other than Decoration, Tenant shall pay Landlord a construction fee at Landlord's then standard rate. Upon completion of Tenant Alterations, Tenant shall furnish Landlord with contractors' affidavits and full and final waivers of lien and receipted bills covering all labor and materials expended and used in connection therewith and such other documentation reasonably requested by Landlord or Mortgagee.

(3) Tenant agrees to complete all Tenant Alterations (i) in accordance with all Laws, Environmental Laws, all requirements of applicable insurance companies and in accordance with Landlord's standard construction rules and regulations, and (ii) in a good and workmanlike manner with the use of good grades of materials. Tenant shall notify Landlord immediately if Tenant receives any notice of violation of any Law in connection with completion of any Tenant Alterations and shall immediately take such steps as are necessary to remedy such violation. In no event shall such supervision or right to supervise by Landlord nor shall any approvals given by Landlord under this Lease constitute any warranty by Landlord to Tenant of the adequacy of the design, workmanship or quality of such work or materials for Tenants intended use or of compliance with the requirements of Section 9.01(a)(3)(i) and (ii) above or impose any liability upon Landlord in connection with the performance of such work.

(b) All of the items listed on Exhibit G attached hereto and made a part hereof ("Tenants Improvements") and all of Tenant's Personal Property shall be the sole and exclusive property of Tenant during the Term of this Lease and Tenant shall be permitted to encumber Tenants Personal Property and Tenant's Improvements during the Term of this Lease; provided, however, that Tenant shall hold Landlord harmless from any and all claims of third parties with respect to Landlord's handling of such Tenants Personal Property pursuant to the terms of Section 12.02 of this Lease unless Tenant obtains, at Tenants sole option, Landlord's consent to any such encumbrances, such consent to be similar in form to the form of Landlord's Consent to Lease of Personal Property attached hereto as Exhibit H and made a part hereof. Tenant shall be entitled to remove Tenants Personal Property upon the expiration or earlier termination of this Lease as provided in Article 12 hereof, but Landlord and Tenant agree that Tenant's Improvements shall remain in the Premises after the termination or earlier expiration of this Lease.

(c) All Tenant Additions to the Premises whether installed by Landlord or Tenant, shall, without compensation or credit to Tenant, become part of the Premises and the property of Landlord at the time of their installation and shall remain in the Premises, unless pursuant to Article Twelve, Tenant may remove them or is required to remove them at Landlord's request.

9.02 LIENS

Tenant shall not permit any lien or claim for lien of any mechanic, laborer or supplier or any other lien to be filed against the Building, the Land, the Premises, or any other part of the Property arising out of work performed, or alleged to have been performed by, or at the direction of, or on behalf of Tenant. If any such lien or claim for lien is filed, Tenant shall within ten (10) days of receiving notice of such lien or claim (a) have such lien or claim for lien released of record or (b) deliver to Landlord a bond in form, content, amount, and issued by surety, satisfactory to Landlord, indemnifying, protecting, defending and holding harmless the Indemnitees against all costs and liabilities resulting from such lien or claim for lien and the foreclosure or attempted foreclosure thereof. If Tenant fails to take any of the above actions, Landlord, in addition to its rights and remedies under Article Eleven, without investigating the

validity of such lien or claim for lien, may pay or discharge the same and Tenant shall, as payment of additional Rent hereunder, reimburse Landlord upon demand for the amount so paid by Landlord, including Landlord's reasonable expenses and attorneys' fees.

ARTICLE TEN
ASSIGNMENT AND SUBLETTING

10.01 ASSIGNMENT AND SUBLETTING

(a) Without the prior written consent of Landlord, which may be withheld in Landlord's sole discretion, Tenant may not sublease, assign, mortgage, pledge, hypothecate or otherwise transfer or permit the transfer of this Lease or the encumbering of Tenant's interest therein in whole or in part, by operation of Law or otherwise or permit the use or occupancy of the Premises, or any part thereof, by anyone other than Tenant, provided, however, if Landlord chooses not to recapture the space proposed to be subleased or assigned as provided in Section 10.02, Landlord shall not unreasonably withhold its consent to a subletting or assignment under this Section 10.01. Tenant agrees that the provisions governing sublease and assignment set forth in this Article Ten shall be deemed to be reasonable. If Tenant desires to enter into any sublease of the Premises or assignment of this Lease, Tenant shall deliver written notice thereof to Landlord ("Tenant's Notice"), together with the identity of the proposed subtenant or assignee and the proposed principal terms thereof and financial and other information sufficient for Landlord to make an informed judgment with respect to such proposed subtenant or assignee at least thirty (30) days prior to the commencement date of the term of the proposed sublease or assignment. If Tenant proposes to sublease less than all of Tenant's Rentable Area of the Premises, the space proposed to be sublet and the space retained by Tenant must each be a marketable unit as reasonably determined by Landlord and otherwise in compliance with all Laws. Landlord shall notify Tenant in writing of its approval or disapproval of the proposed sublease or assignment or its decision to exercise its rights under Section 10.02 within thirty (30) days after receipt of Tenant's Notice (and all required information). In no event may Tenant sublease any portion of the Premises or assign the Lease to any other tenant of the Project Tenant shall submit for Landlord's approval (which approval shall not be unreasonably withheld) any advertising which Tenant or its agents intend to use with respect to the space proposed to be sublet.

(b) With respect to Landlord's consent to an assignment or sublease, Landlord may take into consideration any factors which Landlord may deem relevant, and the reasons for which Landlord's denial shall be deemed to be reasonable shall include, without limitation, the following:

- (i) the business reputation or creditworthiness of any proposed subtenant or assignee is not acceptable to Landlord; or
- (ii) in Landlord's reasonable judgment the proposed assignee or subtenant would diminish the value or reputation of the Building or Landlord; or

(iii) any proposed assignees or subtenant's use of the Premises would violate Section 7.01 of the Lease or would violate the provisions of any other cases of tenants in the Project;

(iv) the proposed assignee or subtenant is either a government agency, a school or similar operation, or a medical related practice; or

(v) the proposed subtenant or assignee is a bona fide prospective tenant of Landlord in the Project as demonstrated by a written proposal dated within ninety (90) days prior to the date of Tenants request or

(vi) the proposed subtenant or assignee would materially increase the estimated pedestrian and vehicular traffic to and from the Premises and the Building.

In no event shall Landlord be obligated to consider a consent to any proposed assignment of the Lease which would assign less than the entire Premises. In the event Landlord wrongfully withholds its consent to any proposed sublease of the Premises or assignment of the Lease, Tenants sole and exclusive remedy therefor shall be to seek specific performance of Landlord's obligations to consent to such sublease or assignment.

(c) Any sublease or assignment shall be expressly subject to the terms and conditions of this Lease. Any subtenant or assignee shall execute such documents as Landlord may reasonably require to evidence such subtenant or assignee's assumption of the obligations and liabilities of Tenant under this Lease. Tenant shall deliver to Landlord a copy of all agreements executed by Tenant and the proposed subtenant and assignee with respect to the Premises. Landlord's approval of a sublease, assignment, hypothecation, transfer or third party use or occupancy shall not constitute a waiver of Tenants obligation to obtain Landlord's consent to further assignments or subleases, hypothecations, transfers or third party use or occupancy.

(d) Notwithstanding anything to the contrary contained in this Article Ten, Tenant shall have the right, without the prior written consent of Landlord, to sublease the Premises to an Affiliate, or to assign this Lease to an Affiliate, but (i) no later than fifteen (15) days prior to the effective date of the assignment or sublease, the assignee or sublessee shall execute documents satisfactory to Landlord to evidence such subtenant or assignee's assumption of the obligations and liabilities of Tenant under this Lease, except in the case of any assignment which occurs by operation of law (and without a written assignment) as a consequence of merger, consolidation or non-bankruptcy reorganization; (ii) within ten (10) days after the effective date of such assignment or sublease, give notice to Landlord which notice shall include the full name and address of the assignee or subtenant, and a copy of all agreements executed between Tenant and the assignee or subtenant with respect to the Premises; and (iii) within fifteen (15) days after Landlord's request, such documents or information which Landlord reasonably requests for the purpose of substantiating whether or not the assignment or sublease is to an Affiliate.

For the purposes of this Lease, "Affiliate" shall mean any corporation or other business entity which (i) is currently owned or controlled by, owns or controls, or is under common ownership or control with Tenant, or (ii) is Tenants successor through merger, reorganization or consolidation, or (in) acquires substantially all of the assets of Tenant

10.02 RECAPTURE

Landlord shall have the option to exclude from the Premises covered by this Lease ("recapture"), the space proposed to be sublet or subject to the assignment, effective as of the proposed commencement date of such sublease or assignment. If Landlord elects to recapture, Tenant shall surrender possession of the space proposed to be subleased or subject to the assignment to Landlord on the effective date of recapture of such space from the Premises, such date being the Termination Date for such space. Effective as of the date of recapture of any portion of the Premises pursuant to this section, the Monthly Base Rent, Tenants Rentable Area of the Premises and Tenants Share shall be adjusted accordingly.

10.03 EXCESS RENT

Tenant shall pay Landlord on the first day of each month during the term of the sublease or assignment, fifty percent (50%) of the amount by which the sum of all rent and other consideration (direct or indirect) due from the subtenant or assignee for such month exceeds: (i) that portion of the Monthly Base Rent and Rent Adjustments due under this Lease for said month which is allocable to the space sublet or assigned; and (ii) the following costs and expenses for the subletting or assignment of such space: (1) brokerage commissions and attorneys' fees and expenses, (2) the actual costs paid in making any improvements or substitutions in the Premises required by any sublease or assignment; and (3) "free rent" periods, costs of any inducements or concessions given to subtenant or assignee, moving costs, and other amounts in respect of such subtenant's or assignee's other leases or occupancy arrangements. All such costs and expenses shall be amortized over the term of the sublease or assignment pursuant to sound accounting principles.

10.04 TENANT LIABILITY

In the event of any sublease or assignment, whether or not with Landlord's consent Tenant shall not be released or discharged from any liability, whether past, present or future, under this Lease, including any liability arising from the exercise of any renewal or expansion option, to the extent such exercise is expressly permitted by Landlord. Tenant's liability shall remain primary, and in the event of default by any subtenant, assignee or successor of Tenant in performance or observance of any of the covenants or conditions of this Lease, Landlord may proceed directly against Tenant without the necessity of exhausting remedies against said subtenant, assignee or successor. After any assignment, Landlord may consent to subsequent assignments or subletting of this Lease, or amendments or modifications of this Lease with assignees of Tenant, without notifying Tenant, or any successor of Tenant, and without obtaining its or their consent thereto, and such action shall not relieve Tenant or any successor of Tenant of liability under this Lease. If Landlord grants consent to such sublease or assignment, Tenant shall pay all reasonable attorneys' fees and expenses incurred by Landlord with respect to such assignment or sublease. In addition, if Tenant has any options to extend the term of this Lease or

to add other space to the Premises, such options shall not be available to any subtenant or assignee, directly or indirectly without Landlord's express written consent, which may be withheld in Landlord's sole discretion.

10.05 ASSUMPTION AND ATTORNMENT

If Tenant shall assign this Lease as permitted herein, the assignee shall expressly assume all of the obligations of Tenant hereunder in a written instrument satisfactory to Landlord and furnished to Landlord not later than fifteen (15) days prior to the effective date of the assignment. If Tenant shall sublease the Premises as permitted herein, Tenant shall, at Landlord's option, within fifteen (15) days following any request by Landlord, obtain and furnish to Landlord the written agreement of such subtenant to the effect that the subtenant will attorn to Landlord and will pay all subrent directly to Landlord.

ARTICLE ELEVEN DEFAULT AND REMEDIES

11.01 EVENTS OF DEFAULT

The occurrence or existence of any one or more of the following shall constitute a "Default" by Tenant under this Lease:

- (i) Tenant fails to pay any installment or other payment of Rent including Rent Adjustment Deposits or Rent Adjustments within three (3) days after the date when due;
- (ii) Tenant fails to observe or perform any of the other covenants, conditions or provisions of this Lease or the Workletter and fails to cure such default within thirty (30) days after written notice thereof to Tenant, unless the default involves a hazardous condition, which shall be cured forthwith or unless the failure to perform is a Default for which this Lease specifies there is no cure or grace period;
- (iii) the interest of Tenant in this Lease is levied upon under execution or other legal process;
- (iv) a petition is filed by or against Tenant to declare Tenant bankrupt or seeking a plan of reorganization or arrangement under any Chapter of the Bankruptcy Act, or any amendment, replacement or substitution therefor, or to delay payment of, reduce or modify Tenant's debts, which in the case of an involuntary action is not discharged within thirty (30) days;
- (v) Tenant is declared insolvent by Law or any assignment of Tenant's property is made for the benefit of creditors;
- (vi) a receiver is appointed for Tenant or Tenant's property, which appointment is not discharged within thirty (30) days;

(vii) any action taken by or against Tenant to reorganize or modify Tenant's capital structure in a materially adverse way which in the case of an involuntary action is not discharged within thirty (30) days;

(viii) upon the dissolution of Tenant; or

(ix) upon the third occurrence within any Lease Year that Tenant fails to pay Rent when due or has breached a particular covenant of this Lease (whether or not such failure or breach is thereafter cured within any stated cure or grace period or statutory period).

11.02 LANDLORD'S REMEDIES

(a) A Default shall constitute a breach of the Lease for which Landlord shall have the rights and remedies set forth in this Section 11.02 and all other rights and remedies set forth in this Lease or now or hereafter allowed by Law, whether legal or equitable, and all rights and remedies of Landlord shall be cumulative and none shall exclude any other right or remedy.

(b) With respect to a Default, at any time Landlord may terminate Tenant's right to possession by written notice to Tenant stating such election. Any written notice required pursuant to Section 11.01 shall constitute notice of unlawful detainer pursuant to California Code of Civil Procedure Section 1161 if at Landlord's sole discretion, it states Landlord's election that Tenant's right to possession is terminated after expiration of any period required by Law or any longer period required by Section 11.01. Upon the expiration of the period stated in Landlord's written notice of termination (and unless such notice provides an option to cure within such period and Tenant cures the Default within such period), Tenant's right to possession shall terminate and this Lease shall terminate, and Tenant shall remain liable as hereinafter provided. Upon such termination in writing of Tenant's right to possession, Landlord shall have the right, subject to applicable Law, to re-enter the Premises and dispossess Tenant and the legal representatives of Tenant and all other occupants of the Premises by unlawful detainer or other summary proceedings, or otherwise as permitted by Law, regain possession of the Premises and remove their property (including their trade fixtures, personal property and those Tenant Additions which Tenant is required or permitted to remove under Article Twelve), but Landlord shall not be obligated to effect such removal, and such property may, at Landlord's option, be stored elsewhere, sold or otherwise dealt with as permitted by Law, at the risk of, expense of and for the account of Tenant, and the proceeds of any sale shall be applied pursuant to Law. Landlord shall in no event be responsible for the value, preservation or safekeeping of any such property. Tenant hereby waives all claims for damages that may be caused by Landlord's removing or storing Tenant's personal property pursuant to this Section or Section 12.01, and Tenant hereby indemnifies, and agrees to defend, protect and hold harmless, the Indemnitees from any and all loss, claims, demands, actions, expenses, liability and cost (including attorneys' fees and expenses) arising out of or in any way related to such removal or storage. Upon such written termination of Tenant's right to possession and this Lease, Landlord shall have the right to recover damages for Tenant's Default as provided below:

(1) the worth at the time of award of the unpaid Rent which had been earned at the time of termination;

(2) the worth at the time of award of the amount by which the unpaid Rent which would have been earned after termination until the time of award exceeds the amount of such Rent loss that Tenant proves could reasonably have been avoided;

(3) the worth at the time of award of the amount by which the unpaid Rent for the balance of the term of this Lease after the time of award exceeds the amount of such Rent loss that Tenant proves could be reasonably avoided; and

(4) any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom. The word 'rent' as used in this Section 11.02 shall have the same meaning as the defined term Rent in this Lease. The *worth at the time of award* of the amount referred to in clauses (1) and (2) above is computed by allowing interest at the Default Rate. The worth at the time of award of the amount referred to in clause (3) above is computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%). For the purpose of determining unpaid Rent under clause (3) above, the monthly Rent reserved in this Lease shall be deemed to be the sum of the Monthly Base Rent, and monthly Storage Space Rent, if any, and the amounts last payable by Tenant as Rent Adjustments for the calendar year in which Landlord terminated this Lease as provided hereinabove.

(c) Even if Tenant is in Default and/or has abandoned the Premises, this Lease shall continue in effect for so long as Landlord does not terminate Tenant's right to possession by written notice as provided in Section 11.02(b) above, and Landlord may enforce all its rights and remedies under this Lease, including the right to recover Rent as it becomes due under this Lease. In such event, Landlord shall have all of the rights and remedies of a landlord under California Civil Code Section 1951.4 (lessor may continue Lease in effect after Tenant's Default and abandonment and recover Rent as it becomes due, if Tenant has the right to sublet or assign, subject only to reasonable limitations), or any successor statute. During such time as Tenant is in Default, if Landlord has not terminated this Lease by written notice and if Tenant requests Landlord's consent to an assignment of this Lease or a sublease of the Premises, subject to Landlord's option to recapture pursuant to Section 10.02, Landlord shall not unreasonably withhold its consent to such assignment or sublease. Tenant acknowledges and agrees that the provisions of Article Ten shall be deemed to constitute reasonable limitations of Tenant's right to assign or sublet. Tenant acknowledges and agrees that in the absence of written notice pursuant to Section 11.02(b) above terminating Tenant's right to possession, no other act of Landlord shall constitute a termination of Tenant's right to possession or an acceptance of Tenant's surrender of the Premises, including acts of maintenance or preservation or efforts to relet the Premises or the appointment of a receiver upon initiative of Landlord to protect Landlord's interest under this Lease or the withholding of consent to a subletting or assignment, or terminating a subletting or assignment, if in accordance with other provisions of this Lease.

(d) In the event that Landlord seeks an injunction with respect to a breach or threatened breach by Tenant of any of the covenants, conditions or provisions of this Lease, Tenant agrees to pay the premium for any bond required in connection with such injunction.

(e) Tenant hereby waives any and all rights to relief from forfeiture, redemption or reinstatement granted by Law (including California Civil Code of Procedure Sections 1174 and 1179) in the event of Tenant being evicted or dispossessed for any cause or in the event of Landlord obtaining possession of the Premises by reason of Tenant's Default or otherwise;

(f) When this Lease requires giving or service of a notice, that notice shall replace rather than supplement any equivalent or similar statutory notice, including any equivalent or similar notices required by California Code of Civil Procedure Section 1161 or any similar or successor statute. When a statute requires service of a notice in a particular manner, service of that notice (or a similar notice required by this Lease) in the manner required by Article Twenty-four shall replace and satisfy the statutory service —of—notice procedures, including those required by Code of Civil Procedure section 1162 or any similar or successor statute.

(g) The voluntary or other surrender or termination of this Lease, or a mutual termination or cancellation thereof, shall not work a merger and shall terminate all or any existing assignments, subleases, subtenancies or occupancies permitted by Tenant, except if and as otherwise specified in writing by Landlord.

(h) No delay or omission in the exercise of any right or remedy of Landlord upon any default by Tenant, and no exercise by Landlord of its rights pursuant to Section 26.15 to perform any duty which Tenant fails timely to perform, shall impair any right or remedy or be construed as a waiver. No provision of this Lease shall be deemed waived by Landlord unless such waiver is in a writing signed by Landlord. The waiver by Landlord of any breach of any provision of this Lease shall not be deemed a waiver of any subsequent breach of the same or any other provision of this Lease.

11.03 ATTORNEY'S FEES

In the event any party brings any suit or other proceeding with respect to the subject matter or enforcement of this Lease, the prevailing party (as determined by a final, non-appealable judgment by the court, agency or other authority before which such suit or proceeding is commenced) shall, in addition to such other relief as may be awarded, be entitled to recover attorneys' fees, expenses and costs of investigation as actually incurred, including court costs, expert witness fees, costs and expenses of investigation, and all attorneys' fees, costs and expenses in any such suit or proceeding (including in any action or participation in or in connection with any case or proceeding under the Bankruptcy Code, 11 United States Code Sections 101 et

or any successor statutes, in establishing or enforcing the right to indemnification, in appellate proceedings, or in connection with the enforcement or collection of any judgment obtained in any such suit or proceeding).

11.04 BANKRUPTCY

The following provisions shall apply in the event of the bankruptcy or insolvency of Tenant:

(a) In connection with any proceeding under Chapter 7 of the Bankruptcy Code where the trustee of Tenant elects to assume this Lease for the purposes of assigning it, such election or assignment, may only be made upon compliance with the provisions of (b) and (c) below, which conditions Landlord and Tenant acknowledge to be commercially reasonable. In the event the trustee elects to reject this Lease then Landlord shall immediately be entitled to possession of the Premises without further obligation to Tenant or the trustee.

(b) Any election to assume this Lease under Chapter 11 or 13 of the Bankruptcy Code by Tenant as debtor-in-possession or by Tenant's trustee (the "Electing Party") must provide for:

The Electing Party to cure or provide to Landlord adequate assurance that it will cure all monetary defaults under this Lease within fifteen (15) days from the date of assumption and it will cure all nonmonetary defaults under this Lease within thirty (30) days from the date of assumption. Landlord and Tenant acknowledge such condition to be commercially reasonable.

(c) If the Electing Party has assumed this Lease or elects to assign Tenant's interest under this Lease to any other person, such interest may be assigned only if the intended assignee has provided adequate assurance of future performance (as herein defined), of all of the obligations imposed on Tenant under this Lease.

For the purposes hereof, "adequate assurance of future performance" means that Landlord has ascertained that each of the following conditions has been satisfied:

(i) The assignee has submitted a current financial statement, certified by its chief financial officer, which shows a net worth and working capital in amounts sufficient to assure the future performance by the assignee of Tenant's obligations under this Lease; and

(ii) Landlord has obtained consents or waivers from any third parties which may be required under a lease, mortgage, financing arrangement, or other agreement by which Landlord is bound, to enable Landlord to permit such assignment

(d) Landlord's acceptance of rent or any other payment from any trustee, receiver, assignee, person, or other entity will not be deemed to have waived, or waive, the

requirement of Landlord's consent, Landlord's right to terminate this Lease for any transfer of Tenant's interest under this Lease without such consent, or Landlord's claim for any amount of Rent due from Tenant.

11.05 LANDLORD'S DEFAULT

Landlord shall be in default hereunder in the event Landlord has not begun and pursued with reasonable diligence the cure of any failure of Landlord to meet its obligations hereunder within thirty (30) days after the receipt by Landlord of written notice from Tenant of the alleged failure to perform. In no event shall Tenant have the right to terminate or rescind this Lease as a result of Landlord's default as to any covenant or agreement contained in this Lease. Tenant hereby waives such remedies of termination and rescission and hereby agrees that Tenant's remedies for default hereunder and for breach of any promise or inducement shall be limited to a suit for damages and/or injunction. In addition, Tenant hereby covenants that, prior to the exercise of any such remedies, it will give Mortgagee notice and a reasonable time to cure any default by Landlord as set forth in Section 23.02.

ARTICLE TWELVE SURRENDER OF PREMISES

12.01 IN GENERAL

Upon the Termination Date, Tenant shall surrender and vacate the Premises immediately and deliver possession thereof to Landlord in a clean, good and tenable condition, ordinary wear and tear, and damage caused by Landlord excepted. Tenant shall deliver to Landlord all keys to the Premises. Tenant shall remove from the Premises all of Tenant's Personal Property, including, subject to Section 6.04, cabling for any of the foregoing; however, Tenant shall not be entitled to remove any of Tenant's Improvements. Additionally, Tenant shall be entitled to remove all such Tenant Additions which at the time of their installation Landlord and Tenant agreed may be removed by Tenant. Tenant shall also remove such other Tenant Additions as required by Landlord, including any Tenant Additions containing Hazardous Material. In addition, Tenant shall, if requested by Landlord prior to the Termination Date, remove the 125 KVA ONAN emergency generator and the 2 door Hazardous Material Container listed forth on Exhibit E attached hereto. Tenant immediately shall repair all damage resulting from removal of any of Tenant's property, furnishings or Tenant Additions, shall close all floor, ceiling and roof openings and shall restore the Premises to a tenable condition as reasonably determined by Landlord. If any of the Tenant Additions which were installed by Tenant involved the lowering of ceilings, raising of floors or the installation of specialized wall or floor coverings or lights, then Tenant shall also be obligated to return such surfaces to their condition prior to the commencement of this Lease. In the event possession of the Premises is not delivered to Landlord when required hereunder, or if Tenant shall fail to remove those items described above, Landlord may (but shall not be obligated to), at Tenant's expense, remove any of such property and store, sell or otherwise deal with such property as provided in Section 11.02(b), including the waiver and indemnity obligations provided in that Section, and undertake, at Tenant's expense, such restoration work as Landlord deems necessary or advisable.

12.02 LANDLORDS RIGHTS

All property which may be removed from the Premises by Landlord shall be conclusively presumed to have been abandoned by Tenant and Landlord may deal with such property as provided in Section 11.02(b), including the waiver and indemnity obligations provided in that Section. Tenant shall also reimburse Landlord for all costs and expenses incurred by Landlord in removing any of Tenants Personal Property not removed by Tenant pursuant to the provisions of Sections 11.02(b) or 12.01 and/or the Tenant Additions and in restoring the Premises to the condition required by this Lease at the Termination Date.

ARTICLE THIRTEEN HOLDING OVER

Tenant shall pay Landlord the greater of (i) 150% of the monthly Rent payable for the month immediately preceding the holding over (including increases for Rent Adjustments which Landlord may reasonably estimate) or, (ii) 150% of the fair market rental value of the Premises as reasonably determined by Landlord for each month or portion thereof that Tenant retains possession of the Premises, or any portion thereof, after the Termination Date (without reduction for any partial month that Tenant retains possession). Tenant shall also pay all damages sustained by Landlord by reason of such retention of possession. The provisions of this Article shall not constitute a waiver by Landlord of any re-entry rights of Landlord and Tenant's continued occupancy of the Premises shall be as a tenancy in sufferance.

ARTICLE FOURTEEN DAMAGE BY FIRE OR OTHER CASUALTY

14.01 SUBSTANTIAL UNTENANTABILITY

(a) If any fire or other casualty (whether insured or uninsured) renders all or a substantial portion of the Premises or the Building untenable, Landlord shall, with reasonable promptness after the occurrence of such damage, estimate the length of time that will be required to substantially complete the repair and restoration and shall by notice advise Tenant of such estimate ("Landlord's Notice"). If Landlord estimates that the amount of time required to substantially complete such repair and restoration will exceed one hundred eighty (180) days from the date such damage occurred, then Landlord, if Landlord is concurrently terminating the leases of all other tenants in the Building that the Premises are located, or Tenant, if all or a substantial portion of the Premises is rendered untenable, shall have the right to terminate this Lease as of the date of such damage upon giving written notice to the other at any time within thirty (30) days after delivery of Landlord's Notice, provided that if Landlord so chooses, Landlord's Notice may also constitute such notice of termination. In addition, if such damage is to the Premises and occurs during the last twelve (12) months of the Term, either Tenant or Landlord shall have the right to terminate this Lease as of the date of such casualty by giving written notice thereof to the other within thirty (30) days after the date of such casualty.

(b) In the event that the Building is damaged or destroyed to the extent of more than twenty-five percent (25%) of its replacement cost or to any extent if no insurance proceeds or insufficient insurance proceeds are receivable by Landlord, or if the buildings at the

Project shall be damaged to the extent of fifty percent (50%) or more of the replacement value or to any extent if no insurance proceeds or insufficient insurance proceeds are receivable by Landlord, and regardless of whether or not the Premises be damaged, Landlord may elect by written notice to Tenant given within thirty (30) days after the occurrence of the casualty to terminate this Lease in lieu of so restoring the Premises, in which event this Lease shall terminate as of the date specified in Landlord's notice, which date shall be no later than sixty (60) days following the date of Landlord's notice.

(c) Unless this Lease is terminated as provided in the preceding Subsections 14.01 (a) and (b), Landlord shall proceed with reasonable promptness to repair and restore the Premises to its condition as existed prior to such casualty, subject to reasonable delays for insurance adjustments and Force Majeure delays, and also subject to zoning Laws and building codes then in effect. Landlord shall have no Deblity to Tenant, and Tenant shall not be entitled to terminate this Lease if such repairs and restoration are not in fact completed within the time period estimated by Landlord so long as Landlord shall proceed with reasonable diligence to complete such repairs and restoration.

(d) Tenant acknowledges that Landlord shall be entitled to the full proceeds of any insurance coverage, whether carried by Landlord or Tenant, for damages to the Premises, except for those proceeds of Tenant's insurance of its own personal property, trade fixtures and equipment which would be removable by Tenant at the Termination Date. All such insurance proceeds relating to damage to the Premises shall be payable to Landlord whether or not the Premises are to be repaired and restored, provided, however, if this Lease is not terminated and the parties proceed to repair and restore Tenant Additions at Tenant's cost, to the extent Landlord received proceeds of Tenant's insurance covering Tenant Additions, such proceeds shall be applied to reimburse Tenant for its cost of repairing and restoring Tenant Additions.

(e) Notwithstanding anything in this Article Fourteen to the contrary: (i) Landlord shall have no duty pursuant to this Section to repair or restore any portion of any Tenant Additions or to expend for any repair or restoration of the Premises or Building amounts in excess of insurance proceeds paid to Landlord and available for repair or restoration; and (ii) Tenant shall not have the right to terminate this Lease pursuant to this Section if any damage or destruction was caused by the act or neglect of Tenant, its agent or employees. Whether or not the Lease is terminated pursuant to this Article Fourteen, in no event shall Tenant be entitled to receive from Landlord any compensation or damages for loss of the use of the whole or any part of the Premises or for any inconvenience or annoyance occasioned by any such damage, destruction, rebuilding or restoration of the Premises or the Building or access thereto.

(f) Any repair or restoration of the Premises performed by Tenant shall be in accordance with the provisions of Article Nine hereof.

14.02 INSUBSTANTIAL UNTENANTABILITY

Unless this Lease is terminated as provided in the preceding Subsections 14.01 (a) and (b), then Landlord shall proceed to repair and restore the Building or the Premises other than Tenant Additions, with reasonable promptness, unless such damage is to the Premises and occurs

during the last six (6) months of the Term, in which event either Tenant or Landlord shall have the right to terminate this Lease as of the date of such casualty by giving written notice thereof to the other within thirty (30) days after the date of such casualty. Notwithstanding the foregoing, Landlord's obligation to repair shall be limited in accordance with the provisions of Section 14.01 above.

14.03 RENT ABATEMENT

Except for the negligence or willful act of Tenant or its agents, employees, contractors or invitees, if all or any part of the Premises are rendered untenantable by fire or other casualty and this Lease is not terminated, Monthly Base Rent and Rent Adjustments shall abate for that part of the Premises which is untenantable on a per diem basis from the date of the casualty until thirty (30) days after Landlord has Substantially Completed the repair and restoration work in the Premises which it is required to perform, provided, that as a result of such casualty, Tenant does not occupy the portion of the Premises which is untenantable during such period.

14.04 WAIVER OF STATUTORY REMEDIES

The provisions of this Lease, including this Article Fourteen, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, the Premises or the Property or any part of either, and any Law, including Sections 1932(2), 1933(4), 1941 and 1942 of the California Civil Code, with respect to any rights or obligations concerning damage or destruction shall have no application to this Lease or to any damage to or destruction of all or any part of the Premises or the Property or any part of either, and are hereby waived.

ARTICLE FIFTEEN EMINENT DOMAIN

15.01 TAKING OF WHOLE OR SUBSTANTIAL PART

In the event the whole or any substantial part of the Building or of the Premises is taken or condemned by any competent authority for any public use or purpose (including a deed given in lieu of condemnation) and is thereby rendered untenantable, this Lease shall terminate as of the date title vests in such authority or any earlier date on which possession is required to be surrendered to such authority, and Monthly Base Rent and Rent Adjustments shall be apportioned as of the Termination Date. Further, if at least twenty-five percent (25%) of the rentable area of the Project is taken or condemned by any competent authority for any public use or purpose (including a deed given in lieu of condemnation), and regardless of whether or not the Premises be so taken or condemned, Landlord may elect by written notice to Tenant to terminate this Lease as of the date title vests in such authority or any earlier date on which possession is required to be surrendered to such authority, and Monthly Base Rent and Rent Adjustments shall be apportioned as of the Termination Date. Landlord may, without any obligation to Tenant, agree to sell or convey to the taking authority the Premises, the Building, Tenant's Phase, the Project or any portion thereof sought by the taking authority, free from this Lease and the right of Tenant hereunder, without first requiring that any action or proceeding be instituted or, if instituted, pursued to a judgment. Notwithstanding anything to the contrary herein set forth, in

the event the taking of the Building or Premises is temporary (for less than the remaining term of the Lease), Landlord may elect either (i) to terminate this Lease or (ii) permit Tenant to receive the entire award attributable to the Premises in which case Tenant shall continue to pay Rent and this Lease shall not terminate.

15.02 TAKING OF PART

In the event a part of the Building or the Premises is taken or condemned by any competent authority (or a deed is delivered in lieu of condemnation) and this Lease is not terminated, the Lease shall be amended to reduce or increase, as the case may be, the Monthly Base Rent and Tenant's Share to reflect Tenant's Rentable Area of the Premises or Building, as the case may be, remaining after any such taking or condemnation. Landlord, upon receipt and to the extent of the award in condemnation (or proceeds of sale) shall make necessary repairs and restorations to the Premises (exclusive of Tenant Additions) and to the Building to the extent necessary to constitute the portion of the Building not so taken or condemned as a complete architectural and economically efficient unit. Notwithstanding the foregoing, if as a result of any taking, or a governmental order that the grade of any street or alley adjacent to the Building is to be changed and such taking or change of grade makes it necessary or desirable to substantially remodel or restore the Building or prevents the economical operation of the Building, Landlord shall have the right to terminate this Lease upon ninety (90) days prior written notice to Tenant.

15.03 COMPENSATION

Landlord shall be entitled to receive the entire award (or sale proceeds) from any such taking, condemnation or sale without any payment to Tenant, and Tenant hereby assigns to Landlord Tenant's interest, if any, in such award; provided, however, Tenant shall have the right separately to pursue against the condemning authority a separate award in respect of the loss, if any, to Tenant Additions paid for by Tenant without any credit or allowance from Landlord, for fixtures or personal property of Tenant, or for relocation or business interruption expenses, so long as there is no diminution of Landlord's award as a result

ARTICLE SIXTEEN INSURANCE

16.01 TENANTS INSURANCE

Tenant, at Tenant's expense, agrees to maintain in force, with a company or companies acceptable to Landlord, during the Term: (a) Commercial General Liability Insurance on a primary basis and without any right of contribution from any insurance carried by Landlord covering the Premises on an occurrence basis against all claims for personal injury, bodily injury, death and property damage, including contractual liability covering the indemnification provisions in this Lease. Such insurance shall be for such limits that are reasonably required by Landlord from time to time but not less than a combined single limit of Five Million and No/100 Dollars (\$5,000,000.00); (b) Workers' Compensation and Employers' Liability Insurance to the extent required by and in accordance with the Laws of the State of California; (c) "All Risks" property insurance in an amount adequate to cover the full replacement cost of all Tenant Additions to the Premises, equipment, installations, fixtures and contents of the Premises in the

event of loss; (d) In the event a motor vehicle is to be used by Tenant in connection with its business operation from the Premises, Comprehensive Automobile Liability Insurance coverage with limits of not less than Three Million and No/100 Dollars (\$3,000,000.00) combined single limit coverage against bodily injury liability and property damage liability arising out of the use by or on behalf of Tenant, its agents and employees in connection with this Lease, of any owned, non-owned or hired motor vehicles; and (e) such other insurance or coverages as Landlord reasonably requires.

16.02 FORM OF POLICIES

Each policy referred to in 16.01 shall satisfy the following requirements. Each policy shall (i) name Landlord and the Indemnitees as additional insureds (except Workers' Compensation and Employers' Liability Insurance), (ii) be issued by one or more responsible insurance companies licensed to do business in the State of California reasonably satisfactory to Landlord, (iii) where applicable, provide for deductible amounts satisfactory to Landlord and not permit co-insurance, (iv) shall provide that such insurance may not be canceled or amended without thirty (30) days' prior written notice to the Landlord, and (v) each policy of "All-Risks" property insurance shall provide that the policy shall not be invalidated should the insured waive in writing prior to a loss, any or all rights of recovery against any other party for losses covered by such policies. Tenant shall deliver to Landlord, certificates of insurance and at Landlord's request, copies of all policies and renewals thereof to be maintained by Tenant hereunder, not less than ten (10) days prior to the Commencement Date and not less than ten (10) days prior to the expiration date of each policy.

16.03 LANDLORD'S INSURANCE

Landlord agrees to purchase and keep in full force and effect during the Term hereof, including any extensions or renewals thereof, insurance under policies issued by insurers of recognized responsibility, qualified to do business in the State of California on the Building in amounts not less than the greater of eighty (80%) percent of the then full replacement cost (without depreciation) of the Building (above foundations and excluding Tenant Additions to the Premises) or an amount sufficient to prevent Landlord from becoming a co-insurer under the terms of the applicable policies, against fire and such other risks as may be included in standard forms of all risk coverage insurance reasonably available from time to time. Landlord agrees to maintain in force during the Term, Commercial General Liability Insurance covering the Building on an occurrence basis against all claims for personal injury, bodily injury, death and property damage. Such insurance shall be for a combined single limit of Five Million and No/100 Dollars (\$5,000,000.00). Neither Landlord's obligation to carry such insurance nor the carrying of such insurance shall be deemed to be an indemnity by Landlord with respect to any claim, liability, loss, cost or expense due, in whole or in part, to Tenant's negligent acts or omissions or willful misconduct. Without obligation to do so, Landlord may, in its sole discretion from time to time, carry insurance in amounts greater and/or for coverage additional to the coverage and amounts set forth above.

16.04 WAIVER OF SUBROGATION

(a) Landlord agrees that, if obtainable at no, or minimal, additional cost, and so long as the same is permitted under the laws of the State of California, it will include in its "All Risks" policies appropriate clauses pursuant to which the insurance companies (i) waive all right of subrogation against Tenant with respect to losses payable under such policies and/or (ii) agree that such policies shall not be invalidated should the insured waive in writing prior to a loss any or all right of recovery against any party for losses covered by such policies.

(b) Tenant agrees to include, if obtainable at no, or minimal, additional cost, and so long as the same is permitted under the laws of the State of California, in its "All Risks" insurance policy or policies on Tenant Additions to the Premises, whether or not removable, and on Tenant's furniture, furnishings, fixtures and other property removable by Tenant under the provisions of this Lease appropriate clauses pursuant to which the insurance company or companies (i) waive the right of subrogation against Landlord and/or any tenant of space in the Building with respect to losses payable under such policy or policies and/or (ii) agree that such policy or policies shall not be invalidated should the insured waive in writing prior to a loss any or all right of recovery against any party for losses covered by such policy or policies. If Tenant is unable to obtain in such policy or policies either of the clauses described in the preceding sentence, Tenant shall, if legally possible and without necessitating a change in insurance carriers, have Landlord named in such policy or policies as an additional insured. If Landlord shall be named as an additional insured in accordance with the foregoing, Landlord agrees to endorse promptly to the order of Tenant, without recourse, any check, draft, or order for the payment of money representing the proceeds of any such policy or representing any other payment growing out of or connected with said policies, and Landlord does hereby irrevocably waive any and all rights in and to such proceeds and payments.

(c) Provided that Landlord's right of full recovery under its policy or policies aforesaid is not adversely affected or prejudiced thereby, Landlord hereby waives any and all right of recovery which it might otherwise have against Tenant, its servants, agents and employees, for loss or damage occurring to the Real Property and the fixtures, appurtenances and equipment therein, except Tenant Additions, to the extent the same is covered by Landlord's insurance, notwithstanding that such loss or damage may result from the negligence or fault of Tenant, its servants, agents or employees. Provided that Tenant's right of full recovery under its aforesaid policy or policies is not adversely affected or prejudiced thereby, Tenant hereby waives any and all right of recovery which it might otherwise have against Landlord, its servants, and employees and against every other tenant in the Real Property who shall have executed a similar waiver as set forth in this Section 16.04 (c) for loss or damage to Tenant Additions, whether or not removable, and to Tenant's furniture, furnishings, fixtures and other property removable by Tenant under the provisions hereof to the extent the same is covered or coverable by Tenant's insurance required under this Lease, notwithstanding that such loss or damage may result from the negligence or fault of Landlord, its servants, agents or employees, or such other tenant and the servants, agents or employees thereof.

(d) Landlord and Tenant hereby agree to advise the other promptly if the clauses to be included in their respective insurance policies pursuant to subparagraphs (a) and (b) above cannot be obtained on the terms hereinbefore provided and thereafter to furnish the other

with a certificate of insurance or copy of such policies showing the naming of the other as an additional insured, as aforesaid. Landlord and Tenant hereby also agree to notify the other promptly of any cancellation or change of the terms of any such policy which would affect such clauses or naming. All such policies which name both Landlord and Tenant as additional insureds shall, to the extent obtainable, contain agreements by the insurers to the effect that no act or omission of any additional insured will invalidate the policy as to the other additional insureds.

16.05 NOTICE OF CASUALTY

Tenant shall give Landlord notice in case of a fire or accident in the Premises promptly after Tenant is aware of such event.

ARTICLE SEVENTEEN
WAIVER OF CLAIMS AND INDEMNITY

17.01 WAIVER OF CLAIMS

To the extent permitted by Law, Tenant releases the Indemnitees from, and waives all claims for, damage to person or property sustained by the Tenant or any occupant of the Premises or the Property resulting directly or indirectly from any existing or future condition, defect, matter or thing in and about the Premises or the Property or any part of either or any equipment or appurtenance therein, or resulting from any accident in or about the Premises or the Property, or resulting directly or indirectly from any act or neglect of any tenant or occupant of the Property or of any other person, including Landlord's agents and servants, except to the extent caused by the gross negligence or willful and wrongful act of any of the Indemnitees. To the extent permitted by Law, Tenant hereby waives any consequential damages, compensation or claims for inconvenience or loss of business, rents, or profits as a result of such injury or damage, whether or not caused by the willful and wrongful act of any of the Indemnitees. If any such damage, whether to the Premises or the Property or any part of either, or whether to Landlord or to other tenants in the Property, results from any act or neglect of Tenant, its employees, servants, agents, contractors, invitees or customers, Tenant shall be liable therefor and Landlord may, at Landlord's option, repair such damage and Tenant shall, upon demand by Landlord, as payment of additional Rent hereunder, reimburse Landlord within ten (10) days of demand for the total cost of such repairs, in excess of amounts, if any, paid to Landlord under insurance covering such damages. Tenant shall not be liable for any such damage caused by its acts or neglect if Landlord or a tenant has recovered the full amount of the damage from proceeds of insurance policies and the insurance company has waived its right of subrogation against Tenant

17.02 INDEMNITY BY TENANT

To the extent permitted by Law, Tenant hereby indemnifies, and agrees to protect, defend and hold the Indemnitees harmless, against any and all actions, claims, demands, liability, costs and expenses, including attorneys' fees and expenses for the defense thereof, arising from Tenant's occupancy of the Premises, from the undertaking of any Tenant Additions or repairs to the Premises, from the conduct of Tenant's business on the Premises, or from any breach or

default on the part of Tenant in the performance of any covenant or agreement on the part of Tenant to be performed pursuant to the terms of this Lease, or from any willful act or negligence of Tenant, its agents, contractors, servants, employees, customers or invitees, in or about the Premises or the Property or any part of either. In case of any action or proceeding brought against the Indemnitees by reason of any such claim, upon notice from Landlord, Tenant covenants to defend such action or proceeding by counsel chosen by Landlord, in Landlord's sole discretion. Landlord reserves the right to settle, compromise or dispose of any and all actions, claims and demands related to the foregoing indemnity. The foregoing indemnity shall not operate to relieve Indemnitees of liability to the extent such liability is caused by the gross negligence or willful and wrongful act of Indemnitees. Further, the foregoing indemnity is subject to and shall not diminish any waivers in effect in accordance with Section 16.04 by Landlord or its insurers to the extent of amounts, if any, paid to Landlord under its "All-Risks" property insurance.

Any indemnification, exculpation or waiver provisions under this Article Seventeen shall not be deemed to exculpate or indemnify Landlord against its own negligence or that of its agents, or servants or employees.

ARTICLE EIGHTEEN RULES AND REGULATIONS

18.01 RULES

Tenant agrees for itself and for its subtenants, employees, agents, and invitees to comply with all rules and regulations for use of the Premises, the Building, the Phase and the Project imposed by Landlord, as the same may be revised from time to time, so long as a copy of such rules and regulations are delivered to Tenant, including the following: (a) Tenant shall comply with all of the requirements of Landlord's emergency response plan, as the same may be amended from time to time; and (b) Tenant shall not place any furniture, furnishings, fixtures or equipment in the Premises in a manner so as to obstruct the windows of the Premises to cause the Building, in Landlord's good faith determination, to appear unsightly from the exterior. Such rules and regulations are and shall be imposed for the cleanliness, good appearance, proper maintenance, good order and reasonable use of the Premises, the Building, the Phase and the Project and as may be necessary for the enjoyment of the Building and the Project by all tenants and their clients, customers, and employees.

18.02 ENFORCEMENT

Nothing in this Lease shall be construed to impose upon the Landlord any duty or obligation to enforce the rules and regulations as set forth above or as hereafter adopted, or the terms, covenants or conditions of any other lease as against any other tenant, and the Landlord shall not be liable to the Tenant for violation of the same by any other tenant, its servants, employees, agents, visitors or licensees. Landlord shall use reasonable efforts to enforce the rules and regulations of the Building in a uniform and non-discriminatory manner.

ARTICLE NINETEEN
LANDLORD'S RESERVED RIGHTS

Landlord shall have the following rights exercisable without notice to Tenant and without liability to Tenant for damage or injury to persons, property or business and without being deemed an eviction or disturbance of Tenant's use or possession of the Premises or giving rise to any claim for offset or abatement of Rent (1) to change the Building's name or street address upon thirty (30) days' prior written notice to Tenant; (2) to install, affix and maintain all signs on the exterior and/or interior of the Building; (3) to designate and/or approve prior to installation, all types of signs, window shades, blinds, drapes, awnings or other similar items, and all internal lighting that may be visible from the exterior of the Premises; (4) upon reasonable notice to Tenant, to display the Premises to prospective purchasers at reasonable hours at any time during the Term and to prospective tenants at reasonable hours during the last twelve (12) months of the Term; (5) to grant to any party the exclusive right to conduct any business or render any service in or to the Building, provided such exclusive right shall not operate to prohibit Tenant from using the Premises for the purpose permitted hereunder; (6) to change the arrangement and/or location of entrances or passageways, doors and doorways, corridors, elevators, stairs, washrooms or public portions of the Building, and to close entrances, doors, corridors, elevators or other facilities, provided that such action shall not materially and adversely interfere with Tenants access to the Premises or the Building; and (7) to have access for Landlord and other tenants of the Building to any mail chutes and boxes located in or on the Premises as required by any applicable rules of the United States Post Office.

ARTICLE TWENTY
ESTOPPEL CERTIFICATE

20.01 IN GENERAL

Within fifteen (15) days after request therefor by Landlord, Mortgagee or any prospective mortgagee or owner, Tenant agrees as directed in such request to execute an Estoppel Certificate in reasonable form, binding upon Tenant, certifying (i) that this Lease is unmodified and in full force and effect (or if there have been modifications, a description of such modifications and that this Lease as modified is in full force and effect); (ii) the dates to which Rent has been paid; (iii) that Tenant is in the possession of the Premises if that is the case; (iv) to Tenants knowledge, that Landlord is not in default under this Lease, or, if Tenant believes Landlord is in default, the nature thereof in detail; (v) to Tenants knowledge, that Tenant has no offsets or defenses to the performance of its obligations under this Lease (or if Tenant believes there are any offsets or defenses, a full and complete explanation thereof); (vi) that the Premises have been completed in accordance with the terms and provisions hereof, that Tenant has accepted the Premises and the condition thereof and of all improvements thereto and has no claims against Landlord or any other party with respect thereto; (vii) that if an assignment of rents or leases has been served upon the Tenant by a Mortgagee, Tenant will acknowledge receipt thereof and agree to be bound by the provisions thereof, (viii) that Tenant will give to the Mortgagee copies of all notices required or permitted to be given by Tenant to Landlord; and (ix) to any other information reasonably requested.

20.02 ENFORCEMENT

In the event that Tenant fails to deliver an Estoppel Certificate, then such failure shall be a Default for which there shall be no cure or grace period. Tenant shall be deemed to have irrevocably appointed Landlord as Tenant's attorney-in-fact to execute and deliver such Estoppel Certificate.

ARTICLE TWENTY-ONE
ONE INTENTIONALLY OMITTED

ARTICLE TWENTY-TWO
REAL ESTATE BROKERS

Tenant represents that, except for the broker(s) listed in Section 1.01(19), Tenant has not dealt with any real estate broker, sales person, or finder in connection with this Lease, and no such person initiated or participated in the negotiation of this Lease, or showed the Premises to Tenant. Tenant hereby agrees to indemnify, protect, defend and hold Landlord and the Indemnitees, harmless from and against any and all liabilities and claims for commissions and fees arising out of a breach of the foregoing representation. Landlord agrees to pay any commission to which Landlord's Broker listed in Section 1.01(19) is entitled in connection with this Lease pursuant to Landlord's written agreement with such broker. Landlord and Tenant agree that any commission payable to Tenant's Broker shall be paid by Tenant except to the extent Tenant's Broker and Landlord's Broker have entered into a separate agreement between themselves to share the commission paid to Landlord's Broker by Landlord.

ARTICLE TWENTY-THREE
MORTGAGEE PROTECTION

23.01 SUBORDINATION AND ATTORNMENMENT

This Lease is and shall be expressly subject and subordinate at all times to (i) any ground or underlying lease of the Real Property, now or hereafter existing, and all amendments, extensions, renewals and modifications to any such lease, and (ii) the lien of any mortgage or trust deed now or hereafter encumbering fee title to the Real Property and/or the leasehold estate under any such lease, and all amendments, extensions, renewals, replacements and modifications of such mortgage or trust deed and/or the obligation secured thereby, unless such ground lease or ground lessor, or mortgage, trust deed or Mortgagee, expressly provides or elects that the Lease shall be superior to such lease or mortgage or trust deed. If any such mortgage or trust deed is foreclosed (including any sale of the Real Property pursuant to a power of sale), or if any such lease is terminated, upon request of the Mortgagee or ground lessor, as the case may be, Tenant shall attorn to the purchaser at the foreclosure sale or to the ground lessor under such lease, as the case may be, provided, however, that such purchaser or ground lessor shall not be (i) bound by any payment of Rent for more than one month in advance except payments in the nature of security for the performance by Tenant of its obligations under this Lease; (ii) subject to any offset, defense or damages arising out of a default of any obligations of any preceding Landlord; or (iii) bound by any amendment or modification of this Lease made without the written consent of the Mortgagee or ground lessor, or (iv) liable for any security deposits not actually received in

cash by such purchaser or ground lessor. Notwithstanding the foregoing, or anything contained herein to the contrary, Landlord agrees to use its "best efforts", as that term is hereinbelow defined, to obtain a written agreement from the holder of any future Mortgage or ground lessor under any ground lease not to disturb Tenant's possession of the Premises so long as Tenant is not in Default under this Lease, which agreement would be on such Mortgagee's or such ground lessor's standard (albeit commercially reasonable) form of non-disturbance agreement containing the usual and customary provisions typically contained in a non-disturbance agreement (Its "Standard Form NDA"). It is understood that the "use of best efforts" shall (i) not require or be construed to require Landlord to incur any charges or expenses in an effort to obtain such non-disturbance agreement and (ii) only require Landlord to request the non-disturbance agreement and that if the holder of any such Mortgage or ground lessor, as the case may be, refuses to grant non-disturbance, Landlord's sole obligation hereunder shall be to advise Tenant of the rejection and to furnish Tenant with the name and address of the Mortgagee or ground lessor or the representative or officer with whom Tenant shall, at its option, be free to communicate with to request such non-disturbance agreement further provided, however, that if Tenant uses its "best efforts" to secure a Standard Form NDA and the holder of any such future Mortgage or any such ground lessor is unwilling to enter into its Standard Form NDA with Tenant for a reason other than Tenant's Default under this Lease, this Lease shall not be subject or subordinate to such Mortgage or ground lease. This subordination shall be self-operative and no further certificate or instrument of subordination need be required by any such Mortgagee or ground lessor. In confirmation of such subordination, however, Tenant shall execute promptly any reasonable certificate or instrument that Landlord, Mortgagee or ground lessor may request Tenant hereby constitutes Landlord as Tenant's attorney-in-fact to execute such certificate or instrument for and on behalf of Tenant upon Tenant's failure to do so within fifteen (15) days of a request to do so. Upon request by such successor in interest, Tenant shall execute and deliver reasonable instruments confirming the attornment provided for herein.

23.02 MORTGAGEE PROTECTION

Tenant agrees to give any Mortgagee or ground lessor, concurrently, by registered or certified mail, a copy of any notice of default served upon the Landlord by Tenant, provided that prior to such notice Tenant has received written notice (by way of service on Tenant of a copy of an assignment of rents and leases, or otherwise) of the address of such Mortgagee or ground lessor. Tenant further agrees that if Landlord shall have failed to cure such default within the time provided for in this Lease, then the Mortgagee or ground lessor shall have an additional thirty (30) days after receipt of notice thereof within which to cure such default or if such default cannot be cured within that time, then if the Mortgagee or ground lessor agrees to cure such default, then the Mortgagee or ground lessor shall have such additional time as may be necessary, if, within such thirty (30) days, any Mortgagee or ground lessor has commenced and is diligently pursuing the remedies necessary to cure such default, but in no event shall said thirty (30) day period be extended by more than forty-five (45) days. Such period of time shall be extended by any period within which such Mortgagee or ground lessor is prevented from commencing or pursuing such foreclosure proceedings or other proceedings to acquire possession of the Real Property by reason of Landlord's bankruptcy. Until the time allowed as aforesaid for Mortgagee or ground lessor to cure such defaults has expired without cure, Tenant shall have no right to, and shall not, terminate this Lease on account of default. This Lease may not be modified or amended so as to reduce the rent or shorten the term, or so as to adversely

affect in any other respect to any material extent the rights of the Landlord, nor shall this Lease be canceled or surrendered, without the prior written consent, in each instance, of the ground lessor or the Mortgagee.

ARTICLE TWENTY-FOUR NOTICES

(a) All notices, demands or requests provided for or permitted to be given pursuant to this Lease must be in writing and shall be personally delivered, sent by Federal Express or other reputable overnight courier service, or mailed by first class, registered or certified United States mail, return receipt requested, postage prepaid.

(b) All notices, demands or requests to be sent pursuant to this Lease shall be deemed to have been properly given or served by delivering or sending the same in accordance with this Section, addressed to the parties hereto at their respective addresses listed in Sections 1.01(2) and (3).

(c) Notices, demands or requests sent by mail or overnight courier service as described above shall be effective upon deposit in the mail or with such courier service. However, the time period in which a response to any such notice, demand or request must be given shall commence to run from (i) in the case of delivery by mail, the date of receipt on the return receipt of the notice, demand or request by the addressee thereof, or (ii) in the case of delivery by Federal Express or other overnight courier service, the date of acceptance of delivery by an employee, officer, director or partner of Landlord or Tenant Rejection or other refusal to accept or the inability to deliver because of changed address of which no notice was given, as indicated by advice from Federal Express or other overnight courier service or by mail return receipt, shall be deemed to be receipt of notice, demand or request sent Notices may also be served by personal service upon any officer, director or partner of Landlord or Tenant, and shall be effective upon such service.

(d) By giving to the other party at least ten (10) days written notice thereof, either party shall have the right from time to time during the term of this Lease to change their respective addresses for notices, statements, demands and requests, provided such new address shall be within the United States of America.

ARTICLE TWENTY-FIVE EXERCISE FACILITY

Tenant agrees to inform all employees of Tenant of the following: (i) the exercise facility is available for the use of the employees of tenants of the Project only and for no other person; (ii) use of the facility is at the risk of Tenant or Tenants employees, and all users must sign a release; (iii) the facility is unsupervised; and (iv) users of the facility must report any needed equipment maintenance or any unsafe conditions to the Landlord immediately. Landlord may discontinue providing such facility at Landlord's sole option at any time without incurring any liability. As a condition to the use of the exercise facility, Tenant and each of Tenant's employees that uses the exercise facility shall first sign a written release in form and substance acceptable to Landlord. Landlord may change the rules and/or hours of the exercise facility at

any time, and Landlord reserves the right to deny access to the exercise facility to anyone due to misuse of the facility or noncompliance with rules and regulations of the facility. To the extent permitted by Law, Tenant hereby indemnifies, and agrees to protect, defend and hold the Indemnitees harmless, against any and all actions, claims, demands, liability, costs and expenses, including attorneys' fees and expenses for the defense thereof, arising from use of the exercise facility in the Project by Tenant, Tenants employees or invitees. In case of any action or proceeding brought against the Indemnitees by reason of any such claim, upon notice from Landlord, Tenant covenants to defend such action or proceeding by counsel chosen by Landlord, in Landlord's sole discretion. Landlord reserves the right to settle, compromise or dispose of any and all actions, claims and demands related to the foregoing indemnity.

ARTICLE TWENTY-SIX
MISCELLANEOUS

26.01 LATE CHARGES

(a) The Monthly Base Rent, Rent Adjustments and Rent Adjustment Deposits shall be due when and as specifically provided above. Except for such payments and late charges described below, which late charge shall be due when provided below (without notice or demand), all other payments required hereunder to Landlord shall be paid within ten (10) days after Landlord's demand therefor. All Rent and charges, except late charges, not paid when due shall bear interest from the date due until the date paid at the Default Rate in effect on the date such payment was due.

(b) In the event Tenant is more than five (5) days late in paying any installment of Rent due under this Lease, Tenant shall pay Landlord a late charge equal to five percent (5%) of the delinquent installment of Rent. The parties agree that (i) such delinquency will cause Landlord to incur costs and expenses not contemplated herein, the exact amount of which will be difficult to calculate, including the cost and expense that will be incurred by Landlord in processing each delinquent payment of rent by Tenant, and (ii) the amount of such late charge represents a reasonable estimate of such costs and expenses and that such late charge shall be paid to Landlord for each delinquent payment in addition to all Rent otherwise due hereunder. The parties further agree that the payment of late charges and the payment of interest provided for in subparagraph (a) above are distinct and separate from one another in that the payment of interest is to compensate Landlord for its inability to use the money improperly withheld by Tenant, while the payment of late charges is to compensate Landlord for its additional administrative expenses in handling and processing delinquent payments.

(c) Payment of interest at the Default Rate and/or of late charges shall not excuse or cure any default by Tenant under this Lease, nor shall the foregoing provisions of this Article or any such payments prevent Landlord from exercising any right or remedy available to Landlord upon Tenants failure to pay Rent when due, including the right to terminate this Lease.

26.02 NO JURY TRIAL; VENUE; JURISDICTION

Each party hereto (which includes any assignee, successor, heir or personal representative of a party) shall not seek a jury trial, hereby waives trial by jury, and hereby further waives any

objection to venue in the County in which the Project is located, and agrees and consents to personal jurisdiction of the courts of the State of California, in any action or proceeding or counterclaim brought by any party hereto against the other on any matter whatsoever arising out of or in any way connected with this Lease, the relationship of Landlord and Tenant, Tenant's use or occupancy of the Premises, or any claim of injury or damage, or the enforcement of any remedy under any statute, emergency or otherwise, whether any of the foregoing is based on this Lease or on tort law. No party will seek to consolidate any such action in which a jury has been waived with any other action in which a jury trial cannot or has not been waived. It is the intention of the parties that these provisions shall be subject to no exceptions. By execution of this Lease the parties agree that this provision may be filed by any party hereto with the clerk or judge before whom any action is instituted, which filing shall constitute the written consent to a waiver of jury trial pursuant to and in accordance with Section 631 of the California Code of Civil Procedure. No party has in any way agreed with or represented to any other party that the provisions of this Section will not be fully enforced in all instances. The provisions of this Section shall survive the expiration or earlier termination of this Lease.

26.03 DEFAULT UNDER OTHER LEASE

It shall be a Default under this Lease if Tenant or any Affiliate holding any other lease with Landlord for premises in the Project defaults under such lease and as a result thereof such lease is terminated or terminable.

26.04 OPTION

This Lease shall not become effective as a lease or otherwise until executed and delivered by both Landlord and Tenant. The submission of the Lease to Tenant does not constitute a reservation of or option for the Premises, but when executed by Tenant and delivered to Landlord, the Lease shall constitute an irrevocable offer by Tenant in effect for fifteen (15) days to lease the Premises on the terms and conditions herein contained.

26.05 TENANT AUTHORITY

Tenant represents and warrants to Landlord that it has full authority and power to enter into and perform its obligations under this Lease, that the person executing this Lease is fully empowered to do so, and that no consent or authorization is necessary from any third party. Landlord may request that Tenant provide Landlord evidence of Tenant's authority.

26.06 ENTIRE AGREEMENT

This Lease and the Exhibits attached hereto contain the entire agreement between Landlord and Tenant concerning the Premises and there are no other agreements, either oral or written, and no other representations or statements, either oral or written, on which Tenant has relied. This Lease shall not be modified except by a writing executed by Landlord and Tenant.

26.07 MODIFICATION OF LEASE FOR BENEFIT OF MORTGAGEE

If Mortgagee of Landlord requires a modification of this Lease which shall not result in any increased cost or expense to Tenant or in any other substantial and adverse change in the rights and obligations of Tenant hereunder, then Tenant agrees that the Lease may be so modified.

26.08 EXCULPATION

Tenant agrees, on its behalf and on behalf of its successors and assigns, that any liability or obligation of Landlord in connection with this Lease shall only be enforced against Landlord's equity interest in the Property up to a maximum of Five Million Dollars (\$5,000,000.00) and in no event against any other assets of the Landlord, or Landlord's officers or directors or partners, and that any liability of Landlord with respect to this Lease shall be so limited and Tenant shall not be entitled to any judgment in excess of such amount

26.09 ACCORD AND SATISFACTION

No payment by Tenant or receipt by Landlord of a lesser amount than any installment or payment of Rent due shall be deemed to be other than on account of the amount due, and no endorsement or statement on any check or any letter accompanying any check or payment of Rent shall be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such installment or payment of Rent or pursue any other remedies available to Landlord. No receipt of money by Landlord from Tenant after the termination of this Lease or Tenants right of possession of the Premises shall reinstate, continue or extend the Term. Receipt or acceptance of payment from anyone other than Tenant, including an assignee of Tenant, is not a waiver of any breach of Article Ten, and Landlord may accept such payment on account of the amount due without prejudice to Landlord's right to pursue any remedies available to Landlord.

26.10 LANDLORD'S OBLIGATIONS ON SALE OF BUILDING

In the event of any sale or other transfer of the Building, Landlord shall be entirely freed and relieved of all agreements and obligations of Landlord hereunder accruing or to be performed after the date of such sale or transfer, and any remaining liability of Landlord with respect to this Lease shall be limited to Five Million Dollars (\$5,000,000.00) and Tenant shall not be entitled to any judgment in excess of such amount.

26.11 BINDING EFFECT

Subject to the provisions of Article Ten, this Lease shall be binding upon and inure to the benefit of Landlord and Tenant and their respective heirs, legal representatives, successors and permitted assigns.

26.12 CAPTIONS

The Article and Section captions in this Lease are inserted only as a matter of convenience and in no way define, limit, construe, or describe the scope or intent of such Articles and Sections.

26.13 TIME; APPLICABLE LAW; CONSTRUCTION

Time is of the essence of this Lease and each and all of its provisions. This Lease shall be construed in accordance with the Laws of the State of California. If more than one person signs this Lease as Tenant, the obligations hereunder imposed shall be joint and several. If any term, covenant or condition of this Lease or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term, covenant or condition to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby and each item, covenant or condition of this Lease shall be valid and be enforced to the fullest extent permitted by Law. Wherever the term "including" or "includes" is used in this Lease, it shall have the same meaning as if followed by the phrase but not limited to". The language, in all parts of this Lease shall be construed according to its normal and usual meaning and not strictly for or against either Landlord or Tenant.

26.14 ABANDONMENT

In the event Tenant vacates or abandons the Premises but is otherwise in compliance with all the terms, covenants and conditions of this Lease, Landlord shall (i) have the right to enter into the Premises in order to show the space to prospective tenants, (ii) have the right to reduce the services provided to Tenant pursuant to the terms of this Lease to such levels as Landlord reasonably determines to be adequate services for an unoccupied premises and (iii) during the last six (6) months of the Term, have the right to prepare the Premises for occupancy by another tenant upon the end of the Term. Tenant expressly acknowledges that in the absence of written notice pursuant to Section 11.02(b) or pursuant to California Civil Code Section 1951.3 terminating Tenant's right to possession, none of the foregoing acts of Landlord or any other act of Landlord shall constitute a termination of Tenant's right to possession or an acceptance of Tenant's surrender of the Premises, and the Lease shall continue in effect.

26.15 LANDLORD'S RIGHT TO PERFORM TENANTS DUTIES

If Tenant fails timely to perform any of its duties under this Lease, Landlord shall have the right (but not the obligation), to perform such duty on behalf and at the expense of Tenant without prior notice to Tenant, and all sums expended or expenses incurred by Landlord in performing such duty shall be deemed to be additional Rent under this Lease and shall be due and payable upon demand by Landlord.

26.16 SECURITY SYSTEM

Landlord shall not be obligated to provide or maintain any security patrol or security system. Landlord shall not be responsible for the quality of any such patrol or system which may be provided hereunder or for damage or injury to Tenant, its employees, invitees or others due to the failure, action or inaction of such patrol or system.

26.17 NO LIGHT, AIR OR VIEW EASEMENTS

Any diminution or shutting off of light, air or view by any structure which may be erected on lands of or adjacent to the Project shall in no way affect this Lease or impose any liability on Landlord.

26.18 RECORDATION

Neither this Lease, nor any notice nor memorandum regarding the terms hereof, shall be recorded by Tenant. Any such unauthorized recording shall be a Default for which there shall be no cure or grace period. Tenant agrees to execute and acknowledge, at the request of Landlord, a memorandum of this Lease, in recordable form.

26.19 SURVIVAL

The waivers of the right of jury trial, the other waivers of claims or rights, the releases and the obligations of Tenant under this Lease to indemnify, protect, defend and hold harmless Landlord and/or Indemnitees shall survive the expiration or termination of this Lease, and so shall all other obligations or agreements which by their terms survive expiration or termination of the Lease.

26.20 MAXYGEN TERMINATION

Notwithstanding anything to the contrary contained in this Lease, this Lease and the obligations of each party hereto are expressly subject to the condition precedent that Landlord shall successfully enter into and obtain a legally binding written termination of the lease of Space B from Maxygen, Inc., satisfactory in all respects in form and substance to Landlord in Landlord's sole discretion providing for surrender to Landlord of Space B. Landlord shall give Tenant written notice of the satisfaction of this condition precedent or of Landlord's written waiver of this condition precedent. Landlord may give such notice by tender of delivery to Tenant or its broker of the keys to Space B or by any other means permitted by the Lease. The date such termination agreement is effective pursuant to its terms shall be the "Maxygen Termination Date".

26.21 OPTION TO EXTEND

(a) Landlord hereby grants Tenant a single option to extend the initial Term of the Lease for an additional period of five (5) years (such period may be referred to as the "Option Term"), as to the entire Premises as it may then exist, upon and subject to the terms and conditions of this Section (the "Option To Extend"), and provided that at the time of exercise of such right: (i) Tenant must be in occupancy of the entire Premises; and (ii) there has been no material adverse change in Tenant's financial position from such position as of the date of execution of the Lease, as certified by Tenant's independent certified public accountants, and as supported by Tenant's certified financial statements, copies of which shall be delivered to Landlord with Tenant's written notice exercising its right hereunder.

(b) Tenant's election (the "Election Notice") to exercise the Option To Extend must be given to Landlord in writing no earlier than the date which is twelve months (12)

months before the Expiration Date and no later than the date which is nine (9) months before the Expiration Date. If Tenant either fails or elects not to exercise its Option to Extend by not timely giving its Election Notice, then the Option to Extend shall be null and void.

(c) The Option Term shall commence immediately after the expiration of the initial Term of the Lease. Tenant's leasing of the Premises during the Option Term shall be upon and subject to the same terms and conditions contained in the Lease except that (i) the Monthly Base Rent, plus payment of Tenant's Share of Operating Expenses pursuant to the Lease (in addition to all expenses paid directly by Tenant to the utility or service provider, which direct payments shall continue to be Tenant's obligation) shall be amended to equal the "Option Term Rent", defined and determined in the manner set forth in the immediately following Subsection; (ii) the Security Deposit, if any, shall be increased within fifteen (15) days after the Prevailing Market Rent has been determined to equal one hundred percent (100%) of the highest monthly installment of Monthly Base Rent thereunder, but in no event shall the Security Deposit be decreased; (iii) Tenant shall accept the Premises in its "AS-IS" condition without any obligation of Landlord to repaint, remodel, repair, improve or alter the Premises or to provide Tenant any allowance therefor; and (iv) there shall be no further option or right to extend the term of the Lease. If Tenant timely and properly exercises the Option To Extend, references in the Lease to the Term shall be deemed to mean the initial Term as extended by the Option Term unless the context clearly requires otherwise.

(d) The Option Term Rent shall mean the greater of (i) the Monthly Base Rent payable by Tenant under this Lease calculated at the rate applicable for the last full month of the initial Term, plus payment of Tenant's Share of Operating Expenses pursuant to the Lease (in addition to all expenses paid directly by Tenant to the utility or service provider, which direct payments shall continue to be Tenant's obligation) (collectively, "Preceding Rent") or (ii) the "Prevailing Market Rent". As used in this Section Prevailing Market Rent shall mean the rent and all other monetary payments, escalations and triple net payables by Tenant, including consumer price increases, that Landlord could obtain from a third party desiring to lease the Premises for a term equal to the Option Term and commencing when the Option Term is to commence under market leasing conditions, and taking into account the following: the size, location and floor levels of the Premises; the type and quality of tenant improvements (including Tenant's Improvements); age and location of the Project; quality of construction of the Project; services to be provided by Landlord or by tenant; the rent, all other monetary payments and escalations obtainable for new leases of space comparable to the Premises in the Project and in comparable buildings in the mid- Peninsula area, and other factors that would be relevant to such a third party in determining what such party would be willing to pay therefor, provided, however, that Prevailing Market Rent shall be determined without reduction or adjustment for "Tenant Concessions" (as defined below), if any, being offered to prospective new tenants of comparable space. For purposes of the preceding sentence, the term "Tenant Concessions" shall include, without limitation, so-called free rent, tenant improvement allowances and work, moving allowances, and lease takeovers. The determination of Prevailing Market Rent based upon the foregoing criteria shall be made by Landlord, in the good faith exercise of Landlord's business judgment. Within thirty (30) days after Tenant's exercise of the Option To Extend, Landlord shall notify Tenant of Landlord's determination of Option Term Rent for the Premises. If Landlord's determination of Prevailing Market Rent is greater than the Preceding Rent, and if Tenant, in Tenant's sole discretion, disagrees with the amount of Prevailing Market Rent

determined by Landlord, Tenant may elect to revoke and rescind the exercise of the option by giving written notice thereof to Landlord within thirty (30) days after notice of Landlord's determination of Prevailing Market Rent.

(e) This Option to Extend is personal to Codex's Inc. and may not be used by, and shall not be transferable or assignable (voluntarily or involuntarily) to any person or entity except for a Tenant Affiliate.

(f) Upon the occurrence of any of the following events, Landlord shall have the option, exercisable at any time prior to commencement of the Option Term, to terminate all of the provisions of this Section with respect to the Option to Extend, with the effect of canceling and voiding any prior or subsequent exercise so this Option to Extend is of no force or effect:

(i) Tenant's failure to timely exercise the Option to Extend in accordance with the provisions of this Section.

(ii) The existence at the time Tenant exercises the Option to Extend or at the commencement of the Option Term of any default on the part of Tenant under the Lease or of any state of facts which with the passage of time or the giving of notice, or both, would constitute such a default.

(iii) Tenants third default under the Lease prior to the commencement of the Option Term, notwithstanding that all such defaults may subsequently be cured.

In the event of Landlord's termination of the Option to Extend pursuant to this Section, Tenant shall reimburse Landlord for all costs and expenses Landlord incurs in connection with Tenants exercise of the Option to Extend including, without limitation, costs and expenses with respect to any brokerage commissions and attorneys' fees, and with respect to the design, construction or making of any tenant improvements, repairs or renovation or with respect to any payment of all or part of any allowance for any of the foregoing.

(g) Without limiting the generality of any provision of the Lease, time shall be of the essence with respect to all of the provisions of this Section.

IN WITNESS WHEREOF, this Lease has been executed as of the date set forth in Section 1.01(4) hereof.

TENANT:

Codexis

a _____

By /s/ Alan Straw
Alan Straw

Print name

Its President & CEO
(Chairman of Board, President or Vice President)

By _____

Print name

Its _____
(Secretary, Assistant Secretary, CFO or Assistant Treasurer)

LANDLORD

Metropolitan Life Insurance Company,

a New York corporation

By /s/ JMR Redman
JMR Redman

Print name

Its Assistant Vice President

By _____

Print name

Its _____

FIRST AMENDMENT TO LEASE

This First Amendment to Lease ("**Amendment**") is entered into, and dated for reference purposes, as of June 1, 2004 (the "**Execution Date**") by and between METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation, as Landlord ("**Landlord**"), and CODEXIS, INC., a Delaware corporation, as Tenant ("**Tenant**"), with reference to the following facts ("**Recitals**"):

A Landlord and Tenant entered into that certain written Lease, dated as of October 2003 (the "**Existing Lease**"), for certain premises in Seaport Centre, described therein located at 220 Penobscot Drive, 501 Chesapeake Drive and 200 Penobscot Drive, Redwood City, California (the "**Existing Premises**"), all as more particularly described in the Existing Lease.

B. Tenant has requested and Landlord has agreed to enter into this Amendment upon the terms set forth herein.

NOW, THEREFORE, in consideration of the foregoing, and of the mutual covenants set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

Section 1. Scope of Amendment; Defined Terms. Except as expressly provided in this Amendment, the Existing Lease shall remain in full force and effect. Should any inconsistency arise between this Amendment and the Existing Lease as to the specific matters which are the subject of this Amendment, the terms and conditions of this Amendment shall control. The term "**Existing Lease**" defined above shall refer to the Existing Lease as it existed before giving effect to the modifications set forth in this Amendment and the term "**Lease**" as used herein and in the Existing Lease shall refer to the Existing Lease as modified by this Amendment, except as expressly provided in this Amendment. All capitalized terms used in this Amendment and not defined herein shall have the meanings set forth in the Existing Lease unless the context clearly requires otherwise.

Section 2. Amendment of Section 2.05. The eighth (8th) and ninth (9th) sentences in the paragraph within Section 2.05(b) of the Lease beginning with "In no event shall Landlord's Contribution." shall be amended and restated as follows:

"Tenant must prior to the expiration of nine months after the Commencement Date submit written request with the items required above for disbursement or reimbursement for any reimbursable costs out of the First Contribution with respect to Space A and Space B, and to the extent of any funds for which request has not been made prior to that date or if and to the extent that the reimbursable costs of the Tenant Work relating to Space A and Space B are less than the amount of the First Contribution, then Landlord shall retain the unapplied or unused balance of the First Contribution and shall have no obligation or liability to Tenant with respect to such excess. Tenant must prior to the expiration of nine months after the Third Delivery Date submit written request with the items required above for disbursement or reimbursement for any reimbursable costs out of the Second Contribution with respect to Space C, and to the extent of any funds for which request has not been made prior to that date or if and to the extent that the reimbursable costs of the Tenant Work relating to Space C are less than the amount of the Second Contribution, then Landlord shall retain the unapplied or unused balance of the Second Contribution and shall have no obligation or liability to Tenant with respect to such excess. If the costs of completing the Tenant Work relating to (i) Space A and Space B, and (ii) Space C, respectively, exceed the First Contribution or the Second Contribution, Tenant shall pay all such costs."

Section 3. Time of Essence. Without limiting the generality of any other provision of the Existing Lease, time is of the essence to each and every term and condition of this Amendment.

Section 4. Effect of Headings. The titles or headings of the various parts or sections hereof are intended solely for convenience and are not intended and shall not be deemed to or in any way be used to modify, explain or place any construction upon any of the provisions of this Amendment.

Section 5. Entire Agreement: Amendment. This Amendment taken together with the Existing Lease, together with all exhibits, schedules, riders and addenda to each, constitutes the full and complete agreement and understanding between the parties hereto and shall supersede all prior communications, representations, understandings or agreements, if any, whether oral or written, concerning the subject matter contained in this Amendment and the Existing Lease, as so amended, and no provision of the Lease as so amended may be modified, amended, waived or discharged, in whole or in part, except by a written instrument executed by all of the parties hereto.

Section 6. Authority. Each party represents and warrants to the other that it has full authority and power to enter into and perform its obligations under this Amendment, that the person executing this Amendment is fully empowered to do so, and that no consent or authorization is necessary from any third party. Landlord may request that Tenant provide Landlord evidence of Tenant's authority.

Section 7. Counterparts. This Amendment may be executed in duplicates or counterparts, or both, and such duplicates or counterparts together shall constitute but one original of the Amendment. Each duplicate and counterpart shall be equally admissible in evidence, and each original shall fully bind each party who has executed it

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first set forth above.

TENANT: **CODEXIS, INC.**
a Delaware corporation

By: /s/ Alan Shaw
Print Name: Alan Shaw
Title: President & CEO
(Chairman of Board, President or Vice President)
Date 1st June 2004

LANDLORD: **METROPOLITAN LIFE INSURANCE COMPANY,**
a New York corporation

By: /s/ John R. Redmon
Print Name: John R. Redmon
Title: Asst. VP
Date 5/12/04

SECOND AMENDMENT TO LEASE

This Second Amendment to Lease ("Amendment") is entered into, and dated for reference purposes, as of March 9, 2007 (the "Execution Date") by and between METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Metropolitan"), as Landlord ("Landlord"), and Codexis, Inc. a Delaware corporation ("Codexis"), as Tenant ("Tenant"), with reference to the following facts ("Recitals"):

A. Landlord and Tenant are the parties to that certain written lease which is comprised of the following: that certain written Lease, dated as of October, 2003, by and between Landlord and Tenant (the "Original Lease"), as amended by that certain First Amendment to Lease, dated as of June 1, 2004, by and between Landlord and Tenant (collectively the "Existing Lease") for certain premises described therein and commonly known as 501 Chesapeake Drive in Building 3 and all the rentable area of Building 4 (consisting of 200 and 220 Penobscot Drive (collectively, the "Existing Premises"), an aggregate of 39,382 square feet of Rentable Area, all as more particularly described in the Existing Lease.

B. Landlord and Tenant desire to provide for (i) the lease to Tenant of the 640 Galveston Space (defined below) for a term longer than that for the Existing Premises; and (ii) other amendments of the Existing Lease as more particularly set forth below.

NOW, THEREFORE, in consideration of the foregoing, and of the mutual covenants set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

Section 1. Scope of Amendment; Defined Terms. Except as expressly provided in this Amendment, the Existing Lease shall remain in full force and effect. Should any inconsistency arise between this Amendment and the Existing Lease as to the specific matters which are the subject of this Amendment, the terms and conditions of this Amendment shall control. The term "Lease" as used herein and in the Existing Lease shall refer to the Existing Lease as modified by this Amendment. All capitalized terms used in this Amendment and not defined herein shall have the meanings set forth in the Existing Lease unless the context clearly requires otherwise.

Section 2. Confirmation of Term. Landlord and Tenant acknowledge and agree that notwithstanding any provision of the Existing Lease to the contrary: (a) as contemplated by the Existing Lease, the Expiration Date of the Term of the Lease of the Existing Premises is January 31, 2011; and (b) the initial Term of the Lease of the 640 Galveston Space shall expire later as provided below.

Section 3. Lease of 640 Galveston Space.

(a) Landlord hereby leases to Tenant and Tenant hereby hires from Landlord the 640 Galveston Space (defined below) upon and subject to all of the terms, covenants and conditions of the Existing Lease except as expressly provided herein. The "640 Galveston Space" is part of Building Number 5 located in Phase I of Seaport Centre, has a street address of 640 Galveston Drive, Redwood City, California 94063, and is shown on Exhibit A-1 and Exhibit A-2 to this Amendment. Landlord and Tenant hereby agree that the 640 Galveston Space is conclusively presumed to be 9,400 square feet of Rentable Area (which Rentable Area includes an allocable share of the Common Areas shown on Exhibit A-1 and shared with the adjoining tenant).

(b) Delivery; Construction & Construction Period; Commencement Date; Term; Other Provisions Notwithstanding any provision of the Existing Lease to the contrary, the following provisions shall govern the 640 Galveston Space:

(1) Delivery; Construction; Construction Period; Commencement Date; Term Landlord shall allow Tenant to have access to the 640 Galveston Space in the condition specified in the Workletter (Exhibit B to this Amendment) no later than the later of March 1, 2007 or the date this Amendment is executed by both Tenant and Landlord (the "Early Access Date") for the purpose of performing the Tenant Work (as defined in Exhibit B) and setting up Tenant's furniture, fixtures and equipment. Landlord shall tender to Tenant possession of the 640 Galveston Space on April 1, 2007, which shall be the "640 Galveston Commencement Date". From and after the date on which Landlord provides early access, all the terms and conditions of the Lease shall apply, and Tenant shall observe and perform all terms and conditions of the Lease, except that, in recognition of Tenant's construction and installations in, and preparation of, the 640 Galveston Space for the use and occupancy permitted by this Lease, until the 640 Galveston Commencement Date, Tenant shall not be obligated to pay Rent Adjustments and until one month after the 640 Galveston Commencement Date (as set forth in Subsection (c) below, Tenant shall not be obligated to pay Monthly Base Rent. The Term of this Lease of the 640 Galveston Space ("640 Galveston Term") shall be sixty-one (61) months starting on the 640 Galveston Commencement Date and the "640 Galveston Expiration Date" shall be the last day of such sixty-one (61) month period. Tenant and Landlord acknowledge and agree that the 640 Galveston Expiration Date is later than the Expiration Date of the Term of the Existing Lease of the Existing Premises.

(2) Tenant Additions/Tenant Improvements. Tenant hereby acknowledges that all improvements installed in the 640 Galveston by Landlord prior to the Execution Date or by Landlord or Tenant in connection with this Amendment or hereafter under the Lease, including, without limitation, all lab benches and corresponding casework, lab sinks, lab hoods, supplemental or special ventilating and air conditioning equipment, and any and all lab installations and fixtures, shall, without compensation or credit to Tenant, become part of the 640 Galveston Space and the property of Landlord at the time of their installation and shall remain in Building 5, unless pursuant to express provision of this Lease or a written agreement between the parties hereto, Tenant may remove them or is required to remove them at Landlord's request.

(3) Confirmation of Commencement Date. Upon request by Landlord, Tenant and Landlord shall enter into an agreement (the form of which is Exhibit C to this Amendment) confirming the 640 Galveston Commencement Date and the 640 Galveston Expiration Date. If within five (5) business days after Landlord's request enclosing the proposed agreement Tenant fails either (i) to enter into such agreement, or (ii) give Landlord written notice of any item(s) therein which Tenant believes are incorrect, the correction(s) proposed by Tenant and reasons therefor, then the 640 Galveston Commencement Date and the 640 Galveston Expiration Date shall be the dates designated by Landlord in such agreement.

(4) Failure to Deliver Possession. If Landlord shall be unable to give possession of the 640 Galveston Space no later than the Early Access Date by reason of the following: (i) the holding over or retention of possession of any tenant, tenants or occupants, or (ii) for any other reason, then Landlord shall not be subject to any liability for the failure to give possession on said date. Under such circumstances, each of the Early Access Date and the 640 Galveston Commencement Date shall be automatically adjusted to a later date by one day for each day after the Early Access Date on which access shall not have been provided until the date Landlord actually provides to Tenant early access to the 640 Galveston Space. Failure to provide access on the originally scheduled Early Access Date shall not affect the validity of this Lease or the obligations of the Tenant hereunder.

(c) Monthly Base Rent for 640 Galveston Space. Notwithstanding any provision of the Existing Lease to the contrary, Monthly Base Rent for the 640 Galveston Space shall be payable on the 640 Galveston Commencement Date and thereafter on the first day of each calendar month of the 640 Galveston Term, in the manner required for Monthly Base Rent in the Existing Lease, but the amounts are additional to rent payable under the Existing Lease, and the amount of Monthly Base Rent due and payable by Tenant for the 640 Galveston Space and monthly schedule therefor starting on the 640 Galveston Commencement Date shall be as set forth in the schedule below:

<u>Period from/to</u>	<u>Monthly</u>	<u>Monthly Rate/SF of Rentable Area</u>
Month 01 – 01	\$ 0.00	\$ 0.00
Months 02 – 12	\$27,730.00	\$ 2.95
Months 13 – 24	\$28,576.00	\$ 3.04
Months 25 – 36	\$29,422.00	\$ 3.13
Months 37 – 48	\$30,268.00	\$ 3.22
Months 49 – 60	\$31,208.00	\$ 3.32
Month 61 – 61	\$32,148.00	\$ 3.42

Tenant shall pay Landlord the initial installment of Monthly Base Rent for the second month of the 640 Galveston Term concurrently with execution of this Amendment.

(d) Tenant's Share of Operating Expenses. Notwithstanding any provision of the Existing Lease to the contrary, in addition to Tenant's payment of Rent Adjustment Deposits and Rent Adjustments with respect to Building 3 and Building 4, Tenant shall pay Rent Adjustment Deposits and Rent Adjustments with respect to the 640 Galveston Space during the 640 Galveston Term as set forth in the Existing Lease, except that for such purposes Tenant's Building 5 Share shall be as set forth below, and Tenant's Phase Share and Tenant's Project Share (for the Existing Premises and 640 Galveston Space together totaling 48,782 square feet of Rentable Area) shall be modified as set forth below:

Tenant's Building 5 Share:	18.44%
Tenant's Phase 1 Share:	16.162%* (see provision below)
Tenant's Project Share:	9.077%* (see provision below)

* If the Term of the Existing Premises is not extended, then from the later of such expiration or the date Tenant vacates the Existing Premises, and continuing for the remaining 640 Galveston Term, Tenant's Phase 1 Share shall be reduced by 13.05% to 3.112% and Tenant's Project Share shall be reduced by 7.33% to 1.747%.

(e) Parking. Notwithstanding any provision of the Existing Lease to the contrary, on and after the 640 Galveston Commencement Date for the 640 Galveston Term, Tenant shall have the right to use, on an unassigned basis, an additional thirty-one (31) Parking Spaces, and if the Term of the Existing Premises is not extended, then from the later of such expiration or the date Tenant vacates the Existing Premises, and continuing for the remaining 640 Galveston Term, Tenant shall be entitled to use only thirty-one (31) Parking Spaces.

(f) Signage.

(1) Grant of Right. Notwithstanding any provision of the Existing Lease to the contrary, on and after the 640 Galveston Commencement Date for the 640 Galveston Term, Tenant shall have the right to (1) place its company name and logo on the door(s) at the main entry to the 640 Galveston Space (the "Entry Signage"); and (2) only for so long as Tenant leases, is continuously conducting regular, active, ongoing business in, and is in occupancy (and occupancy by a subtenant, licensee or other party permitted or suffered by Tenant shall not satisfy such condition) of the entire 640 Galveston Space, place its company name and logo on its pro-rata share of the signage area on the existing, exterior monument sign for Building 5, subject to the terms and conditions set forth in this Section ("Monument Signage") (collectively, the Entry Signage and Monument Signage are referred to as the "Exterior Sign Right").

(2) General Conditions & Requirements. The size, type, style, materials, color, method of installation and exact location of the sign, and the contractor for and all work in connection with the sign, contemplated by this Section shall (i) be subject to Tenant's compliance with all applicable laws, regulations and ordinances and with any covenants, conditions and restrictions of record which affect the Property; (ii) be subject to Tenant's compliance with all requirements of Landlord's current Project signage criteria at the time of installation; (iii) be consistent with the design of the Building and the Project; (iv) be further subject to Landlord's prior written consent. Tenant shall, at its sole cost and expense, procure, install, maintain in first class appearance and condition, and remove such sign.

(3) Removal & Restoration. Upon the expiration or termination of the Exterior Sign Right, but in no event later than the expiration of the 640 Galveston Term or earlier termination of the Lease, Tenant shall, at its sole cost and expense, remove such sign and shall repair and restore the area in which the sign was located to its condition prior to installation of such sign.

(4) Right Personal. The right to Monument Signage under this Section is personal to Codexis and may not be used by, and shall not be transferable or assignable (voluntarily or involuntarily) to, any person or entity.

Section 4. Increase in the Security. Notwithstanding any provision of the Existing Lease to the contrary:

(a) Tenant and Landlord acknowledge that pursuant to Section 5.02 of the Existing Lease, Tenant elected to deliver the Letter of Credit in lieu of cash Security Deposit, and in February, 2006, the amount of the Letter of Credit required under the Existing Lease and held by Landlord was reduced to Four Hundred and Five Thousand Dollars (\$405,000.00) in accordance with Section 5.02(c) of the Existing Lease;

(b) in accordance with Section 5.02(c) of the Existing Lease, as of February 1, 2007, Tenant is entitled to provide Landlord with an amendment or replacement of the Letter of Credit which would decrease by Forty-five Thousand Dollars (\$45,000) the amount of the Letter of Credit to a new total of Three Hundred Sixty Thousand Dollars (\$360,000), but Tenant has not done so as of the Execution Date and accordingly such reduction will be given effect together with the increase of Ninety-three Thousand Six Hundred Twenty-four Dollars (\$93,624.00) in the Security and amount of the Letter of Credit required by this Amendment in connection with the lease of the 640 Galveston Space, and after giving effect to such reduction and increase, the total amount of the Security Deposit and Letter of Credit required as of the Execution Date of this Amendment shall be Four Hundred Fifty-three Thousand Six Hundred Twenty-four Dollars (\$453,624.00), and no later than ten (10) business days after execution of this Amendment Tenant shall deliver to Landlord an amendment or replacement of the Letter of Credit which increases the amount of the Letter of Credit to Four Hundred Fifty-three Thousand Six Hundred Twenty-four Dollars (\$453,624.00);

(c) The text of Section 5.02(c) of the Existing Lease is deleted and the following is inserted in its place:

“Notwithstanding anything to the contrary contained herein, after the Execution Date of the Second Amendment to Lease, the following reduction provisions shall apply. If Tenant is not in Default under the Lease on February 1, 2008, an amendment or replacement of the Letter of Credit may be issued which decreases by Forty-five Thousand Dollars (\$45,000) the amount of the Letter of Credit to the revised total amount of Four Hundred Eight Thousand Six Hundred Twenty-four Dollars (\$408,624). If Tenant is not in Default under the Lease on February 1, 2009, an amendment or replacement of the Letter of Credit may be issued which decreases by Forty-five Thousand Dollars (\$45,000) the amount of the Letter of Credit to the revised total amount of Three Hundred Sixty-three Thousand Six Hundred Twenty-four Dollars (\$363,624). If Tenant is not in Default under the Lease on February 1, 2010, an amendment or replacement of the Letter of Credit may be issued which decreases by Forty-five Thousand Dollars (\$45,000) the amount of the Letter of Credit to the revised total amount of Three Hundred Eighteen Thousand Six Hundred Twenty-four Dollars (\$318,624).”

(d) The second sentence of Section 5.02(a) is deleted and the following is inserted in its place: "The Letter of Credit shall be maintained in effect until the "LOC Expiration Date", which shall mean the date which is ninety (90) days after the last to occur of the four events specified in Section 5.02(d) of the Existing Lease or the 640 Galveston Expiration Date, and provided that on the LOC Expiration Date, Tenant shall not be in Default, Landlord shall return to Tenant the Letter of Credit and any Letter of Credit Proceeds then held by Landlord (other than those held for application by Landlord on account of a Default as provided below)".

(e) The phrase " , together with a written certification from Landlord that Tenant is in Default" is hereby deleted from Sub-item (ii) of the second sentence of Section 5.02(b) of the Existing Lease, Sub-item (iii) of such sentence is hereby deleted, and the Letter of Credit shall be amended to delete Sub-item (ii) from the third paragraph of the Letter of Credit and to substitute the following in its place: "(ii) accompanied by the original of this Letter of Credit and a letter of transmittal executed by a representative of the Beneficiary stating the amount for which a draw under this Letter of Credit is made."

Section 5. Amendment of Casualty and Condemnation Provisions in Light of Multiple Buildings in Which the Premises are Located

(a) Section 14.01 of the Existing Lease is hereby amended to add the following Subsection (g) at the end thereof:

"(g) Notwithstanding anything in this Article Fourteen to the contrary, in the event that the Premises is located in more than one building of the Project and any damage or destruction covered by this Article affects only one of the buildings in which the Premises is located, then the determination of the extent of damage or destruction shall be made only with respect to the building so affected, and Landlord or Tenant shall be entitled to terminate this Lease only with respect to the part of the Premises in the building so affected, and the Lease shall continue in full force and effect to the extent of the remainder, if any, of the Premises."

(b) Section 15.01 of the Existing Lease is hereby amended to add the following sentence at the end thereof:

"Notwithstanding anything to the contrary herein set forth, in the event that the Premises is located in more than one building of the Project and any taking covered by this Article Fifteen affects only one of the buildings in which the Premises is located, then the determination of the extent of the taking shall be made only with respect to the building so affected, and Landlord or Tenant shall be entitled to terminate this Lease only with respect to the part of the Premises in the building so affected, and the Lease shall continue in full force and effect to the extent of the remainder, if any, of the Premises."

Section 6. Negotiation Right

(a) Landlord hereby grants Tenant a one-time right to negotiate the lease of the Negotiation Space (defined below) if and to the extent such space is Available (defined below) during the period beginning on the Execution Date of this Amendment and expiring April 30, 2010 (the "Negotiation Period"), upon and subject to the terms and conditions of this Section

(the "Negotiation Right"), and provided that at the time of exercise of such right: (i) Tenant must be conducting regular, active, ongoing business in, and be in occupancy (and occupancy by a subtenant, licensee or other party permitted or suffered by Tenant shall not satisfy such condition) of the entire Premises, (ii) there has been no material adverse change in Tenant's financial position from such position as of the date of execution of the Lease, as certified by Tenant's independent certified public accountants, and as supported by Tenant's certified financial statements, copies of which shall be delivered to Landlord with Tenant's written notice exercising its right hereunder, and (iii) Tenant has duly exercised the Option to Extend for the Existing Premises pursuant to Section 26.21 of the Original Lease. Without limiting the generality of the foregoing, Landlord may reasonably conclude there has been a material adverse change if Tenant's independent certified public accountants do not certify there has been no such change.

(b) The "Negotiation Space" shall mean the space with a street address of 525 Chesapeake Drive and Rentable Area of approximately 15,393 square feet. The term "Available" shall mean that the space in question is either: (1) vacant and free and clear of all "Prior Rights" (defined below); or (2) space as to which Landlord has received a proposal, or Landlord is making a proposal, for a lease or rights of any nature applicable in the future when such space would be free and clear of all Prior Rights. The term "Prior Rights" shall mean rights of other parties, including without limitation, a lease, lease option, or option or other right of extension, renewal, expansion, refusal, negotiation or other right, either: (i) pursuant to any lease or written agreement which is entered into on or before the beginning of the Negotiation Period; or (ii) pursuant to any extensions or renewal of any of the foregoing, whether or not set forth in such lease or written agreement, and Landlord shall be free at any time to enter such extension or renewal; or (iii) pursuant to any amendment or modification of any of the foregoing, and Landlord shall be free at any time to enter such amendment or modification.

(c) Nothing herein shall be deemed to limit or prevent Landlord from marketing, discussing or negotiating with any other party for a lease-of, or rights of any nature as to, any part of the Negotiation Space, but during the Negotiation Period before Landlord makes any written proposal to any other party (other than a party with Prior Rights) for any Negotiation Space which becomes Available (including giving a written response to any proposal or offer received from another party), or contemporaneously with making any such proposal, and in any event within thirty (30) days after such space becomes vacant and free and clear of all Prior Rights, Landlord shall give Tenant written notice ("Landlord's Notice"), which notice identifies the space Available and Landlord's estimate of the projected date such space will be vacant and deliverable to Tenant. Notwithstanding any of the foregoing to the contrary, Tenant acknowledges that Landlord has disclosed that as of the date of execution of this Lease, the Negotiation Space is leased for a term that will expire approximately March 14, 2012, and as set forth more fully in Subsection (b) above, Landlord shall remain free at any time to enter into an extension or renewal of such lease, whether or not any such right is set forth in such lease, and to enter into any amendment or modification of such lease, all of which constitute Prior Rights with respect to the Negotiation Space. For a period of five (5) business days after Landlord gives Landlord's Notice (the "Election Notice Period"), Tenant shall have the right to initiate negotiations in good faith for the lease of all (and not less than all) the space identified in Landlord's Notice by giving Landlord written notice ("Election Notice") of Tenant's election to exercise its Negotiation Right to lease such space.

(d) If Tenant timely and properly gives the Election Notice, Landlord and Tenant shall, during the five (5) business day period (the "Second Period") following Landlord's receipt of the Election Notice, negotiate in good faith for the lease of the Negotiation Space which is the subject of the Landlord Notice as set forth below. Any lease by Tenant pursuant to this Negotiation Right: (1) shall be for all (and not less than all) the Negotiation Space which is the subject of the Landlord Notice; (2) the subject Negotiation Space shall, upon delivery, be part of the Premises under this Lease, such that the term "Premises" thereafter shall include the subject Negotiation Space; (3) starting on such delivery date, with respect to the subject Negotiation Space Tenant shall additionally pay Tenant's Share of Operating Expenses, with Tenant's Share recalculated to reflect addition of the Negotiation Space; (4) the number of parking spaces applicable to the subject Negotiation Space shall be calculated at the rate of 3.3 spaces per 1000 square feet of Rentable Area of the subject Negotiation Space, and the type of, location of and charge for such spaces shall be as otherwise provided in the Lease; and (5) such lease shall be upon and subject to all the other terms, covenants and conditions provided in the Lease, except that the following terms shall be subject to such negotiation and agreement of the parties: (aa) the amount of the Monthly Base Rent with respect to the Negotiation Space; (bb) the term of the lease of the Negotiation Space shall be subject to negotiation, but shall not expire before the 640 Galveston Expiration Date (as it may be extended pursuant to the Option to Extend); (cc) any improvements or alterations to be done, or allowance therefor, if any, specifically agreed upon, and absent such agreement, Tenant shall accept the Negotiation Space in its then AS IS condition without any obligation of Landlord to repaint, remodel, improve or alter the subject Negotiation Space for Tenant's occupancy or to provide Tenant any allowance therefor, but such space shall be delivered broom clean and free of all tenants or occupants (and their personal property); (dd) increase in the Security; and (ee) Landlord shall deliver the subject Negotiation Space to Tenant in such AS IS condition no later than thirty (30) days after Landlord regains possession of such space, but in no event shall Landlord have any liability for failure to deliver the subject Negotiation Space to Tenant on any projected delivery date due to the failure of any occupant to timely vacate and surrender such space or due to Force Majeure, and such failure shall not be a default under the Lease or impair its validity. The foregoing obligation of Landlord to negotiate is non-exclusive and nothing herein shall be deemed to prevent Landlord from negotiating with any other party for the Negotiation Space, whether or not Landlord and Tenant are negotiating for the same, but any other such negotiation shall be subject to the aforesaid obligation to negotiate with Tenant in good faith.

(e) If Tenant either fails or elects not to exercise its Negotiation Right as to the Negotiation Space covered by Landlord's Notice by not giving its Election Notice within the Election Notice Period, or if Tenant gives Tenant's Election Notice but Tenant and Landlord do not execute (1) a written letter of intent reflecting the significant business terms for the lease of the Negotiation Space within five (5) business days after delivery of the Election Notice, and (2) a corresponding amendment prepared by Landlord within five (5) days after Landlord gives Tenant such proposed amendment, then in any such event Tenant's Negotiation Right shall terminate, and be null and void, as to the subject space identified in the applicable Landlord's Notice (but not as to any Negotiation Space subject to this Negotiation Right which has not become Available and been included in a Landlord's Notice), and at any time thereafter Landlord shall be free to lease and/or otherwise grant options or rights to the subject space on any terms and conditions whatsoever free and clear of the Negotiation Right.

(f) During any period that Tenant does not occupy the entire Premises or that there is an uncured default by Tenant under the Lease, or any state of facts which with the passage of time or the giving of notice, or both, would constitute such a default, the Negotiation Right shall not apply and shall be ineffective and suspended, and Landlord shall not be obligated to give a Landlord's Notice as to any space which becomes Available during such suspension period, and Landlord shall not be obligated to negotiate (or enter into any amendment) with respect to any Negotiation Space which was the subject of a pending Landlord's Notice for which an amendment has not been fully executed, and during such suspension period Landlord shall be free to lease and/or otherwise grant options or rights to such space on any terms and conditions whatsoever free and clear of the Negotiation Right. The Negotiation Right shall terminate upon any of the following: (1) the termination of the Lease, whether by Landlord upon the occurrence of a Tenant default or otherwise; or (2) the failure of Tenant timely to exercise, give any notices, perform or agree, within any applicable time period specified above, with respect to any Negotiation Space which was the subject of any Landlord's Notice.

(g) The Negotiation Right is personal to Codexis and may not be used by, and shall not be transferable or assignable (voluntarily or involuntarily) to any person or entity.

Section 7. Option to Extend. The Option to Extend set forth in Section 26.21 of the Original Lease shall apply to the 640 Galveston Space as part of the Premises, but as to only the 640 Galveston Space the Option to Extend shall be modified as follows: (a) there shall be a separate and distinct Option Term with respect to the 640 Galveston Space which shall commence immediately after the 640 Galveston Expiration Date and shall expire five years thereafter (the "640 Galveston Option Term," and Tenant and Landlord acknowledge and agree that the 640 Galveston Option Term shall expire later than the expiration of the Option Term for the Existing Premises; and (b) the Prevailing Market Rent for the 640 Galveston Space shall be determined for the 640 Galveston Space and the type and quality of tenant improvements for it, but the monthly rate of the Option Term Rent for the 640 Galveston Space shall be not less than the monthly rate of the Preceding Rent for the last month of the initial 640 Galveston Term.

Section 8. Standby Generator.

(a) During the Term, Tenant shall have the right, at Tenant's sole cost and expense, to install, operate, maintain, repair, replace, remove and use Standby Generator Installations (as defined below), upon and subject to the terms and conditions of this Section and the Lease. The "Standby Generator Installations" shall mean (i) one standby diesel generator to be installed or housed, along with its diesel fuel tank with a maximum capacity of 250 gallons, above ground, outside the Building in a walled enclosure, in an area no larger than approximately 12 feet by 24 feet (and such fuel shall also be a Permitted Hazardous Material); (ii) wiring, cabling and conduit (subject to Subsection (b) below) from it to the separate electrical circuit(s) serving only the Premises, and all associated switchover equipment and circuits to connect & operate the generator on a standby basis without interference with or damage to any utility systems of the Project or any other equipment of Landlord or other occupants of the Project; and (iii) all ancillary containment vessels, pipe, ventilation systems and equipment. The Standby Generator Installations shall be for the sole purpose of providing Tenant electrical power for its operation in the Premises in the event of any interruption in the supply of electricity, and shall not be used at any other times or in any other way except for occasional testing, as necessary, at times subject

to Landlord's prior written approval. This right to Standby Generator Installations is further conditioned upon the following: (1) in all respects, such right shall be subject to Tenant seeking and obtaining from applicable governmental authorities and the electric utility serving the Project all approvals and permits to install, operate, maintain, repair, replace and use such Standby Generator Installations; (2) except if and as otherwise specified above, the exact location, size and all specifications of such Standby Generator Installations, shall be subject to Landlord's prior written approval, in its sole discretion; (3) without limiting the generality of any other provisions of the Lease, Tenant shall install, operate, maintain, repair, replace, remove and use Standby Generator Installations in compliance with the Lease, all Environmental Laws and all other Laws; (4) without limiting the generality of any other provisions of the Lease, the Standby Generator Installations, whether located in the Premises or elsewhere at the Project, shall be subject to and covered by the indemnities by Tenant under the Lease, including, without limitation, those of Sections 7.02 and 17.02 of the Original Lease, and shall be deemed to be in and part of the Premises under all indemnities with respect to the Premises; and (5) notwithstanding any provision of the Lease to the contrary, Tenant shall, as of the expiration or earlier termination of the Lease, at Tenant's sole cost and expense, remove all Hazardous Material introduced to the Property by Tenant or any Tenant Parties (as defined in Section 7.02 of the Original Lease) in connection with the Standby Generator Installations, remove the Standby Generator Installations if requested by Landlord, and restore the Property to its condition immediately prior to the introduction of such Hazardous Material and/or installation of the Standby Generator Installations. Landlord has no obligation to seek or obtain from applicable governmental authorities or the electric utility serving the Real Property any approvals or permits to install, operate, maintain, repair, replace, remove or use such Standby Generator Installations. Landlord makes no representation or warranty either (x) as to whether or not the Standby Generator Installations comply with Law or is or will be acceptable to or approved by applicable governmental authorities, the electric utility serving the Real Property or (y) as to the suitability of space at the Project for such installations.

(b) The installations contemplated by this Section 8 (this "Section") shall be part of the Tenant Work pursuant to the Workletter if proposed to be done preparatory to or in connection with Tenant's initial occupancy of the 640 Galveston Space and, if proposed to be done thereafter, shall be Tenant Alterations subject to Article Nine of the Lease, except, in each case, Landlord's prior written approval in Landlord's sole discretion shall be required where specified in this Section, including the location and method of installation of conduits and related equipment in any area outside each Building in which the Premises is located, at the entry point to each such Building and in any of the horizontal and vertical pathways or other Common Areas of each such Building. With respect to all conduit for electrical connections contemplated by this Section, Landlord shall permit Tenant to install up to three conduits (no larger than one conduit two (2) inches in diameter and two conduits no larger than one (1) inch in diameter apiece) to connect Tenant's standby generator to the separate electrical circuit(s) serving only the Premises. Further, with respect to any installations, maintenance, repair, replacement or removal of any installations outside the Premises, whether outside the Building or in the Building's horizontal or vertical pathways or similar areas whose use is shared by Landlord or other occupants of the Building or other service providers to the Building, such work shall be performed by contractors reasonably approved by Landlord and subject to the direction of Landlord, and Landlord reserves the right to restrict and control access to such areas. All installations pursuant to this Section (whether as part of or after the initial installations) and their

maintenance, repair, replacement, removal and use shall not adversely affect the operation, maintenance or replacement of any Building Systems, and shall be subject to compliance with other provisions of the Lease. Without limiting the generality of the foregoing, Tenant shall be responsible to provide all switchover equipment and circuits to connect & operate the generator on a standby basis without interference with or damage to any Building Systems or any other equipment of Landlord or other occupants of the Project. With respect to all operations (including all installations, maintenance, repair, replacement, removal and use) with respect to this Section, Tenant shall conduct its business and control its agents, employees and invitees in such manner as not to create any nuisance, or interfere with, annoy or disturb any other licensee or tenant of the Building or Landlord in its operation of the Building. The Standby Generator Installations shall be deemed to be trade fixtures of Tenant, shall be covered by Tenant's insurance under the Lease, and Landlord shall have no obligation to repair or rebuild them in the event of fire or other loss. Landlord reserves the right to relocate the Standby Generator Installations or any part thereof upon not less than sixty (60) days prior written notice, and Landlord shall pay the actual and reasonable expenses of physically moving and reconnecting any such relocated installation.

Section 9. Brokers. Notwithstanding any other provision of the Existing Lease to the contrary, Tenant represents that in connection with this Amendment it is represented by CB Richard Ellis ("Tenant's Broker") and, except for Tenant's Broker and Cornish and Carey Commercial ("Landlord's Broker") identified below, Tenant has not dealt with any real estate broker, sales person, or finder in connection with this Amendment, and no such person initiated or participated in the negotiation of this Amendment. Tenant hereby indemnifies and agrees to protect, defend and hold Landlord and Landlord's Broker harmless from and against all claims, losses, damages, liability, costs and expenses (including, without limitation, attorneys' fees and expenses) by virtue of any broker, agent or other person claiming a commission or other form of compensation by virtue of alleged representation of, or dealings or discussions with, Tenant with respect to the subject matter of this Amendment, except for Landlord's Broker and except for a commission payable to Tenant's Broker to the extent provided for in a separate written agreement between Tenant's Broker and Landlord's Broker. Tenant is not obligated to pay or fund any amount to Landlord's Broker, and Landlord hereby agrees to pay such commission, if any, to which Landlord's Broker is entitled in connection with the subject matter of this Amendment pursuant to Landlord's separate written agreement with Landlord's Broker. Such commission shall include an amount to be shared by Landlord's Broker with Tenant's Broker to the extent that Tenant's Broker and Landlord's Broker have entered into a separate agreement between themselves to share the commission paid to Landlord's Broker by Landlord. The provisions of this Section shall survive the expiration or earlier termination of the Lease.

Section 10. Attorneys' Fees. Each party to this Amendment shall bear its own attorneys' fees and costs incurred in connection with the discussions preceding, negotiations for and documentation of this Amendment. In the event that either party brings any suit or other proceeding with respect to the subject matter or enforcement of this Amendment or the Lease, the parties acknowledge and agree that the provisions of Section 11.03 of the Existing Lease shall apply.

Section 11. Effect of Headings; Recitals; Exhibits. The titles or headings of the various parts or sections hereof are intended solely for convenience and are not intended and shall not be deemed to or in any way be used to modify, explain or place any construction upon any of the provisions of this Amendment. Any and all Recitals set forth at the beginning of this Amendment are true and correct and constitute a part of this Amendment as if they had been set forth as covenants herein. Exhibits, schedules, plats and riders hereto which are referred to herein are a part of this Amendment.

Section 12. Entire Agreement; Amendment. This Amendment taken together with the Existing Lease, together with all exhibits, schedules, riders and addenda to each, constitutes the full and complete agreement and understanding between the parties hereto and shall supersede all prior communications, representations, understandings or agreements, if any, whether oral or written, concerning the subject matter contained in this Amendment and the Existing Lease, as so amended, and no provision of the Lease as so amended may be modified, amended, waived or discharged, in whole or in part, except by a written instrument executed by all of the parties hereto.

Section 13. Authority. Each person executing this Amendment represents and warrants that he or she is duly authorized and empowered to execute it, and does so as the act of and on behalf of the party indicated below. Each party represents and warrants to the other that it has full authority and power to enter into and perform its obligations under this Amendment, that the person executing this Amendment is fully empowered to do so, and that no consent or authorization is necessary from any third party. Landlord may request that Tenant provide Landlord evidence of due authorization and execution of this Amendment.

Section 14. Change of Addresses. Section 1.01(2) is hereby amended to delete the address at which copies of notices to Landlord are sent and to replace it with the following:

Metropolitan Life Insurance Company
425 Market Street, Suite 1050
San Francisco, CA 94105
Attention: Assistant Vice President

And Section 1.01(3) is hereby amended to delete the address at which notices to Tenant are sent and to replace it with the following:

Codexis, Inc.
200 Penobscot Drive
Redwood City, California 94063
Attention: Chief Financial Officer

Section 15. Counterparts. This Amendment may be executed in duplicates or counterparts, or both, and such duplicates or counterparts together shall constitute but one original of the Amendment. Each duplicate and counterpart shall be equally admissible in evidence, and each original shall fully bind each party who has executed it.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first set forth above.

TENANT: **CODEXIS, INC.,**
a Delaware corporation

By: /s/ D R Walshaw
Print Name: David R Walshaw
Title: VP Operations
(Chairman of Board, President of Vice President)

By: /s/ Robert S. Breuil
Print Name: Robert S. Breuil
Title: CFO
(Secretary, Assistant Secretary, CFO or Assistant Treasurer)

LANDLORD: **METROPOLITAN LIFE INSURANCE COMPANY,**
a New York corporation

By: /s/ Greg Hill
Print Name: Greg Hill
Title: Director

THIRD AMENDMENT TO LEASE

This Third Amendment to Lease ("Amendment") is entered into, and dated for reference purposes, as of March 31, 2008 (the "Execution Date") by and between METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Metropolitan"), as Landlord ("Landlord"), and Codexis, Inc. a Delaware corporation ("Codexis"), as Tenant ("Tenant"), with reference to the following facts ("Recitals"):

A. Landlord and Tenant are the parties to that certain written lease which is comprised of the following: that certain written Lease, dated as of October, 2003, by and between Landlord and Tenant (the "Original Lease") for certain premises described therein and commonly known as 501 Chesapeake Drive in Building 3 and all the rentable area of Building 4 (consisting of 200 and 220 Penobscot Drive (collectively, the "Original Premises"), all as more particularly described in the Original Lease, as amended by that certain First Amendment to Lease, dated as of June 1, 2004, by and between Landlord and Tenant (the "First Amendment"), as amended by that certain Second Amendment to Lease, dated as of March 9, 2007, by and between Landlord and Tenant (the "Second Amendment") for certain premises described therein and commonly known as 640 Galveston Drive, which is part of Building 5 (the "640 Galveston Premises"), all as more particularly described in the Second Amendment. The Original Lease, as amended, is referred to as the "Existing Lease" and the Original Premises plus the 640 Galveston Premises is collectively referred to as the "Existing Premises".

B. Landlord and Tenant desire to provide for (i) the lease to Tenant of the Building 2 Space (defined below) for a term longer than the term applicable respectively to each of the Original Premises and the 640 Galveston Premises; and (ii) other amendments of the Existing Lease as more particularly set forth below.

NOW, THEREFORE, in consideration of the foregoing, and of the mutual covenants set forth herein and of other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

Section 1. Scope of Amendment; Defined Terms. Except as expressly provided in this Amendment, the Existing Lease shall remain in full force and effect. Should any inconsistency arise between this Amendment and the Existing Lease as to the specific matters which are the subject of this Amendment, the terms and conditions of this Amendment shall control. The term "Lease" as used herein and in the Existing Lease shall refer to the Existing Lease as modified by this Amendment. All capitalized terms used in this Amendment and not defined herein shall have the meanings set forth in the Existing Lease unless the context clearly requires otherwise.

Section 2. Confirmation of Term. Landlord and Tenant acknowledge and agree that notwithstanding any provision of the Existing Lease to the contrary: (a) as contemplated by the Existing Lease, the Expiration Date of the Term of the Lease of the Original Premises is January 31, 2011; (b) as contemplated by the Existing Lease, the 640 Galveston Expiration Date is April 30, 2012; and (c) the initial Term of the Lease of the Building 2 Space shall expire later as provided below.

Section 3. Lease of Building 2 Space.

(a) Landlord hereby leases to Tenant and Tenant hereby hires from Landlord the Building 2 Space (defined below) upon and subject to all of the terms, covenants and conditions of the Existing Lease except as expressly provided herein. "Building 2 Space" is the entire rentable area of Building Number 2 located in Phase 1 of Seaport Centre at the street address of 400 Penobscot Drive, Redwood City, California 94063, as shown on Exhibit A to this Amendment. Landlord and Tenant hereby agree that the Building 2 Space is conclusively presumed to be 37,856 rentable square feet.

(b) Delivery; Construction & Construction Period; Commencement Date; Term; Other Provisions Notwithstanding any provision of the Existing Lease to the contrary, the following provisions shall govern the Building 2 Space:

(1) Delivery; Construction; Construction Period; Commencement Date; Term. Landlord shall tender to Tenant possession of the Building 2 Space in the condition specified in the Workletter (Exhibit B to this Amendment) no later than one (1) business day after execution of this Amendment by both Tenant and Landlord (the "Projected Commencement Date"). The date on which Landlord actually tenders to Tenant possession of the Building 2 Space shall be the "Building 2 Commencement Date" on which the Term of this Lease of the Building 2 Space commences, and on and after such date all the terms and conditions of the Lease shall apply, and Tenant shall observe and perform all terms and conditions of the Lease, except that until April 1, 2008 (the "Building 2 Rent Start Date"), Tenant shall not be obligated to pay Monthly Base Rent or Rent Adjustments. The Term of this Lease of the Building 2 Space ("Building 2 Term") shall start on the Building 2 Commencement Date and end March 31, 2013 (the "Building 2 Expiration Date").

(2) Tenant Additions/Tenant Improvements. Subject to Section 4 below, all improvements permanently affixed to or on Building Number 2 by Tenant under this Amendment or hereafter under this Lease, including, without limitation: (a) walls, ceilings, flooring, building fixtures (such as plumbing, power, lighting and HVAC systems), including without limitation, all improvements made as part of the Special Tenant Work (described in Exhibit B-2 to the Workletter); (b) all lab benches and corresponding casework, lab sinks, lab or fume hoods, supplemental or special ventilating and air conditioning equipment, and any and all lab installations and fixtures, shall, without compensation or credit to Tenant, become part of the Building 2 Space and the property of Landlord at the time of their installation and shall remain in Building Number 2, unless pursuant to Subsection 4 below, other express provision of this Lease or a subsequent written agreement between the parties hereto, Tenant is permitted or required to remove them. For the avoidance of doubt, the term "permanently affixed" shall not be construed to mean otherwise free-standing equipment that has been secured to the Premises for the primary purpose of seismic stability and/or the prevention of theft.

(3) Confirmation of Commencement Date. Upon request by Landlord, Tenant and Landlord shall enter into an agreement (the form of which is Exhibit C to this Amendment) confirming the Building 2 Commencement Date and the Building 2 Expiration Date. If within ten (10) business days after Landlord's request enclosing the proposed agreement, Tenant fails either (i) to enter into such agreement, or (ii) to give Landlord written notice of any item(s) therein which Tenant believes are incorrect, the corrections(s) proposed by Tenant and reasons therefor, then the Building 2 Commencement Date and the Building 2 Expiration Date shall be the dates designated by Landlord in such agreement.

(4) Failure to Deliver Possession. If Landlord shall be unable to give possession of the Building 2 Space on the Projected Commencement Date by reason of the following: (i) the holding over or retention of possession of any tenant, tenants or occupants, or (ii) for any other reason, then Landlord shall not be subject to any liability for the failure to give possession on said date. Under such circumstances, by operation of Subsection (1) above, the Commencement Date is automatically adjusted and determined in relation to the date Landlord actually tenders possession of the Building 2 Space to Tenant. If Landlord tenders possession after March 31, 2008, the Building 2 Rent Start Date shall be the date on which Landlord tenders possession. Failure to deliver possession on the originally scheduled Projected Commencement Date shall not affect the validity of this Lease or the obligations of the Tenant hereunder.

(5) Premises. From and after the delivery of the Building 2 Space to Tenant, the term "Premises" as used in the Lease shall mean the Existing Premises together with the Building 2 Space.

(c) Monthly Base Rent for Building 2 Space. Notwithstanding any provision of the Existing Lease to the contrary, Monthly Base Rent for the Building 2 Space shall be payable on the Building 2 Rent Start Date and thereafter on the first day of each calendar month of the Building 2 Term, in the manner

required for Monthly Base Rent in the Existing Lease, but the amounts are additional to rent payable under the Existing Lease, and the amount of Monthly Base Rent due and payable by Tenant for the Building 2 Space and monthly schedule therefor starting on the Building 2 Commencement Date shall be as set forth in the schedule below:

<u>Period from/to</u>	<u>Monthly</u>	<u>Annual Rate/SF of Rentable Area</u>
Commencement Date – 03/31/08	*\$ 0.00	\$ 0.00
04/01/08 – 09/30/08	\$ 32,400.00	(negotiated initial amount)
10/01/08 – 03/31/09	\$ 68,140.80	\$ 21.60
04/01/09 – 03/31/10	\$ 70,191.33	\$ 22.25
04/01/10 – 03/31/11	\$ 72,304.96	\$ 22.92
04/01/11 – 03/31/12	\$ 74,450.13	\$ 23.60
04/01/12 – 03/31/13	\$ 76,689.95	\$ 24.31

* If, and only if, this Amendment is executed and the Premises delivered to Tenant before April 1, 2008, the early occupancy period before April 1, 2008 will be free of Monthly Base Rent and Rent Adjustments. Tenant shall pay Landlord the initial installment of Monthly Base Rent (for April, 2008) concurrently with execution of this Amendment.

(d) Tenant's Share of Operating Expenses. Notwithstanding any provision of the Existing Lease to the contrary, in addition to Tenant's payment of Rent Adjustment Deposits and Rent Adjustments with respect to the Existing Premises, Tenant shall pay Rent Adjustment Deposits and Rent Adjustments with respect to the Building 2 Space starting on the Building 2 Rent Start Date and continuing during the Building 2 Term, which shall be payable as set forth in the Existing Lease, except that for such purposes Tenant's Building 2 Share shall be as set forth below, and Tenant's Phase Share and Tenant's Project Share shall be modified as set forth below:

Tenant's Building 2 Share:	100.0%
Tenant's Phase 1 Share:	28.712%* (see provision below)
Tenant's Project Share:	16.147%* (see provision below)

* If the Term of the Original Premises is not extended, then from the later of such expiration or the date Tenant vacates the Original Premises for the remaining Building 2 Term, Tenant's Phase 1 Share shall be reduced by 13.05% and Tenant's Project Share shall be reduced by 7.33%. If the Term of the 640 Galveston Space is not extended, then from the later of such expiration or the date Tenant vacates the 640 Galveston Space for the remaining Building 2 Term, Tenant's Phase 1 Share shall be reduced by 3.112% and Tenant's Project Share shall be reduced by 1.747%.

(e) Parking. Notwithstanding any provision of the Existing Lease to the contrary, on and after the Building 2 Commencement Date during the Building 2 Term, Tenant shall have the right to use, on an unassigned basis, an additional one hundred twenty-five (125) Parking Spaces

(f) Signage.

(1) Grant of Right. Notwithstanding any provision of the Existing Lease to the contrary, on and after the Building 2 Commencement Date for the Building 2 Term, Tenant shall have the right to (1) place its company name and logo on the door(s) at the main entry to Building Number 2 (the "Entry Signage"); and (2) only for so long as Tenant leases, is continuously conducting regular, active, ongoing business in, and is in occupancy (and occupancy by a subtenant, licensee or other party permitted or suffered by Tenant shall not satisfy such condition) of not less than fifty percent (50%) of the entire Building 2 Space, place its company name and logo on its pro-rata share of the signage area on the existing, exterior monument sign for Building Number 2, subject to the terms and conditions set forth in this Section ("Monument Signage")(collectively, the Entry Signage and Monument Signage are referred to as the "Exterior Sign Right").

(2) General Conditions & Requirements. The size, type, style, materials, color, method of installation and exact location of the sign, and the contractor for and all work in connection with the sign, contemplated by this Section shall (i) be subject to Tenant's compliance with all applicable laws, regulations and ordinances and with any covenants, conditions and restrictions of record which affect the Property; (ii) be subject to Tenant's compliance with all requirements of Landlord's current Project signage criteria at the time of installation; (iii) be consistent with the design of Building Number 2 and the Project; (iv) be further subject to Landlord's prior written consent. Tenant shall, at its sole cost and expense, procure, install, maintain in first class appearance and condition, and remove such sign.

(3) Removal & Restoration. Upon the expiration or termination of the Exterior Sign Right, but in no event later than the expiration of the Building 2 Term or earlier termination of the Lease, Tenant shall, at its sole cost and expense, remove such sign and shall repair and restore the area in which the sign was located to its condition prior to installation of such sign.

(4) Right Personal. The right to Monument Signage under this Section is personal to Codexis and may not be used by, and shall not be transferable or assignable (voluntarily or involuntarily) to, any person or entity.

Section 4. Certain Provisions Re Equipment & Trade Fixtures Entirely Paid for by Tenant; Lender Access Rights Notwithstanding any of the foregoing to the contrary, with respect to any part of the Premises (both the Building 2 Space and Existing Premises):

(a) if so requested by Tenant in writing (and prominently in all capital and bold lettering which also states that such request is pursuant to Section 4 of the Third Amendment) at the time Tenant requests approval of any Tenant Work or Tenant Alterations, Landlord shall advise Tenant at the time of Landlord's approval of such Tenant Work or Tenant Alterations as to whether Landlord will require that such Tenant Work or Tenant Alterations be removed by Tenant; provided, however, regardless of the foregoing, in any event, Landlord may require removal of any Tenant Work or Tenant Alterations containing Hazardous Material, Tenant's trade fixtures, and, subject to Section 6.03 of the Original Lease, cabling and wiring installed for Tenant's personal property or trade fixtures;

(b) with respect to equipment or trade fixtures (but not walls, ceilings, flooring or building fixtures, such as plumbing, power, lighting, HVAC systems) hereafter permanently affixed and paid for entirely by Tenant (without reimbursement in full or part out of any funds provided by Landlord), which items are specifically identified in writing delivered by Tenant to Landlord, including the building address and location within the building where the items are located, with substantiation by Tenant that such items have been paid for entirely by Tenant, then such equipment and trade fixtures shall become the property of Landlord upon the expiration or earlier termination of the Term of the Lease as to the part of the Premises in which such item is located, and Landlord will not unreasonably withhold its consent to a written request by Tenant that such items be part of the Limited Collateral covered by a Landlord's Consent to Encumbrance of Limited Collateral (more particularly described in Section 4(c) below).

(c) in the event that Tenant borrows money and/or obtains other financial accommodations up to an aggregate indebtedness or line of credit in the amount of Fifteen Million Dollars (\$15,000,000.00) from General Electric Capital Corporation ("GECC") (for its own account and/or as agent for a group of lenders) or an institutional lender which is its successor or assign, or which provides substitute or replacement financing ("Lender"), and in connection therewith grants the Lender a security interest in "Limited Collateral" (as defined in the form of "Landlord's Consent to Encumbrance of Limited Collateral" which is set forth in Exhibit D to this Amendment) (and any agreement evidencing the foregoing loan and security agreement is referred to as a "Loan Agreement"), provided that there shall be no more than one such Lender with a security interest in the Limited Collateral at any one time, then upon written request from Tenant, during the term of any such Loan Agreement Landlord agrees that it will enter into an agreement providing Lender access to the Premises for the sole purpose of enforcing and perfecting the security interest of such Lender in the Limited Collateral, on those terms and conditions contained in the form of "Landlord's Consent to Encumbrance of Limited Collateral" which is set forth as Exhibit D to this Amendment.

Section 5. Increase in the Security. Notwithstanding any provision of the Existing Lease to the contrary:

(a) Tenant and Landlord acknowledge that pursuant to Section 5.02 of the Existing Lease, Tenant elected to deliver the Letter of Credit in lieu of cash Security Deposit, and immediately prior to execution of this Amendment, the amount of the Letter of Credit required under the Existing Lease and held by Landlord is Four Hundred Fifty-three Thousand Six Hundred Twenty-four Dollars (\$453,624);

(b) The amount of Security Deposit and Letter of Credit required as of the Execution Date of this Amendment is hereby increased by One Hundred Fifty-three Thousand Three Hundred Eighty Dollars (\$153,380) and simultaneously with delivering to Landlord this Amendment signed by Tenant, Tenant shall deliver to Landlord an amendment or replacement of the Letter of Credit which increases the amount of the Letter of Credit to Six Hundred Seven Thousand and Four Dollars (\$607,004);

(c) The text of Section 5.02(c) of the Existing Lease (as amended by Section 4(c) of the Second Amendment) is deleted and the following is inserted in its place:

“Notwithstanding anything to the contrary contained herein, after the Execution Date of the Third Amendment to Lease, the following reduction provisions shall apply. If Tenant is not in Default under the Lease on February 1, 2008, an amendment or replacement of the Letter of Credit may be issued which decreases by Forty-five Thousand Dollars (\$45,000) the amount of the Letter of Credit to the revised total amount of Five Hundred Sixty-two Thousand and Four Dollars (\$562,004). If Tenant is not in Default under the Lease on February 1, 2009, an amendment or replacement of the Letter of Credit may be issued which decreases by Forty-five Thousand Dollars (\$45,000) the amount of the Letter of Credit to the revised total amount of Five Hundred Seventeen Thousand and Four Dollars (\$517,004). If Tenant is not in Default under the Lease on February 1, 2010, an amendment or replacement of the Letter of Credit may be issued which decreases by Forty-five Thousand Dollars (\$45,000) the amount of the Letter of Credit to the revised total amount of Four Hundred Seventy-two Thousand and Four Dollars (\$472,004).”

(d) The second sentence of Section 5.02(a) (as amended by Section 4(d) of the Second Amendment) is deleted and the following is inserted in its place: “The Letter of Credit shall be maintained in effect until the “LOC Expiration Date”, which shall mean the date which is ninety (90) days after the last to occur of the four events specified in Section 5.02(d) of the Existing Lease or the 640 Galveston Expiration Date or the Building 2 Expiration Date, and provided that on the LOC Expiration Date, Tenant shall not be in Default, Landlord shall return to Tenant the Letter of Credit and any Letter of Credit Proceeds then held by Landlord (other than those held for application by Landlord on account of a Default as provided below)”

Section 6. Excess Rent. Notwithstanding anything to the contrary contained the Existing Lease, solely with respect only to the Building 2 Space, in determining “Excess Rent” in conjunction with the sublease or assignment of any of the Building 2 Space, Section 10.03 of the Existing Lease is amended to add the following to the end of the first sentence thereof: “; and (4) Excess Initial Improvements. For purposes of this Section 10.03, “Excess Initial Improvements” shall mean (w) the amount of actual out-of-pocket costs incurred by Tenant to build the Tenant Work in or on Building Number 2 (excluding Tenant’s moveable personal property) in excess of the Allowance (in the aggregate, including the allowances provided for specific purposes), provided that Tenant has provided Landlord with a detailed itemization of such costs and receipts therefor, (x) which sum shall be divided by the Rentable Area of the Building 2 Space, (y) which quotient shall be further divided by sixty (60), and (z) which quotient shall be multiplied by the rentable area of the portion of the Building 2 Space being assigned or subleased.”

Section 7. Negotiation Right.

(a) Landlord hereby grants Tenant a one-time right to negotiate the lease of the 600 Galveston Negotiation Space (defined below), if and to the extent such space is Available (defined below) during the period beginning on the Execution Date of this Amendment and expiring twenty-four (24) months prior to the Expiration Date of the Building 2 Term (the "Negotiation Period"), upon and subject to the terms and conditions of this Section (the "Negotiation Right"), and provided that at the time of exercise of such right: (i) Tenant must be conducting regular, active, ongoing business in, and be in occupancy (and occupancy by a subtenant, licensee or other party permitted or suffered by Tenant shall not satisfy such condition) of the entire Building 2 Space; and (ii) there has been no material adverse change in Tenant's financial position from such position as of the date of execution of the Lease, as certified by Tenant's independent certified public accountants, and as supported by Tenant's certified financial statements, copies of which shall be delivered to Landlord with Tenant's written notice exercising its right hereunder. Without limiting the generality of the foregoing, Landlord may reasonably conclude there has been a material adverse change if Tenant's independent certified public accountants do not certify there has been no such change.

(b) The "600 Galveston Negotiation Space" shall mean the leaseable space with a street address of 600 Galveston Drive and Rentable Area of approximately 25,438 square feet. For purposes of this Negotiation Right, the term "Available" shall mean that the space in question is either: (1) vacant and free and clear of all "Prior Rights" (defined below); or (2) space as to which Landlord has received a proposal, or Landlord is making a proposal, for a lease or rights of any nature applicable in the future when such space would be free and clear of all Prior Rights. For purposes of this Negotiation Right, the term "Prior Rights" shall mean rights of other parties, including without limitation, a lease, lease option, or option or other right of extension, renewal, expansion, refusal, negotiation or other right, either: (i) pursuant to any lease or written agreement which is entered into on or before the Execution Date of this Amendment; or (ii) pursuant to any extensions or renewal of any of the foregoing, whether or not set forth in such lease or written agreement, and Landlord shall be free at any time to enter such extension or renewal; or (iii) pursuant to any amendment or modification of any of the foregoing, and Landlord shall be free at any time to enter such amendment or modification.

(c) Nothing herein shall be deemed to limit or prevent Landlord from marketing, discussing or negotiating with any other party for a lease of, or rights of any nature as to, any part of the Negotiation Space, but during the Negotiation Period before Landlord makes any written proposal to any other party (other than a party with Prior Rights) for any Negotiation Space which becomes Available (including giving a written response to any proposal or offer received from another party), or contemporaneously with making any such proposal, and in any event within thirty (30) days after such space becomes vacant and free and clear of all Prior Rights, Landlord shall give Tenant written notice ("Landlord's Notice"), which notice identifies the space Available and Landlord's estimate of the projected date such space will be vacant and deliverable to Tenant. Notwithstanding any of the foregoing to the contrary, Tenant acknowledges that: (i) Landlord has disclosed that as of the Execution Date of this Amendment, the 600 Galveston Negotiation Space is vacant and free and clear of all Prior Rights, and that after the Execution Date of this Lease, Landlord has the right at any time to give Landlord's Notice with respect to such space. For a period of five (5) business days after Landlord gives Landlord's Notice (the "Election Notice Period"), Tenant shall have the right to initiate negotiations in good faith for the lease of all (and not less than all) the space identified in Landlord's Notice by giving Landlord written notice ("Election Notice") of Tenant's election to exercise its Negotiation Right to lease such space.

(d) If Tenant timely and properly gives the Election Notice, Landlord and Tenant shall, during the five (5) business day period (the "Second Period") following Landlord's receipt of the Election Notice, negotiate in good faith for the lease of the Negotiation Space which is the subject of the Landlord Notice as set forth below. Any lease by Tenant pursuant to this Negotiation Right: (1) shall be for all (and not less than all) the Negotiation Space which is the subject of the Landlord Notice; (2) the subject Negotiation Space shall, upon delivery, be part of the Premises under the Lease, such that the term "Premises" thereafter shall include the subject Negotiation Space; (3) starting on such delivery date, with respect to the subject Negotiation Space Tenant shall additionally pay Tenant's Share of Operating Expenses, with

Tenant's Share recalculated to reflect addition of the Negotiation Space; (4) the number of parking spaces applicable to the subject Negotiation Space shall be calculated at the rate of 3.3 spaces per 1000 square feet of Rentable Area of the subject Negotiation Space, and the type of, location of and charge for such spaces shall be as otherwise provided in the Lease; and (5) such lease shall be upon and subject to all the other terms, covenants and conditions provided in the Lease, except that the following terms shall be subject to such negotiation and agreement of the parties: (aa) the amount of the Monthly Base Rent with respect to the Negotiation Space; (bb) the term of the lease of the Negotiation Space shall be subject to negotiation, but shall not be less than the Term of the Lease of the Building 2 Space (including any extension pursuant to the Option to Extend); (cc) any improvements or alterations to be done, or allowance therefor, if any, specifically agreed upon, and absent such agreement, Tenant shall accept the Negotiation Space in its then AS IS condition without any obligation of Landlord to repaint, remodel, improve or alter the subject Negotiation Space for Tenant's occupancy or to provide Tenant any allowance therefor, but such space shall be delivered broom clean and free of all tenants or occupants (and their personal property); (dd) increase in the Security; and (ee) Landlord shall deliver the subject Negotiation Space to Tenant in such AS IS condition no later than thirty (30) days after Landlord regains possession of such space, but in no event shall Landlord have any liability for failure to deliver the subject Negotiation Space to Tenant on any projected delivery date due to the failure of any occupant to timely vacate and surrender such space or due to Force Majeure, and such failure shall not be a default under the Lease or impair its validity. The foregoing obligation of Landlord to negotiate is non-exclusive and nothing herein shall be deemed to prevent Landlord from negotiating with any other party for the Negotiation Space, whether or not Landlord and Tenant are negotiating for the same, but any other such negotiation shall be subject to the aforesaid obligation to negotiate with Tenant in good faith.

(e) If Tenant either fails or elects not to exercise its Negotiation Right as to the Negotiation Space covered by Landlord's Notice by not giving its Election Notice within the Election Notice Period, or if Tenant gives Tenant's Election Notice but Tenant and Landlord do not execute (1) a written letter of intent reflecting the significant business terms for the lease of the Negotiation Space within five (5) business days after delivery of the Election Notice, and (2) a corresponding amendment prepared by Landlord within five (5) days after Landlord gives Tenant such proposed amendment, then in any such event Tenant's Negotiation Right shall terminate, and be null and void, as to the subject space identified in the applicable Landlord's Notice (but not as to any Negotiation Space subject to this Negotiation Right which has not become Available and been included in a Landlord's Notice), and at any time thereafter Landlord shall be free to lease and/or otherwise grant options or rights to the subject space on any terms and conditions whatsoever free and clear of the Negotiation Right.

(f) During any period that Tenant does not occupy the entire Premises or that there is an uncured default by Tenant under the Lease, or any state of facts which with the passage of time or the giving of notice, or both, would constitute such a default, the Negotiation Right shall not apply and shall be ineffective and suspended, and Landlord shall not be obligated to give a Landlord's Notice as to any space which becomes Available during such suspension period, and Landlord shall not be obligated to negotiate (or enter into any amendment) with respect to any Negotiation Space which was the subject of a pending Landlord's Notice for which an amendment has not been fully executed, and during such suspension period Landlord shall be free to lease and/or otherwise grant options or rights to such space on any terms and conditions whatsoever free and clear of the Negotiation Right. The Negotiation Right shall terminate upon any of the following: (1) the termination of the Lease, whether by Landlord upon the occurrence of a Tenant default or otherwise; or (2) the failure of Tenant timely to exercise, give any notices, perform or agree, within any applicable time period specified above, with respect to any Negotiation Space which was the subject of any Landlord's Notice.

(g) The Negotiation Right is personal to Codexis and may not be used by, and shall not be transferable or assignable (voluntarily or involuntarily) to any person or entity.

Section 8. Option to Extend. The Option to Extend set forth in Section 26.21 of the Existing Lease shall apply to the Building 2 Space as part of the Premises, but as to only the Building 2 Space the Option to Extend shall be modified as follows (such Option, as modified, may be referred to as the "Building 2 Option to Extend"): (a) there shall be a separate and distinct Option Term with respect to the

Building 2 Space which shall commence immediately after the Building 2 Expiration Date and shall expire five years thereafter (the "Building 2 Option Term"), and Tenant and Landlord acknowledge and agree that the Building 2 Option Term shall expire later than the expiration of the Option Terms respectively for each of the Original Premises and the 640 Galveston Space; (b) the Prevailing Market Rent for the Building 2 Option Term shall be determined for the Building 2 Space and the type and quality of tenant improvements for it, but the monthly rate of the Option Term Rent for the Building 2 Space shall be not less than the monthly rate of the Preceding Rent for the last month of the initial Building 2 Term; and (c) the period within which the Building 2 Option to Extend may be exercised shall be calculated in reference to the Building 2 Expiration Date.

Section 9. Brokers. Notwithstanding any other provision of the Existing Lease to the contrary, Tenant represents that in connection with this Amendment it is represented by CB Richard Ellis ("Tenant's Broker") and, except for Tenant's Broker and Cornish and Carey Commercial ("Landlord's Broker") identified below, Tenant has not dealt with any real estate broker, sales person, or finder in connection with this Amendment, and no such person initiated or participated in the negotiation of this Amendment. Tenant hereby indemnifies and agrees to protect, defend and hold Landlord and Landlord's Broker harmless from and against all claims, losses, damages, liability, costs and expenses (including, without limitation, attorneys' fees and expenses) by virtue of any broker, agent or other person claiming a commission or other form of compensation by virtue of alleged representation of, or dealings or discussions with, Tenant with respect to the subject matter of this Amendment, except for Landlord's Broker and except for a commission payable to Tenant's Broker to the extent provided for in a separate written agreement between Tenant's Broker and Landlord's Broker. Tenant is not obligated to pay or fund any amount to Landlord's Broker, and Landlord hereby agrees to pay such commission, if any, to which Landlord's Broker is entitled in connection with the subject matter of this Amendment pursuant to Landlord's separate written agreement with Landlord's Broker. Such commission shall include an amount to be shared by Landlord's Broker with Tenant's Broker as agreed to by Tenant's Broker and Landlord's Broker in a separate agreement between themselves to share the commission paid to Landlord's Broker by Landlord such that Tenant's Broker will receive a commission equal to one dollar (\$1.00) per rentable square foot per year of the Building 2 Term. The provisions of this Section shall survive the expiration or earlier termination of the Lease.

Section 10. Attorneys' Fees. Each party to this Amendment shall bear its own attorneys' fees and costs incurred in connection with the discussions preceding, negotiations for and documentation of this Amendment. In the event that either party brings any suit or other proceeding with respect to the subject matter or enforcement of this Amendment or the Lease, the parties acknowledge and agree that the provisions of Section 11.03 of the Existing Lease shall apply.

Section 11. Effect of Headings; Recitals; Exhibits. The titles or headings of the various parts or sections hereof are intended solely for convenience and are not intended and shall not be deemed to or in any way be used to modify, explain or place any construction upon any of the provisions of this Amendment. Any and all Recitals set forth at the beginning of this Amendment are true and correct and constitute a part of this Amendment as if they had been set forth as covenants herein. Exhibits, schedules, plats and riders hereto which are referred to herein are a part of this Amendment.

Section 12. Entire Agreement; Amendment. is Amendment taken together with the Existing Lease, together with all exhibits, schedules, riders and addenda to each, constitutes the full and complete agreement and understanding between the parties hereto and shall supersede all prior communications, representations, understandings or agreements, if any, whether oral or written, concerning the subject matter contained in this Amendment and the Existing Lease, as so amended, and no provision of the Lease as so amended may be modified, amended, waived or discharged, in whole or in part, except by a written instrument executed by all of the parties hereto.

Section 13. Authority. Each person executing this Amendment represents and warrants that he or she is duly authorized and empowered to execute it, and does so as the act of and on behalf of the party indicated below. Each party represents and warrants to the other that it has full authority and power to enter into and perform its obligations under this Amendment, that the person executing this Amendment

is fully empowered to do so, and that no consent or authorization is necessary from any third party. Landlord may request that Tenant provide Landlord evidence of due authorization and execution of this Amendment.

Section 14. Counterparts. This Amendment may be executed in duplicates or counterparts, or both, and such duplicates or counterparts together shall constitute but one original of the Amendment. Each duplicate and counterpart shall be equally admissible in evidence, and each original shall fully bind each party who has executed it.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the date first set forth above.

TENANT:

CODEXIS, INC.,
a Delaware corporation

By: /s/ Alan Shaw
Print Name: Alan Shaw
Title: President & CEO
(Chairman of Board, President or Vice President)

By: /s/ Robert S. Breuil
Print Name: Robert S. Breuil
Title: CFO & SVP
(Secretary, Assistant Secretary, CFO or Assistant Treasurer)

LANDLORD:

METROPOLITAN LIFE INSURANCE COMPANY,
a New York corporation

By: /s/ Joel R. Redmon
Print Name: Joel R. Redmon
Title: Director

Exhibit A
Site Plan Showing Building 2 Space & Project

The Building 2 Space is generally shown as the Building labeled Building 2 below. Phase III, its Buildings, land and improvements are not a part of the Project as defined in this Lease, & are shown in this Exhibit for illustration only.

EXHIBIT B
WORKLETTER AGREEMENT
(TENANT BUILD WITH ALLOWANCE)

This Workletter Agreement (“Workletter”) is attached to and a part of a certain Third Amendment to Lease by and between Metropolitan Life Insurance Company, a New York corporation, as Landlord, and Codexis, Inc., a Delaware corporation, as Tenant, for the Building 2 Space (the “Amendment” and the original lease, as amended shall be referred to as the “Lease”). All references below to the Premises shall instead be deemed to mean the Building 2 Space and all references to the Building shall instead be deemed to mean Building Number 2. Terms used herein but not defined herein shall have the meaning of such terms as defined elsewhere in the Lease. For purposes of this Workletter, references to “State” and “City” shall mean the State and City in which the Building is located.

1. AS IS Condition; Delivery.

Landlord shall deliver the Premises broom clean in its current “as built” configuration with existing build-out of the tenant space, with the Premises and the Building (including the “Base Building”, as defined below) in their AS IS condition, without any express or implied representations or warranties of any kind by Landlord, its brokers, manager or agents, or the employees of any of them; and Landlord shall not have any obligation to construct or install any tenant improvements or alterations or to pay for any such construction or installation except to the extent expressly provided in the Amendment and all exhibits thereto. For purposes hereof, the “Base Building” (sometimes also referred to as the “Base Building Work”) shall mean the improvements made and work performed during the Building’s initial course of construction and modifications thereto, excluding all original and modified build-outs of any tenant spaces. Notwithstanding any provision of this Workletter or the Lease to the contrary, to the extent that within three (3) days after the Commencement Date (i) the roof and roof membrane above the Premises, (ii) foundation and structural components of the Base Building, (iii) Landlord’s fire sprinkler and life-safety systems, if any, of the Base Building, and (iv) the electrical, water, sewer and plumbing systems of the Base Building serving the Premises (but only from the local utility’s systems to the point of entry into the Premises or to the meter or other point after which such system serves exclusively the Premises) are not in good working condition, except to the extent any of the foregoing are to be removed, demolished or altered by Tenant, and within three (3) days after the Commencement Date Tenant gives Landlord written notice specifying what is not in good working condition, Landlord shall make necessary repairs to put such item or items in good working condition at Landlord’s sole cost and expense. Further, Tenant acknowledges and agrees that Tenant has been afforded ample opportunity to inspect the Premises, the Building and the Project, and has investigated their condition to the extent Tenant desires to do so.

2. Landlord Work.

2.1. Notwithstanding any of the foregoing to the contrary, subject to delays caused by Force Majeure or Tenant Delay (defined below), Landlord, at Landlord’s sole cost and expense, shall perform the work set forth on Exhibit B-1 hereto (“Landlord Work”), and within ninety (90) days after the Commencement Date shall Substantially Complete (defined below) the Landlord Work and leave the affected area in broom-clean condition with respect to Landlord Work (but Landlord shall not be obligated to do any clean-up or refuse removal related to construction of Tenant Work).

2.2. Tenant acknowledges and agrees that in order to deliver the Premises to Tenant on the schedule contemplated by this Lease, preparation for and performance of the Landlord Work will require access, work and construction within the Premises after delivery of possession to Tenant, and that

Landlord and Landlord's representatives and contractors shall have the right to enter the Premises at all times to perform such work until the Landlord Work is completed, and that such entry and work shall not constitute an eviction of Tenant in whole or in part and shall in no way excuse Tenant from performance of its obligations under the Lease. Tenant and Landlord acknowledge and agree that the Landlord Work and necessary coordination and cooperation to accomplish it will cause certain unavoidable level of disturbance, inconvenience, annoyance to Tenant's use and enjoyment of the Premises, and that in performing such Landlord Work Landlord shall use commercially reasonable efforts not to unreasonably and materially interfere with Tenant's construction, installations and business operations. Tenant shall cooperate with Landlord and Landlord's contractor(s) to allow the Landlord Work and shall move Tenant's trade fixtures, furnishings and equipment as reasonably requested by Landlord or Landlord's contractor(s). The costs of such cooperation and moving, and any related disconnections and installations of Tenant's trade fixtures, equipment, phones, furnishings and other personal property, shall be at Tenant's sole cost and expense. To the extent that Tenant, its contractors or subcontractors delay the Substantial Completion of the Landlord Work, such delay shall be a "Tenant Delay" and the Landlord Work shall be deemed Substantially Complete on the date such Landlord Work would have been completed but for the delay caused by Tenant, its contractors or subcontractors.

2.3. For purposes of this Workletter, "Substantially Complete" and "Substantial Completion" of the Landlord Work shall mean the completion of the Landlord Work, except for minor insubstantial details of construction, decoration or mechanical adjustments which remain to be done and which shall not unreasonably and materially interfere with Tenant's regular business operations in the Premises. Substantial Completion shall be deemed to have occurred notwithstanding a requirement to complete "punchlist" or similar minor corrective work. Contemporaneously with or promptly after Substantial Completion of the Landlord Work, Tenant shall have the right to submit a written "punch list" to Landlord, setting forth any incomplete or defective item of construction. Landlord shall complete with reasonable diligence "punch list" items mutually agreed upon by Landlord and Tenant with respect to the Landlord Work. In addition, Landlord shall repair all latent defects in workmanship and materials of the Landlord Work, provided that Tenant gives Landlord written notice of any such latent defects within six (6) months after the date of Substantial Completion of the Landlord Work. For purposes of this Section, the term "latent defects" shall mean defects which were not readily apparent at the time the "punchlist" was formulated. All construction and installation resulting from the Landlord Work shall immediately become and remain the property of Landlord.

3. Tenant's Plans.

3.1. Description. At its expense, Tenant shall employ:

(i) one or more architects reasonably satisfactory to Landlord and licensed by the State ("Tenant's Architect") to prepare architectural drawings and specifications for all layout and Premises improvements not included in, or requiring any change or addition to, the AS IS condition and Landlord Work, if any.

(ii) one or more engineers reasonably satisfactory to Landlord and licensed by the State ("Tenant's Engineers") to prepare structural, mechanical and electrical working drawings and specifications for all Premises improvements not included in, or requiring any change or addition to, the AS IS condition and Landlord Work, if any.

All such drawings and specifications are referred to herein as "Tenant's Plans". Tenant's Plans shall be in form and detail sufficient to secure all applicable governmental approvals. Tenant's Architect shall be responsible for coordination of all engineering work for Tenant's Plans and shall coordinate with any consultants of Tenant (the use of which is subject to Landlord's consent), and Landlord's space planner or architect to assure the consistency of Tenant's Plans with the Base Building Work and Landlord Work (if any).

Tenant shall pay Landlord, within forty-five (45) days of receipt of each invoice from Landlord, the cost incurred by Landlord for Landlord's architects and engineers to review Tenant's Plans for consistency of same with the Base Building Work and Landlord Work, if any. Tenant's Plans shall also include the following:

(a) Final Space Plan: The "Final Space Plan" for the Premises shall include a full and accurate description of room titles, floor loads, alterations to the Base Building or Landlord Work (if any) or requiring any change or addition to the AS IS condition, and the dimensions and location of all partitions, doors, aisles, plumbing (and furniture and equipment to the extent same affect floor loading). The Final Space Plan shall (i) be compatible with the design, construction, systems and equipment of the Base Building and Landlord Work, if any; (ii) specify only materials, equipment and installations which are new and of a grade and quality no less than existing components of the Building when they were originally installed (collectively, (i) and (ii) may be referred to as "Building Standard" or "Building Standards"); (iii) comply with Laws, (iv) be capable of logical measurement and construction, and (v) contain all such information as may be required for the preparation of the Mechanical and Electrical Working Drawings and Specifications (including, without limitation, a capacity and usage report, from engineers designated by Landlord pursuant to Section 3.1(b). below, for all mechanical and electrical systems in the Premises).

(b) Mechanical and Electrical Working Drawings and Specifications: Tenant shall employ engineers approved by Landlord to prepare Mechanical and Electrical Working Drawings and Specifications showing complete plans for electrical, life safety, automation, plumbing, water, and air cooling, ventilating, heating and temperature control (collectively, the "Mechanical and Electrical Working Drawings and Specifications") and shall employ engineers designated by Landlord to prepare for Landlord a capacity and usage report ("Capacity Report") for all mechanical and electrical systems in the Premises.

(c) Issued for Construction Documents: The "Issued for Construction Documents" shall consist of all drawings (1/8" scale) and specifications necessary to construct all Premises improvements including, without limitation, architectural and structural working drawings and specifications and Mechanical and Electrical Working Drawings and Specifications and all applicable governmental authorities plan check corrections.

3.2. Approval by Landlord. Tenant's Plans and any revisions thereof shall be subject to Landlord's approval, which approval or disapproval:

(i) shall not be unreasonably withheld, provided however, that Landlord may disapprove Tenant's Plans in its sole and absolute discretion if they (a) adversely affect the structural integrity of the Base Building, including applicable floor loading capacity; (b) adversely affect any of the Building Systems (as defined below), the Common Areas or any other tenant space (whether or not currently occupied); (c) fail to fully comply with Laws, (d) affect the exterior appearance of the Building; (e) provide for improvements which do not meet or exceed the Building Standards; or (f) involve any installation on the roof, or otherwise affect the roof, roof membrane or any warranties regarding either. Building Systems collectively shall mean the structural, electrical, mechanical (including, without limitation, heating, ventilating and air conditioning), plumbing, fire and life-safety (including, without limitation, fire protection system and any fire alarm), communication, utility, gas (if any), and security (if any) systems in the Building.

(ii) shall not be delayed beyond ten (10) business days with respect to initial submissions and major change orders (those which impact Building Systems or any other item listed in subpart (i) of Section 3.2 above) and beyond five (5) business days with respect to required revisions and any other change orders.

If Landlord disapproves of any of Tenant's Plans, Landlord shall advise Tenant of what Landlord disapproves in reasonable detail. After being so advised by Landlord, Tenant shall submit a redesign, incorporating the revisions required by Landlord, for Landlord's approval. The approval procedure shall be repeated as necessary until Tenant's Plans are ultimately approved. Approval by Landlord shall not be deemed to be a representation or warranty by Landlord with respect to the safety, adequacy, correctness, efficiency or compliance with Laws of Tenant's Plans. Tenant shall be fully and solely responsible for the safety, adequacy, correctness and efficiency of Tenant's Plans and for the compliance of Tenant's Plans with any and all Laws.

3.3. Landlord Cooperation. Landlord shall cooperate with Tenant and make good faith efforts to coordinate Landlord's construction review procedures to expedite the planning, commencement, progress and completion of Tenant Work. Landlord shall complete its review of each stage of Tenant's Plans and any revisions thereof and communicate the results of such review within the time periods set forth in Section 3.2 above.

3.4. City Requirements. Any changes in Tenant's Plans which are made in response to requirements of the applicable governmental authorities and/or changes which affect the Base Building Work shall be immediately submitted to Landlord for Landlord's review and approval.

3.5. "As-Built" Drawings and Specifications. A CADD-DXF file on CD-ROM, pdf versions of the drawings on CD-ROM, and a set of "Xerox" type blackline on bond prints of all "as-built" drawings and specifications of the Premises (reflecting all field changes and including, without limitation, architectural, structural, mechanical and electrical drawings and specifications) prepared by Tenant's Architect and Engineers or by Contractors (defined below) shall be delivered by Tenant at Tenant's expense to the Landlord within thirty (30) days after completion of the Tenant Work. If Landlord has not received such drawings and CD-ROM(s) within thirty (30) days, Landlord may give Tenant written notice of such failure. If Tenant does not produce such drawings and CD-ROM(s) within ten (10) days after Landlord's written notice, Landlord may, at Tenant's sole cost which may be deducted from the Allowance, produce such drawings and CD-ROM(s) using Landlord's personnel, managers, and outside consultants and contractors. Landlord shall receive an hourly rate reasonable for such production.

4. Tenant Work.

4.1. Tenant Work Defined.

(a) All tenant improvement work required by the Issued for Construction Documents (including, without limitation, any approved changes, additions or alterations pursuant to Section 7 below) is referred to in this Workletter as "Tenant Work."

(b) As part of the Tenant Work Tenant shall perform the work set forth on Exhibit B-2 hereto.

4.2. Tenant to Construct. Tenant shall construct all Tenant Work pursuant to this Workletter, and except to the extent modified by or inconsistent with express provisions of this Workletter, pursuant with the provisions of the terms and conditions of Article Nine of the Lease, governing Tenant Alterations (except to the extent modified by this Workletter) and all such Tenant Work shall be considered "Tenant Alterations" for purposes of the Lease.

4.3. Construction Contract. All contracts and subcontracts for Tenant Work shall include any commercially reasonable terms and conditions required by Landlord.

4.4. Contractor. Tenant shall select one or more contractors to perform the Tenant Work ("Contractor") subject to Landlord's prior written approval, which shall not unreasonably be withheld.

4.5. Division of Landlord Work and Tenant Work. Tenant Work is defined in Section 4.1. above and Landlord Work, if any, is defined in Section 2.

5. Tenant's Expense; Allowance; Special Allowances

5.1. Tenant agrees to pay for all Tenant Work, including, without limitation, the costs of design thereof, whether or not all such costs are included in the "Permanent Improvement Costs" (defined below). Subject to the terms and conditions of this Workletter, Tenant shall apply the "Allowance" (defined below) to payment of the Permanent Improvement Costs. The term "Permanent Improvement Costs" shall mean the actual and reasonable costs of construction of that Tenant Work which constitutes permanent improvements to the Premises, actual and reasonable costs of design thereof and governmental permits therefor, costs incurred by Landlord for Landlord's architects and engineers pursuant to Section 3.1, and Landlord's construction administration fee (defined in Section 8.10 below). Provided, however, Permanent Improvement Costs shall exclude costs of "Tenant's FF& E" (defined below). For purposes of this Workletter, "Tenant's FF& E" shall mean furniture, furnishings, telephone systems, computer systems, equipment, any other personal property or fixtures, and installation thereof. Landlord shall provide Tenant a tenant improvement allowance ("Allowance") in the amount equal to Ten Dollars (\$10.00) per square foot of the Rentable Area of the Premises (a total of Three Hundred Seventy-eight Thousand Five Hundred Sixty Dollars [\$378,560.00]). The Allowance shall be used solely to reimburse Tenant for the Permanent Improvement Costs.

5.2. In addition to the Allowance set forth above, Landlord shall provide Tenant those certain allowances to be used solely to reimburse Tenant for the actual and reasonable costs incurred by Tenant for the Tenant Work specified on Exhibit B-2 hereto, which allowances consist of the following: the Special AC Allowance, Special Chiller/Boiler/Air Handler Allowance, Special Energy Management Allowance and Special Compressor and Vacuum Pump Allowance (collectively, the "Special Allowances").

5.3 If Tenant does not utilize one hundred percent (100%) of the Allowance for Permanent Improvement Costs and one hundred percent (100%) of the Special Chiller/Boiler/Air Handler Allowance, Special Energy Management Allowance and Special Compressor and Vacuum Pump Allowance for the purposes for which each is permitted within one (1) year after the Commencement Date of the Premises, Tenant shall have no right to the unused portion of the respective Allowance. If Tenant does not utilize one hundred percent (100%) of the Special AC Allowance for the purposes for which it is permitted within two (2) years after the Commencement Date of the Premises, Tenant shall have no right to the unused portion of the Special AC Allowance.

6. Application and Disbursement of the Allowance

6.1. Landlord acknowledges that Tenant will perform the Tenant Work in phases, and that for each phase, Tenant may apply a portion of the Allowance and a portion of one or more of the Special Allowances until either such Allowance or Special Allowance is exhausted or the time period

during which such Allowance or Special Allowance may be used has expired. Tenant shall prepare a budget for each phase of the Tenant Work, including the Permanent Improvement Costs and all other costs of the Tenant Work (a "Budget") prior to the commencement of such phase, which Budget shall be subject to the reasonable approval of Landlord. Each such Budget shall be supported by such documentation as Landlord reasonably may require to evidence the total costs for such phase (Landlord and Tenant hereby acknowledge and agree that Tenant will not be required to deliver guaranteed maximum price construction contracts in support of the Budgets, but instead will deliver a Budget for each phase with built-in contingencies to address potential cost overruns). To the extent the Budget for a phase requires funds in excess of the available Allowance and available Special Allowances that are applicable to such phase (such excess, an "Excess Cost"), Tenant shall be solely responsible for payment of such Excess Cost. Further, prior to any disbursement of the Allowance by Landlord with respect to a phase, Tenant shall pay and disburse its own funds for all that portion of the Permanent Improvement Costs included in such phase equal to the sum of (a) such Permanent Improvement Costs in excess of the then-available Allowance allocated to such phase, to the extent that there is any such excess; plus (b) the amount of "Landlord's Retention" (defined below). "Landlord's Retention" shall mean an amount equal to fifteen percent (15%) of the portion of the Allowance allocated to the phase in question, which Landlord shall retain out of the Allowance and shall not be obligated to disburse unless and until after Tenant has completed the applicable phase of the Tenant Work and complied with Section 6.4 below. Further, with respect to each phase, Landlord shall not be obligated to make any disbursement of the Allowance unless and until Tenant has provided Landlord with (a) bills and invoices covering all labor and material expended and used, (b) an affidavit from Tenant stating that all of such bills and invoices have either been paid in full by Tenant or are due and owing, and all such costs qualify as Permanent Improvement Costs, (c) contractors affidavit covering all labor and materials expended and used, (d) Tenant, contractors and architectural completion affidavits (as applicable), and (e) valid mechanics' lien releases and waivers pertaining to any completed portion of the Tenant Work which shall be conditional or unconditional, as applicable, all as provided pursuant to Section 6.2 and 6.4 below.

6.2. With respect to each phase of the Tenant Work and upon Tenant's full compliance with the provisions of Section 6 for such phase, and if Landlord determines that there are no applicable or claimed stop notices (or any other statutory or equitable liens of anyone performing any of the Tenant Work for such phase or providing materials for such phase of the Tenant Work) or actions thereon, Landlord shall disburse the applicable portion of the Allowance and/or the Special Allowances, as applicable, as follows:

(a) In the event of conditional releases, to the respective contractor, subcontractor, vendor, or other person who has provided labor and/or services in connection with such phase of the Tenant Work, upon the following terms and conditions: (i) such costs are included in the Budget for such phase, are Permanent Improvement Costs, are covered by the Allowance or Special Allowances, as applicable, and Tenant has completed and delivered to Landlord a written request for payment, in form reasonably acceptable to Landlord, setting forth the exact name of the contractor, subcontractor or vendor to whom payment is to be made and the date and amount of the bill or invoice, (ii) the request for payment is accompanied by the documentation set forth in Section 6.1; and (iii) Landlord, or Landlord's appointed representative, has inspected and approved the work for which Tenant seeks payment; or

(b) In the event of unconditional releases, directly to Tenant upon the following terms and conditions: (i) Tenant seeks reimbursement for costs of Tenant Work which have been paid by Tenant, are included in the Budget for such phase, are Permanent Improvement Costs, and are covered by the Allowance or Special Allowances, as applicable; (ii) Tenant has completed and delivered to Landlord a request for payment, in form reasonably acceptable to Landlord, setting

forth the name of the contractor, subcontractor or vendor paid and the date of payment, (iii) the request for payment is accompanied by the documentation set forth in Section 6.1; and (iv) Landlord, or Landlord's appointed representative, has inspected and approved the work for which Tenant seeks reimbursement.

6.3. Provided that Tenant provides Landlord with the aforementioned documents by the 15th of any month, payment shall be made by Landlord by the 30th day of the month following the month in which such documentation is provided. Notwithstanding any provision of this Workletter to the contrary, Tenant shall make requests for disbursement of the Allowance or Special Allowances, as applicable, and Landlord shall be obligated to pay to Tenant such amounts as are payable, no more often than once per calendar month and only if the disbursement is for \$100,000.00 or more, and otherwise such requests and payments shall be as set forth above.

6.4. Prior to Landlord disbursing the Landlord's Retention to Tenant for a particular phase of the Tenant Work, Tenant shall submit to Landlord the following items within sixty (60) days after completion of such phase of the Tenant Work: (i) "As Built" drawings and specifications pursuant to Section 3.5 above, (ii) all unconditional lien releases for all work performed for such phase by all general contractor(s) and subcontractor(s) performing work for such phase, (iii) a "Certificate of Completion" for such phase prepared by Tenant's Architect, and (iv) a final report for such phase with supporting documentation detailing all actual costs associated with the Permanent Improvement Costs incurred for such phase.

7. Changes, Additions or Alterations.

If Tenant desires to make any non-de minimis change, addition or alteration or desires to make any change, addition or alteration to any of the Building Systems after approval of the Issued for Construction Documents, Tenant shall prepare and submit to Landlord plans and specifications with respect to such change, addition or alteration. Any such change, addition or alteration shall be subject to Landlord's approval in accordance with the provisions of Section 3.2 of this Workletter. Tenant shall be responsible for any submission to and plan check and permit requirements of the applicable governmental authorities. Tenant shall be responsible for payment of the cost of any such change, addition or alteration if it would increase the Budget and Excess Cost previously submitted and approved pursuant to Section 6 above.

8. Miscellaneous.

8.1. Scope. Except as otherwise set forth in the Lease, this Workletter shall not apply to any space added to the Premises by Lease option or otherwise.

8.2. Tenant Work shall include (at Tenant's expense) for all of the Premises:

- (a) Landlord approved lighting sensor controls as necessary to meet applicable Laws;
- (b) Building Standard fluorescent fixtures in all Premises office areas;
- (c) Building Standard meters for each of electricity and chilled water used by Tenant shall be connected to the Building's system and shall be tested and certified prior to Tenant's occupancy of the Premises by a State certified testing company;
- (d) Building Standard ceiling systems (including tile and grid) and;

(e) Building Standard air conditioning distribution and Building Standard air terminal units.

8.3. Sprinklers. Subject to any terms, conditions and limitations set forth herein, Landlord shall provide an operative sprinkler system consisting of mains, laterals, and heads "AS IS" on the date of delivery of the Premises to Tenant. Tenant shall pay for piping distribution, drops and relocation of, or additional, sprinkler system heads and Premises firehose or firehose valve cabinets, if Tenant's Plans and/or any applicable Laws necessitate such.

8.4. Floor Loading. Floor loading capacity shall be within building design capacity. Tenant may exceed floor loading capacity with Landlord's consent, at Landlord's sole discretion and must, at Tenant's sole cost and expense, reinforce the floor as required for such excess loading.

8.5. Work Stoppages. If any work on the Real Property other than Tenant Work is delayed, stopped or otherwise affected by construction of Tenant Work, Tenant shall immediately take those actions necessary or desirable to eliminate such delay, stoppage or effect on work on the Real Property other than Tenant Work.

8.6. Life Safety. Tenant (or Contractor) shall employ the services of a fire and life-safety subcontractor reasonably satisfactory to Landlord for all fire and life-safety work at the Building.

8.7. Locks. Tenant agrees to purchase from Landlord or its representative all cylinders and keys used in locks used in the Premises.

8.8. Authorized Representatives. Tenant has designated Loren Barrett to act as Tenant's representative with respect to the matters set forth in this Workletter. Such representative(s) shall have full authority and responsibility to act on behalf of Tenant as required in this Workletter. Tenant may add or delete authorized representatives upon five (5) business days notice to Landlord.

8.9. Access to Premises. Promptly after execution of this Amendment, Tenant and its architects, engineers, consultants, and contractors shall have access at reasonable times and upon advance notice and coordination with the Building management, to the Premises for the purpose of planning and conducting Tenant Work. Such access shall not in any manner interfere with Landlord Work, if any. Such access, and all acts and omissions in connection with it, shall be subject to and governed by all other provisions of the Lease, including, without limitation, Tenant's indemnification obligations, insurance obligations, etc, except for the payment of Base Rent and Additional Rent. To the extent that such access by Tenant delays the Substantial Completion of the Landlord Work (if any), such delay shall be a Tenant Delay and the Landlord Work shall be deemed Substantially Complete on the date such Landlord Work would have been completed but for such access.

8.10. Fee. Landlord shall receive a construction administration fee equal to one percent (1.0%) of the Allowance in connection with the construction of the Tenant Work. Such fee is in addition to Tenant's reimbursement of costs incurred by Landlord pursuant to other provisions hereof, including, without limitation, for Landlord's architects and engineers to review Tenant's Plans.

9. Force and Effect.

The terms and conditions of this Workletter shall be construed to be a part of the Lease and shall be deemed incorporated in the Lease by this reference. Should any inconsistency arise between this Workletter and the Lease as to the specific matters which are the subject of this Workletter, the terms and conditions of this Workletter shall control.

EXHIBIT B-1
TO WORKLETTER AGREEMENT

LANDLORD WORK

Landlord Work shall mean the following work, to be performed by Landlord's contractor(s):

1. Landlord shall make necessary repairs and/or replacements to put in good working condition the existing Building lighting and existing exit signs (on emergency battery power, and add such emergency battery power for exit signs to the extent it does not exist as of the Commencement Date).
2. Landlord shall make necessary repairs and/or replacements to put in good working condition the power to operate Landlord's existing fire sprinkler system and sprinkler heads, including repair of any sagging ceilings and insulation obstructing operation of sprinkler heads; and Landlord shall provide a copy of an updated 5-year certificate of the fire sprinkler system.
3. Landlord shall make necessary repairs and/or replacements of: (a) copper condensate drain lines that have been removed (prior to the Commencement Date) from the Building; (b) copper cabling from the main power supply to the chiller that has been removed (prior to the Commencement Date) from the Building.
4. If and to the extent that the City of Redwood City requires, as a condition of approval of Tenant Plans or Tenant Work, installation of additional building exit ramp(s) to comply with Title III of the ADA, Landlord shall build such required ramp(s). If the City does not require installation of such additional ramp(s), Landlord shall install a new step at one exit door location to be specified by Tenant. Notwithstanding any other provision of this Workletter to the contrary, such work shall be performed within a reasonable time after the City orders such additional ramp(s) or in the event the step is to be installed, after the time has passed within which the City can order such additional ramp(s) and Tenant has specified the exit door location.
5. Notwithstanding any of the foregoing to the contrary, the Landlord Work described above shall be reduced to the extent any of the foregoing items described in Sections 1 – 3 above (for example only and without limitation, lighting, power cabling, ceiling or insulation components) are to be removed, demolished or altered by Tenant in connection with anticipated Tenant Work.

EXHIBIT B-2
TO WORKLETTER AGREEMENT

SPECIAL TENANT WORK
SPECIAL ALLOWANCES FOR SUCH WORK ONLY

Special Tenant Work shall mean the work set forth below, , subject to reimbursement by Landlord to the extent of the Special Allowances as specified below. All such work, including the design thereof, plans and specifications, contractors, work and procedure for reimbursement to Tenant of costs of such work, shall be subject to and governed by the provisions of the Workletter applicable to Tenant Work and the Allowance, except that the amounts of the Special Allowances, time such allowances shall be available and purposes for which each such allowance may be used, shall be as specified below. Upon installation, all such Special Tenant Work shall be deemed to be part of the Building and owned by Landlord.

1. Replacement of 13 Package AC Units on the Building's Roof Within 2 years after the Commencement Date, Tenant shall, subject to reimbursement by Landlord to the extent of the "Special AC Allowance" specified below, replace the existing thirteen (13) rooftop air conditioning ("AC") units serving the Building with new equipment of good quality (which includes rooftop AC units, certain associated controls and ductwork, and related materials and expenses) ("AC Units"), sufficient to provide AC cooling capacity for the entire Building (no less than eighty-two [82] tons of AC cooling capacity in the aggregate). The vendors, contractors and contracts for such AC Unit replacement shall be subject to Landlord's prior written approval, including among other things, providing for warranties acceptable to Landlord and that such warranties shall name Landlord and be issued directly for the benefit of and enforceable by Landlord. Tenant shall provide a replacement schedule to Landlord. Landlord shall provide the amount of One Hundred Fifty-three Thousand Six Hundred Dollars (\$153,600) solely to reimburse Tenant's actual and reasonable costs of such AC replacement, and only for such purpose ("Special AC Allowance"). If Tenant does not utilize one hundred percent (100%) of the Special AC Allowance for the specified purpose within two (2) years after the Commencement Date, Tenant shall have no right to the unused portion of the Special AC Allowance. The Special AC Allowance shall be in addition to, and shall not diminish the Tenant's Allowance.

2. Chillers, Boilers, Boilers Exhaust Fans and Air Handlers on the Building's Roof Within one (1) year after the Commencement Date, Tenant shall, subject to reimbursement by Landlord to the extent of the "Special Chiller/Boiler/Air Handler Allowance" specified below, repair and/or replace the existing chillers, boilers, exhaust fans and air handlers on the roof of the Building in order to put such items in good working condition (the "Chiller/Boiler/Air Handler Work"). The vendors, contractors and contracts for such Chiller/Boiler/Air Handler Work shall be subject to Landlord's prior written approval, including among other things, providing for warranties acceptable to Landlord and that such warranties shall name Landlord and be issued directly for the benefit of and enforceable by Landlord. Landlord shall provide the amount of Forty-nine Thousand Seven Hundred Forty-four Dollars (\$49,744) solely to reimburse Tenant's actual and reasonable costs of such Chiller/Boiler/Air Handler Work, and only for such purpose ("Special Chiller/Boiler/Air Handler Allowance"). If Tenant does not utilize one hundred percent (100%) of the Special Chiller/Boiler/Air Handler Allowance for the specified purpose within one (1) year after the Commencement Date, Tenant shall have no right to the unused portion of the Special Chiller/Boiler/Air Handler Allowance. The Special Chiller/Boiler/Air Handler Allowance shall be in addition to, and shall not diminish the Tenant's Allowance.

3. Building Energy Management System Within one (1) year after the Commencement Date, Tenant shall, subject to reimbursement by Landlord to the extent of the "Special Energy Management Allowance" specified below, repair and/or replace the existing Building Energy Management System in

order to put such items in good working condition (the "Energy Management Work"). The vendors, contractors and contracts for such Energy Management Work shall be subject to Landlord's prior written approval, including among other things, providing for warranties acceptable to Landlord and that such warranties shall name Landlord and be issued directly for the benefit of and enforceable by Landlord. Landlord shall provide the amount of Twelve Thousand Four Hundred Ninety-three Dollars (\$12,493) solely to reimburse Tenant's actual and reasonable costs of such Energy Management Work, and only for such purpose ("Special Energy Management Allowance"). If Tenant does not utilize one hundred percent (100%) of the Special Energy Management Allowance for the specified purpose within one (1) year after the Commencement Date, Tenant shall have no right to the unused portion of the Special Energy Management Allowance. The Special Energy Management Allowance shall be in addition to, and shall not diminish the Tenant's Allowance.

4. Air Compressor and Vacuum Pump on the Building's Roof. Within one (1) year after the Commencement Date, Tenant shall, subject to reimbursement by Landlord to the extent of the "Special Compressor and Vacuum Pump Allowance" specified below, inspect, repair and/or replace the existing air compressor and vacuum pump on the roof of the Building in order to put such items in good working condition (the "Compressor and Vacuum Pump Work"). The vendors, contractors and contracts for such Compressor and Vacuum Pump Work shall be subject to Landlord's prior written approval, including among other things, providing for warranties acceptable to Landlord and that such warranties shall name Landlord and be issued directly for the benefit of and enforceable by Landlord. Landlord shall provide the amount of Seven Thousand Five Hundred Dollars (\$7,500) solely to reimburse Tenant's actual and reasonable costs of such Compressor and Vacuum Pump Work, and only for such purpose ("Special Compressor and Vacuum Pump Allowance"). If Tenant does not utilize one hundred percent (100%) of the Special Compressor and Vacuum Pump Allowance for the specified purpose within one (1) year after the Commencement Date, Tenant shall have no right to the unused portion of the Special Compressor and Vacuum Pump Allowance. The Special Compressor and Vacuum Pump Allowance shall be in addition to, and shall not diminish the Tenant's Allowance.

EXHIBIT C
COMMENCEMENT DATE AGREEMENT

METROPOLITAN LIFE INSURANCE COMPANY, a New York corporation ("Landlord"), and CODEXIS, INC., a Delaware corporation ("Tenant"), have entered into a certain Third Amendment to Lease, which Amendment is dated as of _____, 2008 (the "Amendment"). The original Lease, as amended by the Amendment, may be referred to as the "Lease".

WHEREAS, Landlord and Tenant wish to confirm and memorialize the Building 2 Commencement Date and Building 2 Expiration Date;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants contained herein and in the Amendment, Landlord and Tenant agree as follows:

1. Unless otherwise defined herein, all capitalized terms shall have the same meaning ascribed to them in the Amendment and the Lease.
2. The Building 2 Commencement Date is _____.
3. The Building 2 Expiration Date is _____.
4. Tenant hereby confirms that: (a) it has accepted possession of the Building 2 Space pursuant to the terms of the Amendment; and (b) the Lease is in full force and effect.
5. Except as expressly modified hereby, all terms and provisions of the Lease are hereby ratified and confirmed and shall remain in full force and effect and binding on the parties hereto.
6. The Lease and this Building 2 Commencement Date Agreement contain all of the terms, covenants, conditions and agreements between the Landlord and the Tenant relating to the subject matter herein. No prior other agreements or understandings pertaining to such matters are valid or of any force and effect.

TENANT: **CODEXIS, INC.,**
a Delaware corporation

By: _____
Print Name: _____
Title: _____

LANDLORD: **METROPOLITAN LIFE INSURANCE COMPANY,**
a New York corporation

By: _____
Print Name: _____
Title: _____

EXHIBIT D
FORM OF LANDLORD'S CONSENT TO ENCUMBRANCE OF LIMITED COLLATERAL

THIS LANDLORD'S CONSENT TO ENCUMBRANCE OF LIMITED COLLATERAL (the "Consent") is made as of _____, 2008 by and between Metropolitan Life Insurance Company, a New York corporation ("Met" or "Landlord"), having an address at 425 Market Street, Suite 1050, San Francisco, CA 94105, and General Electric Capital Corporation, a Delaware corporation ("Agent"), having an address at 83 Wooster Heights Road, Fifth Floor, Danbury, CT 06810, with reference to the following:

A. Met is the Landlord and Codexis, Inc., a Delaware corporation ("Codexis" or "Tenant") is the Tenant under that certain lease dated as of October __, 2003[sic], entered into by and between Landlord and Tenant, as amended by that certain First Amendment to Lease by and between Landlord and Tenant dated June 1, 2004 and by that certain Second Amendment to Lease dated as of March 9, 2007 (as amended to date and hereafter, the "Lease"). As of the date hereof, the Lease is of the premises particularly described in the Lease (the "Premises"), commonly known as 200 and 220 Penobscot Drive, 501 Chesapeake Drive and 640 Galveston Drive, in the buildings (the "Building") located in Redwood City, California. As of the date hereof, a draft of a possible Third Amendment to Lease to add to the Premises additional space commonly known as 400 Penobscot Drive has been exchanged between Landlord and Tenant, and hereafter Landlord and Tenant may enter into that or other amendments of the Lease. References to the Lease, Premises and Building herein shall be deemed modified to have the same meaning as such terms have under the Lease, as amended from time to time.

B. Tenant and Agent represent to Landlord that Agent and certain other lenders (together with Agent, collectively, "Lenders") and Tenant have entered into, or are about to enter into, a Loan and Security Agreement, dated on or about September __, 2007, pursuant to which Tenant has or will borrow, or obtain a line of credit, up to a maximum principal amount of Fifteen Million Dollars (\$15,000,000.00) to be used by Tenant for working capital purposes (as amended, restated, supplemented or otherwise modified from time to time, the "Loan Agreement", provided however, this Consent shall have no force or effect if and to the extent that Lenders permit or suffer the maximum principal amount to increase above the amount stated above) and pursuant to which Tenant has granted or will grant to Agent, on behalf of Agent and the other Lenders, a security interest in certain assets owned by Tenant described on Exhibit A hereto, all or part of which is from time to time installed or located at the Premises (the "Collateral").

C. Tenant has requested that Landlord consent to the encumbrance of the Collateral. Landlord is not willing to consent to encumbrance of the Collateral, but subject to and with certain clarifications and limitations set forth in Exhibit A hereto defining and describing the "Limited Collateral", Landlord is willing to consent to encumbrance of the Limited Collateral upon and subject to the following terms and conditions:

NOW, THEREFORE, in consideration of the covenants and conditions contained herein, and for other good and valuable consideration, receipt of which is hereby acknowledged, Landlord and Agent agree as follows:

1 During the term of the Loan Agreement, Landlord hereby consents to the encumbrance of the Limited Collateral and agrees to subordinate to the interest of Agent in the Limited Collateral any Landlord's lien in or to the Limited Collateral existing by reason of the Lease and the location of the Limited Collateral in the Premises; provided, however, that said consent and subordination shall be ineffective to the extent that Agent has released its security interest in the Limited Collateral.

2 Subject to Agent's obligations pursuant to Sections 4 and 5 hereof, Landlord agrees that the Limited Collateral is and shall remain personal property.

3 Subject to the rights of Tenant under the Lease, Landlord will permit Agent reasonable access onto the Premises for the purpose of exercising any right it may have under the terms of the Loan Agreement, including, without limitation, the right to remove the Limited Collateral, subject to all the terms and conditions hereof.

4 To the extent that Tenant or Agent do not remove Limited Collateral which is located in the Premises prior to the expiration or earlier termination of the Lease, after such expiration or termination Landlord may deem such Limited Collateral abandoned property, except if and to the extent that Agent has obtained additional time to remove the Limited Collateral pursuant to Section 5 below. Subject to Landlord's obligations under Section 6 below, Agent understands that Tenant is to bear the obligation of notifying Agent of Tenant's default under the Lease or of the expiration or earlier termination of the Lease, and that Landlord has no obligation to notify Agent or Lenders.

5 Agent's right to enter the Premises is further subject to the following terms and conditions:

5.1 Subject to the rights of Tenant under the Lease, Agent shall have the right to enter onto the Premises and take possession of the Limited Collateral provided that Agent (i) gives Landlord written notice that it seeks to enter and take possession of the Limited Collateral, which notice shall include a representation by Agent that it is entitled to take possession of the Limited Collateral, and (ii) coordinates the date and time of possession with Landlord or Landlord's managers prior thereto, and such date may be no earlier than one (1) day after Landlord's receipt of such notice and no later than eighteen (18) days after Landlord's receipt of such notice, unless Landlord, in Landlord's sole discretion, in writing allows entry earlier or later. Tenant agrees that Landlord may rely on such representation by Agent without further inquiry or any obligation to verify same. Tenant hereby waives any claims it may have against Landlord which arise out of or are connected with Landlord's actions in compliance with such notice from Agent.

5.2 Except as provided below, in no event shall Agent have the right to enter the Premises during any period for which the rent is unpaid by Tenant before or after termination of the Lease. Agent shall have a right of entry for eighteen (18) days after the earlier of the date Agent gives notice to Landlord pursuant to Section 5.1 or Landlord gives notice to Agent pursuant to Section 6, provided that Agent pays Landlord rent for the number of days Agent requires entry to the Premises at the daily rental rate calculated by dividing by thirty (30) the sum of the monthly base rent plus rent equal to the expenses and taxes payable by Tenant for the same period under the Lease (as such amounts are more particularly described in the Lease). The payment of daily rental for the number of days Agent requires entry to the Premises is a condition precedent prior to any such entry. In the event that Agent removes all (and not less than all) the Limited Collateral and in fact uses a shorter period for its entry than the number of days entry for which it paid in advance on an estimated basis, then Landlord shall reimburse Agent for any excess rental paid at the daily rate. Agent shall not have any rights whatsoever for its right of entry to be longer than eighteen (18) days after the date of the applicable notice, and in the event that both parties have given notice, after the earliest notice given. Notwithstanding any of the foregoing to the contrary, Agent (a) shall not be required to pay any rent if, within the initial seven days after the date the earliest such notice was given, Agent removes all (and not less than all) the Limited Collateral, or (b) shall not be required to pay rent for the initial seven days after the date the earliest such notice was given unless Agent fails to remove all (and not less than all) the Limited Collateral within the eighteen (18) day period after the date the earliest such notice was given.

5.3 Agent shall not have the right to conduct or cause to be conducted any auction at the Premises.

5.4 If Agent, in removing the Limited Collateral, damages any improvements at the Premises or the building of which the Premises is a part, Agent, at its sole expense, shall cause the same to be repaired and restored to a condition at least equal to the condition existing immediately prior to the installation of the Limited Collateral.

6 So long as the Loan Agreement is in effect, Landlord agrees to subordinate to the interest of Agent in the Limited Collateral any Landlord's lien in or to the Limited Collateral existing by reason of the Lease and the location of the Limited Collateral in the Premises; provided, however, that said consent and subordination shall be ineffective to the extent that Agent has released its security interest in the Limited Collateral. In the event that Landlord has not received notice from Agent given pursuant to Section 5.1 and Landlord finds it necessary to remove all or part of the Limited Collateral in the exercise of any right under the Lease, then Landlord shall notify Agent of such necessity and Agent shall be given the right to enter the Premises for no more than eighteen (18) days after such notice, for the purpose of removing all of the Limited Collateral from the Premises. Agent's right to enter the Premises is subject to Agent's obligation to pay rent as set forth in Section 5.2. Landlord is under no obligation to store the Limited Collateral for the benefit of Agent beyond eighteen (18) days after the earlier of the date Agent gave notice pursuant to Section 5.1 or the date Landlord gave notice to Agent under this Section. Accordingly, upon the expiration of such eighteen (18) day notice period, if Agent has not removed the Limited Collateral from the Premises then Agent's lien and all right, title and interest of Agent in the Limited Collateral shall be deemed to be abandoned and all Limited Collateral located in the Premises may be removed, sold and/or disposed of as Landlord may elect in its sole discretion. Further, if Agent seeks to remove the Limited Collateral (to the extent not sold or otherwise disposed of by Landlord) after such eighteen (18) day period, and Landlord, in its sole discretion consents to such removal, Agent shall be liable for all of Landlord's costs incurred in connection with storage at the Premises, removal and storage elsewhere, and with any aborted sale and notices and advertising therefor. Further, within ninety (90) days after expiration of such eighteen (18) day period, with respect to all such Limited Collateral deemed abandoned, Agent shall file and/or record, in the formal record system for perfection of security interests of applicable jurisdictions, appropriate documentation evidencing the abandonment, release and termination of Agent's security interest in such Limited Collateral and Agent shall deliver to Landlord a copy of such documents filed and/or recorded.

7 To the extent permitted by law, Agent shall protect, defend, indemnify and hold harmless Landlord and its agents and managers from and against any and all actions, causes of action, claims, losses, costs, expenses, damages and liabilities, including without limitation reasonable attorneys' fees, arising out of or in any way connected with the acts or negligence of Agent in connection with any entry to the Premises or the project in which the Premises is located.

8 All representations, warranties and indemnifications made or given by Agent herein, together with any causes of action, rights and remedies which Landlord has or may have as a result of a breach of any term of this Consent, shall survive any expiration or termination of this Consent.

9 Intentionally omitted.

10 This Consent is only a subordination of lien rights with express terms and conditions of a right of entry; and shall not be deemed or construed to be a consent to anything else including, but not limited to, alterations on the Premises.

11 Landlord makes no representation or warranty as to the ownership of the Limited Collateral or the priority of the security interest of the Agent. Agent acknowledges that Landlord, at the request of Tenant, has previously been asked may in the future be asked to execute one or more such consents in favor of other personal property lenders and/or personal property lessors. Landlord is under no duty whatsoever to advise Agent in the event the Limited Collateral described herein shall be scheduled or claimed by any other such lender or personal property lessor. Tenant and Agent hereby agree that Landlord shall have no liability arising out of or relating to the entry by Agent upon the Premises for the purpose of removal of the Limited Collateral.

12 At all times during any entry by Agent for the purpose of removal of any of the Limited Collateral from the Premises under this consent, Agent shall maintain comprehensive general liability insurance, on an occurrence basis, in the amount of at least Five Million dollars (\$5,000,000.00), covering the acts and omissions of Agent, its agents and contractors, issued by reputable companies licensed to do business in California, and naming Landlord as an additional insured. Prior to any such entry Agent shall provide Landlord with a certificate of such insurance reasonably satisfactory to Landlord. So long as General Electric Capital Corporation, a Delaware corporation, is the Agent acting on behalf of Lenders and personally holds the security interest in the Limited Collateral as such Agent, then its insurance shall not be required to name Landlord as additional insured and a certificate of insurance shall not be required.

13 This Consent may not be modified or amended except by written agreement of the parties hereto.

14 This Agreement may not be recorded.

15 All notices required to be given hereunder shall be in writing, and shall be mailed by certified mail, return receipt requested, or by nationally recognized overnight courier service that provides proof of delivery. Notices shall be deemed effective upon the date actually received, date receipt is refused or date of inability to deliver due to change of address without notice.

Notices to Landlord shall be addressed:

Metropolitan Life Insurance Company
425 Market Street, Suite 1050
San Francisco, California 94105
Attention: Director, EIM

with copies to the following:

Metropolitan Life Insurance Company
425 Market Street, Suite 1050
San Francisco, California 94105
Attention: Associate General Counsel

Notices to Agent shall be addressed:

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc., LSF
83 Wooster Heights Road, Fifth Floor
Danbury, CT 06810
Attention: Senior Vice President of Risk
Phone: (203) 205-5200
Facsimile: (203) 205-2192

with a copy to:

General Electric Capital Corporation
c/o GE Healthcare Financial Services, Inc.
Two Bethesda Metro Center, Suite 600
Bethesda, MD 20814
Attention: General Counsel
Phone: (301) 961-1640
Facsimile: (301) 664-9866

Notices to Tenant shall be addressed:

Codexis, Inc.
200 Penobscot Drive
Redwood City, California 94063
Attention: Director of Finance

16 In the event either party shall bring any action against the other for any matter arising out of or relating to this Consent, the prevailing party shall be entitled to recover reasonable attorney's fees and costs.

17 This Consent shall be binding upon and inure to the benefit of the respective heirs, administrators, successors and assigns to the parties hereto.

18 Each of Agent, Landlord and Tenant separately and for itself warrants and represents that the person or persons signing below is or are duly authorized to execute this Consent on its behalf.

IN WITNESS WHEREOF, the undersigned have duly executed this Landlord's Consent to Encumbrance of Limited Collateral as of the day and year first above written.

LANDLORD:

AGENT:

METROPOLITAN LIFE INSURANCE
COMPANY, a New York corporation

GENERAL ELECTRIC CAPITAL
CORPORATION, a Delaware corporation

By: _____
Name: _____
Its: _____

By: _____
Name: _____
Its: _____

AGREED, as of the day and year first above written, for the purposes of the Recitals, Section 5, Section 11 and Sections 13 through 18 hereof.

TENANT:
CODEXIS, INC., a Delaware corporation

By _____
Name: _____
Its _____

EXHIBIT A
TO LANDLORD'S CONSENT TO ENCUMBRANCE OF LIMITED COLLATERAL

DESCRIPTION OF COLLATERAL

Certain assets of Tenant, including, without limitation, all of Tenant's cash, cash equivalents, accounts, books and records, goods, inventory, machinery, equipment, furniture and trade fixtures (such as equipment bolted to floors), together with all addition, substitutions, replacements and improvements to, and proceeds, including, insurance proceeds, of the foregoing, but excluding building fixtures (such as plumbing, lighting and HVAC systems) (collectively, the "Collateral")

DESCRIPTION OF LIMITED COLLATERAL

The "Limited Collateral" shall mean the following personal property owned by Tenant: all of Tenant's cash, cash equivalents, accounts, books and records, goods, inventory, machinery not permanently affixed to the Premises, equipment not permanently affixed to the Premises, furniture and trade fixtures not permanently affixed to the Premises, together with all addition, substitutions, replacements and improvements to, and proceeds, including, insurance proceeds, of the foregoing, and for avoidance of doubt the following shall not be part of the "Limited Collateral": (a) walls, ceilings, flooring, building fixtures (such as plumbing, power, lighting and HVAC systems), including without limitation all improvements made as part of the Special Tenant Work (as defined in the Third Amendment to Lease dated as of _____, 2008); (b) all improvements installed in the 640 Galveston Space (as defined in the Second Amendment to Lease dated as of March 9, 2007) by Landlord prior to March 9, 2007 or thereafter permanently affixed to the 640 Galveston Space, including, without limitation, all lab benches and corresponding casework, lab sinks, lab hoods, supplemental or special ventilating and air conditioning equipment, and any and all lab installations and fixtures, unless pursuant to express provision of the Lease or a written agreement between Landlord and Tenant, Tenant is permitted or required to remove a specified item or items and such item or items is listed below; and (c) insurance proceeds to which Landlord is entitled pursuant to the Lease, including without limitation, insurance proceeds of any tangible property, machinery, equipment or trade fixtures which is permanently affixed to the Premises. For the avoidance of doubt, the term "permanently affixed" in the preceding sentence shall not be construed to mean otherwise free-standing equipment that has been secured to the Premises for the primary purpose of seismic stability and/or the prevention of theft. If pursuant to Section 4 of the Third Amendment, Landlord has agreed in writing, in response to written request made by Tenant, that specified equipment or trade fixtures paid for entirely by Tenant (without reimbursement in full or part out of any funds provided by Landlord) be included as part of the Limited Collateral, which items shall be specifically identified in writing delivered by Tenant to Landlord, including the building address and location within the building where the items are located, such items shall be listed below and thereby be part of the Limited Collateral.

[IF APPLICABLE, SPECIFICALLY LIST ITEM OF EQUIPMENT AND LOCATION BY BUILDING ADDRESS & LOCATION WITHIN THE BUILDING.]

MASTER SECURITY AGREEMENT
No. 5081102
Dated as of October 25, 2005 (“Agreement”)

THIS AGREEMENT is between Oxford Finance Corporation (together with its successors and assigns, if any, “Secured Party”) and Codexis, Inc. (“Debtor”). Secured Party has an office at 133 N. Fairfax Street, Alexandria, VA 22314. Debtor is a corporation organized and existing under the laws of the state of Delaware. Debtor’s mailing address and chief place of business is 200 Penobscot Drive, Redwood City, CA 94063.

1. CREATION OF SECURITY INTEREST.

Debtor grants to Secured Party, its successors and assigns, a security interest in and against all property listed on any collateral schedule now or in the future annexed to or made a part of this Agreement (“Collateral Schedule”), and in and against all additions, attachments, accessories and accessions to such property, all substitutions, replacements or exchanges therefor, and all insurance and/or other proceeds thereof (all such property is individually and collectively called the “Collateral”). This security interest is given to secure the payment and performance of all debts, obligations and liabilities of any kind whatsoever of Debtor to Secured Party, now existing or arising in the future, including but not limited to the payment and performance of certain Promissory Notes from time to time identified on any Collateral Schedule (collectively “Notes” and each a “Note”), and any renewals, extensions and modifications of such debts, obligations and liabilities (such Notes, debts, obligations and liabilities are called the “Indebtedness”). Debtor acknowledges that, notwithstanding that the Note(s) may be paid in full, this Security Agreement shall continue to secure the payment and performance of all other debts, obligations and liabilities of any kind whatsoever of Debtor to Secured Party, now existing or arising in the future, and that Secured Party shall be under no obligation to release the Collateral unless and until all Indebtedness of Debtor to Secured Party has been paid and satisfied; provided, however, Secured Party, in its sole and exclusive discretion, may elect to release some of the Collateral without prejudice to Secured Party’s security interest in the remaining Collateral.

2. REPRESENTATIONS, WARRANTIES AND COVENANTS OF DEBTOR.

Debtor represents, warrants and covenants as of the data of this Agreement and as of the date of each Collateral Schedule that:

- (a) Due Organization. Debtor’s exact legal name is as set forth in the preamble of this Agreement and Debtor is, and will remain, duly organized, existing and in good standing under the laws of the State set forth in the preamble of this Agreement, has its chief executive offices at the location specified in the preamble, and is, and will remain duly qualified and licensed in every jurisdiction wherever necessary to carry on its business and operations;
- (b) Power and Capacity to Enter Into and Perform Obligations. Debtor has adequate power and capacity to enter into, and to perform its obligations under this Agreement, each Collateral Schedule, each Note and any other documents evidencing, or given in connection with, any of the Indebtedness (all of the foregoing are called the “Debt Documents”);

- (c) Due Authorization. This Agreement and the other Debt Documents have been duly authorized, executed and delivered by Debtor and constitute legal, valid and binding agreements enforceable in accordance with their terms, except to the extent that the enforcement of remedies may be limited under applicable bankruptcy and insolvency laws;
- (d) Approvals and Consents. No approval, consent or withholding of objections is required from any governmental authority or instrumentality with respect to the entry into, or performance by Debtor of any of the Debt Documents, except any already obtained;
- (e) No Violations or Defaults. The entry into, and performance by, Debtor of the Debt Documents will not (i) violate any of the organizational documents of Debtor or any judgment, order, law or regulation applicable to Debtor, or (ii) result in any breach of or constitute a default under any contract to which Debtor is a party, or result in the creation of any lien, claim or encumbrance on any of Debtor's property (except for liens in favor of Secured Party) pursuant to any indenture, mortgage, deed of trust, bank loan, credit agreement, or other agreement or instrument to which Debtor is a party;
- (f) Litigation. There are no suits or proceedings pending in court or before any commission, board or other administrative agency against or affecting Debtor which could, in the aggregate, have a material adverse effect on Debtor, its business or operations, or its ability to perform its obligations under the Debt Documents, nor does Debtor have reason to believe that any such suits or proceedings are threatened;
- (g) Solvency. The fair salable value of Debtor's assets (including goodwill minus disposition costs) exceeds the fair value of its liabilities; the Debtor is not left with unreasonably small capital after the transactions in this Agreement or any Collateral Schedule and Debtor is able to pay its debts (including trade debts) as they mature;
- (h) Financial Statements. All financial statements relating to Debtor that have been or may hereafter be delivered by Debtor to Secured Party present fairly in all material respects Debtor's financial condition as of the date thereof and Debtor's results of operations for the period then ended, and since the date of the most recent financial statement, there has been no material adverse change in Debtor's financial condition;
- (i) Use of Collateral. The Collateral is not, and will not be, used by Debtor for personal, family or household purposes;

- (j) Collateral in Good Condition and Repair. The Collateral is, and will remain, in good condition and repair and Debtor will not be negligent in its care and use;
- (k) Location of Collateral. All of the tangible Collateral is located at the locations set forth on each Collateral Schedule. Debtor shall give the Secured Party 30 days prior written notice of any relocation of any Collateral;
- (l) Ownership of Collateral. Debtor is, and will remain, the sole and lawful owner, and in possession of, the Collateral, and has the sole right and lawful authority to grant the security interest described in this Agreement;
- (m) Encumbrances. The Collateral is, and will remain, free and clear of all liens, claims and encumbrances of any kind whatsoever, except for Permitted Liens;
- (n) Intellectual Property Rights. Debtor will (i) protect, defend and maintain the validity and enforceability of the Intellectual Property and promptly advise Secured Party in writing of material infringements and (ii) not allow any Intellectual Property material to Debtor's business, as determined by Debtor in its good faith and reasonable discretion, to be abandoned, forfeited or dedicated to the public without Secured Party's written consent;
- (o) Taxes. All federal, state and local tax returns required to be filed by Debtor have been filed with the appropriate governmental agencies by the date due (including any extensions) and all taxes due and payable by Debtor have been timely paid. Debtor will pay when due all taxes, assessments and other liabilities except as contested in good faith and by appropriate proceedings and for which adequate reserves have been established;
- (p) No Defaults. No event or condition exists under any material agreement, instrument or document to which Debtor is a party or may be subject, or by which Debtor or any of its properties are bound, which constitutes a default or an event of default thereunder, or will, with the giving of notice, passage of time, or both, would constitute a default or event of default thereunder;
- (q) Certification of Financial Information. All reports, certificates, schedules, notices and financial information submitted by Debtor to the Secured Party pursuant to this Agreement shall be certified as true and correct by the president or chief financial officer of Debtor;
- (r) Notice of Material Adverse Change. Debtor shall give the Secured Party prompt written notice of any event, occurrence or other matter which (a) has resulted or may result in a material adverse change in its financial condition or business operations of Debtor, or (b) which would impair the ability of Debtor to perform its obligations hereunder or under any of the other financing agreements to which it is a party, or (c) which would impair the ability of Secured Party to enforce the Indebtedness or realize upon the Collateral;

- (s) Change in Management. Debtor shall not, without giving prior written notice to Secured Party, change the persons holding the offices of Chief Executive Officer or Chief Financial Officer;
- (t) Transactions with Affiliates. Debtor shall not, without the prior written consent of Secured Party, directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Debtor except for transactions that are in the ordinary course of Debtor's business, upon fair and reasonable terms that are no less favorable to Debtor than would be obtained in an arm's length transaction with a nonaffiliated Person;
- (u) [intentionally omitted]
- (v) Perfection Certificate. Debtor has previously delivered to the Secured Party a certificate signed by the Debtor and entitled "Perfection Certificate" (the "**Perfection Certificate**"). The Debtor represents and warrants to the Secured Party as follows: (a) the Debtor's exact legal name is that indicated on the Perfection Certificate and on the signature page hereof, (b) the Debtor is an organization of the type, and is organized in the jurisdiction set forth in the Perfection Certificate, (c) the Perfection Certificate accurately sets forth the Debtor's organizational identification number or accurately states that the Debtor has none, (d) the Perfection Certificate accurately sets forth the Debtor's place of business or, if more than one, its chief executive office, as well as the Debtor's mailing address, if different, (e) all other information set forth on the Perfection Certificate pertaining to the Debtor is accurate and complete, and (f) that there has been no change in any information provided in the Perfection Certificate since the date on which it was executed by the Debtor;
- (w) Primary Account and Wire Transfer Instructions. Debtor maintains its Primary Account (the "**Primary Operating Account**") and the Wire Transfer Instructions for the Primary Operating Account are as follows:
 - Wells Fargo Bank
 - P.O. Box 150, 400 Hamilton Ave.
 - Palo Alto, CA 94301
 - ABA No.: 121000248
 - Account No.: 403-0003362
 - Account Name: Codexis, Inc.Debtor hereby agrees that Loans will be advanced to the account specified above and regularly scheduled payments will be automatically debited from the same account;
- (x) [intentionally omitted]
- (y) Notice of Investor Abandonment. Debtor shall give the Secured Party prompt written notice if (a) it is the clear intention of Debtor's investors to not continue to

fund the Debtor in the amounts and timeframe necessary to enable Debtor to satisfy the Indebtedness as it becomes due and payable or (b) there is a material impairment in the perfection or priority of the Secured Party's security interest in the Collateral; and

- (z) Indebtedness to Maxygen. Without the prior written consent of Secured Party, which consent shall not be unreasonably withheld or delayed, Debtor shall not create, incur, assume or permit to exist any Indebtedness to Maxygen, Inc. ("Maxygen") in excess of One Million, Two Hundred Twenty-Five Thousand Dollars (\$1,225,000) in aggregate in any fiscal year, nor shall Debtor make any payments to Maxygen in any fiscal year in excess of the lower of: (i) the aggregate of the fair market value of services provided by Maxygen to Debtor during such fiscal year, or (ii) the aggregate of One Million, Two Hundred Twenty-Five Thousand Dollars (\$1,225,000). Notwithstanding the foregoing, Debtor shall be permitted to pay the balance of previously incurred, existing and anticipated Indebtedness to Maxygen up to a total amount of One Million, Five Hundred Thousand Dollars (\$1,500,000) for the period January 1, 2005 to December 31, 2005.

3. COLLATERAL.

The Debtor covenants and agrees that, so long as any of the Debt Documents shall remain in effect, or unless the Secured Party shall otherwise consent in writing:

- (a) Possession of Collateral; Inspection of Collateral. Until the declaration of any default, Debtor shall remain in possession of the Collateral, except as necessary for maintenance and repair, except as specified in Section 3(c), and except that Secured Party shall have the right to possess (i) any chattel paper or instrument that constitutes a part of the Collateral, and (ii) any other Collateral in which Secured Party's security interest may be perfected only by possession. Secured Party may inspect any of the Collateral during normal business hours after giving Debtor reasonable prior notice.
- (b) Maintenance of Collateral. Debtor shall (i) use the Collateral only in its trade or business, (ii) maintain all of the Collateral in good operating order and repair, normal wear and tear excepted, (iii) use and maintain the Collateral only in compliance with manufacturers recommendations and all applicable laws, and (iv) keep all of the Collateral free and clear of all liens, claims and encumbrances (except for Permitted Liens).
- (c) Disposition of Collateral. Secured Party does not authorize and Debtor agrees it shall not (i) part with possession of any of the Collateral (except to Secured Party or for maintenance and repair), (ii) locate any of the Collateral outside the continental United States, other than any Collateral necessary for the operation of Debtor's subsidiary location in Germany in an aggregate value not exceeding \$300,000.00, with all of any such Collateral located at Debtor's subsidiary location in Germany to be financed by Secured Party as soft costs, and with

ownership to all of such Collateral located at Debtor's subsidiary location in Germany to be retained by Debtor and not passed to its subsidiary; or (iii) sell, rent, lease, mortgage, license, grant a security interest in or otherwise transfer or encumber (except for Permitted Liens) any of the Collateral.

- (d) Taxes. Debtor shall pay promptly when due all taxes, license fees, assessments and public and private charges levied or assessed on any of the Collateral, on its use, or on this Agreement or any of the other Debt Documents. At its option, Secured Party may discharge taxes, liens, security interests or other encumbrances at any time levied or placed on the Collateral and may pay for the maintenance, insurance and preservation of the Collateral and effect compliance with the terms of this Agreement or any of the other Debt Documents. Debtor agrees to reimburse Secured Party, on demand, all costs and expenses incurred by Secured Party in connection with such payment or performance and agrees that such reimbursement obligation shall constitute Indebtedness.
- (e) Books and Records. Debtor shall, at all times, keep accurate and complete records of the Collateral, and Secured Party shall have the right to inspect and make copies of all of Debtor's books and records relating to the Collateral during normal business hours, after giving Debtor reasonable prior notice.
- (f) Third Party Possession of Collateral. Debtor agrees and acknowledges that any third person who may at any time possess all or any portion of the Collateral shall be deemed to hold, and shall hold, the Collateral as the agent of, and as pledge holder for, Secured Party. Secured Party may at any time give notice to any third person described in the preceding sentence that such third person is holding the Collateral as the agent of, and as pledge holder for, the Secured Party.
- (g) Change of Address, Name or Jurisdiction. The Debtor has not at any time within the past four (4) months either changed its name or changed the state of jurisdiction in which it is organized and existing, nor has it maintained its chief executive office or any of the Collateral at any other location, except as set forth above, and shall not do so hereafter except upon prior written notice to the Secured Party. The Secured Party shall be entitled to rely upon the foregoing unless it receives 14 days' advance written notice of a change in the Debtor's name, state of jurisdiction, address of the Debtor's chief executive offices or location of the Collateral.
- (h) Fixtures. Not permit any item of the Collateral to become a fixture to real estate or an accession to other property without the prior written consent of the Secured Party, and the Collateral is now and shall at all times remain personal property except with the Secured Party's prior written consent. If any of the Collateral is or will be attached to real estate in such a manner as to become a fixture under applicable state law and if such real estate is encumbered, the Debtor will obtain from the holder of each Lien or encumbrance a written consent and subordination to the security interest hereby granted, or a written disclaimer of any interest in the Collateral, in a form acceptable to the Secured Party.

- (i) Distributions. Debtor shall not (i) pay any dividends or make any distributions on its equity securities; (ii) purchase, redeem, retire, defease or otherwise acquire for value any of its equity securities, other than repurchases pursuant to the terms of employee stock purchase plans, employee restricted stock agreements or similar arrangements in an aggregate amount not to exceed One Hundred Thousand Dollars (\$100,000); (iii) return any capital to any holder of its equity securities as such; (iv) make any distribution of assets, equity securities, obligations or securities to any holder of its equity securities as such; or (v) set apart any sum for any such purpose; provided, however, Debtor may pay dividends payable solely in common stock.
- (j) Indebtedness Payments. Debtor shall not (i) prepay, redeem, purchase, defease or otherwise satisfy in any manner prior to the scheduled repayment thereof any Additional Indebtedness for borrowed money or lease obligations, (ii) amend, modify or otherwise change the terms of any Additional Indebtedness for borrowed money or lease obligations so as to accelerate the scheduled repayment thereof or (iii) repay any notes to officers, directors or shareholders except as expressly provided for in a duly executed subordination agreement in favor of, and approved by Secured Party.
- (k) Bridge Loans. Debtor shall not incur any indebtedness for borrowed money or lease obligations (collectively, "**Bridge Loans**") from any of its officers, directors or shareholders (collectively, "**Bridge Loan Lenders**") unless each of the Bridge Loan Lenders have executed and delivered subordination agreements in favor of Secured Party, in form satisfactory to Secured Party, which subordinate all of the Bridge Loans to the Indebtedness, and which permit repayment of the Bridge Loans from the proceeds of new equity investments and loans.

4. INSURANCE.

- (a) Risk of Loss. Debtor shall at all times bear the entire risk of any loss, theft, damage to, or destruction of, any of the Collateral from any cause whatsoever.
- (b) Insurance Requirements. Debtor agrees to keep the Collateral insured against loss or damage by fire and extended coverage perils, theft, burglary, and for any or all Collateral, which are vehicles, for risk of loss by collision, and if requested by Secured Party, against such other risks as Secured Party may reasonably require. The insurance coverage shall be in an amount no less than the full replacement value of the Collateral, and deductible amounts, insurers and policies shall be acceptable to Secured Party. Debtor shall deliver to Secured Party policies or certificates of insurance evidencing such coverage. Each policy shall name Secured Party as a loss payee, shall provide for coverage to Secured Party regardless of the breach by Debtor of any warranty or representation made therein, shall not be subject to co-insurance, and shall provide that coverage may not be canceled or altered by the insurer without a good faith endeavor by insurer to provide thirty (30) days prior written notice to Secured Party. Debtor appoints Secured Party as its attorney-in-fact to make proof of loss, claim for insurance and

adjustments with insurers, and to receive payment of and execute or endorse all documents, checks or drafts in connection with insurance payments. Secured Party shall not act as Debtor's attorney-in-fact unless Debtor is in default. Proceeds of insurance shall be applied, at the option of Debtor if there is no default as set forth in Section 7, or at the option of Secured Party if there is a default as set forth in Section 7, to repair or replace the Collateral or to reduce any of the Indebtedness.

5. REPORTS.

- (a) Notice of Events. Debtor shall promptly notify Secured Party of (i) any change in the name of Debtor, (ii) any change in the state of its incorporation or registration, (iii) any relocation of its chief executive offices, (iv) any of the Collateral being lost, stolen, missing, destroyed, materially damaged or worn out, (v) any lien, claim or encumbrance other than Permitted Liens attaching to or being made against any of the Collateral, or (vi) any occurrence of any default pursuant to Section 7 herein.
- (b) Financial Statements, Reports and Certificates. Debtor will deliver to Secured Party within 120 days of the close of each fiscal year of Debtor, Debtor's complete financial statements including a balance sheet, income statement, statement of shareholders' equity and statement of cash flows, each prepared in accordance with Generally Accepted Accounting Principles consistently applied, certified by a recognized firm of certified public accountants satisfactory to Secured Party. Debtor will deliver to Secured Party copies of Debtor's quarterly financial statements including a balance sheet, income statement, and statement of cash flows, each of which present fairly in all material respects Debtor's financial condition as of the date thereof, and which are certified by Debtor's chief financial officer or president, within forty-five (45) days after the close of each of Debtor's fiscal quarter. Debtor will deliver to Secured Party copies of all Forms 10-K and 10-Q, if any, within 30 days after the dates on which they are filed with the Securities and Exchange Commission. Debtor will deliver to Secured Party copies of Debtor's monthly financial statements including a balance sheet and income statement, and statement of cash flows, each of which present fairly in all material respects Debtor's financial condition as of the date thereof, and which are certified by Debtor's chief financial officer or president, within thirty (30) days after the close of each month. With quarterly and monthly financial statements, Debtor shall also provide to Secured Party a copy of its bank statement(s) for all accounts reflected in such quarterly and monthly financial statements. Concurrently with delivery of the foregoing information, and from time to time promptly upon request of Secured Party, Debtor will deliver to Secured Party a Compliance Certificate substantially consistent with the form of the document attached hereto as Schedule A. Debtor will deliver to Secured Party promptly upon request of Secured Party, in form satisfactory to Secured Party, such other and additional information as Secured Party may reasonably request from time to time.

6. FURTHER ASSURANCES.

- (a) Further Assurances Regarding Security Interests Debtor shall, upon request of Secured Party, furnish to Secured Party such further information, execute and deliver to Secured Party such documents and instruments (including, without limitation, Uniform Commercial Code financing statements) and shall do such other acts and things as Secured Party may at any time reasonably request relating to the perfection or protection of the security interest created by this Agreement or for the purpose of carrying out the intent of this Agreement. Without limiting the foregoing, Debtor shall cooperate and do all acts deemed necessary or advisable by Secured Party to continue in Secured Party a perfected first security interest in the Collateral, and shall obtain and finish to Secured Party any subordinations, releases, landlord waivers, lessor waivers, mortgagee waivers, or control agreements, and similar documents as may be from time to time requested by, and in form and substance satisfactory to, Secured Party.
- (b) Authorization To File Financing Statements Debtor shall perform any and all acts requested by the Secured Party to establish, maintain and continue the Secured Party's security interest and liens in the Collateral, including but not limited to, executing or authenticating financing statements and such other instruments and documents when and as reasonably requested by the Secured Party. Debtor hereby authorizes Secured Party through any of Secured Party's employees, agents or attorneys to file any and all financing statements, including, without limitation, any original filings, continuations, transfers or amendments thereof required to perfect Secured Party's security interest and liens in the Collateral under the UCC without authentication or execution by Debtor. Debtor hereby irrevocably authorizes the Secured Party at any time and from time to time to file in any filing office in any Uniform Commercial Code jurisdiction any initial financing statements) and amendments thereto that (a) indicate the Collateral (i) is subject to Secured Party's security interest, regardless of whether any particular asset comprised in the Collateral falls within the scope of Article 9 of the Uniform Commercial Code of the State or such jurisdiction, or (ii) as being of an equal or lesser scope or with greater detail, and (b) provide any other information required by part 5 of Article 9 of the Uniform Commercial Code of the State or such other jurisdiction for the sufficiency or filing office acceptance of any financing statement or amendment, including (i) whether the Debtor is an organization, the type of organization and any organization identification number issued to the Debtor, and (ii) in the case of a financing statement filed as a fixture filing, a sufficient description of real property to which the Collateral relates. The Debtor agrees to furnish any such information to the Secured Party promptly upon the Secured Party's request.
- (c) Indemnification. Debtor shall indemnify and defend the Secured Party, its successors and assigns, and their respective directors, officers and employees, from and against all claims, actions and suits (including, without limitation, related attorneys' fees) of any kind whatsoever arising, directly or indirectly, in connection with any of the Collateral or the Debt Documents except to the extent resulting from the gross negligence or willful misconduct of the persons so indemnified.

7. DEFAULT AND REMEDIES.

- (a) Defaults. Debtor shall be in default under this Agreement and each of the other Debt Documents if any one of the following should occur:
- (i) Debtor breaches its obligation to pay within three (3) business days following the due date thereof any installment or other amount due or coming due under any of the Debt Documents, other than by Secured Party's failure to process a deduction from Debtor's Primary Operating Account pursuant to Section 2(w);
 - (ii) Debtor, without the prior written consent of Secured Party, attempts to or does sell, rent, lease, license, mortgage, grant a security interest in, or otherwise transfer or encumber, or allow Liens (except for Permitted Liens) upon, any of the Collateral;
 - (iii) Debtor breaches any of its insurance obligations under Section 4;
 - (iv) Debtor breaches any of its obligations under Sections 2(m) or 2(y) or Sections 3(i), (j), or (k);
 - (v) Debtor breaches any of its other non-payment obligations under any of the Debt Documents and fails to cure that breach within thirty (30) days after it has occurred;
 - (vi) Any warranty, representation or statement made by Debtor in any of the Debt Documents or otherwise in connection with any of the Indebtedness shall be false or misleading in any material respect;
 - (vii) Any of the Collateral is subjected to attachment, execution, levy, seizure or confiscation in any legal proceeding or otherwise, or if any legal or administrative proceeding is commenced against Debtor or any of the Collateral, which in the good faith judgment of Secured Party subjects any of the Collateral to a material risk of attachment, execution, levy, seizure or confiscation and no bond is posted or protective order obtained to negate such risk;
 - (viii) Debtor breaches or is in default under any other agreement between Debtor and Secured Party;
 - (ix) Debtor or any guarantor or other obligor for any of the Indebtedness (collectively "*Guarantor*") dissolves, terminates its existence, becomes insolvent or ceases to do business as a going concern;

- (x) If Debtor or any Guarantor is a natural person, and Debtor or any such Guarantor dies or becomes incompetent;
- (xi) A receiver is appointed for all or of any part of the property of Debtor or any Guarantor, or Debtor or any Guarantor makes any assignment for the benefit of creditors;
- (xii) Debtor or any Guarantor files a petition under any bankruptcy, insolvency or similar law, or any such petition is filed against Debtor or any Guarantor and is not dismissed within forty-five (45) days;
- (xiii) Debtor's improper filing of an amendment or termination statement relating to a filed financing statement describing the Collateral;
- (xiv) Debtor shall merge with or consolidate into any other entity or sell all or substantially all of its assets or in any manner terminate its existence;
- (xv) If Debtor is a privately held corporation, more than 50% of Debtor's voting capital stock, or effective control of Debtor's voting capital stock, issued and outstanding from time to time, is not retained by the holders of such stock on the date the Agreement is executed;
- (xvi) If Debtor is a publicly held corporation, there shall be a change in the ownership of Debtor's stock such that Debtor is no longer subject to the reporting requirements of the Securities Exchange Act of 1934 or no longer has a class of equity securities registered under Section 12 of the Securities Act of 1933;
- (xvii) Debtor defaults under any agreement to pay Additional Indebtedness or any other financing arrangement between Debtor and a third party in an amount exceeding \$100,000;
- (xviii) Secured Party shall have determined in its sole and good faith judgment that (a) it is the clear intention of Debtor's investors to not continue to fund the Debtor in the amounts and timeframe necessary to enable Debtor to satisfy the Indebtedness as it becomes due and payable or (b) there is a material impairment in the perfection or priority of the Secured Party's security interest in the Collateral; or
- (xix) [intentionally omitted]
- (xx) Without the prior written consent of Secured Party, which consent shall not be unreasonably withheld or delayed, Debtor creates, incurs, assumes or permits to exist any Indebtedness to Maxygen, Inc. ("Maxygen") in excess of One Million, Two Hundred Twenty-Five Thousand Dollars (\$1,225,000) in aggregate in any fiscal year, or Debtor makes any payments to Maxygen in any fiscal year in excess of the lower of: (i) the aggregate of the fair market value of services provided by Maxygen to

Debtor during such fiscal year, or (ii) the aggregate of One Million, Two Hundred Twenty-Five Thousand Dollars (\$1,225,000). Notwithstanding the foregoing, Debtor shall be permitted to pay the balance of previously incurred, existing and anticipated Indebtedness to Maxygen up to a total amount of One Million, Five Hundred Thousand Dollars (\$1,500,000) for the period January 1, 2005 to December 31, 2005.

- (b) Acceleration. If Debtor is in default, the Secured Party, at its option, may declare any or all of the Indebtedness to be immediately due and payable, without demand or notice to Debtor or any Guarantor (provided that if there is a default as a result of a bankruptcy or insolvency all Indebtedness shall become immediately due and payable without any action by Secured Party). The accelerated obligations and liabilities shall bear interest (both before and after any judgment) until paid in full at the Default Rate.
- (c) Rights and Remedies. Secured Party shall have all of the rights and remedies of a Secured Party under the Uniform Commercial Code, and under any other applicable law. Without limiting the foregoing, if an event of default exists, Secured Party shall have the right to (i) notify any account debtor of Debtor or any obligor on any instrument which constitutes part of the Collateral to make payment to the Secured Party, (ii) with or without legal process, enter any premises where the Collateral may be and take possession of and remove the Collateral from the premises or store it on the premises, (iii) sell the Collateral at public or private sale, in whole or in part, and have the right to bid and purchase at said sale, or (iv) lease or otherwise dispose of all or part of the Collateral, applying proceeds from such disposition to the obligations then in default. If requested by Secured Party, Debtor shall promptly assemble the Collateral and make it available to Secured Party at a place to be designated by Secured Party, which is reasonably convenient to both parties. Secured Party may also render any or all of the Collateral unusable at the Debtor's premises and may dispose of such Collateral on such premises without liability for rent or costs. Any notice that Secured Party is required to give to Debtor under the Uniform Commercial Code of the time and place of any public sale or the time after which any private sale or other intended disposition of the Collateral is to be made shall be deemed to constitute reasonable notice if such notice is given to the last known address of Debtor at least five (5) days prior to such action. Upon the occurrence and during the continuation of a default, Debtor hereby appoints Secured Party as Debtor's attorney-in-fact, with full authority in Debtor's place and stead and in Debtor's name or otherwise, from time to time in Secured Party's sole and arbitrary discretion, to take any action and to execute any instrument which Secured Party may deem necessary or advisable to accomplish the purpose of this Agreement. If an event of Default exists and is continuing, Secured Party is granted a non-exclusive royalty free license to use Debtor's Intellectual Property in connection with Secured Party's disposition of Collateral in the exercise of Secured Party's rights or remedies hereunder.

- (d) Application of Proceeds. The proceeds and/or avails of the Collateral, or any part thereof, and the proceeds and the avails of any remedy hereunder (as well as any other amounts of any kind held by Secured Party, at the time of or received by Secured Party after the occurrence of a default hereunder) shall be paid to and applied as follows:
- a. First, to the payment of out-of-pocket costs and expenses, including all amounts expended to preserve the value of the Collateral, all costs of repossession, storage, and disposition including without limitation attorneys', appraisers', and auctioneers' fees, of foreclosure or suit, if any, and of such sale and the exercise of any other rights or remedies, and of all proper fees, expenses, liability and advances, including reasonable legal expenses and attorneys' fees, incurred or made hereunder by Secured Party, including without limitation, Secured Party's Expenses;
 - b. Second, to the payment to Secured Party of the amount then owing or unpaid on the Loans for scheduled payments, any accrued and unpaid interest, and all other Indebtedness (provided, however, if such proceeds shall be insufficient to pay in full the whole amount so due, owing or unpaid upon the Loans, then to the unpaid interest thereon, then to the outstanding principal amount of the Loans, and then to the payment of other amounts then payable to Secured Party under any of the Debt Documents or otherwise); and
 - c. Third, to the payment of the surplus, if any, to Debtor, its successors and assigns, or to whomsoever may be lawfully entitled to receive the same.
- (e) Fees and Costs. Debtor agrees to pay all reasonable attorneys' fees and other costs incurred by Secured Party in connection with the enforcement, assertion, defense or preservation of Secured Party's rights and remedies under this Agreement, or if prohibited by law, such lesser sum as may be permitted. Debtor further agrees that such fees and costs shall constitute Indebtedness.
- (f) Remedies Cumulative. Secured Party's rights and remedies under this Agreement or otherwise arising are cumulative and may be exercised singularly or concurrently. Neither the failure nor any delay on the part of the Secured Party to exercise any right, power or privilege under this Agreement shall operate as a waiver, nor shall any single or partial exercise of any right, power or privilege preclude any other or further exercise of that or any other right, power or privilege. SECURED PARTY SHALL NOT BE DEEMED TO HAVE WAIVED ANY OF ITS RIGHTS UNDER THIS AGREEMENT OR UNDER ANY OTHER AGREEMENT, INSTRUMENT OR PAPER SIGNED BY DEBTOR UNLESS SUCH WAIVER IS EXPRESSED IN WRITING AND SIGNED BY SECURED PARTY. A waiver on any one occasion shall not be construed as a bar to or waiver of any right or remedy on any future occasion.

- (g) WAIVER OF JURY TRIAL. DEBTOR AND SECURED PARTY UNCONDITIONALLY WAIVE THEIR RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, ANY OF THE OTHER DEBT DOCUMENTS, ANY OF THE INDEBTEDNESS SECURED HEREBY, ANY DEALINGS BETWEEN DEBTOR AND SECURED PARTY RELATING TO THE SUBJECT MATTER OF THIS TRANSACTION OR ANY RELATED TRANSACTIONS, AND/OR THE RELATIONSHIP THAT IS BEING ESTABLISHED BETWEEN DEBTOR AND SECURED PARTY. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT. THIS WAIVER IS IRREVOCABLE. THIS WAIVER MAY NOT BE MODIFIED EITHER ORALLY OR IN WRITING. THE WAIVER ALSO SHALL APPLY TO ANY SUBSEQUENT AMENDMENTS, RENEWALS, SUPPLEMENTS OR MODIFICATIONS TO THIS AGREEMENT, ANY OTHER DEBT DOCUMENTS, OR TO ANY OTHER DOCUMENTS OR AGREEMENTS RELATING TO THIS TRANSACTION OR ANY RELATED TRANSACTION. THIS AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.

8. MISCELLANEOUS.

- (a) Assignment. This Agreement and/or any of the other Debt Documents may be assigned, in whole or in part, by Secured Party without notice to Debtor, and Debtor agrees not to assert against any such assignee, or assignee's assigns, any defense, set-off, recoupment claim or counterclaim which Debtor has or may at any time have against Secured Party for any reason whatsoever. Debtor agrees that if Debtor receives written notice of an assignment from Secured Party, Debtor will pay all amounts payable under any assigned Debt Documents to such assignee or as instructed by Secured Party. Debtor also agrees to confirm in writing receipt of the notice of assignment as may be reasonably requested by Secured Party or assignee.
- (b) Notices. All notices to be given in connection with this Agreement shall be in writing, shall be addressed to the parties at their respective addresses set forth in this Agreement (unless and until a different address may be specified in a written notice to the other party), and shall be deemed given (i) on the date of receipt if delivered in hand or by facsimile transmission, (ii) on the next business day after being sent by express mail, and (iii) on the fourth business day after being sent by regular, registered or certified mail. As used herein, the term "business day" shall mean and include any day other than Saturdays, Sundays, or other days on which commercial banks in California or Virginia are required or authorized to be closed.
- (c) Correction of Errors. Secured Party may correct patent errors and fill in all blanks in this Agreement, any Collateral Schedule or in any Note consistent with the agreement of the parties.

- (d) Time is of the Essence. Time is of the essence of this Agreement. This Agreement shall be binding, jointly and severally, upon all parties described as the “Debtor” and their respective heirs, executors, representatives, successors and assigns, and shall inure to the benefit of Secured Party, its successors and assigns.
- (e) Entire Agreement. This Agreement and the Debt Documents constitute the entire agreement between the parties with respect to the subject matter of this Agreement and supersede all prior understandings (whether written, verbal or implied) with respect to such subject matter. NEITHER THIS AGREEMENT NOR ANY OF THE DEBT DOCUMENTS SHALL BE CHANGED OR TERMINATED ORALLY OR BY COURSE OF CONDUCT, BUT ONLY BY A WRITING SIGNED BY BOTH PARTIES. Section headings contained in this Agreement have been included for convenience only, and shall not affect the construction or interpretation of this Agreement. This Agreement is the result of negotiations between and has been reviewed by each of Debtor and Secured Party executing this Agreement as of the date hereof and their respective counsel; accordingly, this Agreement shall be deemed to be the product of the parties hereto, and no ambiguity shall be construed in favor of or against Debtor or Secured Party.
- (f) Termination of Agreement. This Agreement shall continue in full force and effect until all of the Indebtedness has been indefeasibly paid in full to Secured Party or its assignee; provided, that Debtor’s indemnity obligations set forth in Section 6(c) shall survive until all applicable statute of limitations periods with respect to actions that may be brought against Secured Party have run. The surrender, upon payment or otherwise, of any Note or any of the other documents evidencing any of the Indebtedness shall not affect the right of Secured Party to retain the Collateral for such other Indebtedness as may then exist or as it may be reasonably contemplated will exist in the future. This Agreement shall automatically be reinstated if Secured Party is ever required to return or restore the payment of all or any portion of the Indebtedness (all as though such payment had never been made). Secured Party shall, at Debtor’s sole cost and expense, execute such further documents and take such further actions as may be reasonably necessary to effect the release of its security interests contemplated by this paragraph, including duly executing and delivering termination statements for filing in all relevant jurisdictions under the Code.
- (g) CHOICE OF LAW. DEBTOR AGREES THAT SECURED PARTY AND/OR ITS SUCCESSORS AND ASSIGNS SHALL HAVE THE OPTION BY WHICH STATE LAWS THIS AGREEMENT SHALL BE GOVERNED AND CONSTRUED: (A) THE LAWS OF THE COMMONWEALTH OF VIRGINIA; OR (B) IF COLLATERAL HAS BEEN PLEDGED TO SECURE THE LIABILITIES, THEN BY THE LAWS OF THE STATE OR STATES WHERE THE COLLATERAL IS LOCATED, AT SECURED PARTY’S OPTION. THIS CHOICE OF STATE LAWS IS EXCLUSIVE TO THE SECURED PARTY. DEBTOR SHALL NOT HAVE ANY OPTION TO CHOOSE THE LAWS BY WHICH THIS AGREEMENT SHALL BE GOVERNED. DEBTOR

ACKNOWLEDGES THAT THIS AGREEMENT IS BEING SIGNED BY THE SECURED PARTY IN PARTIAL CONSIDERATION OF SECURED PARTY'S RIGHT TO ENFORCE IN THE JURISDICTION STATED ABOVE. DEBTOR CONSENTS TO JURISDICTION IN THE COMMONWEALTH OF VIRGINIA OR THE STATE IN WHICH ANY COLLATERAL IS LOCATED AND VENUE IN ANY FEDERAL OR STATE COURT IN THE COMMONWEALTH OF VIRGINIA OR THE STATE IN WHICH COLLATERAL IS LOCATED FOR SUCH PURPOSES AND WAIVES ANY AND ALL RIGHTS TO CONTEST SAID JURISDICTION AND VENUE AND ANY OBJECTION THAT SAID COUNTY IS NOT CONVENIENT. DEBTOR WAIVES ANY RIGHTS TO COMMENCE ANY ACTION AGAINST SECURED PARTY IN ANY JURISDICTION EXCEPT VIRGINIA, OR IF SECURED PARTY CHOOSES TO LITIGATE IN A STATE WHERE COLLATERAL IS LOCATED THEN IN SUCH COUNTY AND STATE.

- (h) Power of Attorney. To facilitate direct collection, the Debtor hereby appoints the Secured Party and any officer or employee of the Secured Party, as the Secured Party may from time to time designate, as attorney-in-fact for the Debtor to (a) endorse the name of the Debtor in favor of the Secured Party upon any and all checks, drafts, money orders, notes, acceptances or other evidences of payment or Collateral that may come into the Secured Party's possession; (b) do all acts and things necessary to carry out this Agreement and the transactions contemplated hereby, including signing the name of the Debtor on any instruments required by law in connection with the transactions contemplated hereby and on financing statements as permitted by the Virginia Uniform Commercial Code. The Debtor hereby ratifies and approves all acts of such attorneys-in-fact, and neither the Secured Party nor any other such attorney-in-fact shall be liable for any acts of commission or omission, or for any error of judgment or mistake of fact or law of any such attorney-in-fact. This power, being coupled with an interest, is irrevocable so long as the Loan remains unsatisfied, or any Debt Document remains effective, as solely determined by the Secured Party. Secured Party agrees to exercise this power of attorney only during the existence of an event of default.
- (i) Loss, Depreciation or Other Damage. The Secured Party shall not be liable for or prejudiced by any loss, depreciation or other damage to Collateral unless caused by the Secured Party's willful and malicious act, and the Secured Party shall have no duty to take any action to preserve or collect any Collateral.
- (j) Demand; Protest. Debtor waives demand, protest, notice of protest, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees at any time held by Secured Party on which Debtor may in any way be liable.

9. DEFINITIONS.

As used herein, the following terms, when initial capital letters are used, shall have the respective meanings set forth below. In addition, all terms defined in the Code shall have the meanings given therein unless otherwise defined herein.

Defined Terms. As used in this Agreement, the following terms shall have the following meanings, unless the context otherwise requires:

“Additional Indebtedness” means, with respect to Debtor or any of its subsidiaries, the aggregate amount of, without duplication, (a) all obligations of such Person for borrowed money, (b) all obligations of such Person evidenced by bonds, debentures, notes or other similar instruments, (c) all obligations of such Person to pay the deferred purchase price of property or services (excluding trade payables aged less than one hundred eighty (180) days), (d) all capital lease obligations of such Person, (e) all obligations or liabilities of others secured by a Lien on any asset of such Person, whether or not such obligation or liability is assumed, (f) all obligations or liabilities of others guaranteed by such Person, and (g) any other obligations or liabilities which are required by GAAP to be shown as debt on the balance sheet of such Person. A listing of Additional Indebtedness existing on the date hereof is set forth in Schedule B. Unless otherwise indicated, the term **“Additional Indebtedness”** shall include all Indebtedness of Debtor and all of its subsidiaries.

“Affiliate” of a Person is a Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person’s senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person’s managers and members.

“Code” means the Virginia Uniform Commercial Code (including revised Article 9 thereof).

“Collateral” has the meaning given such capitalized term in Section 1.

“Collateral Schedule” has the meaning given such capitalized term in Section 1.

“Debt Documents” has the meaning given such capitalized term in Section 2(b).

“Default Rate” is the lower of thirteen percent (13%) per annum or the maximum rate not prohibited by applicable law.

“Indebtedness” has the meaning given such capitalized term in Section 1.

“Intellectual Property” shall mean (a) all of the Debtor’s right, title and interest, whether now owned or existing or hereafter acquired or arising, in and to all domestic and foreign copyrights, copyright registrations and copyright applications, whether or not registered or filed with any governmental authority, together with (i) all renewals thereof, (ii) all present and future rights of the Debtor under all present and future license agreements relating thereto, whether the Debtor is licensee or licensor thereunder, (iii) all income,

royalties, damages and payments now or hereafter due and/or payable to the Debtor thereunder or with respect thereto, including, without limitation, damages and payments for past, present or future infringements thereof, (iv) all of the Debtor's present and future claims, causes of action and rights to sue for past, present or future infringements thereof, and (v) all rights corresponding thereto throughout the world (collectively "**Copyright Rights**"); (b) all of the Debtor's right, title and interest, whether now owned or existing or hereafter acquired or arising, in and to all United States and foreign patents, and pending and abandoned United States and foreign patent applications, including, without limitation, the inventions and improvements described or claimed therein, together with (i) any reissues, divisions, continuations, certificates of re-examination, extensions and continuations-in-part thereof, (ii) all present and future rights of the Debtor under all present and future license agreements relating thereto, whether the Debtor is licensee or licensor thereunder, (iii) all income, royalties, damages and payments now or hereafter due and/or payable to the Debtor thereunder or with respect thereto, including, without limitation, damages and payments for past, present or future infringements thereof, (iv) all of the Debtor's present and future claims, causes of action and rights to sue for past, present or future infringements thereof, and (v) all rights corresponding thereto throughout the world (collectively "**Patent Rights**"); (c) all of the Debtor's right, title and interest, whether now owned or existing or hereafter acquired or arising, in and to all domestic and foreign trademarks, trademark registrations, trademark applications and trade names, whether or not registered or filed with any governmental authority, together with (i) all renewals thereof, (ii) all present and future rights of the Debtor under all present and future license agreements relating thereto, whether the Debtor is licensee or licensor thereunder, (iii) all income, royalties, damages and payments now or hereafter due and/or payable to the Debtor thereunder or with respect thereto, including, without limitation, damages and payments for past, present or future infringements thereof, (iv) all of the Debtor's present and future claims, causes of action and rights to sue for past, present or future infringements thereof, and (v) all rights corresponding thereto throughout the world (collectively "**Trademark Rights**"); (d) all present and future licenses and license agreements of the Debtor, and all rights of the Debtor under or in connection therewith, whether the Debtor is licensee or licensor thereunder, including, without limitation, any present or future franchise agreements under which the Debtor is franchisee or franchisor, together with (i) all renewals thereof, (ii) all income, royalties, damages and payments now or hereafter due and/or payable to the Debtor thereunder or with respect thereto, including, without limitation, damages and payments for past, present or future infringements thereof, (iii) all claims, causes of action and rights to sue for past, present or future infringements thereof, and (iv) all rights corresponding thereto throughout the world (collectively "**License Rights**"); (e) all present and future trade secrets of the Debtor; and (f) all other present and future intellectual property of the Debtor.]

"**Lien(s)**" shall mean any voluntary or involuntary mortgage, pledge, deed of trust, assignment, security interest, encumbrance, hypothecation, lien, or charge of any kind (including any conditional sale or other title retention agreement, any financing lease having substantially the same economic effect as any of the foregoing, and the filing of, or agreement to give, any financing statement under the Uniform Commercial Code or comparable law of any jurisdiction).

“**Loan**” means an advance of credit by Secured Party to Debtor.

“**Note**” has the meaning given such capitalized term in Section 1.

“**Permitted Liens**” means: (i) liens in favor of Secured Party, (ii) liens for taxes not yet due or for taxes being contested in good faith and which do not involve, in the judgment of Secured Party, any risk of the sale, forfeiture or loss of any of the Collateral, and (iii) inchoate materialmen’s, mechanic’s, repairmen’s and similar liens arising by operation of law in the normal course of business for amounts which are not delinquent.

“**Person**” is any individual, sole proprietorship, partnership, limited liability company, joint venture, company association, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

“**Primary Operating Account**” has the meaning given such capitalized term in Section 2(w).

“**Secured Party’s Expenses**” means all reasonable costs or expenses (including reasonable attorneys’ fees and expenses) incurred in connection with the preparation, negotiation, documentation, administration and funding of the Debt Documents; and Secured Party’s reasonable attorneys’ fees, costs and expenses incurred in amending, modifying, enforcing or defending the Debt Documents (including fees and expenses of appeal or review), including the exercise of any rights or remedies afforded hereunder or under applicable law, whether or not suit is brought, whether before or after bankruptcy or insolvency, including without limitation all fees and costs incurred by Secured Party in connection with Secured Party’s enforcement of its rights in a bankruptcy or insolvency proceeding filed by or against Debtor or its property.

“**Subordinated Indebtedness**” means Additional Indebtedness subordinated to the Indebtedness of Debtor to Secured Party on terms and conditions acceptable to Secured Party in its sole discretion.

IN WITNESS WHEREOF, Debtor and Secured Party, intending to be legally bound hereby, have duly executed this Agreement in one or more counterparts, each of which shall be deemed to be an original, as of the day and year first aforesaid.

SECURED PARTY:

DEBTOR:

Oxford Finance Corporation

Codexis, Inc.

By: /s/ Michael J. Altenburger

By: /s/ Tassos Gianakakos

Name: Michael J. Altenburger

Name: Tassos Gianakakos

Title: Chief Financial Officer

Title: Senior Vice President

Codexis Initial Here: _____

Oxford Initial Here: _____

**SCHEDULE A
FORM OF
COMPLIANCE CERTIFICATE**

Oxford
133
Alexandria, VA 22314

N.

Finance

Fairfax

Corporation
Street

Re: Codexis, Inc.

Gentlemen:

Reference is made to the Master Security Agreement dated as of October 25, 2005, (as the same have been and may be amended from time to time in writing, the **Loan Agreement**”, the capitalized terms used herein as defined therein), between Oxford Finance Corporation and Codexis, Inc. (the **‘Company’**”).

The undersigned authorized representative of the Company hereby certifies that in accordance with the terms and conditions of the Loan Agreement, the Company is in complete compliance for the financial reporting period ending _____ with all required financial reporting under the Loan Agreement, except as noted below. Attached herewith are the required documents supporting the foregoing certification. The undersigned further certifies that the accompanying financial statements present fairly in all material respects the Debtor’s financial condition as of the date thereof, that annual audited financial statements have been prepared in accordance with Generally Accepted Accounting Principles, and all such financial statements are consistent from one period to the next, except as explained below.

Indicate compliance status by circling Yes/No under “Complies”

<u>REPORTING REQUIREMENT</u>	<u>REQUIRED</u>	<u>COMPLIES</u>
Interim Financial Statements	Quarterly within 45 days	YES / NO
Monthly Financial Statements	Monthly within 30 days	
Audited Financial Statements	FYE within 120 days	
Date of most recent Board-approved budget/plan		
Summary submitted with Borrowing Request		YES / NO
Any material change in budget/plan since prior Borrowing Request		YES / NO

EXPLANATIONS

Very truly yours,

CODEXIS, INC.

By: _____
Name:
Title:*

* Must be executed by Debtor's Chief Financial Officer or President.

Codexis Initial Here: _____
Oxford Initial Here: _____

SCHEDULE B**DEBTOR ADDITIONAL INDEBTEDNESS AS OF SEPTEMBER 30, 2005**Current Liabilities

Accrued vacation	438,019
Other accruals	1,125,685
Equipment loan	993,343
Lease Incentive	62,531
Deferred Revenue	<u>3,618,030</u>
Subtotal	6,237,608

Long Term Liabilities

Equipment Loan	2,705,561
Lease Incentive	270,966
Deferred Revenue	<u>1,956,092</u>
Subtotal	<u>4,932,619</u>
Total Liabilities	<u><u>11,170,227</u></u>

COLLATERAL MIX RIDER

TO
MASTER SECURITY AGREEMENT NO. 5081102
DATED OCTOBER 25, 2005
BETWEEN
OXFORD FINANCE CORPORATION (the "SECURED PARTY")
AND
CODEXIS, INC. (the "DEBTOR")

Debtor shall cause the composition and mix of Collateral to conform to and meet the following concentration requirements (hereinafter "Concentration Requirement") for the class of Collateral (hereinafter "Collateral Class") as identified and set forth below. Debtor herein represents and warrants that it shall maintain such Collateral Class and its respective Concentration Requirement at all times from and after December 31, 2006. If on such date the Concentration Requirement is not in compliance (a "Concentration Variance"), Debtor will do one of the following (a "Concentration Correction"):

1. Grant to Secured Party a security interest in additional equipment satisfactory to Secured Party, not previously subject to Secured Party's security interest (collectively, the "Additional Equipment"), in sufficient type and amount so that the Concentration Requirement set forth below is met and the Concentration Variance is eliminated. The Additional Equipment shall be subject to all of the terms and conditions of the Master Security Agreement, including without limitation, Debtor's representations, warranties, and covenants, which shall be deemed remade by Debtor upon its grant of a security interest in the Additional Equipment.
2. Pay Secured Party cash in an amount equal to the Concentration Variance to hold as cash collateral until the Note is fully repaid. Debtor hereby grants Secured Party a security interest in such cash collateral and all proceeds and products thereof. Debtor agrees that such cash collateral held by Secured Party: (a) shall not bear interest, (b) may be commingled with other funds of Secured Party, and (c) may be applied by Secured Party to amounts owing by Debtor upon the occurrence and during the continuance of any Event of Default under the Master Security Agreement or the Note(s) thereunder.

The failure of Debtor to do a Concentration Correction by December 31, 2006, shall constitute a Default under the Master Security Agreement and the Note(s) thereunder.

Collateral Class

New Laboratory Equipment
New Computer and Furniture
Soft Costs

Concentration Requirement

Minimum of 60%
Maximum of 10%
Maximum of 30% of the outstanding principal amount as initially represented by the Promissory Notes from time to time

Dated as of October 25, 2005

OXFORD FINANCE CORPORATION

By: /s/ Michael J. Altenburger
Name: Michael J. Altenburger
Title: Chief Financial Officer

CODEXIS, INC.

By: /s/ Tassos Gianakakos
Name: Tassos Gianakakos
Title: Senior Vice President

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Codexis Initial Here: _____
Oxford Initial Here: _____

SECRETARY'S CERTIFICATE

Codexis, Inc.

To: Oxford Finance Corporation
133 North Fairfax Street
Alexandria, Virginia 22314

The undersigned hereby certifies as follows:

(i) He is the duly appointed Secretary of Codexis, Inc., a Delaware corporation (the "Corporation").

(ii) Each of the officers designated below is a duly appointed officer of the Corporation, and the signature appearing opposite his name below is his genuine signature:

NAME	OFFICE	SIGNATURE
Alan Shaw	President and Chief Executive Officer	/s/ Alan Shaw
Tassos Gianakakos	Senior Vice President	/s/ Tassos Gianakakos

(iii) Schedule A attached hereto is a true and correct copy of the Corporation's Fourth Amended and Restated Certificate of Incorporation, as filed with the Delaware Secretary of State on July 22, 2004, as amended on January 19, 2005, July 26, 2005 and October 20, 2005 (the "Certificate"). The Certificate has not in any way been amended, annulled, rescinded, repealed, revoked or supplemented, and remains in full force and effect as of the date hereof.

(iv) Schedule B attached hereto is a true and correct copy of the Corporation's bylaws as presently in effect.

(v) Schedule C attached hereto is a true and correct copy of resolutions adopted by the board of directors of the Corporation on August 11, 2005 related to Oxford Finance Corporation (the "Resolutions"). Said Resolutions have not been revoked, modified, rescinded, or amended and are in full force and effect.

[Signature Page Follows]

Codexis Initial Here: _____
Oxford Initial Here: _____

SECRETARY'S CERTIFICATE

IN WITNESS WHEREOF, I have hereunto set my hand, this 25th day of October, 2005.

/s/ Alan C. Mendelson

Alan Mendelson
Secretary
Codexis, Inc.

ATTEST:

The undersigned does hereby certify that he is President and Chief Executive Officer of the Corporation and does hereby certify that Alan Mendelson was, at the time he executed the foregoing Certificate, a duly elected, qualified and acting Secretary of the Corporation, and he was duly authorized and empowered to do so, and the signature thereon is genuine.

/s/ Alan Shaw

Signature of Corporate Officer
Attesting to Secretary Signature

CODEXIS, INC.

2002 STOCK PLAN

(as amended through August 28, 2007)

1. Purposes of the Plan. The purposes of this Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees, Directors and Consultants and to promote the success of the Company's business. Options granted under the Plan may be Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant. Stock Purchase Rights may also be granted under the Plan.

2. Definitions. As used herein, the following definitions shall apply:

(a) "Administrator" means the Board or any of its Committees as shall be administering the Plan in accordance with Section 4 hereof.

(b) "Applicable Laws" means the requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any other country or jurisdiction where Options or Stock Purchase Rights are granted under the Plan.

(c) "Board" means the Board of Directors of the Company.

(d) "Change in Control" means the occurrence of any of the following events:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) becomes the "beneficial owner" (as defined in Rule 13d-3 of the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the total voting power represented by the Company's then outstanding voting securities; or

(ii) The consummation of the sale or disposition by the Company of all or substantially all of the Company's assets; or

(iii) The consummation of a merger or consolidation of the Company with any other corporation, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity or its parent) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity or its parent outstanding immediately after such merger or consolidation.

(e) "Code" means the Internal Revenue Code of 1986, as amended.

-
- (f) “Committee” means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board in accordance with Section 4 hereof.
- (g) “Common Stock” means the Common Stock of the Company.
- (h) “Company” means Codexis, Inc., a Delaware corporation.
- (i) “Consultant” means any person who is engaged by the Company or any Parent or Subsidiary to render consulting or advisory services to such entity.
- (j) “Director” means a member of the Board.
- (k) “Disability” means total and permanent disability as defined in Section 22(e)(3) of the Code.
- (l) “Employee” means any person, including officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director’s fee by the Company shall be sufficient to constitute “employment” by the Company.
- (m) “Exchange Act” means the Securities Exchange Act of 1934, as amended.
- (n) “Fair Market Value” means, as of any date, the value of Common Stock determined as follows:
- (i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;
 - (ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the day of determination; or
 - (iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator.
- (o) “Incentive Stock Option” means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.
- (p) “Nonstatutory Stock Option” means an Option not intended to qualify as an Incentive Stock Option.
- (q) “Option” means a stock option granted pursuant to the Plan.

(r) "Option Agreement" means a written or electronic agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of the Plan.

(s) "Optioned Stock" means the Common Stock subject to an Option or a Stock Purchase Right.

(t) "Optionee" means the holder of an outstanding Option or Stock Purchase Right granted under the Plan.

(u) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(v) "Plan" means this 2002 Stock Plan.

(w) "Restricted Stock" means Shares issued pursuant to a Stock Purchase Right or Shares of restricted stock issued pursuant to an Option.

(x) "Restricted Stock Purchase Agreement" means a written agreement between the Company and the Optionee evidencing the terms and restrictions applying to Shares purchased under a Stock Purchase Right. The Restricted Stock Purchase Agreement is subject to the terms and conditions of the Plan and the notice of grant.

(y) "Securities Act" means the Securities Act of 1933, as amended.

(z) "Service Provider" means an Employee, Director or Consultant.

(aa) "Share" means a share of the Common Stock, as adjusted in accordance with Section 13 below.

(bb) "Stock Purchase Right" means a right to purchase Common Stock pursuant to Section 11 below.

(cc) "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of Shares that may be subject to Options and sold under the Plan is 12,457,642 Shares. The Shares may be authorized but unissued, or reacquired Common Stock.

If an Option or Stock Purchase Right expires or becomes unexercisable without having been exercised in full, the unpurchased Shares that were subject thereto shall become available for future grant or sale under the Plan (unless the Plan has terminated). However, Shares that have actually been issued under the Plan, upon exercise of either an Option or Stock Purchase Right, shall not be returned to the Plan and shall not become available for future distribution under the Plan, except that if unvested Shares of Restricted Stock are repurchased by the Company at their original purchase price, such Shares shall become available for future grant under the Plan.

4. Administration of the Plan.

(a) Administrator. The Plan shall be administered by the Board or a Committee appointed by the Board, which Committee shall be constituted to comply with Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan and, in the case of a Committee, the specific duties delegated by the Board to such Committee, and subject to the approval of any relevant authorities, the Administrator shall have the authority in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Options and Stock Purchase Rights may from time to time be granted hereunder;

(iii) to determine the number of Shares to be covered by each such award granted hereunder;

(iv) to approve forms of agreement for use under the Plan;

(v) to determine the terms and conditions of any Option or Stock Purchase Right granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Options or Stock Purchase Rights may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option or Stock Purchase Right or the Common Stock relating thereto, based in each case on such factors as the Administrator, in its sole discretion, shall determine;

(vi) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws;

(vii) to allow Optionees to satisfy withholding tax obligations by electing to have the Company withhold from the Shares to be issued upon exercise of an Option or Stock Purchase Right that number of Shares having a Fair Market Value equal to the minimum amount required to be withheld. The Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined. All elections by Optionees to have Shares withheld for this purpose shall be made in such form and under such conditions as the Administrator may deem necessary or advisable; and

(viii) to construe and interpret the terms of the Plan and Options granted pursuant to the Plan.

(c) Effect of Administrator's Decision. All decisions, determinations and interpretations of the Administrator shall be final and binding on all Optionees.

5. Eligibility. Nonstatutory Stock Options and Stock Purchase Rights may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Limitations.

(a) Incentive Stock Option Limit. Each Option shall be designated in the Option Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Optionee during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds \$100,000, such Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 6(a), Incentive Stock Options shall be taken into account in the order in which they were granted. The Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted.

(b) At-Will Employment. Neither the Plan nor any Option or Stock Purchase Right shall confer upon any Optionee any right with respect to continuing the Optionee's relationship as a Service Provider with the Company, nor shall it interfere in any way with his or her right or the Company's right to terminate such relationship at any time, with or without cause, and with or without notice.

7. Term of Plan. Subject to stockholder approval in accordance with Section 19, the Plan shall become effective upon its adoption by the Board. Unless sooner terminated under Section 15, it shall continue in effect for a term of ten (10) years from the later of (i) the effective date of the Plan, or (ii) the earlier of the most recent Board or stockholder approval of an increase in the number of Shares reserved for issuance under the Plan.

8. Term of Option. The term of each Option shall be stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to an Optionee who, at the time the Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Option shall be five (5) years from the date of grant or such shorter term as may be provided in the Option Agreement.

9. Option Exercise Price and Consideration.

(a) Exercise Price. The per share exercise price for the Shares to be issued upon exercise of an Option shall be such price as is determined by the Administrator, but shall be subject to the following:

(i) In the case of an Incentive Stock Option

(A) granted to an Employee who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Employee, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option

(A) granted to a Service Provider who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(B) granted to any other Service Provider, the per Share exercise price shall be no less than 85% of the Fair Market Value per Share on the date of grant.

(iii) Notwithstanding the foregoing, Options may be granted with a per Share exercise price other than as required above pursuant to a merger or other corporate transaction.

(b) Forms of Consideration. The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant). Such consideration may consist of, without limitation, (1) cash, (2) check, (3) promissory note, (4) other Shares, provided Shares acquired directly from the Company (x) have been owned by the Optionee for more than six months on the date of surrender, and (y) have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised, (5) consideration received by the Company under a cashless exercise program implemented by the Company in connection with the Plan, or (6) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Administrator shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

10. Exercise of Option.

(a) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder shall be exercisable according to the terms hereof at such times and under such conditions as determined by the Administrator and set forth in the Option Agreement. An Option may not be exercised for a fraction of a Share. Except in the case of Options granted to officers, Directors and Consultants, Options shall become exercisable at a rate of no less than 20% per year over five (5) years from the date the Options are granted.

An Option shall be deemed exercised when the Company receives (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Option Agreement and the Plan. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Shares, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such

Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 13 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, such Optionee may exercise his or her Option within thirty (30) days of termination, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of the Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified by the Administrator, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(c) Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within six (6) months of termination, or such longer period of time as specified in the Option Agreement, to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(d) Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within six (6) months following Optionee's death, or such longer period of time as specified in the Option Agreement, to the extent that the Option is vested on the date of death (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement) by the Optionee's designated beneficiary, provided such beneficiary has been designated prior to Optionee's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Optionee, then such Option may be exercised by the personal representative of the Optionee's estate or by the person(s) to whom the Option is transferred pursuant to the Optionee's will or in accordance with the laws of descent and distribution. If, at the time of death, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(e) Leaves of Absence.

(i) A Service Provider shall not cease to be an Employee in the case of (A) any leave of absence approved by the Company or (B) transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor.

(ii) For purposes of Incentive Stock Options, no such leave may exceed ninety (90) days, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then three (3) months following the 91st day of such leave, any Incentive Stock Option held by the Optionee shall cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Nonstatutory Stock Option.

11. Stock Purchase Rights.

(a) Rights to Purchase. Stock Purchase Rights may be issued either alone, in addition to, or in tandem with other awards granted under the Plan and/or cash awards made outside of the Plan. After the Administrator determines that it will offer Stock Purchase Rights under the Plan, it shall advise the offeree in writing or electronically of the terms, conditions and restrictions related to the offer, including the number of Shares that such person shall be entitled to purchase, the price to be paid, and the time within which such person must accept such offer. The terms of the offer shall comply in all respects with Section 260.140.42 of Title 10 of the California Code of Regulations. The offer shall be accepted by execution of a Restricted Stock Purchase Agreement in the form determined by the Administrator.

(b) Repurchase Option. Unless the Administrator determines otherwise, the Restricted Stock Purchase Agreement shall grant the Company a repurchase option exercisable within 90 days of the voluntary or involuntary termination of the purchaser's service with the Company for any reason (including death or disability). The purchase price for Shares repurchased pursuant to the Restricted Stock Purchase Agreement shall be the original price paid by the purchaser and may be paid by cancellation of any indebtedness of the purchaser to the Company. The repurchase option shall lapse at such rate as the Administrator may determine. Except with respect to Shares purchased by officers, Directors and Consultants, the repurchase option shall in no case lapse at a rate of less than 20% per year over five (5) years from the date of purchase.

(c) Other Provisions. The Restricted Stock Purchase Agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion.

(d) Rights as a Stockholder. Once the Stock Purchase Right is exercised, the purchaser shall have rights equivalent to those of a stockholder and shall be a stockholder when his or her purchase is entered upon the records of the duly authorized transfer agent of the Company. No adjustment shall be made for a dividend or other right for which the record date is prior to the date the Stock Purchase Right is exercised, except as provided in Section 13 of the Plan.

12. Limited Transferability of Options and Stock Purchase Rights. Unless determined otherwise by the Administrator, Options and Stock Purchase Rights may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or the laws of descent and distribution, and may be exercised during the lifetime of the Optionee, only by the Optionee. If the Administrator in its sole discretion makes an Option or Stock Purchase Right transferable, such Option or Stock Purchase Right may only be transferred (i) by will, (ii) by the laws of descent and distribution, or (iii) to family members (within the meaning of Rule 701 of the Securities Act) through gifts or domestic relations orders, as permitted by Rule 701 of the Securities Act.

13. Adjustments; Dissolution or Liquidation; Merger or Change in Control

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan and in order to comply with Section 25102(o) of the California Corporations Code, shall adjust the number and class of Shares that may be delivered under the Plan and/or the number, class, and price of Shares covered by each outstanding Option or Stock Purchase Right.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. The Administrator in its discretion may provide for an Optionee to have the right to exercise his or her Option until ten (10) days prior to such transaction as to all of the Optioned Stock, including Shares as to which the Option would not otherwise be exercisable. In addition, the Administrator may provide that any Company repurchase option applicable to any Shares purchased upon exercise of an Option or Stock Purchase Right shall lapse as to all such Shares, provided the proposed dissolution or liquidation takes place at the time and in the manner contemplated. To the extent it has not been previously exercised, an Option or Stock Purchase Right will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Change in Control. In the event of a merger of the Company with or into another corporation, or a Change in Control, each outstanding Option and Stock Purchase Right shall be assumed or an equivalent option substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation in a merger or Change in Control refuses to assume or substitute for the Option or Stock Purchase Right, then the Optionee shall fully vest in and have the right to exercise the Option or Stock Purchase Right as to all of the Optioned Stock, including Shares as to which it would not otherwise be vested or exercisable. If an Option or Stock Purchase Right becomes fully vested and exercisable in lieu of assumption or substitution in the event of a merger or Change in Control, the Administrator shall notify the Optionee in writing or electronically that this Option or Stock Purchase Right shall be fully exercisable for a period of fifteen (15) days from the date of such notice, and the Option or Stock Purchase Right shall terminate upon expiration of such period. For the purposes of this paragraph, the Option or Stock Purchase Right shall be considered assumed if, following the merger or Change in Control, the option or right confers the right to purchase or receive, for each Share of Optioned Stock subject to the Option or Stock Purchase Right immediately prior to the merger or Change in Control, the consideration (whether stock, cash, or other securities or property) received in the merger or Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor

corporation, provide for the consideration to be received upon the exercise of the Option or Stock Purchase Right, for each Share of Optioned Stock subject to the Option or Stock Purchase Right, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of common stock in the merger or Change in Control.

14. Time of Granting Options and Stock Purchase Rights. The date of grant of an Option or Stock Purchase Right shall, for all purposes, be the date on which the Administrator makes the determination granting such Option or Stock Purchase Right, or such later date as is determined by the Administrator. Notice of the determination shall be given to each Service Provider to whom an Option or Stock Purchase Right is so granted within a reasonable time after the date of such grant.

15. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Board shall obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan shall impair the rights of any Optionee, unless mutually agreed otherwise between the Optionee and the Administrator, which agreement must be in writing and signed by the Optionee and the Company. Termination of the Plan shall not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Options granted under the Plan prior to the date of such termination.

16. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares shall not be issued pursuant to the exercise of an Option unless the exercise of such Option and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Option, the Administrator may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

17. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

18. Reservation of Shares. The Company, during the term of this Plan, shall at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

19. Stockholder Approval. The Plan shall be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted. Such stockholder approval shall be obtained in the degree and manner required under Applicable Laws.

20. Information to Optionees. The Company shall provide to each Optionee and to each individual who acquires Shares pursuant to the Plan, not less frequently than annually during the period such Optionee has one or more Options or Stock Purchase Rights outstanding, and, in the case of an individual who acquires Shares pursuant to the Plan, during the period such individual owns such Shares, copies of annual financial statements. The Company shall not be required to provide such statements to key employees whose duties in connection with the Company assure their access to equivalent information.

21. Rules Particular to Specific Countries. Notwithstanding anything herein to the contrary, the terms and conditions of the Plan with respect to Optionees who are tax residents of a particular country may be subject to an addendum to the Plan in the form of an Appendix. To the extent that the terms and conditions set forth in an Appendix conflict with any provisions of the Plan, the provisions of the Appendix shall govern. The adoption of any such Appendix shall be pursuant to Section 15 above.

CODEXIS, INC.

2002 STOCK PLAN

APPENDIX

FOR GERMANY

1. General

Each of the provisions of the Codexis, Inc. 2002 Stock Plan shall apply to this Appendix subject to the alterations below. This Appendix shall apply in relation to Options and Stock Purchase Rights granted to Service Providers residing and providing services in Germany.

2. Exercise of Discretion

The Administrator's discretion with respect to the Plan, including, but not limited to, Section 4 (b), will be exercised in a way complying with German law, in particular with the labour law principle of equal treatment (*arbeitsrechtlicher Gleichbehandlungsgrundsatz*) and with the prohibition of discrimination (*Diskriminierungsverbot*).

3. Disability

Section 2(k) shall read as follows: "Disability" means total and permanent disability to perform work if it results in termination of employment by the Service Provider or, if valid under German law, by the Company or the Subsidiary.

4. Vesting Requirement

The last sentence of the first paragraph of Section 10(a) and the last sentence of Section 11(b) shall not apply.

5. Leaves of Absence

Section 10(e)(i) is amended to read in its entirety as follows: “(i) A Service Provider shall not cease to be an Employee: (A) in the case of any leave of absence approved by the Company; (B) in the case of transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor; or (C) if required by German law.”

6. Ex-gratia benefit

The grant of an Option or a Stock Purchase Right is an *ex-gratia* benefit (*freiwillige Leistung*). It does not create a legal claim; and even repeated granting will not create such a legal claim.

The Option or Stock Purchase Right granted shall not form, or be considered, part of any normal or expected compensation that is or may be subject to severance, resignation, redundancy or similar pay nor does it affect or change in any way the terms and conditions of employment.

7. Adjustments upon Changes in Capitalization, Merger or Asset Sale

The Administrator’s discretion with respect to any Adjustments pursuant to Section 13 and to any Investment Representation pursuant to Section 16(b) will be exercised taking into fair consideration the circumstances why such adjustment or representation is deemed appropriate.

8. Taxes/Withholding

The following summary of certain German income tax considerations for German Employees is based on the tax law effective at the date of this Appendix which may be changed, even with retroactive effect. The summary does not describe all tax considerations that may be relevant to a German Employee’s decision to accept or exercise any of the rights under the Plan. It is not a substitute for tax advice.

Capital gains realized upon exercise of an Option or a Stock Purchase Right is deemed to be a benefit in kind subject to income tax. Such gain is subject to the personal income tax rate (as of 2008 between 15.8 % and 47.5 % including solidarity surcharge). The capital gain realized upon exercise of an Option or a Stock Purchase Right is determined by the difference between the fair market value of the Shares at the date the Shares are booked out (*Ausbuchung*) of the account of the Company or of any transfer agent of the Company and the purchase price. The fair market value is defined on the basis of the prices quoted on the respective stock exchange or, if the Shares are not listed, according to an appropriate appraisal method available for unlisted shares of corporations. A reduced tax rate may apply if the grant of the option qualifies as salary for several years.

The employer company is obligated to deduct wage tax from the gross salary of the Employee. Additionally, the usual social security contributions, up to the relevant maximum amount, have to be paid on the difference between the exercise price and the market value at the time the Option or Stock Purchase Right is exercised. – If the regular salary of the Employee is not sufficient for the employer company to deduct wage tax and pay such tax to the competent tax office, the company will request the Employee to make a payment to the company in order to enable it to pay the wage tax. The employer company will inform the tax office if the Employee fails to fulfill such request.

If the Employee is obliged to retransfer the Shares to the Company under the Repurchase Option, such retransfer should be considered as negative income for the Employee thereby reducing the Employee's overall income for the respective calendar year. The amount of the negative income is determined by the difference between the fair market value of the Shares at the date the Shares are retransferred and the purchase price. The fair market value is defined as described above.

Capital gains from the sale of Shares are only subject to taxation, (i) if the sale takes place within one year from the purchase as a so-called private transaction (*privates Veräußerungsgeschäft*) or – after this period has lapsed – (ii) if the Optionee (or the

predecessor in the case of a transfer of Shares without consideration), at any time during the five years preceding the sale, directly or indirectly held or holds a participation of 1% or more. Capital gains deriving from a disposal of Shares as private transactions are tax exempt for Employees if the total gains from private transactions in the respective calendar year amounts to less than € 512 p.a. and per person. To the extent that capital gains upon sale of Shares are subject to German income tax, 50% of such capital gains are subject to the progressive income tax rate plus a solidarity surcharge of 5.5% thereon. According to the newly enacted Corporate Tax Reform Act 2008 (*Unternehmenssteuerreform 2008*) capital gains will generally be subject to a uniform 25% tax (plus solidarity surcharge and, if applicable, church tax) as of 2009 if the respective Shares have been acquired after 31 December 2008 unless a shareholder holds, or held at any time during the five years preceding the sale, directly or indirectly, an interest of 1% or more in the company, in which case 60% from any such sale will be subject to tax at personal rates (instead of currently only 50%). Generally, the bank will levy the 25% tax on the capital gain by way of withholding if the Shares are held through a domestic bank or a domestic branch of a foreign bank (a "Bank"). However, since the purchase price of the Shares cannot be verified for withholding purposes, the Bank will be obliged to levy the 25% tax (plus solidarity surcharge and, if applicable, church tax) on 30% of the sales price of the Shares from which parts may possibly be recovered later by the shareholder by way of filing an income tax return. Capital gains stemming from Shares acquired before 1 January 2009 will continue to be taxed pursuant to the current tax regime (see above).

In principle, 50% of the gross dividends received by Employees until 31 December 2008 will be subject to income tax at the progressive tax rate plus solidarity surcharge. Investment income received by the Employee, including dividends, after deduction of half the income-related expenses in economic connection with the dividends or the standard amount for income-related expenses of € 51 (€ 102 for married couples filing jointly), are tax-free up to the maximum amount of tax-free savings allowances of € 750 (or € 1,500 for married couples filing jointly) until 31 December 2008. Dividends received thereafter will be subject to the 25% tax rate as described above which will be collected by way of withholding provided the Shares are held through a Bank. The current tax allowances and deductions will be replaced from 2009 onward by a joint lump-sum deduction for capital income (i.e., interest and

dividend income as well as capital gains) of €801 (€1,602 for married couples filing tax returns jointly) per annum, whereby higher expenses directly attributable to a capital investment will not be deductible as expenses any more.

Please note that a taxpayer will be able to apply for a tax assessment if his or her personal tax rate is lower than the 25% flat-rate (*Günstigerprüfung*) or if the taxpayer can claim a tax credit for tax imposed by foreign Tax Authorities that has not been recognized yet by way of withholding.

9. Insider Dealings

Please note that Germany has adopted the EC-Directive on Insider Dealings. Insiders are, among others, persons who by virtue of their position as members of managing or supervisory boards of the issuing company or its subsidiaries or by their profession or work, have knowledge of not publicly known facts which may influence the market value of the securities issued. Insiders are subject to certain restrictions in selling or purchasing such securities or otherwise making use of their insider knowledge. Anyone in breach of those provisions will be liable to imprisonment or fine.

10. Administrator's decisions

The decisions of the Administrator in connection with any interpretation of the Plan or in any dispute relating to an Option or a Stock Purchase Right or other matters relating to the Plan shall be final and conclusive and binding on the relevant parties. It may only be revised by competent courts.

11. Governing Law

The Plan shall be governed by and construed in accordance with the laws of the State of Delaware but mandatory provisions of German law may be applied.

CODEXIS, INC.

2002 STOCK PLAN

STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the 2002 Stock Plan shall have the same defined meanings in this Stock Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

Name:

Address:

The undersigned Optionee has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Date of Grant _____

Vesting Commencement Date _____

Exercise Price per Share \$ _____

Total Number of Shares Granted _____

Total Exercise Price \$ _____

Type of Option: — Incentive Stock Option
 — Nonstatutory Stock Option

Term/Expiration Date: _____

Vesting Schedule:

This Option shall be exercisable, in whole or in part, according to the following vesting schedule:

25% of the Shares subject to the Option shall vest on the one (1) year anniversary of the Vesting Commencement Date, and 1/48 of the Option shall vest each month thereafter, subject to Optionee continuing to be a Service Provider on such dates.

Termination Period:

This Option shall be exercisable for three (3) months after Optionee ceases to be a Service Provider. Upon Optionee's death or Disability, this Option may be exercised for one (1) year after Optionee ceases to be a Service Provider. In no event may Optionee exercise this Option after the Term/Expiration Date as provided above.

II. AGREEMENT

1. Grant of Option. The Plan Administrator of the Company hereby grants to the Optionee named in the Notice of Grant (the "Optionee"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "Exercise Price"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 15(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the \$100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("NSO").

2. Exercise of Option.

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Grant and with the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice") which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise complies with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that Optionee shall not offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any Common Stock (or other securities) of the Company or enter into any swap, hedging or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of any Common Stock (or other securities) of the Company held by Optionee (other than those included in the registration) for a period specified by the representative of the underwriters of Common Stock (or other securities) of the Company not to exceed one hundred eighty (180) days following the effective date of any registration statement of the Company filed under the Securities Act.

Optionee agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter which are consistent with the foregoing or which are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock (or other securities) of the Company, Optionee shall provide, within ten (10) days of such request, such information as may be required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section shall not apply to a registration relating solely to employee benefit plans on Form S-1 or Form S-8 or similar forms that may be promulgated in the future, or a registration relating solely to a Commission Rule 145 transaction on Form S-4 or similar forms that may be promulgated in the future. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said one hundred eighty (180) day period. Optionee agrees that any transferee of the Option or Shares acquired pursuant to the Option shall be bound by this Section.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash or check;

(b) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(c) surrender of other Shares which, (i) in the case of Shares acquired from the Company, either directly or indirectly, have been owned by the Optionee for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such Shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

9. Tax Obligations.

(a) Withholding Taxes. Optionee agrees to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Optionee) for the satisfaction of all Federal, state, local and foreign income and employment tax withholding requirements applicable to the Option exercise. Optionee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

(b) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Optionee herein is an ISO, and if Optionee sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (1) the date two years after the Date of Grant, or (2) the date one year after the date of exercise, the Optionee shall immediately notify the Company in writing of such disposition. Optionee agrees that Optionee may be subject to income tax withholding by the Company on the compensation income recognized by the Optionee.

10. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This agreement is governed by the internal substantive laws but not the choice of law rules of California.

11. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an

opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE

CODEXIS, INC.

Signature

By

Print Name

Title

Residence Address

EXHIBIT A
2002 STOCK PLAN
EXERCISE NOTICE

CODEXIS, INC.

Address: _____

Attention: _____

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("Optionee") hereby elects to exercise Optionee's option to purchase _____ shares of the Common Stock (the "Shares") of Codexis, Inc. (the "Company") under and pursuant to the 2002 Stock Plan (the "Plan") and the Stock Option Agreement dated _____, _____ (the "Option Agreement").

2. Delivery of Payment. Purchaser herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and any and all withholding taxes due in connection with the exercise of the Option.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised in accordance with the Option Agreement. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 13 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 60 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the earlier of (i) the first sale of Common Stock of the Company to the general public, or (ii) a Change in Control in which the successor corporation has equity securities that are publicly traded.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"). THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED OR HYPOTHECATED IN THE ABSENCE OF AN EFFECTIVE REGISTRATION STATEMENT UNDER THE ACT COVERING THE SECURITIES OR AN OPINION OF COUNSEL SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND A RIGHT OF FIRST REFUSAL HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD NOT TO EXCEED 180 DAYS FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Administrator, which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of California. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Exercise Notice will continue in full force and effect.

11. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Submitted by:
OPTIONEE

Accepted by:
CODEXIS, INC.

Signature

By

Print Name

Title

Address:

Address:

Date Received

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE:

COMPANY: CODEXIS, INC.

SECURITY: COMMON STOCK

AMOUNT:

DATE:

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with any legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of

Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

Date: _____, _____

CODEXIS, INC.

2002 STOCK PLAN, AS AMENDED

STOCK OPTION AGREEMENT

Early Exercise Permitted

Codexis, Inc., a Delaware corporation (the "Company"), pursuant to its 2002 Stock Plan, as amended from time to time (the "Plan"), hereby grants to the Optionee listed below ("Optionee"), an option to purchase the number of shares of the Company's Common Stock set forth below (the "Option"), subject to the terms and conditions of the Plan and this Stock Option Agreement (this "Option Agreement"). Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Option Agreement.

I. NOTICE OF STOCK OPTION GRANT

Optionee: _____

Date of Grant: _____

Vesting Commencement Date: _____

Exercise Price per Share: _____

Total Number of Shares Granted: _____

Total Exercise Price: _____

Term/Expiration Date: _____

Type of Option: Nonstatutory Stock Option

Exercise Schedule: Same as Vesting Schedule Early Exercise Permitted

Vesting Schedule: This Option is exercisable immediately, in whole or in part, at such times as are established by the Administrator, conditioned upon Optionee entering into a Restricted Stock Purchase Agreement with respect to any unvested Shares (as defined below). The Shares subject to this Option shall vest and/or be released from the Company's Repurchase Option, as set forth in the Restricted Stock Purchase Agreement attached hereto as Exhibit C-1, according to the following schedule:

Twenty-five percent (25%) of the Shares subject to the Option (rounded down to the next whole number of shares) shall vest on the first anniversary of the Date of Grant and 1/48th of the Shares subject to the Option shall vest monthly thereafter so that one hundred percent (100%) of the Shares subject to the Option are vested on the fourth anniversary of the Date of Grant.

Termination Period: This Option may be exercised, to the extent vested, for three (3) months after Optionee ceases to be a Service Provider, or such longer period as may be applicable upon the death or disability of Optionee as provided herein (or, if not provided herein, then as provided in the Plan), but in no event later than the Term/Expiration Date as set forth above.

II. AGREEMENT

1. Grant of Option. The Company hereby grants to Optionee an Option to purchase the number of shares of Common Stock (the "Shares") set forth in the Notice of Grant, at the exercise price per share set forth in the Notice of Grant (the "Exercise Price"). Notwithstanding anything to the contrary anywhere else in this Option Agreement, this grant of an Option is subject to the terms, definitions and provisions of the Plan, which is incorporated herein by reference.

2. Exercise of Option. This Option is exercisable as follows:

(a) Right to Exercise.

(i) This Option shall be exercisable cumulatively according to the vesting schedule set out in the Notice of Grant. Alternatively, at the election of Optionee, this Option may be exercised in whole or in part at such times as are established by the Administrator as to Shares which have not yet vested. For purposes of this Option Agreement, Shares subject to this Option shall vest based on Optionee's continued status as a Service Provider. Vested Shares shall not be subject to the Company's Repurchase Option (as set forth in the Restricted Stock Purchase Agreement).

(ii) As a condition to exercising this Option for unvested Shares, Optionee shall execute the Restricted Stock Purchase Agreement.

(iii) This Option may not be exercised for a fraction of a Share.

(iv) In the event of Optionee's death, disability or other termination of Optionee's status as a Service Provider, the exercisability of the Option shall be governed by Sections 7, 8 and 9 hereof.

(v) In no event may this Option be exercised after the Expiration Date of this Option as set forth in the Notice of Grant.

(b) Method of Exercise. This Option shall be exercisable by written notice to the Company (in the form attached as Exhibit A) (the "Exercise Notice"). The Exercise Notice shall state the number of Shares for which the Option is being exercised, and such other representations and agreements with respect to such Shares of Common Stock as may be required by the Company pursuant to the provisions of the Plan. The Exercise Notice shall be signed by Optionee and, together with an executed copy of the Restricted Stock Purchase Agreement, if applicable, shall be delivered in person or by certified mail to the Secretary of the Company. The Exercise Notice and Restricted Stock Purchase Agreement shall be accompanied by payment of the Exercise Price, including payment of any applicable withholding tax.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise comply with all relevant provisions of law and the requirements of any stock exchange upon which the Shares may then be listed. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. If the Shares purchasable pursuant to the exercise of this Option have not been registered under the Securities Act of 1933, as amended (the "Securities Act"), at the time this Option is exercised, Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that if so requested by the Company or any representative of the underwriters (the "Managing Underwriter") in connection with any registration of the offering of any securities of the Company under the Securities Act, Optionee shall not sell or otherwise transfer any Shares or other securities of the Company during the 180-day period (or such longer period as may be requested in writing by the Managing Underwriter and agreed to in writing by the Company) (the "Market Standoff Period") following the effective date of a registration statement of the Company filed under the Securities Act; provided, however, that such restriction shall apply only to the first registration statement of the Company to become effective under the Securities Act that includes securities to be sold on behalf of the Company to the public in an underwritten public offering under the Securities Act. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such Market Standoff Period and these restrictions shall be binding on any transferee of such Shares. Notwithstanding the foregoing, the 180-day period may be extended for up to such number of additional days as is deemed necessary by the Company or the Managing Underwriter to continue coverage by research analysts in accordance with NASD Rule 2711 or any successor rule.

5. Method of Payment. Payment of the Exercise Price shall be by any of the following, or a combination thereof, at the election of Optionee:

(a) cash;

(b) check;

(c) with the consent of the Administrator, a full recourse promissory note bearing interest (at no less than such rate as is a market rate of interest and which then precludes the imputation of interest under the Code), payable upon such terms as may be prescribed by the Administrator and structured to comply with Applicable Laws;

(d) with the consent of the Administrator, surrender of other Shares of Common Stock of the Company which (A) in the case of Shares acquired from the Company, have been owned by Optionee for more than six (6) months on the date of surrender, and (B) have a Fair Market Value on the date of surrender equal to the Exercise Price of the Shares as to which the Option is being exercised;

(e) with the consent of the Administrator, surrendered Shares issuable upon the exercise of the Option having an aggregate Fair Market Value on the date of exercise equal to the aggregate Exercise Price of the Option or exercised portion thereof;

(f) with the consent of the Administrator, property of any kind which constitutes good and valuable consideration;

(g) following the consummation of the initial public offering of the Company's Common Stock pursuant to a registration statement on Form S-1 under the Securities Act, with the consent of the Administrator, delivery of a notice that Optionee has placed a market sell order with a broker with respect to Shares then issuable upon exercise of the Option and that the broker has been directed to pay a sufficient portion of the net proceeds of the sale to the Company in satisfaction of the aggregate Exercise Price; provided, that payment of such proceeds is then made to the Company upon settlement of such sale; or

(h) with the consent of the Administrator, any combination of the foregoing methods of payment.

6. Restrictions on Exercise. This Option may not be exercised until the Plan has been approved by the stockholders of the Company. If the issuance of Shares upon such exercise or if the method of payment for such Shares would constitute a violation of any applicable federal or state securities or other law or regulation, then the Option may also not be exercised. The Company may require Optionee to make any representation and warranty to the Company as may be required by any applicable law or regulation before allowing the Option to be exercised.

7. Termination of Relationship. If Optionee ceases to be a Service Provider (other than by reason of Optionee's death or the total and permanent disability of Optionee within the meaning of Internal Revenue Code Section 22(e)(3)), Optionee may exercise this Option during the Termination Period set out in the Notice of Grant, to the extent the Option was vested on the date on which Optionee ceases to be a Service Provider. To the extent that the Option is not vested on the date on which Optionee ceases to be a Service Provider, or if Optionee does not exercise this Option within the time specified herein, the Option shall terminate.

8. Disability of Optionee. If Optionee ceases to be a Service Provider as a result of his or her total and permanent disability within the meaning of Internal Revenue Code Section 22(e)(3), Optionee may exercise the Option to the extent the Option was vested at the date on which Optionee ceases to be a Service Provider, but only within twelve (12) months from such date (and in no event later than the expiration date of the term of this Option as set forth in the Notice of Grant). To the extent that the Option is not vested at the date on which Optionee ceases to be a Service Provider, or if Optionee does not exercise such Option within the time specified herein, the Option shall terminate.

9. Death of Optionee. If Optionee ceases to be a Service Provider as a result of the death of Optionee, the vested portion of the Option may be exercised at any time within twelve (12) months following the date of death (and in no event later than the expiration date of

the term of this Option as set forth in the Notice of Grant) by Optionee's estate or by a person who acquires the right to exercise the Option by bequest or inheritance. To the extent that the Option is not vested on the date of death, or if the Option is not exercised within the time specified herein, the Option shall terminate.

10. Non-Transferability of Option. This Option may not be transferred in any manner except by will or by the laws of descent or distribution. It may be exercised during the lifetime of Optionee only by Optionee. The terms of this Option shall be binding upon the executors, administrators, heirs, successors and assigns of Optionee.

11. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant.

12. Restrictions on Shares. Optionee hereby agrees that Shares purchased upon the exercise of the Option shall be subject to such terms and conditions as the Administrator shall determine in its sole discretion, including, without limitation, restrictions on the transferability of Shares, the right of the Company to repurchase Shares, and a right of first refusal in favor of the Company with respect to permitted transfers of Shares. Such terms and conditions may, in the Administrator's sole discretion, be contained in the Exercise Notice with respect to the Option or in such other agreement as the Administrator shall determine and which Optionee hereby agrees to enter into at the request of the Company.

(Signature Page Follows)

This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which shall constitute one document.

CODEXIS, INC.

By: _____
Name: _____
Title: _____

OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE OPTION HEREOF IS EARNED ONLY BY CONTINUING SERVICE AS A SERVICE PROVIDER (INCLUDING AS AN EMPLOYEE, DIRECTOR OR CONSULTANT) AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEGINNING SERVICE, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT NOTHING IN THIS AGREEMENT, NOR IN THE COMPANY'S 2002 STOCK PLAN, AS AMENDED FROM TIME TO TIME, WHICH IS INCORPORATED HEREIN BY REFERENCE, SHALL CONFER UPON OPTIONEE ANY RIGHT WITH RESPECT TO CONTINUATION OF SERVICE AS A SERVICE PROVIDER TO THE COMPANY, NOR SHALL IT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE SERVICE AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE AND WITH OR WITHOUT PRIOR NOTICE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof. Optionee hereby accepts this Option subject to all of the terms and provisions hereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

Dated: _____

OPTIONEE

Residence Address:

[Signature Page to Stock Option Agreement]

EXHIBIT A

CODEXIS, INC.

2002 STOCK PLAN, AS AMENDED

EXERCISE NOTICE

Codexis, Inc.
Attention: Stock Administration

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("Optionee") hereby elects to exercise Optionee's option to purchase _____ shares of the Common Stock (the "Shares") of Codexis, Inc., a Delaware corporation (the "Company"), under and pursuant to the Codexis, Inc. 2002 Stock Plan, as amended from time to time (the "Plan") and the Stock Option Agreement dated _____ (the "Option Agreement"). Capitalized terms used herein without definition shall have the meanings given in the Option Agreement.

Date of Grant: _____

Number of Shares as to which Option is Exercised: _____

Exercise Price per Share: \$ _____

Total Exercise Price: \$ _____

Certificate to be issued in name of: _____

Cash Payment delivered herewith: \$ _____

Other form of consideration delivered herewith: Form of Consideration:
\$ _____

Type of Option: Nonstatutory Stock Option

2. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement. Optionee agrees to abide by and be bound by their terms and conditions.

3. Rights as Stockholder. Until the stock certificate evidencing Shares purchased pursuant to the exercise of the Option is issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to Shares subject to the Option, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such stock certificate promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the stock certificate is issued, except as provided in Section 13 of the Plan.

Optionee shall enjoy rights as a stockholder until such time as Optionee disposes of the Shares or the Company and/or its assignee(s) exercises the Right of First Refusal (as defined below) hereunder. Upon such exercise, Optionee shall have no further rights as a holder of the Shares so purchased except the right to receive payment for the Shares so purchased in accordance with the provisions of this Agreement, and Optionee shall forthwith cause the certificate(s) evidencing the Shares so purchased to be surrendered to the Company for transfer or cancellation.

4. Optionee's Rights to Transfer Shares

(a) Company's Right of First Refusal. Before any Shares held by Optionee or any permitted transferee (each, a "Holder") may be sold, pledged, assigned, hypothecated, transferred, or otherwise disposed of (each, a "Transfer"), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares proposed to be Transferred on the terms and conditions set forth in this Section 4 (the "Right of First Refusal").

(i) Notice of Proposed Transfer. In the event any Holder desires to Transfer any Shares, the Holder shall deliver to the Company a written notice (the "Notice") stating: (w) the Holder's bona fide intention to sell or otherwise Transfer such Shares; (x) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (y) the number of Shares to be Transferred to each Proposed Transferee; and (z) the bona fide cash price or other consideration for which the Holder proposes to Transfer the Shares (the "Offered Price"), and the Holder shall offer such Shares at the Offered Price to the Company or its assignee(s).

(ii) Exercise of Right of First Refusal. Within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may elect in writing to purchase all, but not less than all, of the Shares proposed to be Transferred to any one or more of the Proposed Transferees. The purchase price shall be determined in accordance with Section 4(iii) hereof.

(iii) Purchase Price. The purchase price ("Purchase Price") for the Shares repurchased under this Section 4 shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board in good faith.

(iv) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of purchase by an assignee, of the assignee to the Company), or by any combination thereof within thirty (30) days after receipt of the Notice or in the manner and at the times mutually agreed to by the Company and the Holder.

(v) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be Transferred are not purchased by the Company and/or its assignee(s) as provided in this Section 4, then the Holder may sell or otherwise Transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other Transfer is consummated within one hundred twenty (120) days after the date of the Notice and provided further that any such sale or other Transfer is effected in accordance with any applicable

securities laws and the Proposed Transferee agrees in writing that the provisions of this Section 4 and the Restricted Stock Purchase Agreement, if applicable, shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not Transferred to the Proposed Transferee within such 120-day period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal as provided herein before any Shares held by the Holder may be sold or otherwise Transferred.

(b) Exception for Certain Family Transfers. Anything to the contrary contained in this Section 4 notwithstanding, the Transfer of any or all of the Shares during Optionee's lifetime or upon Optionee's death by will or intestacy to Optionee's Immediate Family or a trust for the benefit of Optionee's Immediate Family shall be exempt from the Right of First Refusal. As used herein, "Immediate Family" shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister or stepchild (whether or not adopted). In such case, the transferee or other recipient shall receive and hold the Shares so Transferred subject to the provisions of this Section 4 (including the Right of First Refusal) and the Restricted Stock Purchase Agreement, if applicable, and there shall be no further Transfer of such Shares except in accordance with the terms of this Section 4.

(c) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to all Shares upon a sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended (a "Public Offering").

5. Transfer Restrictions. Any transfer or sale of the Shares is subject to restrictions on transfer imposed by any applicable state and federal securities laws. Any Transfer or attempted Transfer of any of the Shares not in accordance with the terms of this Agreement, including the Right of First Refusal provided in this Agreement, shall be void and the Company may enforce the terms of this Agreement by stop transfer instructions or similar actions by the Company and its agents or designees.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), AND MAY NOT BE

OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate “stop transfer” instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Agreement or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Agreement to single or multiple assignees, and this Agreement shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, this Agreement shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Agreement shall be submitted by Optionee or by the Company forthwith to the Company’s Board of Directors or committee thereof that is responsible for the administration of the Plan (the “Administrator”), which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on the Company and on Optionee.

10. Governing Law; Severability. The laws of the State of California shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws. Should any provision of this Agreement be determined by a court of law to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable.

11. Notices. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States mail by certified mail, with postage and fees prepaid, addressed to the other party at its address as shown below beneath its signature, or to such other address as such party may designate in writing from time to time to the other party.

12. Further Instruments. Optionee hereby agrees to execute such further instruments and to take such further action as may be reasonably necessary to carry out the purposes and intent of this Agreement, including, without limitation, the Investment Representation Statement in the form attached to the Option Agreement as Exhibit B.

13. Delivery of Payment. Optionee herewith delivers to the Company the full Exercise Price for the Shares, as well as any applicable withholding tax.

14. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Agreement, the Plan, the Option Agreement, the Investment Representation Statement and the Restricted Stock Purchase Agreement, if applicable, constitute the entire agreement of the parties and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof.

(Signature Page Follows)

Accepted by:
CODEXIS, INC.

Submitted by:
OPTIONEE

By: _____

Optionee

Name: _____

Title: _____

Address:

[Signature Page to Exercise Notice]

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE :
COMPANY : Codexis, Inc.
SECURITY : Common Stock
AMOUNT :
DATE :

In connection with the purchase of the above-listed shares of Common Stock (the "Securities") of Codexis, Inc., a Delaware corporation (the "Company"), the undersigned ("Optionee") represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel satisfactory to the Company and any other legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to

the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Exchange Act); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three (3) month period not exceeding the limitations specified in Rule 144(e) and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two (2) years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

Optionee

Date: _____, _____

EXHIBIT C-1

CODEXIS, INC.

2002 STOCK PLAN, AS AMENDED

RESTRICTED STOCK PURCHASE AGREEMENT

THIS RESTRICTED STOCK PURCHASE AGREEMENT (this "Agreement") is made between _____ (the "Purchaser") and Codexis, Inc. (the "Company"), as of _____.

RECITALS

(1) Unless otherwise defined herein, the terms defined in the Plan shall have the same defined meanings in this Agreement. Pursuant to the exercise of the Option granted to Purchaser under the Company's 2002 Stock Plan, as amended, and pursuant to the Stock Option Agreement (the "Option Agreement") dated _____, by and between the Company and Purchaser with respect to such grant, which Option Agreement is hereby incorporated by reference, Purchaser has elected to purchase _____ of those shares which have not become vested under the vesting schedule set forth in the Option Agreement ("Unvested Shares"). The Unvested Shares and the shares subject to the Option Agreement which have become vested are sometimes collectively referred to herein as the "Shares".

(2) As required by the Option Agreement, as a condition to Purchaser's election to exercise the option, Purchaser must execute this Agreement, which sets forth the rights and obligations of the parties with respect to Shares acquired upon exercise of the Option.

1. Repurchase Option.

(a) If Purchaser ceases to be a Service Provider for any reason, including for cause, death and disability, the Company or its assignee shall have the right and option to purchase from Purchaser, or Purchaser's personal representative, as the case may be, all of Purchaser's Unvested Shares as of the date on which Purchaser ceases to be a Service Provider at the exercise price paid by Purchaser for such Shares in connection with the exercise of the Option (the "Repurchase Option").

(b) The Company may exercise its Repurchase Option by delivering, personally or by registered mail, to Purchaser (or his or her transferee or legal representative, as the case may be), within ninety (90) days of the date on which Purchaser ceases to be a Service Provider, a notice in writing indicating the Company's intention to exercise the Repurchase Option and setting forth a date for closing not later than thirty (30) days from the mailing of such notice. The closing shall take place at the Company's office. At the closing, the holder of the certificates for the Unvested Shares being transferred shall deliver the stock certificate or certificates evidencing the Unvested Shares, and the Company shall deliver the purchase price therefor.

(c) At its option, the Company may elect to make payment for the Unvested Shares to a bank selected by the Company. The Company shall avail itself of this option by a notice in writing to Purchaser stating the name and address of the bank, date of closing, and waiving the closing at the Company's office.

(d) If the Company does not elect to exercise the Repurchase Option conferred above by giving the requisite notice within ninety (90) days following the date on which Purchaser ceases to be a Service Provider, the Repurchase Option shall terminate.

(e) One hundred percent (100%) of the Unvested Shares shall initially be subject to the Repurchase Option. The Unvested Shares shall be released from the Repurchase Option in accordance with the Vesting Schedule set forth in the Notice of Grant until all Shares are released from the Repurchase Option. Fractional Shares shall be rounded to the nearest whole share.

2. Transferability of the Shares; Escrow.

(a) Purchaser hereby authorizes and directs the secretary of the Company, or such other person designated by the Company from time to time, to transfer the Unvested Shares as to which the Repurchase Option has been exercised from Purchaser to the Company.

(b) To insure the availability for delivery of Purchaser's Unvested Shares upon repurchase by the Company pursuant to the Repurchase Option under Section 1, Purchaser hereby appoints the Secretary, or any other person designated by the Company from time to time as escrow agent, as its attorney-in-fact to sell, assign and transfer unto the Company, such Unvested Shares, if any, repurchased by the Company pursuant to the Repurchase Option and shall, upon execution of this Agreement, deliver and deposit with the Secretary of the Company, or such other person designated by the Company from time to time, the share certificate(s) representing the Unvested Shares, together with the stock assignment duly endorsed in blank, attached hereto as Exhibit C-2. The Unvested Shares and stock assignment shall be held by the Secretary in escrow, pursuant to the Joint Escrow Instructions of the Company and Purchaser attached as Exhibit C-3 hereto, until the Company exercises its Repurchase Option as provided in Section 1, until such Unvested Shares are vested, or until such time as this Agreement no longer is in effect. As a further condition to the Company's obligations under this Agreement, the spouse of Purchaser, if any, shall execute and deliver to the Company the Consent of Spouse attached hereto as Exhibit C-4. Upon vesting of the Unvested Shares, the escrow agent shall promptly deliver to Purchaser the certificate or certificates representing such Shares in the escrow agent's possession belonging to Purchaser, and the escrow agent shall be discharged of all further obligations hereunder; provided, however, that the escrow agent shall nevertheless retain such certificate or certificates as escrow agent if so required pursuant to other restrictions imposed pursuant to this Agreement.

(c) The Company, or its designee, shall not be liable for any act it may do or omit to do with respect to holding the Shares in escrow and while acting in good faith and in the exercise of its judgment.

(d) Transfer or sale of the Shares is subject to restrictions on transfer imposed by any applicable state and federal securities laws. Any transferee shall hold such Shares subject to all of the provisions hereof and the Exercise Notice executed by Purchaser with respect to any Unvested Shares purchased by Purchaser and shall acknowledge the same by signing a copy of this Agreement. Any transfer or attempted transfer of any of the Shares not in accordance with the terms of this Agreement shall be void and the Company may enforce the terms of this Agreement by stop transfer instructions or similar actions by the Company and its agents or designees.

3. Ownership, Voting Rights, Duties. This Agreement shall not affect in any way the ownership, voting rights or other rights or duties of Purchaser, except as specifically provided herein.

4. Adjustment for Stock Split. All references to the number of Shares and the purchase price of the Shares in this Agreement shall be appropriately adjusted to reflect any stock split, stock dividend or other change in the Shares which may be made by the Company after the date of this Agreement.

5. Notices. Notices required hereunder shall be given in person or by registered mail to the address of Purchaser shown on the records of the Company, and to the Company at its principal executive office.

6. Survival of Terms. This Agreement shall apply to and bind Purchaser and the Company and their respective permitted assignees and transferees, heirs, legatees, executors, administrators and legal successors.

7. Section 83(b) Election for Unvested Shares Purchased Pursuant to a Nonstatutory Stock Option Purchaser hereby acknowledges that he or she has been informed that, with respect to the exercise of a Nonstatutory Stock Option for Unvested Shares, that unless an election, as set forth on Exhibit C-5, is filed by Purchaser with the Internal Revenue Service and, if necessary, the proper state taxing authorities, within thirty (30) days of the purchase of the Shares, electing pursuant to Section 83(b) of the Internal Revenue Code (and similar state tax provisions if applicable) to be taxed currently on any difference between the purchase price of the Shares and their Fair Market Value on the date of purchase, there will be a recognition of taxable income to the Purchaser, measured by the excess, if any, of the fair market value of the Shares, at the time the Company's Repurchase Option lapses over the purchase price for the Shares. Purchaser represents that Purchaser has consulted any tax consultant(s) Purchaser deems advisable in connection with the purchase of the Shares or the filing of the Election under Section 83(b) and similar tax provisions.

PURCHASER ACKNOWLEDGES THAT IT IS PURCHASER'S SOLE RESPONSIBILITY AND NOT THE COMPANY'S TO FILE TIMELY THE ELECTION UNDER SECTION 83(b), EVEN IF PURCHASER REQUESTS THE COMPANY OR ITS REPRESENTATIVE TO MAKE THIS FILING ON PURCHASER'S BEHALF.

8. Representations. Purchaser has reviewed with his or her own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by

this Agreement. Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. Purchaser understands that Purchaser (and not the Company) shall be responsible for his or her own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

9. Governing Law; Severability. The laws of the State of California shall govern the interpretation, validity, administration, enforcement and performance of the terms of this Agreement regardless of the law that might be applied under principles of conflicts of laws. Should any provision of this Agreement be determined by a court of law to be illegal or unenforceable, the other provisions shall nevertheless remain effective and shall remain enforceable.

(Signature Page Follows)

Purchaser represents that he or she has read this Agreement and is familiar with its terms and provisions. Purchaser hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board upon any questions arising under this Agreement.

IN WITNESS WHEREOF, this Agreement is deemed made as of the date first set forth above.

CODEXIS, INC.

By: _____
Name: _____
Title: _____

PURCHASER

By: _____
Name: _____
Address: _____

[Signature Page to Restricted Stock Purchase Agreement]

EXHIBIT C-2

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED I, _____, hereby sell, assign and transfer unto _____ (_____) shares of the Common Stock of Codexis, Inc. registered in my name on the books of said corporation represented by Certificate No. ____ herewith and do hereby irrevocably constitute and appoint _____ to transfer the said stock on the books of the within named corporation with full power of substitution in the premises.

This Assignment Separate from Certificate may be used only in accordance with the Restricted Stock Purchase Agreement between Codexis, Inc. and the undersigned dated _____, ____.

Dated: _____, ____

Signature: _____

INSTRUCTIONS: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise the Repurchase Option, as set forth in the Restricted Stock Purchase Agreement, without requiring additional signatures on the part of Purchaser.

EXHIBIT C-3

JOINT ESCROW INSTRUCTIONS

Secretary
Codexis, Inc.

As Escrow Agent for both Codexis, Inc. (the "Company") and the undersigned purchaser of stock of the Company (the "Purchaser"), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of that certain Restricted Stock Purchase Agreement ("Agreement") between the Company and the undersigned, in accordance with the following instructions:

1. In the event the Company and/or any assignee of the Company (referred to collectively for convenience herein as the "Company") exercises the Company's Repurchase Option set forth in the Agreement, the Company shall give to Purchaser and you a written notice specifying the number of shares of stock to be purchased, the purchase price, and the time for a closing hereunder at the principal office of the Company. Purchaser and the Company hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

2. At the closing, you are directed (a) to date the stock assignments necessary for the transfer in question, (b) to fill in the number of shares being transferred, and (c) to deliver the same, together with the certificate evidencing the shares of stock to be transferred, to the Company or its assignee, against the simultaneous delivery to you of the purchase price (by cash, a check, or a combination thereof) for the number of shares of stock being purchased pursuant to the exercise of the Company's Repurchase Option.

3. Purchaser irrevocably authorizes the Company to deposit with you any certificates evidencing shares of stock to be held by you hereunder and any additions and substitutions to said shares as defined in the Agreement. Purchaser does hereby irrevocably constitute and appoint you as Purchaser's attorney-in-fact and agent for the term of this escrow to execute, with respect to such securities, all documents necessary or appropriate to make such securities negotiable and to complete any transaction herein contemplated, including but not limited to the filing with any applicable state blue sky authority of any required applications for consent to, or notice of transfer of, the securities. Subject to the provisions of this paragraph 3, Purchaser shall exercise all rights and privileges of a stockholder of the Company while the stock is held by you.

4. Upon written request of Purchaser, but no more than once per calendar year, unless the Company's Repurchase Option has been exercised, you will deliver to Purchaser a certificate or certificates representing the number of shares of stock as are not then subject to the Company's Repurchase Option. Within one hundred twenty (120) days after Purchaser ceases to be a Service

Provider, you will deliver to Purchaser a certificate or certificates representing the aggregate number of shares held or issued pursuant to the Agreement and not purchased by the Company or its assignees pursuant to exercise of the Company's Repurchase Option.

5. If at the time of termination of this escrow you should have in your possession any documents, securities, or other property belonging to Purchaser, you shall deliver all of the same to Purchaser and shall be discharged of all further obligations hereunder.

6. Your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

7. You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact for Purchaser while acting in good faith, and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

8. You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or corporation, excepting only orders or process of courts of law and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. In case you obey or comply with any such order, judgment or decree, you shall not be liable to any of the parties hereto or to any other person, firm or corporation by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

9. You shall not be liable in any respect on account of the identity, authorities or rights of the parties executing or delivering or purporting to execute or deliver the Agreement or any documents or papers deposited or called for hereunder.

10. You shall not be liable for the expiration of any rights under any applicable state, federal or local statute of limitations or similar statute or regulation with respect to these Joint Escrow Instructions or any documents deposited with you.

11. You shall be entitled to employ such legal counsel and other experts as you may deem necessary properly to advise you in connection with your obligations hereunder, may rely upon the advice of such counsel, and may pay such counsel reasonable compensation therefor.

12. Your responsibilities as Escrow Agent hereunder shall terminate if you shall cease to be an officer or agent of the Company or if you shall resign by written notice to each party. In the event of any such termination, the Company shall appoint a successor Escrow Agent.

13. If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

14. It is understood and agreed that should any dispute arise with respect to the delivery and/or ownership or right of possession of the securities held by you hereunder, you are authorized and directed to retain in your possession without liability to anyone all or any part of said securities until such disputes shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

15. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail with postage and fees prepaid, addressed to each of the other parties thereunto entitled at such addresses as a party may designate by written notice to each of the other parties hereto.

16. By signing these Joint Escrow Instructions, you become a party hereto only for the purpose of said Joint Escrow Instructions; you do not become a party to the Agreement.

17. This instrument shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and permitted assigns.

18. These Joint Escrow Instructions shall be governed by, and construed and enforced in accordance with, the laws of the State of California, excluding that body of law pertaining to conflicts of law.

(Signature Page Follows)

IN WITNESS WHEREOF, these Joint Escrow Instructions shall be effective as of the date first set forth above.

CODEXIS, INC.

By: _____
Name: _____
Title: _____

PURCHASER:

By: _____
Name: _____
Address: _____

ESCROW AGENT:

By: _____
Name: _____
Title: _____

EXHIBIT C-4

CONSENT OF SPOUSE

I, _____, spouse of _____, have read and approve the Restricted Stock Purchase Agreement dated _____, _____, between my spouse and Codexis, Inc. In consideration of granting the right to my spouse to purchase shares of Codexis, Inc. set forth in the Restricted Stock Purchase Agreement, I hereby appoint my spouse as my attorney-in-fact in respect to the exercise of any rights under the Agreement and agree to be bound by the provisions of the Restricted Stock Purchase Agreement insofar as I may have any rights in said Restricted Stock Purchase Agreement or any shares issued pursuant thereto under the community property laws or similar laws relating to marital property in effect in the state of our residence as of the date of the signing of the foregoing Restricted Stock Purchase Agreement.

Dated: _____, _____

Signature of Spouse

EXHIBIT C-5

INFORMATION CONCERNING THE FILING OF SECTION 83(b) ELECTION

This information is supplied to you in connection with your recent purchase of shares of Common Stock of Codexis, Inc. (the "Company"), at a purchase price equal to the current fair market value of the stock and subject to an Agreement for purchase of shares that gives the Company the right to repurchase the shares under the terms stated in the Agreement in the event that you terminate your continuous status as an employee, consultant or director of the Company prior to the full vesting.

Section 83 of the Internal Revenue Code taxes as ordinary income the difference between the amount paid for the stock and its fair market value as of the date any restrictions on that stock lapse. In this context, "restriction" means the right of the Company to buy back the stock at less than its fair market value, in connection with the termination of your continuous status as an employee, consultant or director of the Company, which right expires as your stock vests pursuant to the Agreement. Thus, if the shares are worth \$12.50 a share at the time the first 25% of the shares becomes fully vested (no longer subject to repurchase) and if you purchased such shares for \$0.10 per share, then you would be required to report ordinary income in the amount of \$12.40 for each such share in the first year that such shares are first vested (no longer subject to repurchase). Upon the vesting of the final portion of the shares and if the fair market value of the shares at that time is \$15.00 per share, then you would be required to report ordinary income in the amount of \$14.90 per share for the tax year in which such final portion of the shares is no longer subject to repurchase.

To avoid the assessment of ordinary income tax at the time the restrictions end, there is an election that can be filed under Section 83(b). This is an election to include in income in the year the stock is purchased the difference between what is paid for the stock and its then fair market value. Even though in your case the fair market value of the stock may equal the amount paid and therefore there may be no income at this time, the Internal Revenue Service nonetheless requires that the election be filed in order to avoid adverse tax consequences in the future.

You must file one executed copy of the 83(b) election form with the Internal Revenue Service within 30 days of the purchase of the shares The steps outlined below should be followed to ensure the election is filed correctly and timely:

- 1) Complete 83(b) election form;
- 2) Prepare cover letter to the IRS (sample letter attached);
- 3) Send cover letter with originally executed 83(b) election form and one (1) additional copy via certified mail or Federal Express to the IRS within 30 days of the date of purchase, with a self-addressed stamped envelope and retain receipt of mailing;
- 4) Retain IRS file stamped copy for your records when returned; and
- 5) One copy should be returned to the Company for its records and one copy should be filed along with your federal income tax return for the tax year.

For your information, the address of the IRS (if you live in Northern California, except for the Central Valley) is as follows:

Internal Revenue Service
5045 East Butler Avenue
Fresno, California 93888

SECTION 83(b) ELECTION

This statement is being made under Section 83(b) of the Internal Revenue Code, pursuant to Treas. Reg. Section 1.83-2.

The taxpayer who performed the service is:

Name:
Address:
Taxpayer Ident. No.

The property with respect to which the election is being made is _____ shares of common stock of Codexis, Inc.

The property was issued on _____, 200_.

The taxable year in which the election is being made in the calendar year 200_.

The property is subject to a repurchase right pursuant to which the issuer has the right to acquire the property at the original purchase price if for any reason the taxpayer's service provider relationship with the issuer is terminated. The issuer's repurchase right lapses in a series of annual and monthly installments over a _____-year period ending on _____, 200_.

The fair market value at the time of transfer (determined without regard to any restriction other than a restriction which by its terms will never lapse) is \$ _____ per share.

The amount paid for such property is \$ _____ per share.

A copy of this statement was furnished to Codexis, Inc. for whom taxpayer rendered the services underlying the transfer of property.

This statement is executed on _____, 200_.

Spouse (if any)

Taxpayer

This election must be filed with the Internal Revenue Service Center with which taxpayer files his or her Federal income tax returns and must be made within thirty (30) days after the execution date of the Stock Purchase Agreement. This filing should be made by registered or certified mail, return receipt requested. Optionee must retain two (2) copies of the completed form for filing with his or her Federal and state tax returns for the current tax year and an additional copy for his or her records.

IMPORTANT: READ THIS —

IF YOU WISH TO MAKE A SECTION 83(B) ELECTION, THE FILING OF SUCH ELECTION IS YOUR RESPONSIBILITY.

THE FORM FOR MAKING THIS SECTION 83(B) ELECTION IS ATTACHED TO THIS AGREEMENT AS PART OF EXHIBIT C-5.

YOU MUST FILE THIS FORM WITHIN 30 DAYS OF PURCHASING THE SHARES.

YOU (AND NOT THE COMPANY OR ANY OF ITS AGENTS) SHALL BE SOLELY RESPONSIBLE FOR FILING SUCH FORM WITH THE IRS, EVEN IF YOU REQUEST THE COMPANY OR ITS AGENTS TO MAKE THIS FILING ON YOUR BEHALF AND EVEN IF THE COMPANY OR ITS AGENTS HAVE PREVIOUSLY MADE THIS FILING ON YOUR BEHALF.

The election should be filed by mailing a signed election form by certified mail, return receipt requested to the IRS Service Center where you file your tax returns. See www.irs.gov

Internal Revenue Service
5045 East Butler Avenue
Fresno, California 93888

Re: 83(b) Election for Purchase of Codexis, Inc. Common Stock

Ladies and Gentlemen:

Enclosed is a completed form of election under Section 83(b) of the Internal Revenue Code of 1986 (the "83(b) Election") relating to my recent purchase of _____ shares of Common Stock of Codexis, Inc.

Please acknowledge receipt of the 83(b) Election by stamping as filed the enclosed copy and returning it to me in the self-addressed stamped envelope provided.

Sincerely,

Enclosures



Codexis, Inc.
200 Penobscot Drive
Redwood City, California 94063
Tel : 650.980.5600
Fax : 650.298.5449
www.codexis.com

Alan Shaw
[Address]

Dear Alan:

On behalf of Codexis, I am pleased to confirm your status as a full-time employee of Codexis effective July 29, 2003. Your current position will remain as Chief Executive Officer.

Compensation

This letter confirms that you will continue to receive a salary of \$23,750 per month (equivalent to \$285,000 per year), payable in periodic installments on our regular paydays. For 2003, you also will be eligible to participate in the Codexis Executive Bonus Plan, which is a performance-based program that allows for a bonus stock option award based upon achievement of Codexis objectives. You must be employed by Codexis on the date that the bonus is to be paid in order to be eligible for the bonus.

Stock Options

As previously communicated to you, you have elected to participate in the offer to exchange certain outstanding options for new options. Your new Codexis options, once granted, will be subject to the terms of the Codexis, Inc. 2002 Stock Plan.

Employee Benefits

As a full-time employee, you will be eligible for the Codexis employee benefit plans, which currently include medical, dental, vision, EAP, long and short-term disability plans, life insurance, Flex Plan, a 401(k) savings plan, employee stock purchase plan (through August 31, 2003), and our flexible time off plan that allows full-time employees to accrue 20 or 25 days of flexible time off (FTO) each year of employment, depending upon years of service.

Codexis has agreed to continue to participate in the Maxygen benefit plans providing medical, dental, vision, EAP, life insurance, Flex Plan and long and short-term disability coverage and intends to continue to participate in those plans at least through the end of the year under the terms and conditions as set forth in the documents and instruments governing those plans and subject to the same rights to alter, amend or modify any of those plans and programs. There will be no gap in any of those coverages.

Codexis will also continue to participate as an employer in the Maxygen 401(k) retirement plan under the terms and conditions set forth in the documents and instruments governing that plan, which will require preparation of new plan documents. Copies of the new plan will be distributed upon their completion. The 401(k) plan previously was amended to eliminate the employer matching contribution for employees in Codexis effective January 1, 2003, and that change will remain in effect. Some additional documentation will be provided upon its completion.

Human Resources Policies

At this time, Codexis intends to adopt Maxygen's human resource and other Company policies for all its employees except for those provisions of Maxygen's policies that specifically exclude Codexis employees, e.g., Codexis Travel Policy.

Other Terms and Conditions of Employment

All employment with Codexis is at will. "Employment at will" means that you are free to resign from your employment at any time, for any reason or no reason at all, with or without cause and with or without notice. Similarly, Codexis may terminate your employment at any time for any legal reason, or no reason, with or without cause and with or without notice. By accepting this offer of continuing employment, you agree that your employment is at will, and acknowledge that no one, other than the CEO of Codexis or the Chairman of the Board of Directors of Codexis, has the authority to promise you anything to the contrary. Any such agreement must be in writing and signed by both you and such Individual to be effective.

Employment with any other entity, or for yourself in competition with Codexis, Maxygen or any affiliate or subsidiary of Maxygen is not permitted. If you want to take an outside job, you should discuss the outside opportunity with your manager and the Human Resources Department in advance so that we can determine if any actual or potential conflict of interest exists.

During the course of your employment, you may create, develop or have access to confidential information belonging to Codexis and/or third parties such as Maxygen, including trade secrets and proprietary information, such as technical and scientific research and/or protocols, customer and supplier information, business plans, marketing plans, unpublished financial information, designs, drawings, innovations, inventions, discoveries, specifications, software, source codes, and personnel information. You agree that as a condition of your employment with Codexis, you will sign and comply with the attached Codexis Confidential Information, Secrecy and Invention Agreement.

Arbitration of Disputes

You agree that, except as described below, any dispute relating to your employment or the termination of your employment with Codexis shall be finally settled by binding arbitration in Palo Alto, California before a neutral arbitrator of the American Arbitration Association ("AAA") under its National Rules for the Resolution of Employment Disputes. Claims subject to arbitration shall include, but shall not be limited to, claims under Title VII of the Civil Rights Act of 1964 (as amended) and other civil rights statutes of the United States, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Family and Medical Leave Act, the Employee Retirement Income Security Act of 1974, the California Fair Employment and Housing Act, the California Labor Code, and any other federal, state or local statute or regulation, and the common law of contract and tort. However, this agreement to arbitrate shall not apply to claims (a) for workers' compensation, (b) for unemployment compensation or (c) injunctive relief arising out of or related to misappropriation of trade secrets or misuse or improper disclosure of confidential information, unfair competition or breach of any non-competition or non-solicitation agreement between you and Codexis.

You understand that by this agreement, you and Codexis are waiving your respective rights to trial by jury, and that judgment upon any arbitration award may be entered in any court having jurisdiction of the matter. Any controversy or claim subject to arbitration shall be waived and forever barred if arbitration is not initiated within one year after the date the controversy or claim first arose, or if statutory rights are involved, within the time limit established by the applicable statute of limitations.

You and Codexis will have the same remedies available in arbitration as those available had the claim been filed in a court of law, including, where authorized by statute, compensatory and punitive damages, injunctive relief and attorneys' fees. Although Codexis will pay all costs of the AAA and the arbitrator, you agree to pay all costs you would otherwise be required to pay were your claims litigated in a court of law, such as costs of your attorney, deposition transcripts and expert witness fees and expenses.

The terms described in this letter replace all prior agreements, understandings, and promises between Codexis or Maxygen and you concerning the terms and conditions of your employment with Codexis.

We are pleased that you will continue to work with Codexis, and hope that your association with Codexis will be successful and rewarding. Please indicate your acceptance of this offer by signing this letter below and a copy of the attached Codexis Confidential Information, Secrecy and Invention Agreement and returning both to Rose Sturgess by no later than August 1, 2003. A copy of the letter is enclosed for your records.

Sincerely,

Codexis, Inc.

By: /s/ Marc Ketzell
Marc Ketzell
Vice President, Human Resources
(On behalf of the Codexis Board of Directors)

I understand and agree to the foregoing terms and conditions of employment with Codexis.

Alan Shaw
Print Name

/s/ Alan Shaw
Signature

29TH July 2003
Date

CODEXIS, INC.

CHANGE OF CONTROL AGREEMENT

This **CHANGE OF CONTROL AGREEMENT** (the "Agreement"), dated July 29, 2003, is made by and between **CODEXIS, INC.**, a Delaware corporation (the "Company"), and **ALAN SHAW** (the "Executive").

WHEREAS, the Company considers it essential to the best interests of its stockholders to foster the continuous employment of key management personnel;

WHEREAS, the Board of Directors of the Company recognizes that, as is the case with many corporations, the possibility of a Change of Control (as defined herein) exists and that such possibility, and the uncertainty and questions that it may raise among management, may result in the departure or distraction of management personnel to the detriment of the Company and its stockholders; and

WHEREAS, the Board has determined that appropriate steps should be taken to reinforce and encourage the continued attention and dedication of members of the Company's management, including the Executive, to their assigned duties without distraction in the face of potentially disturbing circumstances arising from the possibility of a Change of Control.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the Company and the Executive agree as follows:

1. Introduction; Purposes.

(a) The purpose of this Agreement is to provide the Executive with protection of certain benefits in case of a termination of his or her employment with the Company in connection with a Change of Control of the Company.

(b) The Company, by means of the Agreement, seeks to (i) secure and/or retain the services of the Executive and (ii) provide incentives for the Executive to exert maximum efforts for the success of the Company even in the face of a potential Change of Control of the Company.

2. Definitions.

(a) "Accountants" has the meaning given thereto in Section 4.

(b) "ADEA" has the meaning given thereto in Section 5(c).

(c) "Agreement" means this Change of Control Agreement.

(d) "Board" means the Board of Directors of the Company.

(e) "Cause" means the Executive's: (i) willful and continued failure to substantially perform the Executive's duties with the Company (other than as a result of physical or mental disability) after a written demand for substantial performance is delivered to the Executive by the Company, which demand specifically identifies the manner in which the Company believes that the Executive has not substantially performed the Executive's duties and that has not been cured within fifteen (15) days following receipt by the Executive of the written demand; (ii) commission of a felony (other than a traffic-related offense) that in the written determination of the Company is likely to cause or has caused material injury to the Company's business; (iii) dishonesty with respect to a significant matter relating to the Company's business; or (iv) material breach of any agreement by and between the Executive and the Company, which material breach has not been cured within fifteen (15) days following receipt by the Executive of written notice from the Company identifying such material breach.

(f) "Change of Control" means: (i) a dissolution or liquidation of the Company; (ii) a sale of all or substantially all the assets of the Company; (iii) a merger or consolidation in which the Company is not the surviving corporation and in which beneficial ownership of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors has changed; (iv) a reverse merger in which the Company is the surviving corporation but the shares of the common stock of the Company outstanding immediately before the merger are converted by virtue of the merger into other property, whether in the form of securities, cash or otherwise, and in which beneficial ownership of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors has changed; (v) an acquisition by any person, entity or group within the meaning of Section 13(d) or 14(d) of the Exchange Act, or any comparable successor provisions (excluding any employee benefit plan, or related trust, sponsored or maintained by the Company or subsidiary of the Company or other entity controlled by the Company) of the beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act, or comparable successor rule) of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors; or, (vi) in the event that the individuals who are members of the Incumbent Board cease for any reason to constitute at least fifty percent (50%) of the Board. Notwithstanding the foregoing, a Change of Control shall not include any transaction effected primarily for the purpose of financing the Company with cash (as determined by the Committee acting in good faith and without regard to whether such transaction is effectuated by a merger, equity financing or otherwise).

(g) "Code" means the Internal Revenue Code of 1986, as amended.

(h) "Committee" means the Compensation Committee of the Board or such other committee as appointed by the Board to administer this Agreement.

(i) "Company" means Codexis, Inc., a Delaware corporation.

(j) "Company-Paid Coverage" has the meaning given thereto in Section 3(a).

(k) “Confidential Information, Secrecy and Invention Agreement” has the meaning given thereto in Section 5(b).

(l) “Disability” means the Executive’s physical or mental disability that prevents the Executive from satisfactorily performing the normal duties and responsibilities of the Executive’s office in the good faith determination of the Committee for a period of more than one hundred twenty (120) consecutive days.

(m) “Effective Date” means the date first above written.

(n) “Employee Agreement and Release” has the meaning given thereto in Section 5(c).

(o) “Exchange Act” means the Securities Exchange Act of 1934, as amended.

(p) “Excise Tax” has the meaning given thereto in Section 4.

(q) “Executive” means the person identified in the introductory paragraph of this Agreement.

(r) “Good Reason” means: (i) any material reduction of the Executive’s duties, authority or responsibilities relative to the Executive’s duties, authority, or responsibilities as in effect immediately before such reduction, except if agreed to in writing by the Executive; (ii) a reduction by the Company in the base salary of the Executive, or of twenty-five percent (25%) or more in the Target Bonus opportunity of such Executive, as in effect immediately before such reduction, except if agreed to in writing by the Executive; (iii) the relocation of the Executive to a facility or a location more than thirty (30) miles from the Executive’s then present business location, except if agreed to in writing by the Executive; (iv) a material breach by the Company of any provision of this Agreement or (v) any failure of the Company to obtain the assumption of this Agreement by any successor or assign of the Company.

(s) “Incumbent Board” means the individuals who, as of the Effective Date, are members of the Board. If the election, or nomination for election by the Company’s stockholders, of any new director is approved by a vote of at least fifty percent (50%) of the Incumbent Board, such new director shall be considered as a member of the Incumbent Board.

(t) “Section 16 Officer” means an “officer” of the Company, as defined in Rule 16a-1(f) promulgated under the Exchange Act, designated as such by action of the Board, and shall include an individual who would be a Section 16 Officer but for the fact that the Company is not subject to the reporting requirements of the Exchange Act.

(u) “Target Bonus” means the Executive’s target bonus for the then current fiscal year, as set by the Board or the appropriate committee thereof.

3. Severance Benefits in the Event of a Change of Control

(a) If within eighteen (12) months following the date of a Change of Control of the Company either (i) the Company terminates the Executive's employment other than for Cause, death or Disability or (ii) the Executive terminates his or her employment with the Company voluntarily with Good Reason, then in each case, subject to Section 4 and Section 5: (i) the Executive shall be entitled to receive a lump sum payment equal to one times the Executive's yearly base salary in effect on the date of termination (without giving effect to any reduction in base salary subsequent to a Change of Control that constitutes Good Reason), (ii) each of the Executive's outstanding stock options, all stock subject to repurchase, restricted stock awards and restricted stock purchases, and any options, stock subject to repurchase, awards or purchases held in the name of an estate planning vehicle for the benefit of the Executive or his or her immediate family, shall have their vesting and exercisability schedule accelerate in full (or, as applicable, the corresponding repurchase right shall lapse in full) as of the date of termination; (iii) if on the date of termination the Executive is covered by any Company-paid health, disability, accident and/or life insurance plans or programs, the Company shall provide to the Executive benefits substantially similar to those that the Executive was receiving immediately prior to the date of termination (the "Company-Paid Coverage"). If such coverage included the Executive's spouse and/or dependents immediately prior to the date of termination, such spouse and/or dependents shall also be covered at Company expense. Company-Paid Coverage shall continue until the earlier of (x) one (1) year from the date of termination, or (y) the date that the Executive and his or her spouse and/or dependents become covered under another employer's health, disability, accident and/or life insurance plans or programs that provides the Executive and his or her spouse and/or dependents with comparable benefits and levels of coverage.

(b) If within twelve (12) months following the date of a Change of Control of the Company the Executive's employment with the Company is terminated as a result of death or Disability, then in each case, subject to Section 4 and Section 5: (i) each of the Executive's outstanding stock options, all stock subject to repurchase, restricted stock awards and restricted stock purchases, and any options, stock subject to repurchase, awards or purchases held in the name of an estate planning vehicle for the benefit of the Executive or his or her immediate family, shall have their vesting and exercisability schedule accelerated such that vesting (or, as applicable, the corresponding repurchase right lapsing) shall occur as if the vesting (or lapsing) had occurred on a monthly basis from the last date of vesting (or lapse) to the date of termination; and (ii) the Company will provide the Executive with health, disability, accident and/or life insurance benefits as described in Section 3(a)(iii).

(c) In no event shall the Executive be obligated to seek other employment or take any other action to mitigate the amounts payable to the Executive under this Agreement.

(d) The Executive's employment shall be deemed to have been terminated following a Change of Control by the Company without Cause or by the Executive with Good Reason if the Executive's employment is terminated prior to a Change of Control

without Cause at the direction of a person who has entered into an agreement with the Company the consummation of which will constitute a Change of Control or if the Executive terminates his or her employment with Good Reason prior to a Change of Control if the circumstances or event that constitutes Good Reason occurs at the direction of such person.

4. Parachute Payments; Excise Tax.

In the event that the severance, acceleration of stock options and other benefits payable to the Executive under this Agreement or otherwise as a result of a Change of Control of the Company (i) constitute "parachute payments" within the meaning of Section 280G (as it may be amended or replaced) of the Code and (ii) but for this Section 4, would be subject to the excise tax imposed by Section 4999 (as it may be amended or replaced) of the Code (the "Excise Tax"), then the Executive's benefits payable in connection therewith shall be either

- (a) delivered in full, or
- (b) delivered as to such lesser extent that would result in no portion of such benefits being subject to the Excise Tax,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by the Executive on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under the Excise Tax. Unless the Company and the Executive otherwise agree in writing, any determination required under this Section 4 shall be made in writing in good faith by the outside accounting firm responsible for auditing the Company's financial records (the "Accountants"). In the event of a reduction in benefits hereunder, the Executive shall be given the choice of which benefits to reduce. For purposes of making the calculations required by this Section 4, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of the Code.

The Company and the Executive shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section 4. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 4.

5. Limitations and Conditions on Benefits.

The benefits and payments provided under this Agreement shall be subject to the following terms and limitations:

- (a) Withholding Taxes. The Company shall withhold required federal, state and local income and employment taxes from any payments hereunder.

(b) Confidential Information, Secrecy and Invention Agreement Prior to Receipt of Benefits The Executive shall have executed and delivered to the Company a standard form of the Company's confidential information, secrecy and invention agreement, a copy of the current form of which is attached as Exhibit A (the "Confidential Information, Secrecy and Invention Agreement"), prior to the receipt or provision of any benefits (including the acceleration benefits) under this Agreement. Additionally, the Executive agrees that all documents, records, apparatus, equipment and other physical property that is furnished to or obtained by the Executive in the course of his or her employment with the Company shall be and shall remain the sole property of the Company. The Executive agrees not to make or retain copies, reproductions or summaries of any such property, except as otherwise necessary while acting in the normal course of business. In the event of any material breach by the Executive of the Confidential Information, Secrecy and Invention Agreement that is not cured within thirty (30) days of notice of such breach to the Executive, all benefits payable under Section 4 of this Agreement shall immediately terminate.

(c) Employee Agreement and Release Prior to Receipt of Benefits If the Executive's employment with the Company terminates involuntarily other than for Cause, death or Disability, or the Executive terminates his or her employment with the Company voluntarily with Good Reason, then prior to, and as a condition of the receipt of any benefits (including the acceleration of benefits) under this Agreement on account of such termination, the Executive shall, as of the date of such termination, execute an employee agreement and release in the form attached as Exhibit B (the "Employee Agreement and Release") prior to receipt of benefits. Such Employee Agreement and Release shall specifically relate to all the Executive's rights and claims in existence at the time of such execution and shall confirm the Executive's obligations under the Company's standard form of Confidential Information, Secrecy and Invention Agreement. If and only if the Executive is covered by the federal Age Discrimination in Employment Act of 1967, as amended ("ADEA") (currently all those 40 years of age or over on the date of termination), the Executive has twenty-one (21) days to consider whether to execute such Employee Agreement and Release and the Executive may revoke such Employee Agreement and Release within seven (7) days after execution of such Employee Agreement and Release. In the event the Executive is covered by ADEA and does not execute such Employee Agreement and Release within the twenty-one (21) days specified above, or if the Executive revokes such Employee Agreement and Release within the seven (7) day period specified above, no benefits (including the acceleration benefits) under Section 3 of this Agreement shall be payable or made available to the Executive on account of a termination.

6. Termination. Prior to a Change of Control of the Company, this Agreement shall automatically terminate on the date the Executive ceases to be a Section 16 Officer, as evidenced by action of the Board removing the Executive as a Section 16 Officer or otherwise; provided, however, that if the Executive ceases to be a Section 16 Officer prior to a Change of Control at the direction of a person who has entered into an agreement with the Company the consummation of which will constitute a Change of Control, this Agreement shall not terminate due to the change in status of the Executive.

7. At-Will Employment. The Company and the Executive acknowledge that the Executive's employment is and shall continue to be at-will, as defined under applicable law. This Agreement shall not be construed as creating an express or implied contract of employment between the Executive and the Company. The Executive shall not have any right to be retained in the employment of the Company.

8. Notices. Any notice provided under this Agreement shall be in writing and shall be deemed to have been effectively given (i) upon receipt when delivered personally, (ii) one day after sending when sent by express mail service (such as Federal Express), or (iii) five (5) days after sending when sent by regular mail to the following address:

In the case of the Company:

Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Attn: Human Resources

In the case of the Executive:

Alan Shaw
[Address]

or to such other address as the Company or the Executive hereafter designates by written notice in accordance with this Section 8.

9. Litigation/Arbitration Expenses. Reasonable litigation and/or arbitration costs and expenses shall be paid by the Company, win or lose, in connection with any dispute between the Company (and its successors) and the Executive concerning this Agreement; provided, however, that if the litigation or arbitration is found to have been commenced in bad faith by the Executive, the Executive shall bear all of his or her own costs and expenses in connection with such litigation or arbitration.

10. Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by the Executive, and the Company, and any surviving entity resulting from a Change of Control and upon any other person who is a successor by merger, acquisition, consolidation or otherwise to the business formerly carried on by the Company, and their respective successors, assigns, heirs, executors and administrators, without regard to whether or not such person actively assumes any rights or duties hereunder; provided, however, that the Executive may not assign any duties hereunder without the prior written consent of the Company.

11. Miscellaneous.

(a) No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing by each of the parties.

(b) No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof have been made by either party that are not expressly set forth in this Agreement.

(c) The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

12. Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of California, regardless of the law that might be applied under applicable principles of conflicts of law.

13. Entire Understanding. This Agreement constitutes the entire agreement and understanding between the parties hereto with respect to the termination of the Executive's employment after a Change of Control, and supersedes all other prior agreements, representations and understandings, both written and oral, between the parties hereto with respect to the subject matter hereof. The Executive agrees that the Change of Control Agreement between the Executive and Maxygen, Inc. is terminated and null and void as of the date of this Agreement.

CODEXIS, INC.

By: /s/ Thomas R. Baruch

Name: Thomas R. Baruch

Title: Chairman

THE EXECUTIVE

/s/ Alan Shaw

Name: Dr. Alan Shaw

July 29th 2003

CODEXIS
CONFIDENTIAL INFORMATION, SECRECY, AND INVENTION
AGREEMENT

This Confidential Information, Secrecy and Invention Agreement ("Agreement") is entered into on July 29, 2003 between Codexis ("Codexis" or "the Company"), a Delaware corporation, and Alan Shaw ("Employee").

In consideration of Employee's employment by Codexis and the compensation paid to Employee, this Agreement being a condition of that employment, Employee and Codexis agree as follows:

1. DEFINITIONS

For purposes of this Agreement, the following terms have the following definitions:

(a) **Confidential Information** means proprietary techniques and confidential information that Codexis develops, compiles or owns, or that Codexis receives under conditions of confidentiality from Codexis' Third Party Business Partners. Confidential Information may be disclosed to or developed, learned or acquired by Employee in the course of Employee's employment with Codexis, or occupation of facilities with Maxygen, Inc. and its affiliates, whether or not related to Employee's duties. Confidential Information is broadly defined, and includes, without limitation, all such information that: (i) all information that has or could have commercial value or other utility in the businesses in which Codexis is engaged or in which it contemplates engaging, and (ii) if disclosed without authorization, could be detrimental to the interests of Codexis or its Third Party Business Partners, whether or not this information is identified as Confidential Information. By example, and without limitation, Confidential Information includes but is not limited to Codexis's research programs, product development, biological materials, research methods, related products, technology, inventions, patent applications, trade secrets or other products and any other information of value relating to the business affairs and/or fields of interest of Codexis, whether communicated orally or in writing, including without limitation, concepts, techniques, processes, designs, biological materials, methods for developing or identifying novel products, cost data, and other technical know-how, financial, research, marketing and personnel information, and other business information including information with respect to which Codexis is under an obligation of confidentiality with any third party. Confidential Information does not include information that as demonstrated by written evidence: (i) was generally and publicly known in the relevant trade or industry; or (ii) known to and freely usable by Employee before Employee's employment by Codexis. Confidential Information shall not be deemed to be generally known (x) merely because it is embraced by more general information subject to the above, or (y) merely because it is published in general terms without description of the specific Confidential Information subject to this section.

(b) **Invention(s)** means any and all inventions, discoveries, original works of authorship, developments, improvements, formulas, techniques, concepts, data and ideas (whether or not patentable or registrable under copyright or similar statute) made, conceived, reduced to practice, or learned by Employee, either alone or jointly with others, during Employee's employment with Codexis that (i) result from work performed by Employee for Codexis, (ii) utilize the equipment, supplies, facilities, or Confidential Information of Codexis or are made, conceived or completed during hours in which Employee is employed by Codexis, or (iii) are related to the business or the actual or demonstrably anticipated research or development of Codexis.

(c) **Trade Secret(s)** means all information, know-how, concepts, data, ideas and materials, however embodied, relating to the business of Codexis or its Third Party Business Partners, which have not been publicly disclosed by an authorized representative of Codexis or have not otherwise lawfully entered the public domain.

(d) **Effective Date** means the date on which this Agreement will become effective. The Effective Date is the earlier of (i) the beginning of Employee's employment with Codexis, or (ii) the date and time at which any Confidential Information was, or is, first disclosed to Employee.

2. EMPLOYEE'S PRIOR KNOWLEDGE AND RELATIONSHIPS

(a) Prior Knowledge. Except as is disclosed on Exhibit C to this Agreement, Employee does not as of the Effective Date possess, or know anything about, any of the Company's Confidential Information, other than information learned from Codexis or Maxygen, Inc. (to the extent that Employee learned such Confidential Information during the course of Employee's former employment with Maxygen, Inc.).

(b) Prior Relationships. As of the Effective Date, Employee has no other agreements, relationships, obligations or commitments to any other person or entity that conflict with Employee's obligations to Codexis under this Agreement, except for a Confidential Information, Secrecy and Invention Agreement between Employee and Maxygen, Inc., which is hereby acknowledged by Codexis. Employee will not use or disclose to Codexis, or induce Codexis to use or disclose, any confidential information, trade secret, or proprietary information or material belonging to any third party. Employee represents and acknowledges that Employee's employment with Codexis will not require Employee to violate any obligation to, or confidence with, any person or entity. Employee represents and warrants that Employee has returned all property and confidential information belonging to all prior employers. In the event either Employee or Codexis is sued for claims or allegations arising from or related to any breach by Employee of any obligation or agreement to which Employee is a party or is bound, Employee agrees to indemnify Codexis fully for all liabilities, costs, verdicts, judgments, settlements, attorneys' fees and other losses incurred by Codexis.

3. PROTECTION OF CONFIDENTIAL INFORMATION

(a) Employee acknowledges and agrees that Confidential Information constitutes a valuable asset of Codexis or a third party, and is owned by Codexis or by a third party that disclosed in confidence to Codexis.

(b) At all times during and after Employee's employment with Codexis, Employee will hold in trust, keep confidential and not disclose to any third party, or make any use of, the Confidential Information of Codexis or of its Third Party Business Partners, except as may be necessary in the course of Employee's employment, without the prior written consent of the President of Codexis. Employee agrees to abide by policies established by Codexis for the protection of Confidential Information, and to take reasonable security precautions to safeguard Confidential Information, including without limitation, the protection of documents from theft, unauthorized duplication and discovery of contents, and restrictions on access by other persons. Employee further agrees not to cause the transmission, removal, or transport of any Confidential Information from Codexis's principal place of business, or any other place of business as specified by the President of Codexis, except as required in the course of Employee's employment, without the prior written approval of the President of Codexis.

(c) Employee acknowledges that unauthorized use or disclosure of Confidential Information may be highly prejudicial to the interests of Codexis or its Third Party Business Partners, an invasion of privacy, or a misappropriation or improper disclosure of trade secrets.

(d) Employee acknowledges that all documents including, but not limited to, software, computer programs, tapes, printouts, records, databases, manuals, letters, notebooks, reports, blueprints, drawings, sketches, photographs, customer lists, and other evidence of Confidential Information and other information concerning the business, operations, or plans of Codexis or its Third Party Business Partners, including copies, whether produced by Employee or others, are at all times the property of Codexis or the entities with which Codexis has business relationships, and will be treated as Confidential Information.

(e) Employee acknowledges that Codexis has received and in the future may receive confidential or proprietary information from third parties, including Third Party Business Partners of Codexis, subject to a duty on Codexis's part to maintain the confidentiality of the information and to use it only for certain limited purposes. Employee agrees to hold all such confidential or proprietary information in the strictest confidence in compliance with the terms of any agreement Codexis may have with such third parties, and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out Employee's duties for Codexis, consistent with the terms of any agreement Codexis may have with such third parties.

(f) Employee acknowledges that any unauthorized use or disclosure to third parties of Confidential Information of Codexis or its Third Party Business Partners, during employment will lead to disciplinary action, up to and including immediate termination, and any unauthorized use or disclosure during or after employment can lead to legal action by Codexis and/or a third party.

4. EMPLOYEE'S OBLIGATIONS ON TERMINATION OF EMPLOYMENT

(a) Return of Company Property. Upon separation from employment with Codexis for any reason, Employee will promptly deliver to Codexis all Company Documents (as defined below) and all Materials (as defined below) in Employee's possession or control pertaining to (i) Employee's employment, (ii) the Confidential Information of Codexis or of its third Party Business Partners, and (iii) Inventions of Codexis (as defined above), whether prepared by Employee or otherwise coming into Employee's possession or control, except that Employee may retain personal copies of records relating to Employee's compensation and this Agreement. Company "Documents" are all documents, whether in tangible or intangible form, owned or controlled by Company, including, but are not limited to, drawings, sketches, photographs, charts, graphs, notebooks, customer lists, computer disks, tapes or printouts, sound recordings and other printed, type-written or handwritten documents. Company "Materials" are all materials or substances of any type or form, including, but are not limited to, biological materials, including cell lines, plasmids, vectors and DNA. Employee also agrees to return to Codexis all equipment, files, software programs and other personal property belonging to Codexis on separation from employment with Codexis. Employee will not retain any written or other tangible materials (in hard copy or electronic form) that evidence, contain or reflect Confidential Information or Inventions of Codexis, or of a third party (including any Third Party Business Partner) that was provided to Codexis.

(b) Termination Certificate. Employee agrees to sign the Termination Certificate, a copy of which is contained in Exhibit A to this Agreement on separation from employment.

(c) Protection of Codexis's Confidential Information and Inventions. If Employee's employment with Codexis is terminated for any reason, Employee will protect the value of Codexis's Confidential Information and Inventions and will prevent their theft or unlawful disclosure. Employee will not use or disclose Confidential Information or Inventions for Employee's benefit (or for the benefit of any third party) or to the detriment of Codexis or any of its Third Party Business Partners.

(d) Non-Interference with Codexis Employees. Employee agrees that, both during employment and for a period of twelve (12) months following separation from employment with Codexis for any reason, Employee will not disrupt, damage, impair or interfere with Codexis's business by recruiting, soliciting or otherwise inducing any Codexis employee or exclusive consultant to leave the employ of Codexis, which means that Employee will not (i) disclose to any third party the names, backgrounds or qualifications of any employees or otherwise identify them as potential candidates for employment; or (ii) personally or through any other person approach, recruit, interview or otherwise solicit employees to work for Employee or any other employer.

(e) Non-Solicitation of Customers Using Confidential Information. Employee also agrees that, both during employment with Codexis and thereafter, Employee will not call on, solicit, or take away (directly or indirectly), on behalf of Employee or any third party, the business of any client or customer of Codexis, whether past, present or prospective, using any Confidential Information.

(f) Non-Solicitation of Identified Customers. In addition to Employee's obligations under Section 4(e), Non-Solicitation of Customers Using Confidential Information, Employee further agrees that during the period of his or her employment with Codexis and for twelve (12) months after the date of termination of his or her employment with Codexis, he or she will not solicit, either on behalf of Employee or any third party, the business of any client or customer of Codexis, whether past, present or prospective, whose business Employee was directly or indirectly involved in soliciting or recruiting on behalf of Codexis during the one-year period prior to the date of Employee's termination of employment with Codexis.

(g) Legal Sanctions. Employee understands that the unauthorized taking or use of any of Codexis's trade secrets could result in civil liability under the California Uniform Trade Secrets Act (Civil Code §§ 3426.1-3426.11) and other laws, and that willful misappropriation may result in an award against Employee for triple the amount of Codexis's damages and attorneys' fees in collecting these damages.

5. INVENTIONS

(a) Disclosure. Employee will promptly disclose all Inventions to Codexis in writing.

(b) Assignment. All Inventions are the sole property of Codexis or Codexis' designee. Employee hereby assigns to Codexis, without royalty or further consideration to Employee, all right, title, and interest Employee may have, or may acquire, in and to all Inventions, including but not limited to, patents, copyrights and trade secrets. Employee agrees that Codexis or its designee will be the sole owner of all domestic and foreign patents, patent rights, copyrights, and other rights pertaining to all these Inventions. Employee further agrees that all copyrightable materials that Employee prepares, individually or in cooperation with others, that is specifically requested by Codexis or commissioned for use as a contribution to a collective work, or as a supplementary work, a compilation, or an instructional text, as these terms are defined by 17 U.S.C. §101, will be considered a "work made for hire," as that term is defined by 17 U.S.C. §101.

(c) Execution of Documents. Whenever requested by Codexis, Employee will promptly sign and deliver to Codexis, both during and after employment, any and all applications, assignments and other documents that Codexis considers necessary or desirable in order to apply for, obtain, and maintain letters patent of the United States and to foreign countries for these Inventions, and to assign and convey to Codexis or its designee the sole and exclusive right, title, and interest in and to Inventions or any applications or patents thereon, or provide any other evidence of the assignment of all rights of Employee, if any, in any Inventions, and Codexis's ownership of these Inventions, without royalty or any other further consideration to Employee.

(d) Assistance to Codexis. Whenever requested by Codexis, both during and after employment, Employee will assist Codexis, at Codexis' expense, in obtaining, maintaining, defending, registering and from time to time enforcing, in any and all countries, Codexis' right to the Inventions and related intellectual property rights. This assistance may include, without limitation, testifying in a suit or other proceeding, executing all documents deemed by Codexis to be necessary or convenient for use in applying for, obtaining, and enforcing patents, copyrights, or other rights, and executing all necessary assignments to Codexis or its designee. If Codexis requires assistance from Employee after termination of Employee's employment, Employee will be compensated for time actually spent in providing assistance requested in writing by Codexis at an hourly rate equivalent to Employee's salary or wages upon termination of employment.

(e) Power of Attorney. If Codexis cannot obtain Employee's signature on any document necessary to apply for, prosecute, obtain or enforce any patent, copyright or other right or protection relating to any Invention, whether due to Employee's mental or physical incapacity, or any other reason, Employee hereby irrevocably designates and appoints Codexis and each of its duly authorized officers and agents as Employee's agent and attorney-in-fact, to act for, and on Employee's behalf, to execute and file any such document and to do all other lawfully permitted acts to further the prosecution, issuance, and enforcement of patents, copyrights, or other rights or protections, with the same force and effect as if executed and delivered by Employee.

(f) Evidence. Employee agrees, whenever requested to do so by Codexis, both during and after employment, to deliver to Codexis any evidence required for legal proceedings and to testify in any such proceedings, and otherwise to cooperate as reasonably requested by Codexis in connection therewith.

(g) Records of Inventions. Employee agrees to keep adequate and current written records of all Inventions, in the form of notes, sketches, drawings and/or reports, which records are, and will remain, the property of Codexis and will be available to Codexis at all times.

(h) California Labor Code § 2870. This Paragraph does not apply to an Invention that is subject to the provisions of Section 2870 of the California Labor Code, which is reprinted in its entirety in Exhibit B to this Agreement.

6. EXCLUDED INVENTIONS

Employee represents that any inventions, original works of authorship, discoveries, concepts or ideas, if any to which Employee presently has any right, title or interest, and which were previously conceived either wholly or in part by Employee, and that Employee desires to exclude from the operation of this Agreement are identified on Exhibit C of this Agreement ("Excluded Inventions"). Employee represents that the list of Excluded Inventions contained in Exhibit C is complete to the best of Employee's

knowledge, and that the exclusion of any Inventions from the list will not materially affect Employee's ability to perform all obligations under this Agreement. The Company agrees to receive and hold all disclosures in confidence.

7. INJUNCTIVE RELIEF

Employee acknowledges that it would be difficult for Codexis to measure actual damages resulting from any breach by Employee of Paragraphs 2 through 5 of this Agreement, and that money damages alone would be an inadequate remedy for any such breach. Accordingly, Employee agrees that if Employee breaches any provision of Paragraphs 2 through 5, Codexis will be entitled, in addition to any other remedies it may have, to specific performance, injunctions, or other appropriate orders to correct or restrain any such breach by Employee, without showing or proving any actual damage sustained by Codexis or posting any bond or other security.

8. ATTORNEY FEES

If any action is necessary to enforce this Agreement, including any action under Paragraph 7, the prevailing party will be entitled to recover its reasonable costs and attorney fees, including reasonable expert witness fees.

9. NON-COMPETITION DURING EMPLOYMENT

(a) Employee agrees that, during the term of Employee's employment with Codexis, Employee will not establish or act, directly or indirectly, by way of ownership, management or otherwise, whether or not for compensation, as a consultant, employer, employee, agent, principal, partner, stockholder (other than ownership of less than 5% of the outstanding capital stock of a publicly-traded corporation), officer, director or in any other representative or individual capacity for any business that (i) is similar to, or (ii) is directly competitive with, or (iii) provides goods or services to any aspect of the business in which Codexis is engaged or contemplates engaging.

(b) Employee agrees not to enter into any agreement that contains any term that may conflict, either actually or potentially, with the terms of this Agreement.

(c) Employee agrees that during the employment term, Employee will not take for Employee's own use, and will promptly notify Codexis of, any and all business opportunities of which Employee becomes aware that relate, directly or indirectly, to the current or reasonably anticipated future business of Codexis.

10. NON-DISPARAGEMENT

Employee agrees that, during employment with Codexis and thereafter, Employee will not make comments, whether oral or in writing, that tend to disparage or injure Codexis, its officers, directors, agents, employees, products and services. Nothing in this Agreement will be construed to preclude Employee from complying with the terms of a validly issued subpoena.

11. NOTIFICATION TO NEW EMPLOYER

In the event that Employee's employment with Codexis terminates for any reason, Employee hereby grants consent to Codexis to notify Employee's new employer about Employee's rights and obligations under this Agreement.

12. AT-WILL EMPLOYMENT

This Agreement expressly defines certain obligations of Employee that will apply during and after Employee's employment with Codexis. This Agreement is not a contract of employment and does not alter the employment relationship between Employee and Codexis, which at all times remains at will. At will employment means that Employee's employment and compensation can be terminated by either party, with or without cause and with or without advance notice.

13. GENERAL TERMS

(a) Employee agrees that upon the request of Codexis, Employee will meet with representatives of Codexis to review the terms of this Agreement and Employee's obligations under it.

(b) Employee will keep Codexis advised of Employee's home and business address for a period of three years after termination of Employment, so that Codexis can contact Employee regarding the continuing obligations imposed by this Agreement.

(c) To the extent any provision of this Agreement, or any portion thereof, is found to be illegal or unenforceable for any reason, the provision or portion will be modified or deleted in such manner so as to make the Agreement as modified legal and enforceable under the applicable laws, and the balance of the Agreement will be construed as severable and independent.

(d) This Agreement will be binding upon Employee and Employee's heirs, executors, assigns, and administrators, and will inure to the benefit of Codexis, its Third Party Business Partners, and their respective successors, designees, and assigns.

(e) This Agreement will be governed by the laws of the State of California and will in all respects be interpreted and enforced under the laws of California, without reference to principles of conflicts of laws.

(f) Employee and Codexis specifically agree that any legal action relating to this Agreement will be instituted and prosecuted in the courts in San Mateo County, California. Each party hereby waives the right to change venue, and consents to personal jurisdiction for purposes of any action arising under this Agreement.

(g) The language of all parts of this Agreement will in all cases be construed as a whole, according to its fair meaning and not strictly for or against either of the parties.

(h) This Agreement may be signed in two counterparts, each of which shall be deemed an original.

(i) The use of the singular in this Agreement includes the plural, as appropriate.

(j) This Agreement sets forth the entire Agreement between Employee and Codexis with respect to its subject matter, and it fully supersedes any and all previous oral or written communications, correspondences, representations, promises, or agreements between the parties relating to this subject. No party has been induced to enter into this Agreement by, nor is any party relying on, any representation or warranty outside of those expressly set forth in this Agreement.

(k) This Agreement may not be supplemented, changed or otherwise modified except by an instrument in writing signed by both Employee and an authorized representative of Codexis.

(l) Waiver by Codexis of a breach of any provision of this Agreement or of another employee's agreement will not waive any other or subsequent breach by Employee.

(m) The following exhibits constitute part of this Agreement and are incorporated by reference:

Exhibit A – Termination Certificate

Exhibit B – Written Notification to Employee of California Labor Code §2870

Exhibit C – Employee Statement

14. SURVIVAL OF AGREEMENT

The rights and obligations of the parties to this Agreement will survive termination of employment of Employee with Codexis.

Employee has carefully read this Agreement, and understands its terms. Employee has completely filled out Exhibit B, and has received a copy of Exhibit A, Written Notification to Employee of California Labor Code § 2870. Employee signs this Agreement freely and voluntarily.

EMPLOYEE

Name: Alan Shaw

Date: 29th July 2003

Signature: /s/ Alan Shaw

CODEXIS, INC.

Name: Thomas R. Baruch

Date: 7-29-03

Signature: /s/ Thomas R. Baruch

EXHIBIT A

TERMINATION CERTIFICATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, sketches, materials, equipment, other documents or property or any reproductions of any of these items belonging to Codexis, its subsidiaries, affiliates, successors or assigns (collectively "the Company").

I further certify that I have complied with, and will continue to comply with, all the terms of the Codexis Confidential Information, Secrecy and Invention Agreement that I signed, including, without limitation, the reporting of any inventions or original works of authorship, as defined in that Agreement, conceived or made by me (jointly or with others) that are covered by that Agreement.

I agree that, in compliance with the Confidential Information, Secrecy and Invention Agreement, I will preserve as confidential, and not use, any or all Confidential Information, Inventions, or other information that has or could have commercial value or other utility in the business in which Codexis is engaged or in which it contemplates engaging. I will not use or participate in the unauthorized disclosure of information that could be detrimental to the interests of Codexis, whether or not such information is identified as Confidential Information.

I further agree that for a period of twelve (12) months immediately following the termination of my relationship with the Company for any reason, I will not either directly or indirectly:

(a) disrupt, damage, impair or interfere with Codexis's business by recruiting, soliciting or otherwise inducing any Codexis employee or exclusive consultant to enter into employment or an exclusive consulting relationship with any other business entity that competes with Codexis; or

(b) (i) call on, solicit, or take away (directly or indirectly), or (ii) attempt to call on, solicit or take away any Codexis customer or potential customer whom the Company has identified during the term of Employee's employment with Codexis, either for my own benefit or for the benefit of another person or entity, nor solicit or induce any customer or potential customer to terminate a business relationship with Codexis.

Upon the termination of my employment with Codexis, I will be employed by

and will be working in connection with the following projects:

Dated: _____

[Employee Signature]

[Employee Name Printed]

Address for Notifications:

EXHIBIT B

**WRITTEN NOTIFICATION TO EMPLOYEE OF
CALIFORNIA LABOR CODE § 2870**

In accordance with California Labor Code section 2870, you are hereby notified that your Confidential Information, Secrecy and Invention Agreement does not require you to assign to Codexis any invention for which no equipment, supplies, facility, or trade secret information of Codexis was used, that was developed entirely on your own time, and that does not relate to the business of Codexis or to Codexis's actual or demonstrably anticipated research or development, or does not result from any work performed by you for Codexis.

The text of California Labor Code section 2870 is set forth below.

**CALIFORNIA LABOR CODE § 2870
INVENTION ON OWN TIME — EXEMPTION FROM AGREEMENT.**

(a) Any provision in an employment agreement which provides that an employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:

(1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer; or

(2) Result from any work performed by the employee for the employer.

(b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable.

I hereby acknowledge receipt of this written notification.

Dated: _____

[Employee Signature]

[Employee Name Printed]

EXHIBIT C

EMPLOYEE STATEMENT

1. Confidential Information. Except as set forth below, I acknowledge at this time that I know nothing about the Confidential Information of Codexis, except information that has been disclosed to me by Codexis. If I know of no such information, I will so state.

2. Prior Inventions. Except as set forth below, I acknowledge at this time that I have not made or reduced to practice (alone or jointly with others) any inventions relevant to the subject matter of my employment with Codexis. If there are no such inventions, I will so state.

Dated: _____

[Employee Signature]

[Employee Name Printed]

CODEXIS, INC.

AGREEMENT AND RELEASE

I hereby confirm my obligations under the Confidential Information, Secrecy and Invention Agreement that I have previously entered into with the Company.

I acknowledge that I have read and understand Section 1542 of the California Civil Code that reads as follows:

A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with debtor.

I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims I may have against the Company.

Except as otherwise set forth in this Agreement and Release (the "Release") and except for obligation of the Company set forth in the Change of Control Agreement entered into between the Company and me, I hereby release, acquit and forever discharge the Company, its parents and subsidiaries, and their officers, directors, agents, servants, employees, shareholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with the Company), arising out of or in any way related to agreements, events, acts or conduct at any time prior to and including the Effective Date of this Release (as defined below), including but not limited to: all such claims and demands directly or indirectly arising out of or in any way connected with my employment with the Company or the termination of that employment, including but not limited to, claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in the Company, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including, but not limited to, the federal Civil Rights Act of 1964, as amended; the federal Age Discrimination in Employment Act of 1967, as amended ("ADEA"); the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination;

fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; provided, however, that nothing in this paragraph shall be construed in any way to release the Company from its obligation to (i) indemnify me pursuant to any applicable indemnification agreement and to provide me with continued coverage under the Company's directors and officers liability insurance policy to the same extent that it has provided such coverage to previously departed officers and directors of the Company or (ii) provide the benefits to me set forth in the Change of Control Agreement entered into between the Company and me.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under ADEA. I also acknowledge that the consideration given for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. If and only if I am covered by ADEA, I further acknowledge that I have been advised by this writing, as required by the ADEA, that: (A) my waiver and release do not apply to any rights or claims that may arise after the Effective Date of this Release; (B) I have the right to consult with an attorney prior to executing this Release; (c) I have twenty-one (21) days to consider this Release (although I may choose to voluntarily execute this Release earlier); (D) I have seven (7) days following the execution of this Release to revoke the Release; and (E) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after this Release is executed by me (the "Effective Date"). If I am not covered by ADEA, I acknowledge that this Agreement shall be effective as of the date upon which this Release has been executed by me (the "Effective Date").

By: _____
THE EXECUTIVE

Date: _____



Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Tel : 650.980.5600
Fax : 650.298.5449
www.codexis.com

Robert (Bubba) S. Breuil
[Address]

Dear Bubba,

On behalf of Codexis, I am pleased to extend to you this offer of employment with Codexis as Senior Vice President and Chief Financial Officer, reporting to Alan Shaw, President and Chief Executive Officer. Your position is a full-time position.

Your employment is subject to proof of your legal right to work in the United States, and to your completing the United States Citizenship and Immigration Service Employment Eligibility Verification Form I-9. Your employment is also subject to successful verification of your professional and character references.

Compensation

Base salary: If you accept this offer and you begin employment with Codexis, you will receive an initial salary of \$22,916.67 per month (equivalent to \$275,000 per year), payable in periodic installments on regular paydays consistent with company policy for other employees.

Executive Bonus Plan: For 2006, you will be eligible for the Codexis Executive Bonus Plan. The bonus will be paid out in the form of stock options or cash, or a combination of cash and stock options, at the discretion of the Compensation Committee of the Board of Directors. Payout is based on achievement of both Corporate and individual objectives as defined by the CEO and the Board of Directors and subject to the final approval of the Compensation Committee. The dollar value of the bonus payout for the Senior Vice President level will be approximately up to 30% of annual salary, consistent with Codexis' compensation policy established for other senior executives and subject to confirmation by the Compensation Committee in 2006.

Stock Options

Subject to approval by the Codexis Board of Directors, you will be granted an option to purchase 300,000 shares of stock (the "Initial Hiring Grant"), at an exercise price equal to the fair market value of the shares on the date the option is granted. The shares subject to this option shall vest one fourth, or 25%, on the first anniversary of your employment start date and thereafter shall vest as to 1/48 of the shares per month for the following 36 months until the option is 100% vested. Your stock options will be subject to the terms of the Codexis 2002 Equity Incentive Plan and will be conditioned on your acceptance of an appropriate stock option agreement. Codexis agrees to use good faith efforts to take such actions as are necessary to provide that all stock options granted to you will be "early exercisable" for restricted stock that will be subject to the same vesting schedule set forth above.

Additionally, as soon as practicable following the final closing of Codexis' next financing, you will be granted an additional stock option (the "Supplemental Hiring Grant") to purchase that number of shares required to make your then-total ownership of Codexis equal to 1.25% of the then fully-diluted shares of Codexis, at an exercise price equal to the fair market value of the shares on the date the option is granted.

In addition to your Initial and Supplemental Hiring Grants, and subsequent option grants that you may receive, if any, subject to the Codexis Executive Bonus Plan described above, you will be eligible for periodic stock option grants based on Codexis' and your individual performance, as well as based on your total stock option ownership in Codexis, as determined in good faith by the Compensation Committee and consistent with company policy established for senior executives at the Senior Vice President level. Your target total stock and option ownership, including vested and unvested shares, but excluding any option shares granted pursuant to the Codexis Executive Bonus Plan, is expected to be approximately 1.25% of Codexis' fully diluted shares outstanding immediately prior to Codexis' filing to complete an initial public; however, your target ownership may be reduced or increased from time to time based on company policy, and additional stock option grants, if any, will be subject to approval by the Compensation Committee of the Board

Severance

Under these terms of employment, you shall receive severance payments under the following conditions: If you are terminated for any reason other than Cause (as defined below) at any time that is (a) following the three-month anniversary of your employment starting date and (b) prior to the 12-month anniversary of your Supplemental Hiring Grant, you will be entitled to receive \$137,500, which amount shall be paid to you over a period of six months on regular paydays consistent with company policy for other employees, or in such a manner as required to not cause the payment of excise tax or other such penalties under Sections 409A or 280G, or other similar sections, of the Internal Revenue Service Code, as amended. Codexis shall continue to provide, and/or fund the provision of, the health and insurance benefits in effect at the time of your termination throughout the six-month period following your termination. You shall not be eligible for any other payments or benefits under this severance provision.

For purposes of these terms of employment "Cause" means any one of the following events: (i) your violation of any material provision of these terms of employment or Codexis' employment policies or procedures; (ii) any intentional or grossly negligent act or omission by you that is reasonably likely to lead to the material injury of Codexis or its business, employees, customers or vendors; (iii) your material violation of any federal, state or local law applicable to Codexis or its business; (iv) your plea of guilty or *nolo contendere* to, or conviction of, a felony or of a misdemeanor involving moral turpitude; or (v) your continued willful failure to follow the lawful directives of the Board or the President and Chief Executive Officer of Codexis.

Employee Benefits

As a full-time employee, you will be eligible for the Codexis employee benefit plans, including medical, dental, vision, long and short-term disability plans, life insurance, a 401(k) savings plan, and our flexible time off plan that allows full-time employees to accrue 20 days of flexible time off each year of employment, all in a manner and subject to the terms of such plans and company policy providing such benefits for employees at the Senior Vice President level of employment.

Other Terms and Conditions of Employment

All employment with Codexis is "at will." At will means that you are free to resign from your employment at any time, for any reason or no reason at all, with or without cause and with or without notice. Similarly, Codexis may terminate your employment at any time, for any legal reason, with or without Cause and with or without notice. By accepting this offer of employment, you agree that your employment is at will, and acknowledge that no one, other than the President of Codexis or the Chairman of the Board of Directors of Codexis, has the authority to promise you, either orally or in writing, anything to the contrary. Any such agreement must be memorialized in writing and signed by both you and such individual to be effective.

Employment with any other entity, for any reason, is not permitted, excluding your service as a director of another corporate entity engaged in a business that is not directly competitive with Codexis, subject to the prior approval of Codexis' Board of Directors, which approval shall not be unreasonably withheld. During the course of your employment, you may create, develop or have access to confidential information belonging to Codexis and/or Maxygen, including trade secrets and proprietary information, such as technical and scientific research and/or protocols, customer and supplier information, business plans, marketing plans, unpublished financial information, designs, drawings, innovations, inventions, discoveries, specifications, software, source codes, and personnel information. You agree that as a condition of your employment with Codexis, you will sign and comply with the Codexis Confidential Information, Secrecy and Invention Agreement.

Arbitration of Disputes

You agree that, except as described below, any dispute relating to your employment or the termination of your employment with Codexis shall be finally settled by binding arbitration in Palo Alto, California before a neutral arbitrator of the American Arbitration Association ("AAA") under its National Rules for the resolution of Employment Disputes. Claims subject to arbitration shall include, but shall not be limited to, claims under Title VII of the Civil Rights Act of 1964 (as amended) and other civil rights statutes of the United States, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Family and Medical Leave Act, the Employee Retirement Income Security Act of 1974, the California Fair Employment and Housing Act, the California Labor Code, and any other federal, state or local statute or regulation, and the common law of contract and tort. However, this agreement to arbitrate shall not apply to claims (a) for workers' compensation, (b) for unemployment compensation or (c) injunctive relief arising out of or related to misappropriation of trade secrets or misuse or improper disclosure of confidential information, unfair competition or breach of any non-competition or non-solicitation agreement between you and Codexis.

You understand that by this agreement, you and Codexis are waiving your respective rights to trial by jury and that judgment upon any arbitration award may be entered in any court having jurisdiction of the matter. Any controversy or claim subject to arbitration shall be waived and forever barred if arbitration is not initiated within one year after the date the controversy or claim first arose, or if statutory rights are involved, within the time limit established by the applicable statute of limitations.

With regard to statutory claims, you and Codexis will have the same remedies available in arbitration as those available had the claim been filed in a court of law, including, where authorized by statute, compensatory and punitive damages, injunctive relief and attorneys' fees. Although Codexis will pay all costs of the AAA and the arbitrator, you agree to pay all costs you would otherwise be required to pay were your claims litigated in a court of law, such as costs of your attorney, deposition transcripts and expert witness fees and expenses.

The terms described in this letter replace all prior agreements, understandings, and promises between Codexis and you concerning the terms and conditions of your employment with Codexis.

Bubba, we are pleased to extend this offer of employment to you and believe that your skills and experience will help Codexis to achieve its goals in the coming years. Please indicate your acceptance of this offer by signing this letter below and returning the letter in the enclosed envelope or fax to 850-980-5613 before December 19, 2006. A copy of the letter is enclosed for your records.

Sincerely,

Codexis, Inc.

By: /s/ Alan Shaw
Alan Shaw
President & CEO
Codexis, Inc.

I understand and agree to the foregoing terms and conditions of employment with Codexis.

/s/ Robert (Bubba) S. Breuil
Robert (Bubba) S. Breuil

12/22/2005 1/3/2006
Date / Start Date

CODEXIS, INC.

CHANGE OF CONTROL AGREEMENT

This **CHANGE OF CONTROL AGREEMENT** (the "Agreement"), dated January 3, 2003, is made by and between **CODEXIS, INC.**, a Delaware corporation (the "Company"), and Robert (Bubba) Breuil (the "Executive").

WHEREAS, the Company considers it essential to the best interests of its stockholders to foster the continuous employment of key management personnel;

WHEREAS, the Board of Directors of the Company recognizes that, as is the case with many corporations, the possibility of a Change of Control (as defined herein) exists and that such possibility, and the uncertainty and questions that it may raise among management, may result in the departure or distraction of management personnel to the detriment of the Company and its stockholders; and

WHEREAS, the Board has determined that appropriate steps should be taken to reinforce and encourage the continued attention and dedication of members of the Company's management, including the Executive, to their assigned duties without distraction in the face of potentially disturbing circumstances arising from the possibility of a Change of Control.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the Company and the Executive agree as follows:

1. Introduction: Purposes.

(a) The purpose of this Agreement is to provide the Executive with protection of certain benefits in case of a termination of his or her employment with the Company in connection with a Change of Control of the Company.

(b) The Company, by means of the Agreement, seeks to (i) secure and/or retain the services of the Executive and (ii) provide incentives for the Executive to exert maximum efforts for the success of the Company even in the face of a potential Change of Control of the Company.

2. Definitions.

(a) "Accountants" has the meaning given thereto in Section 4.

(b) "ADEA" has the meaning given thereto in Section 5(c).

(c) "Agreement" means this Change of Control Agreement.

(d) "Board" means the Board of Directors of the Company.

(e) "Cause" means the Executive's: (i) willful and continued failure to substantially perform the Executive's duties with the Company (other than as a result of physical or mental disability) after a written demand for substantial performance is delivered to the Executive by the Company, which demand specifically identifies the manner in which the Company believes that the Executive has not substantially performed the Executive's duties and that has not been cured within fifteen (15) days following receipt by the Executive of the written demand; (ii) commission of a felony (other than a traffic-related offense) that in the written determination of the Company is likely to cause or has caused material injury to the Company's business; (iii) dishonesty with respect to a significant matter relating to the Company's business; or (iv) material breach of any agreement by and between the Executive and the Company, which material breach has not been cured within fifteen (15) days following receipt by the Executive of written notice from the Company identifying such material breach.

(f) "Change of Control" means: (i) a dissolution or liquidation of the Company; (ii) a sale of all or substantially all the assets of the Company; (iii) a merger or consolidation in which the Company is not the surviving corporation and in which beneficial ownership of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors has changed; (iv) a reverse merger in which the Company is the surviving corporation but the shares of the common stock of the Company outstanding immediately before the merger are converted by virtue of the merger into other property, whether in the form of securities, cash or otherwise, and in which beneficial ownership of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors has changed; (v) an acquisition by any person, entity or group within the meaning of Section 13(d) or 14(d) of the Exchange Act, or any comparable successor provisions (excluding any employee benefit plan, or related trust, sponsored or maintained by the Company or subsidiary of the Company or other entity controlled by the Company) of the beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act, or comparable successor rule) of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors; or, (vi) in the event that the individuals who are members of the Incumbent Board cease for any reason to constitute at least fifty percent (50%) of the Board. Notwithstanding the foregoing, a Change of Control shall not include any transaction effected primarily for the purpose of financing the Company with cash (as determined by the Committee acting in good faith and without regard to whether such transaction is effectuated by a merger, equity financing or otherwise).

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- (g) "Code" means the Internal Revenue Code of 1986, as amended.
- (h) "Committee" means the Compensation Committee of the Board or such other committee as appointed by the Board to administer this Agreement.
- (i) "Company" means Codexis, Inc., a Delaware corporation.
- (j) "Company-Paid Coverage" has the meaning given thereto in Section 3(a).
- (k) "Confidential Information, Secrecy and Invention Agreement" has the meaning given thereto in Section 5(b).
- (l) "Disability" means the Executive's physical or mental disability that prevents the Executive from satisfactorily performing the normal duties and responsibilities of the Executive's office in the good faith determination of the Committee for a period of more than one hundred twenty (120) consecutive days.
- (m) "Effective Date" means the date first above written.
- (n) "Employee Agreement and Release" has the meaning given thereto in Section 5(c).
- (o) "Exchange Act" means the Securities Exchange Act of 1934, as amended.
- (p) "Excise Tax" has the meaning given thereto in Section 4.
- (q) "Executive" means the person identified in the introductory paragraph of this Agreement.
- (r) "Good Reason" means: (i) any material reduction of the Executive's duties, authority or responsibilities relative to the Executive's duties, authority, or responsibilities as in effect immediately before such reduction, except if agreed to in writing by the Executive; (ii) a reduction by the Company in the base salary of the Executive, or of twenty-five percent (25%) or more in the Target Bonus opportunity of such Executive, as in effect immediately before such reduction, except if agreed to in writing by the Executive; (iii) the relocation of the Executive to a facility or a location more than thirty (30) miles from the Executive's then present business location, except if agreed to in writing by the Executive; (iv) a material breach by the Company of any provision of this Agreement or (v) any failure of the Company to obtain the assumption of this Agreement by any successor or assign of the Company.
- (s) "Incumbent Board" means the individuals who, as of the Effective Date, are members of the Board. If the election, or nomination for election by the Company's stockholders, of any new director is approved by a vote of at least fifty percent (50%) of the Incumbent Board, such new director shall be considered as a member of the Incumbent Board.

(t) "Section 16 Officer" means an "officer" of the Company, as defined in Rule 16a-1(f) promulgated under the Exchange Act, designated as such by action of the Board, and shall include an individual who would be a Section 16 Officer but for the fact that the Company is not subject to the reporting requirements of the Exchange Act.

(u) "Target Bonus" means the Executive's target bonus for the then current fiscal year, as set by the Board or the appropriate committee thereof.

3. Severance Benefits in the Event of a Change of Control

(a) If within eighteen (12) months following the date of a Change of Control of the Company either (i) the Company terminates the Executive's employment other than for Cause, death or Disability or (ii) the Executive terminates his or her employment with the Company voluntarily with Good Reason, then in each case, subject to Section 4 and Section 5: (i) the Executive shall be entitled to receive a lump sum payment equal to one times the Executive's yearly base salary in effect on the date of termination (without giving effect to any reduction in base salary subsequent to a Change of Control that constitutes Good Reason), (ii) each of the Executive's outstanding stock options, all stock subject to repurchase, restricted stock awards and restricted stock purchases, and any options, stock subject to repurchase, awards or purchases held in the name of an estate planning vehicle for the benefit of the Executive or his or her immediate family, shall have their vesting and exercisability schedule accelerate in full (or, as applicable, the corresponding repurchase right shall lapse in full) as of the date of termination; (iii) if on the date of termination the Executive is covered by any Company-paid health, disability, accident and/or life insurance plans or programs, the Company shall provide to the Executive benefits substantially similar to those that the Executive was receiving immediately prior to the date of termination (the "Company-Paid Coverage"). If such coverage included the Executive's spouse and/or dependents immediately prior to the date of termination, such spouse and/or dependents shall also be covered at Company expense. Company-Paid Coverage shall continue until the earlier of (x) one (1) year from the date of termination, or (y) the date that the Executive and his or her spouse and/or dependents become covered under another employer's health, disability, accident and/or life insurance plans or programs that provides the Executive and his or her spouse and/or dependents with comparable benefits and levels of coverage.

(b) If within twelve (12) months following the date of a Change of Control of the Company the Executive's employment with the Company is terminated as a result of death or Disability, then in each case, subject to Section 4 and Section 5: (i) each of the Executive's outstanding stock options, all stock subject to repurchase, restricted stock awards and restricted stock purchases, and any options, stock subject to repurchase, awards or purchases held in the name of an estate planning vehicle for the benefit of the Executive or his or her immediate family, shall have their vesting and exercisability schedule accelerated such that vesting (or, as applicable, the corresponding repurchase right lapsing) shall occur as if the vesting (or lapsing) had occurred on a monthly basis from the last date of vesting (or lapse) to the date of termination; and (ii) the Company will provide the Executive with health, disability, accident and/or life insurance benefits as described in Section 3(a)(iii).

(c) In no event shall the Executive be obligated to seek other employment or take any other action to mitigate the amounts payable to the Executive under this Agreement.

(d) The Executive's employment shall be deemed to have been terminated following a Change of Control by the Company without Cause or by the Executive with Good Reason if the Executive's employment is terminated prior to a Change of Control without Cause at the direction of a person who has entered into an agreement with the Company the consummation of which will constitute a Change of Control or if the Executive terminates his or her employment with Good Reason prior to a Change of Control if the circumstances or event that constitutes Good Reason occurs at the direction of such person.

4. Parachute Payments; Excise Tax.

In the event that the severance, acceleration of stock options and other benefits payable to the Executive under this Agreement or otherwise as a result of a Change of Control of the Company (i) constitute "parachute payments" within the meaning of Section 280G (as it may be amended or replaced) of the Code and (ii) but for this Section 4, would be subject to the excise tax imposed by Section 4999 (as it may be amended or replaced) of the Code (the "Excise Tax"), then the Executive's benefits payable in connection therewith shall be either

(a) delivered in full, or

(b) delivered as to such lesser extent that would result in no portion of such benefits being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by the Executive on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under the Excise Tax. Unless the Company and the Executive otherwise agree in writing, any determination required under this Section 4 shall be made in writing in good faith by the outside accounting firm responsible for auditing the Company's financial records (the "Accountants"). In the event of a reduction in benefits hereunder, the Executive shall be given the choice of which benefits to reduce. For purposes of making the calculations required by this Section 4, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of the Code.

The Company and the Executive shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section 4. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 4.

5. Limitations and Conditions on Benefits

The benefits and payments provided under this Agreement shall be subject to the following terms and limitations:

(a) Withholding Taxes. The Company shall withhold required federal, state and local income and employment taxes from any payments hereunder.

(b) Confidential Information, Secrecy and Invention Agreement Prior to Receipt of Benefits The Executive shall have executed and delivered to the Company a standard form of the Company's confidential information, secrecy and invention agreement, a copy of the current form of which is attached as Exhibit A (the "Confidential Information, Secrecy and Invention Agreement"), prior to the receipt or provision of any benefits (including the acceleration benefits) under this Agreement. Additionally, the Executive agrees that all documents, records, apparatus, equipment and other physical property that is furnished to or obtained by the Executive in the course of his or her employment with the Company shall be and shall remain the sole property of the Company. The Executive agrees not to make or retain copies, reproductions or summaries of any such property, except as otherwise necessary while acting in the normal course of business. In the event of any material breach by the Executive of the Confidential Information, Secrecy and Invention Agreement that is not cured within thirty (30) days of notice of such breach to the Executive, all benefits payable under Section 4 of this Agreement shall immediately terminate.

(c) Employee Agreement and Release Prior to Receipt of Benefits If the Executive's employment with the Company terminates involuntarily other than for Cause, death or Disability, or the Executive terminates his or her employment with the Company voluntarily with Good Reason, then prior to, and as a condition of the receipt of any benefits (including the acceleration of benefits) under this Agreement on account of such termination, the Executive shall, as of the date of such termination, execute an employee agreement and release in the form attached as Exhibit B (the "Employee Agreement and Release") prior to receipt of benefits. Such Employee Agreement and Release shall specifically relate to all the Executive's rights and claims in existence at the time of such execution and shall confirm the Executive's obligations under the Company's standard form of Confidential Information, Secrecy and Invention Agreement. If and only if the Executive is covered by the federal Age Discrimination in Employment Act of 1967, as amended ("ADEA") (currently all those 40 years of age or over on the date of termination), the Executive has twenty-one (21) days to consider whether to execute such Employee Agreement and Release and the Executive may revoke such Employee Agreement and Release within seven (7) days after execution of such Employee Agreement and Release. In the event the Executive is covered by ADEA and does not execute such Employee Agreement and Release within the twenty-one (21) days specified above, or if the Executive revokes such Employee Agreement and Release within the seven (7) day period specified above, no benefits (including the acceleration benefits) under Section 3 of this Agreement shall be payable or made available to the Executive on account of a termination.

6. Termination. Prior to a Change of Control of the Company, this Agreement shall automatically terminate on the date the Executive ceases to be a Section 16 Officer, as evidenced by action of the Board removing the Executive as a Section 16 Officer or otherwise; provided, however, that if the Executive ceases to be a Section 16 Officer prior to a Change of Control at the direction of a person who has entered into an agreement with the Company the consummation of which will constitute a Change of Control, this Agreement shall not terminate due to the change in status of the Executive.

7. At-Will Employment. The Company and the Executive acknowledge that the Executive's employment is and shall continue to be at-will, as defined under applicable law. This Agreement shall not be construed as creating an express or implied contract of employment between the Executive and the Company. The Executive shall not have any right to be retained in the employment of the Company.

8. Notices. Any notice provided under this Agreement shall be in writing and shall be deemed to have been effectively given (i) upon receipt when delivered personally, (ii) one day after sending when sent by express mail service (such as Federal Express), or (iii) five (5) days after sending when sent by regular mail to the following address:

In the case of the Company:

Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Attn: Human Resources

In the case of the Executive:

Robert (Bubba) Breuil
[Address]

or to such other address as the Company or the Executive hereafter designates by written notice in accordance with this Section 8.

9. Litigation/Arbitration Expenses. Reasonable litigation and/or arbitration costs and expenses shall be paid by the Company, win or lose, in connection with any dispute between the Company (and its successors) and the Executive concerning this Agreement; provided, however, that if the litigation or arbitration is found to have been commenced in bad faith by the Executive, the Executive shall bear all of his or her own costs and expenses in connection with such litigation or arbitration.

10. Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by the Executive, and the Company, and any surviving entity resulting from a Change of Control and upon any other person who is a successor by merger, acquisition, consolidation or otherwise to the business formerly carried on by the Company, and their respective successors, assigns, heirs, executors and administrators, without regard to whether or not such person actively assumes any rights or duties hereunder; provided, however, that the Executive may not assign any duties hereunder without the prior written consent of the Company.

11. Miscellaneous.

(a) No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing by each of the parties.

(b) No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof have been made by either party that are not expressly set forth in this Agreement.

(c) The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

12. Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of California, regardless of the law that might be applied under applicable principles of conflicts of law.

13. Entire Understanding. This Agreement constitutes the entire agreement and understanding between the parties hereto with respect to the termination of the Executive's employment after a Change of Control, and supersedes all other prior agreements, representations and understandings, both written and oral, between the parties hereto with respect to the subject matter hereof. The Executive agrees that the Change of Control Agreement between the Executive and Maxygen, Inc. is terminated and null and void as of the date of this Agreement.

CODEXIS, INC.

By: /s/ Alan Shaw

Name: Alan Shaw

Title: President and CEO

THE EXECUTIVE

/s/ Robert (Bubba) Breuil

Name: Robert (Bubba) Breuil

SEPARATION AGREEMENT

This Separation Agreement (the "Agreement") by and between Robert S. Breuil ("Executive") and Codexis, Inc., a Delaware corporation (the "Company"), is made effective as of the eighth (8th) day following the date Executive signs this Agreement with reference to the following facts:

A. Executive's employment with the Company and status as an officer and employee of the Company and each of its affiliates will end effective upon the Termination Date (as defined below).

B. Executive and the Company want to end their relationship amicably and also to establish the obligations of the parties including, without limitation, all amounts due and owing to Executive.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the parties agree as follows:

1. Termination Date. Executive acknowledges and agrees that his status as an officer and employee of the Company and as an officer and/or director of the Company's subsidiaries will end effective as of June 30, 2009 (the "Termination Date"). Executive hereby agrees to execute such further document(s) as shall be determined by the Company as necessary or desirable to give effect to the termination of Executive's status as an officer and, if applicable, director of the Company and each of its subsidiaries; provided that such documents shall not be inconsistent with any of the terms of this Agreement.

2. Final Paycheck. On the Termination Date, the Company will pay Executive all accrued but unpaid base salary and the value of all accrued and unused vacation earned through the Termination Date, subject to standard payroll deductions and withholdings. In addition, the Company shall reimburse Executive for all outstanding expenses incurred prior to the Termination Date which are consistent with the Company's policies in effect from time to time with respect to travel, entertainment and other business expenses, subject to the Company's requirements with respect to reporting and documenting such expenses. Executive is entitled to the payments set forth in this Section 2 regardless of whether Executive executes this Agreement.

3. Separation Payments and Benefits. Without admission of any liability, fact or claim, the Company hereby agrees, subject to Executive signing and delivering to the Company this Agreement by 5:00 p.m. (PDT) on August 6, 2009, this Agreement becoming no longer subject to revocation as provided in Section 5(c)(iii) and Executive's performance of his continuing obligations pursuant to this Agreement and that certain Confidential Information, Secrecy, and Invention Agreement entered into between Executive and the Company as of January 3, 2006 (the "Confidentiality Agreement"), to provide Executive the severance benefits set forth below. Specifically, the Company and Executive agree as follows:

(a) Severance Pay. As soon as administratively practicable after this Agreement becomes no longer subject to revocation and no later than thirty (30) days thereafter, the Company shall pay to Executive a lump sum cash amount equal to \$160,000, which represents six (6) months of Executive's base salary, subject to any applicable withholding obligations.

(b) Healthcare Continuation Coverage. If Executive elects to receive continued healthcare coverage pursuant to COBRA, the Company shall reimburse Executive

for the premiums paid by Executive for Executive and Executive's covered dependents during the period commencing on the Termination Date and ending on the six month anniversary of the Termination Date or such earlier date that Executive and/or Executive's covered dependents become no longer eligible for COBRA, provided that Executive submits documentation to the Company substantiating his payments for COBRA coverage. Any such reimbursement payments shall be made to Executive no later than ten days after Executive's submission of documentation to the Company substantiating his payments for COBRA coverage. After the Company ceases to reimburse premiums pursuant to the preceding sentence, Executive may, if eligible, elect to continue healthcare coverage at Executive's expense in accordance with the provisions of COBRA.

(c) *Stock Options.* As of the Termination Date, Executive's options to purchase shares of the Company's common stock shall have vested with respect to 441,527 shares, as set forth on Exhibit A (collectively, the "Vested Stock Options") pursuant to the terms of the Company's 2002 Equity Incentive Plan, as amended (the "Plan"), and the option agreements entered into to evidence such stock options (each such agreement an "Original Option Agreement"). Each Original Option Agreement evidencing Executive's Vested Stock Options shall be hereby amended collectively as follows:

(i) The Vested Stock Options shall remain exercisable until the earliest of (a) the third anniversary of the Termination Date, (b) the closing of a Change in Control (as defined in the Plan) of the Company or (c) the later of (A) the six month anniversary of expiration of any "lock-up" or similar transfer restriction imposed on the shares of any common stock underlying the Vested Stock Options in connection with the initial public offering (the "IPO") of any class of equity securities of the Company and (B) the twelve month anniversary of the IPO. This extended exercisability shall not result in the imposition of any taxes on Executive under Section 409A of the Internal Revenue Code of 1986, as amended (the "Code").

(ii) In the event of a Change in Control (as defined in the Plan) Executive shall be given notice by the Company of such Change in Control not later than the earlier of (i) three days following the execution of a definitive agreement which if consummated would constitute such Change in Control or (ii) thirty days prior to the consummation of such Change in Control; *provided* that Executive agrees to sign an agreement with the Company to keep such Change in Control transaction confidential prior to the consummation of such Change in Control.

(iii) Executive acknowledges that upon the execution of this Agreement, each unexercised "incentive stock option" within the meaning of Section 422 of the Code shall be deemed modified for the purposes of Section 424 of the Code and, to the extent the exercise price thereof is lower than the fair market value of the Company's common stock as of the date this Agreement is executed, such option shall no longer qualify as an incentive stock option and Executive will lose the potentially favorable tax treatment associated with such option.

(iv) If Executive desires to exercise any Vested Stock Options, Executive must follow the procedures set forth in Executive's Original Option Agreements, including payment of the exercise price and any withholding obligations. If by the earliest date specified above in this Section 3(c)(i) the Company has not received a duly executed notice of exercise and remuneration in accordance with Executive's Original Option Agreements, Executive's Vested Stock Options shall automatically terminate and be of no further effect.

(v) Effective on the Termination Date, all of Executive's options to purchase an aggregate of 298,973 shares of Company common stock that were not then fully vested (as derived from the differences between the "Total Option Shares" and "Vested as of June 30, 2009" figures on Exhibit A) are hereby terminated

(d) *Taxes.* Executive understands and agrees that all payments under this Section 3 will be subject to appropriate tax withholding and other deductions. To the extent any taxes may be payable by Executive for the benefits provided to him by this Agreement beyond those withheld by the Company, Executive agrees to pay them himself and to indemnify and hold the Company and the other entities released herein harmless for any tax claims or penalties, and associated attorneys' fees and costs, resulting from any failure by him to make required payments. To the extent that any reimbursements payable pursuant to this Agreement are subject to the provisions of Section 409A of the Code, such reimbursements shall be paid to Executive no later than December 31 of the year following the year in which the expense was incurred, the amount of expenses reimbursed in one year shall not affect the amount eligible for reimbursement in any subsequent year, and Executive's right to reimbursement under this Agreement will not be subject to liquidation or exchange for another benefit.

(e) *Sole Separation Benefit.* Executive agrees that the payments provided by this Section 3 are not required under the Company's normal policies and procedures and are provided as a severance payment solely in connection with this Agreement. Executive acknowledges and agrees that the payments referenced in this Section 3 constitute adequate and valuable consideration, in and of themselves, for the promises contained in this Agreement.

(f) *Continued Obligations.* Executive acknowledges and agrees that Executive shall continue to be subject to, and abide by, the Confidentiality Agreement.

4. Full Payment. Executive acknowledges that the payment and arrangements herein shall constitute full and complete satisfaction of any and all amounts properly due and owing to Executive as a result of his employment with the Company and the termination thereof. Executive further acknowledges that, other than the Confidentiality Agreement, this Agreement shall supersede each agreement entered into between Executive and the Company regarding Executive's employment, including, without limitation, Executive's offer letter agreement with the Company (the "Offer Letter") and Executive's Amended and Restated Change of Control Severance Agreement (the "Change of Control Agreement"), and each such agreement other than the Original Option Agreements shall be deemed terminated and of no further effect as of the Termination Date.

5. Executive's Release of the Company. Executive understands that by agreeing to the release provided by this Section 5, Executive is agreeing not to sue, or otherwise file any claim against, the Company or any of its employees, directors or other agents for any reason whatsoever based on anything that has occurred as of the date Executive signs this Agreement. The Company acknowledges that as of the date hereof it is not aware of any claims, either unasserted or asserted, that it may have against Executive in equity, or under local, state or federal law or regulation, or the laws and regulations of the foreign jurisdictions.

(a) *Full Release.* On behalf of Executive and Executive's heirs and assigns, Executive hereby releases and forever discharges the "Releasees" hereunder, consisting of the Company, and each of its owners, affiliates, subsidiaries, predecessors, successors, assigns, agents, directors, officers, partners, employees, and insurers, and all persons acting by, through, under or in concert with them, or any of them, of and from any and all manner of action or actions, cause or causes of action, in law or in equity, suits, debts, liens, contracts, agreements, promises, liability, claims, demands, damages, loss, cost or expense, of any nature whatsoever, known or unknown, fixed or contingent (hereinafter called "Claims"), which Executive now has or may hereafter have against the Releasees, or any of them, by reason of any matter, cause, or thing whatsoever from the beginning of time to the date hereof, including, without limiting the generality of the foregoing, any Claims arising out of, based upon, or relating to Executive's hire, employment, remuneration or resignation by the Releasees, or any of them, including any Claims arising under Title VII of the Civil Rights Act of 1964, as amended, 42 U.S.C. § 2000, et seq.; Americans with Disabilities Act, as amended, 42 U.S.C. § 12101 et seq.; the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 701 et seq.; Age Discrimination in Employment Act, as amended, 29 U.S.C. § 621, et seq.; Civil Rights Act of 1866, and Civil Rights Act of 1991; 42 U.S.C. § 1981, et seq.; Equal Pay Act, as amended, 29 U.S.C. § 206(d); regulations of the Office of Federal Contract Compliance, 41 C.F.R. Section 60, et seq.; The Family and Medical Leave Act, as amended, 29 U.S.C. § 2601 et seq.; the Fair Labor Standards Act of 1938, as amended, 29 U.S.C. § 201 et seq.; the Employee Retirement Income Security Act, as amended, 29 U.S.C. § 1001 et seq.; the Worker Adjustment and Retraining Notification Act, as amended, 29 U.S.C. § 2101 et seq.; the California Fair Employment and Housing Act, as amended, Cal. Lab. Code § 12940 et seq.; the California Equal Pay Law, as amended, Cal. Lab. Code §§ 1197.5(a), 199.5; the Moore-Brown-Roberti Family Rights Act of 1991, as amended, Cal. Gov't Code §§ 12945.2, 19702.3; California Labor Code §§ 1101, 1102; the California WARN Act, California Labor Code §§ 1400 et. seq; California Labor Code §§ 1102.5(a),(b); claims for wages under the California Labor Code and any other federal, state or local laws of similar effect.

(b) *Exceptions.* Notwithstanding the generality of the foregoing, Executive does not release the following claims:

- (i) Claims for unemployment compensation or any state disability insurance benefits pursuant to the terms of applicable state law;
- (ii) Claims for workers' compensation insurance benefits under the terms of any worker's compensation insurance policy or fund of the Company;
- (iii) Claims to continued participation in certain of the Company's group benefit plans pursuant to the terms and conditions of COBRA;
- (iv) Claims to any benefit entitlements vested as the date of Executive's employment termination, pursuant to written terms of any Company employee benefit plan;
- (v) Claims for indemnification under California Labor Code Section 2802, the Company's Certificate of Incorporation, the Company's Bylaws or the Delaware General Corporation Law;

(vi) Executive's right to bring to the attention of the Equal Employment Opportunity Commission claims of discrimination;provided, however, that Executive does release Executive's right to secure any damages for alleged discriminatory treatment; and

(vii) Any other Claim that may not be released by private agreement.

(c) *Acknowledgement.* In accordance with the Older Workers Benefit Protection Act of 1990, Executive has been advised of the following:

(i) Executive should consult with an attorney before signing this Agreement;

(ii) Executive has been given at least twenty-one (21) days to consider this Agreement;

(iii) Executive has seven (7) days after signing this Agreement to revoke it. If Executive wishes to revoke this Agreement, Executive must deliver notice of Executive's revocation in writing, no later than 5:00 p.m. on the 7th day following Executive's execution of this Agreement to Andy Danforth, V.P. Human Resources, 200 Penobscot Drive, Redwood City, California 94063, fax: (650) 421-8145. Executive understands that if he revokes this Agreement, it will be null and void in its entirety, and he will not be entitled to any payments or benefits provided in this Agreement, other than as provided in Section 2.

(d) *California Civil Code Section 1542.* EXECUTIVE ACKNOWLEDGES THAT EXECUTIVE HAS BEEN ADVISED OF AND IS FAMILIAR WITH THE PROVISIONS OF CALIFORNIA CIVIL CODE SECTION 1542, WHICH PROVIDES AS FOLLOWS:

“A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH, IF KNOWN BY HIM OR HER, MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.”

BEING AWARE OF SAID CODE SECTION, EXECUTIVE HEREBY EXPRESSLY WAIVES ANY RIGHTS EXECUTIVE MAY HAVE THEREUNDER, AS WELL AS UNDER ANY OTHER STATUTES OR COMMON LAW PRINCIPLES OF SIMILAR EFFECT.

6. Consulting, Non-Disparagement, Transition, Transfer of Company Property and Limitations on Service.

(a) *Consulting.* During the period of time commencing on the Termination Date and ending on the three month anniversary of the Termination Date, Executive shall be available, on a non-exclusive basis, as a consultant to respond to, and shall respond with reasonable promptness and completeness to, e-mail and telephone inquiries from the Company regarding transitional matters provided that such inquiries would not interfere in any significant manner with other business pursuits (including other

employment) by Executive. For each hour, or partial hour, of service performed by Executive at the request of the Company pursuant to the preceding sentence, Executive shall be entitled to be compensated as an independent contractor at the rate of \$300. As an independent contractor, Executive understands and agrees that he shall be responsible for any taxes with respect to the amounts paid to him pursuant to this Section 6(a) and that while performing any services under this Section 6(a) Executive shall not be eligible to participate in or accrue benefits under any Company benefit plan for which status as an employee of the Company is a condition of such participation or accrual. To the extent that Executive were deemed eligible to participate in any Company benefit plan, he hereby waives his participation. In addition, nothing in this Section 6(a) shall entitle Executive to the vesting of any stock options or otherwise prevent Executive's unvested stock options from terminating effective as of the Termination Date.

(b) *Non-Disparagement.* Executive agrees that he shall not disparage, criticize or defame the Company, its affiliates and their respective affiliates, directors, officers, agents, partners, stockholders or employees, either publicly or privately. The Company agrees that it shall not, and it shall instruct its officers and members of its Board of Directors to not, disparage, criticize or defame Executive, either publicly or privately. Nothing in this Section 6(b) shall have application to any evidence or testimony required by any court, arbitrator or government agency.

(c) *Transition.* Each of the Company and Executive shall use their respective reasonable efforts to cooperate with each other in good faith to facilitate a smooth transition of Executive's duties to other executive(s) of the Company.

(d) *Transfer of Company Property.* On or before the Termination Date, Executive shall turn over to the Company all files, memoranda, records, and other documents, and any other physical or personal property which are the property of the Company and which he had in his possession, custody or control at the time he signed this Agreement.

7. Executive Representations. Executive warrants and represents that (a) he has not filed or authorized the filing of any complaints, charges or lawsuits against the Company or any affiliate of the Company with any governmental agency or court, and that if, unbeknownst to Executive, such a complaint, charge or lawsuit has been filed on his behalf, he will immediately cause it to be withdrawn and dismissed, (b) he has reported all hours worked as of the date of this Agreement and has been paid all compensation, wages, bonuses, commissions, and/or benefits to which he may be entitled and no other compensation, wages, bonuses, commissions and/or benefits are due to him, except as provided in this Agreement, (c) he has no known workplace injuries or occupational diseases and has been provided and/or has not been denied any leave requested under the Family and Medical Leave Act or any similar state law, (d) the execution, delivery and performance of this Agreement by Executive does not and will not conflict with, breach, violate or cause a default under any agreement, contract or instrument to which Executive is a party or any judgment, order or decree to which Executive is subject, and (e) upon the execution and delivery of this Agreement by the Company and Executive, this Agreement will be a valid and binding obligation of Executive, enforceable in accordance with its terms.

8. No Assignment. Executive warrants and represents that no portion of any of the matters released herein, and no portion of any recovery or settlement to which Executive might be entitled, has been assigned or transferred to any other person, firm or corporation not a party to this Agreement, in any manner, including by way of subrogation or operation of law or

otherwise. If any claim, action, demand or suit should be made or instituted against the Company or any other Releasee because of any actual assignment, subrogation or transfer by Executive, Executive agrees to indemnify and hold harmless the Company and all other Releasees against such claim, action, suit or demand, including necessary expenses of investigation, attorneys' fees and costs.

9. Confidentiality. Executive agrees to keep the fact, terms and amount of this Agreement completely confidential, and not to disclose such information to anyone other than his current and former spouse, attorneys and licensed tax and/or professional investment advisors (hereafter referred to as "Executive's Confidants"), all of whom will be informed of and be bound by this confidentiality provision. Neither Executive nor Executive's Confidants shall disclose the fact, amount or terms of this Agreement to anyone including, but not limited to, any representative of any Internet, print, radio or television media, to any past, present or prospective applicant for employment with the Company, executive recruiter or "headhunter," to any counsel for any current or former employee of the Company, to any other counsel or third party, or to the public at large. Executive understands and agrees that any disclosure of information in violation of this confidentiality provision by Executive or by any of Executive's Confidants might cause the Company injury and damage, the actual amount of which would be impractical or extremely difficult to determine, and therefore the Company may seek equitable relief. Otherwise, any alleged violation of this confidentiality provision shall be resolved in accordance with the arbitration provisions herein. The Company shall have the burden of proving such violation by a preponderance of the evidence.

10. Governing Law. This Agreement shall be construed and enforced in accordance with, and the rights of the parties shall be governed by, the laws of the State of California or, where applicable, United States federal law, in each case, without regard to any conflicts of laws provisions or those of any state other than California.

11. Miscellaneous. This Agreement, together with the Confidentiality Agreement and the Original Option Agreements, comprise the entire agreement between the parties with regard to the subject matter hereof and supersedes, in their entirety, any other agreements between Executive and the Company with regard to the subject matter hereof, including, without limitation, the Offer Letter and Change of Control Agreement. Executive acknowledges that there are no other agreements, written, oral or implied, and that he may not rely on any prior negotiations, discussions, representations or agreements. This Agreement may be modified only in writing, and such writing must be signed by both parties and recited that it is intended to modify this Agreement. This Agreement may be executed in separate counterparts, each of which is deemed to be an original and all of which taken together constitute one and the same agreement.

12. Executive's Cooperation. Executive shall cooperate with the Company and its affiliates, upon the Company's reasonable request, with respect to any internal investigation or administrative, regulatory or judicial proceeding involving matters within the scope of Executive's duties and responsibilities to the Company during his employment with the Company (including, without limitation, Executive being available to the Company upon reasonable notice for interviews and factual investigations, appearing at the Company's reasonable request to give testimony without requiring service of a subpoena or other legal process, and turning over to the Company all relevant Company documents which are or may have come into Executive's possession during his employment); provided, however, that any such request by the Company shall not be unduly burdensome or interfere with Executive's personal schedule or ability to engage in gainful employment.

13. Attorneys' Fees. In the event that any dispute arises in connection with this Agreement, or the Original Option Agreements, the prevailing party will be entitled to recover its reasonable costs and attorney fees, including reasonable expert witness fees.

(Signature Page Follows)

IN WITNESS WHEREOF, the undersigned have caused this Separation Agreement to be duly executed and delivered as of the date indicated next to their respective signatures below.

DATED: 6 AUG, 2009

/s/ Robert S. Breuil
Robert S. Breuil

CODEXIS, INC.

DATED: 6 August, 2009

By: /s/ Andy Danforth
Andy Danforth
V.P. Human Resources

EXHIBIT A**SUMMARY OF OUTSTANDING OPTIONS**

<u>Option Grant Date</u>	<u>Option Shares</u>	<u>VCD</u>	<u>Option Expire Date</u>	<u>Option Exercise price</u>	<u>Total Option Shares</u>	<u>Vested as of June 30, 2009</u>	<u>Aggregate Exercise Price of Vested</u>
1/3/2006	300,000	1/3/2006	1/2/2016	\$ 0.70	300,000	256,249	\$ 179,374.30
1/26/2007	62,250	1/3/2006	1/25/2017	\$ 1.63	62,250	53,171	86,688.73
1/26/2007	62,250	12/31/2006	1/25/2017	\$ 1.63	62,250	37,609	61,302.67
8/28/2007	108,000	8/28/2007	8/27/2017	\$ 4.47	108,000	49,499	221,260.53
10/25/2007	108,000	10/25/2007	10/24/2017	\$ 4.57	108,000	44,999	205,645.43
6/9/2009	100,000	2/1/2009	6/2/2019	\$ 4.97	100,000	0	0.00
					Total	441,527	\$ 754,251.66



Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Tel : 650.980.5600
Fax : 650.298.5449
www.codexis.com

February 23, 2007

Douglas T. Sheehy, Esq.
[Address]

Dear Doug:

On behalf of Codexis, I'm delighted to confirm our verbal offer of full-time employment as Vice President, General Counsel & Corporate Secretary, reporting to Alan Shaw, President & CEO.

Your employment is subject to proof of your legal right to work in the United States, and to your completing the United States Citizenship and Immigration Service Employment Eligibility Verification Form I-9.

Compensation

If you accept this offer and begin employment with Codexis, you will receive an initial salary of \$18,333 per month (equivalent to \$220,000 per year), payable in periodic installments on our regular paydays. You will also be a participant in the Codexis Executive Cash Compensation Incentive Plan (prorated to your actual start date). For 2007, your target will be 30% of your annualized base salary, which will be awarded at the discretion of the Codexis Board of Directors based on the Company's performance relative to its corporate objectives for the year. You must be employed by Codexis on the date that the bonus is paid in order to be eligible for the bonus.

Signing Bonus

To make up for the 2006 CVT yearend bonus payable March 30, 2007, some or all of which you may lose in accepting this offer, Codexis will pay you as a signing bonus the difference between your actual CVT bonus and \$40,000 (less applicable withholding). This bonus is contingent upon your starting work with Codexis on or before April 2, 2007, and providing appropriate documentation, if necessary.

Stock Options

Subject to approval by the Codexis Board of Directors, you will be granted an option to purchase 150,000 shares of stock at an exercise price equal to the fair market value of the shares on the date the option is granted. The shares subject to the Option will vest one fourth or 25% on the first anniversary of your employment start date and thereafter will vest as to 1/48 of the shares subject to the Option per month for the following 36 months until the option is 100% vested. Your stock options will be subject to the terms of the Codexis Inc. 2002 Stock Plan and will be conditioned on your acceptance of an appropriate stock option agreement.

At the time of the Company-wide compensation review following yearend 2007, you will receive a minimum of 30,000 additional shares, contingent upon your performance and, again, subject to Board approval.

Change of Control Provisions

As an officer of Codexis, you will be eligible for certain change of control benefits. Attachment A defines "Change of Control" and your "Severance Benefits in the Event of a Change of Control." Upon your employment with the Company, you will receive a Change of Control Agreement.

Employee Benefits

As a fulltime employee, you will be eligible for the Codexis employee benefit plans, including medical, dental, vision, long and short-term disability plans, life insurance, a 401(k) savings plan, and our flexible time off plan that allows fulltime employees to accrue 20 days of flexible time off each year of employment.

Other Terms and Conditions of Employment

All employment with Codexis is at will. "Employment at will" means that you are free to resign from your employment at any time, for any reason or no reason at all, with or without cause and with or without notice. Similarly, Codexis may terminate your employment at any time for any legal reason, with or without cause and with or without notice. By accepting this offer of employment, you agree that your employment is at will, and acknowledge that no one, other than the President of Codexis or the Chairman of the Board of Directors of Codexis has the authority to promise you, either orally or in writing, anything to the contrary. Any such agreement must be in writing and signed by both you and such individual to be effective.

Employment with any other entity or for yourself in competition with Codexis, Maxygen or any affiliate or subsidiary of Maxygen is not permitted. If you want to take an outside job, paid or unpaid, you should discuss the outside opportunity with your manager and the Human Resources Department in advance so that we can determine if any actual or potential conflict of interest exists.

During the course of your employment, you may create, develop or have access to confidential information belonging to Codexis and/or Maxygen, including trade secrets and proprietary information, such as technical and scientific research and/or protocols, customer and supplier information, business plans, marketing plans, unpublished financial information, designs, drawings, innovations, inventions, discoveries, specifications, software, source codes, and personnel information. You agree that as a condition of your employment with Codexis, you will sign and comply with the Codexis Confidential Information, Secrecy and Invention Agreement.

Arbitration of Disputes

You agree that, except as described below, any dispute relating to your employment or the termination of your employment with Codexis will be finally settled by binding arbitration in Palo Alto, California before a neutral arbitrator of the American Arbitration Association ("AAA") under its National Rules for the Resolution of Employment Disputes. Claims subject to arbitration include, but are not limited to, claims under Title VII of the Civil Rights Act of 1964 (as amended) and other civil rights statutes of the United States, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Family and Medical Leave Act, the Employee Retirement Income Security Act of 1974, the California Fair Employment and Housing Act, the California Labor Code, and any other federal, state or local statute or regulation, and the common law of contract and tort. However, this agreement to arbitrate will not apply to claims (a) for workers' compensation, (b) for unemployment compensation or (c) injunctive relief arising out of or related to misappropriation of trade secrets or misuse or improper disclosure of confidential information, unfair competition or breach of any non-competition or non-solicitation agreement between you and Codexis.

You understand that by this agreement, you and Codexis are waiving your respective rights to trial by jury, and that judgment upon any arbitration award may be entered in any court having jurisdiction of the matter. Any controversy or claim subject to arbitration will be waived and forever barred if arbitration is not initiated within one year after the date the controversy or claim first arose, or if statutory rights are involved, within the time limit established by the applicable statute of limitations.

With regard to statutory claims, you and Codexis will have the same remedies available in arbitration as those available had the claim been filed in a court of law, including, where authorized by statute, compensatory and punitive damages, injunctive relief and attorneys' fees. Although Codexis will pay all costs of the AAA and the arbitrator, you agree to pay all costs you would otherwise be required to pay were your claims litigated in a court of law, such as costs of your attorney, deposition transcripts and expert witness fees and expenses.

The terms described in this letter replace all prior agreements, understandings and promises between Codexis and you concerning the terms and conditions of your employment with Codexis.

Doug, we're pleased to extend this offer of employment to you, and hope that your association with Codexis will be mutually successful and rewarding. Please indicate your acceptance of this offer by signing this letter below and returning it to me by February 27, 2007. A copy of the letter is enclosed for your records.

Sincerely,
Codexis, Inc.

By: /s/ Andy Danforth
Andy Danforth
VP, Human Resources
Codexis, Inc.

I understand and agree to the foregoing terms and conditions of employment with Codexis.

/s/ Doug Sheehy
Doug Sheehy, Esq.

2/26/07 April 2, 2007
Date Start Date

Attachment

Attachment A

Douglas Sheehy Offer Letter
Codexis, Inc.
Change of Control Definition and Benefits

Change of Control Definition

“Change of Control” means: (i) a dissolution or liquidation of the Company; (ii) a sale of all or substantially all the assets of the Company; (iii) a merger or consolidation in which the Company is not the surviving corporation and in which beneficial ownership of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors has changed; (iv) a reverse merger in which the Company is the surviving corporation but the shares of the common stock of the Company outstanding immediately before the merger are converted by virtue of the merger into other property, whether in the form of securities, cash or otherwise, and in which beneficial ownership of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors has changed; (v) an acquisition by any person, entity or group within the meaning of Section 13(d) or 14(d) of the Exchange Act, or any comparable successor provisions (excluding any employee benefit plan, or related trust, sponsored or maintained by the Company or subsidiary of the Company or other entity controlled by the Company) of the beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act, or comparable successor rule) of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors; or, (vi) in the event that the individuals who are members of the Incumbent Board cease for any reason to constitute at least fifty percent (50%) of the Board. Notwithstanding the foregoing, a Change of Control shall not include any transaction effected primarily for the purpose of financing the Company with cash (as determined by the Committee acting in good faith and without regard to whether such transaction is effectuated by a merger, equity financing or otherwise).

Severance Benefits in the Event of a Change of Control

(a) If within twelve (12) months following the date of a Change of Control of the Company either (i) the Company terminates the Executive’s employment other than for Cause, death or Disability or (ii) the Executive terminates his or her employment with the Company voluntarily with Good Reason, then in each case, subject to Section 4 and Section 5: (i) the Executive shall be entitled to receive a lump sum payment equal to one times the Executive’s yearly base salary in effect on the date of termination (without giving effect to any reduction in base salary subsequent to a Change of Control that constitutes Good Reason), (ii) each of the Executive’s outstanding stock options, all stock subject to repurchase, restricted stock awards and restricted stock purchases, and any options, stock subject to repurchase, awards or purchases held in the name of an estate planning vehicle for the benefit of the Executive or his or her immediate family, shall have their vesting and exercisability schedule accelerate in full

(or, as applicable, the corresponding repurchase right shall lapse in full) as of the date of termination; (iii) if on the date of termination the Executive is covered by any Company-paid health, disability, accident and/or life insurance plans or programs, the Company shall provide to the Executive benefits substantially similar to those that the Executive was receiving immediately prior to the date of termination (the "Company-Paid Coverage"). If such coverage included the Executive's spouse and/or dependents immediately prior to the date of termination, such spouse and/or dependents shall also be covered at Company expense. Company-Paid Coverage shall continue until the earlier of (x) one (1) year from the date of termination, or (y) the date that the Executive and his or her spouse and/or dependents become covered under another employer's health, disability, accident and/or life insurance plans or programs that provides the Executive and his or her spouse and/or dependents with comparable benefits and levels of coverage.

(b) If within twelve (12) months following the date of a Change of Control of the Company the Executive's employment with the Company is terminated as a result of death or Disability, then in each case, subject to Section 4 and Section 5: (i) each of the Executive's outstanding stock options, all stock subject to repurchase, restricted stock awards and restricted stock purchases, and any options, stock subject to repurchase, awards or purchases held in the name of an estate planning vehicle for the benefit of the Executive or his or her immediate family, shall have their vesting and exercisability schedule accelerated such that vesting (or, as applicable, the corresponding repurchase right lapsing) shall occur as if the vesting (or lapsing) had occurred on a monthly basis from the last date of vesting (or lapse) to the date of termination; and (ii) the Company will provide the Executive with health, disability, accident and/or life insurance benefits as described in Section 3(a)(iii).

(c) In no event shall the Executive be obligated to seek other employment or take any other action to mitigate the amounts payable to the Executive under this Agreement.

(d) The Executive's employment shall be deemed to have been terminated following a Change of Control by the Company without Cause or by the Executive with Good Reason if the Executive's employment is terminated prior to a Change of Control without Cause at the direction of a person who has entered into an agreement with the Company the consummation of which will constitute a Change of Control or if the Executive terminates his or her employment with Good Reason prior to a Change of Control if the circumstances or event that constitutes Good Reason occurs at the direction of such person.

CODEXIS, INC.

CHANGE OF CONTROL AGREEMENT

This CHANGE OF CONTROL AGREEMENT (the "Agreement"), dated January 7, 2008, is made by and between CODEXIS, INC., a Delaware corporation (the "Company"), and DOUGLAS T. SHEEHY (the "Executive").

WHEREAS, the Company considers it essential to the best interests of its stockholders to foster the continuous employment of key management personnel;

WHEREAS, the Board of Directors of the Company recognizes that, as is the case with many corporations, the possibility of a Change of Control (as defined herein) exists and that such possibility, and the uncertainty and questions that it may raise among management, may result in the departure or distraction of management personnel to the detriment of the Company and its stockholders; and

WHEREAS, the Board has determined that appropriate steps should be taken to reinforce and encourage the continued attention and dedication of members of the Company's management, including the Executive, to their assigned duties without distraction in the face of potentially disturbing circumstances arising from the possibility of a Change of Control.

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the Company and the Executive agree as follows:

1. Introduction; Purposes.

(a) The purpose of this Agreement is to provide the Executive with protection of certain benefits in case of a termination of his or her employment with the Company in connection with a Change of Control of the Company.

(b) The Company, by means of the Agreement, seeks to (i) secure and/or retain the services of the Executive and (ii) provide incentives for the Executive to exert maximum efforts for the success of the Company even in the face of a potential Change of Control of the Company.

2. Definitions.

(a) "Accountants" has the meaning given thereto in Section 4.

(b) "ADEA" has the meaning given thereto in Section 5(c).

(c) "Agreement" means this Change of Control Agreement.

(d) "Board" means the Board of Directors of the Company.

(e) "Cause" means the Executive's: (i) willful and continued failure to substantially perform the Executive's duties with the Company (other than as a result of physical or mental disability) after a written demand for substantial performance is delivered to the Executive by the Company, which demand specifically identifies the manner in which the Company believes that the Executive has not substantially performed the Executive's duties and that has not been cured within fifteen (15) days following receipt by the Executive of the written demand; (ii) commission of a felony (other than a traffic-related offense) that in the written determination of the Company is likely to cause or has caused material injury to the Company's business; (iii) dishonesty with respect to a significant matter relating to the Company's business; or (iv) material breach of any agreement by and between the Executive and the Company, which material breach has not been cured within fifteen (15) days following receipt by the Executive of written notice from the Company identifying such material breach.

(f) "Change of Control" means: (i) a dissolution or liquidation of the Company; (ii) a sale of all or substantially all the assets of the Company; (iii) a merger or consolidation in which the Company is not the surviving corporation and in which beneficial ownership of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors has changed; (iv) a reverse merger in which the Company is the surviving corporation but the shares of the common stock of the Company outstanding immediately before the merger are converted by virtue of the merger into other property, whether in the form of securities, cash or otherwise, and in which beneficial ownership of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors has changed; (v) an acquisition by any person, entity or group within the meaning of Section 13(d) or 14(d) of the Exchange Act, or any comparable successor provisions (excluding any employee benefit plan, or related trust, sponsored or maintained by the Company or subsidiary of the Company or other entity controlled by the Company) of the beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act, or comparable successor rule) of securities of the Company representing at least fifty percent (50%) of the combined voting power entitled to vote in the election of directors; or, (vi) in the event that the individuals who are members of the Incumbent Board cease for any reason to constitute at least fifty percent (50%) of the Board. Notwithstanding the foregoing, a Change of Control shall not include any transaction effected primarily for the purpose of financing the Company with cash (as determined by the Committee acting in good faith and without regard to whether such transaction is effectuated by a merger, equity financing or otherwise).

(g) "Code" means the Internal Revenue Code of 1986, as amended.

(h) "Committee" means the Compensation Committee of the Board or such other committee as appointed by the Board to administer this Agreement.

(i) "Company" means Codexis, Inc., a Delaware corporation.

(j) "Company-Paid Coverage" has the meaning given thereto in Section 3(a).

(k) “Confidential Information, Secrecy and Invention Agreement” has the meaning given thereto in Section 5(b).

(l) “Disability” means the Executive’s physical or mental disability that prevents the Executive from satisfactorily performing the normal duties and responsibilities of the Executive’s office in the good faith determination of the Committee for a period of more than one hundred twenty (120) consecutive days.

(m) “Effective Date” means the date first above written.

(n) “Employee Agreement and Release” has the meaning given thereto in Section 5(c).

(o) “Exchange Act” means the Securities Exchange Act of 1934, as amended.

(p) “Excise Tax” has the meaning given thereto in Section 4.

(q) “Executive” means the person identified in the introductory paragraph of this Agreement.

(r) “Good Reason” means: (i) any material reduction of the Executive’s duties, authority or responsibilities relative to the Executive’s duties, authority, or responsibilities as in effect immediately before such reduction, except if agreed to in writing by the Executive; (ii) a reduction by the Company in the base salary of the Executive, or of twenty-five percent (25%) or more in the Target Bonus opportunity of such Executive, as in effect immediately before such reduction, except if agreed to in writing by the Executive; (iii) the relocation of the Executive to a facility or a location more than thirty (30) miles from the Executive’s then present business location, except if agreed to in writing by the Executive; (iv) a material breach by the Company of any provision of this Agreement or (v) any failure of the Company to obtain the assumption of this Agreement by any successor or assign of the Company.

(s) “Incumbent Board” means the individuals who, as of the Effective Date, are members of the Board. If the election, or nomination for election by the Company’s stockholders, of any new director is approved by a vote of at least fifty percent (50%) of the Incumbent Board, such new director shall be considered as a member of the Incumbent Board.

(t) “Section 16 Officer” means an “officer” of the Company, as defined in Rule 16a-1(f) promulgated under the Exchange Act, designated as such by action of the Board, and shall include an individual who would be a Section 16 Officer but for the fact that the Company is not subject to the reporting requirements of the Exchange Act.

(u) “Target Bonus” means the Executive’s target bonus for the then current fiscal year, as set by the Board or the appropriate committee thereof.

3. Severance Benefits in the Event of a Change of Control

(a) If within eighteen (12) months following the date of a Change of Control of the Company either (i) the Company terminates the Executive's employment other than for Cause, death or Disability or (ii) the Executive terminates his or her employment with the Company voluntarily with Good Reason, then in each case, subject to Section 4 and Section 5: (i) the Executive shall be entitled to receive a lump sum payment equal to one times the Executive's yearly base salary in effect on the date of termination (without giving effect to any reduction in base salary subsequent to a Change of Control that constitutes Good Reason), (ii) each of the Executive's outstanding stock options, all stock subject to repurchase, restricted stock awards and restricted stock purchases, and any options, stock subject to repurchase, awards or purchases held in the name of an estate planning vehicle for the benefit of the Executive or his or her immediate family, shall have their vesting and exercisability schedule accelerate in full (or, as applicable, the corresponding repurchase right shall lapse in full) as of the date of termination; (iii) if on the date of termination the Executive is covered by any Company-paid health, disability, accident and/or life insurance plans or programs, the Company shall provide to the Executive benefits substantially similar to those that the Executive was receiving immediately prior to the date of termination (the "Company-Paid Coverage"). If such coverage included the Executive's spouse and/or dependents immediately prior to the date of termination, such spouse and/or dependents shall also be covered at Company expense. Company-Paid Coverage shall continue until the earlier of (x) one (1) year from the date of termination, or (y) the date that the Executive and his or her spouse and/or dependents become covered under another employer's health, disability, accident and/or life insurance plans or programs that provides the Executive and his or her spouse and/or dependents with comparable benefits and levels of coverage.

(b) If within twelve (12) months following the date of a Change of Control of the Company the Executive's employment with the Company is terminated as a result of death or Disability, then in each case, subject to Section 4 and Section 5: (i) each of the Executive's outstanding stock options, all stock subject to repurchase, restricted stock awards and restricted stock purchases, and any options, stock subject to repurchase, awards or purchases held in the name of an estate planning vehicle for the benefit of the Executive or his or her immediate family, shall have their vesting and exercisability schedule accelerated such that vesting (or, as applicable, the corresponding repurchase right lapsing) shall occur as if the vesting (or lapsing) had occurred on a monthly basis from the last date of vesting (or lapse) to the date of termination; and (ii) the Company will provide the Executive with health, disability, accident and/or life insurance benefits as described in Section 3(a)(iii).

(c) In no event shall the Executive be obligated to seek other employment or take any other action to mitigate the amounts payable to the Executive under this Agreement.

(d) The Executive's employment shall be deemed to have been terminated following a Change of Control by the Company without Cause or by the Executive with Good Reason if the Executive's employment is terminated prior to a Change of Control

without Cause at the direction of a person who has entered into an agreement with the Company the consummation of which will constitute a Change of Control or if the Executive terminates his or her employment with Good Reason prior to a Change of Control if the circumstances or event that constitutes Good Reason occurs at the direction of such person.

4. Parachute Payments; Excise Tax.

In the event that the severance, acceleration of stock options and other benefits payable to the Executive under this Agreement or otherwise as a result of a Change of Control of the Company (i) constitute "parachute payments" within the meaning of Section 280G (as it may be amended or replaced) of the Code and (ii) but for this Section 4, would be subject to the excise tax imposed by Section 4999 (as it may be amended or replaced) of the Code (the "Excise Tax"), then the Executive's benefits payable in connection therewith shall be either

- (a) delivered in full, or
- (b) delivered as to such lesser extent that would result in no portion of such benefits being subject to the Excise Tax,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the Excise Tax, results in the receipt by the Executive on an after-tax basis, of the greatest amount of benefits, notwithstanding that all or some portion of such benefits may be taxable under the Excise Tax. Unless the Company and the Executive otherwise agree in writing, any determination required under this Section 4 shall be made in writing in good faith by the outside accounting firm responsible for auditing the Company's financial records (the "Accountants"). In the event of a reduction in benefits hereunder, the Executive shall be given the choice of which benefits to reduce. For purposes of making the calculations required by this Section 4, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of the Code.

The Company and the Executive shall furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section 4. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 4.

5. Limitations and Conditions on Benefits.

The benefits and payments provided under this Agreement shall be subject to the following terms and limitations:

- (a) Withholding Taxes. The Company shall withhold required federal, state and local income and employment taxes from any payments hereunder.

(b) Confidential Information, Secrecy and Invention Agreement Prior to Receipt of Benefits The Executive shall have executed and delivered to the Company a standard form of the Company's confidential information, secrecy and invention agreement, a copy of the current form of which is attached as Exhibit A (the "Confidential Information, Secrecy and Invention Agreement"), prior to the receipt or provision of any benefits (including the acceleration benefits) under this Agreement. Additionally, the Executive agrees that all documents, records, apparatus, equipment and other physical property that is furnished to or obtained by the Executive in the course of his or her employment with the Company shall be and shall remain the sole property of the Company. The Executive agrees not to make or retain copies, reproductions or summaries of any such property, except as otherwise necessary while acting in the normal course of business. In the event of any material breach by the Executive of the Confidential Information, Secrecy and Invention Agreement that is not cured within thirty (30) days of notice of such breach to the Executive, all benefits payable under Section 4 of this Agreement shall immediately terminate.

(c) Employee Agreement and Release Prior to Receipt of Benefits If the Executive's employment with the Company terminates involuntarily other than for Cause, death or Disability, or the Executive terminates his or her employment with the Company voluntarily with Good Reason, then prior to, and as a condition of the receipt of any benefits (including the acceleration of benefits) under this Agreement on account of such termination, the Executive shall, as of the date of such termination, execute an employee agreement and release in the form attached as Exhibit B (the "Employee Agreement and Release") prior to receipt of benefits. Such Employee Agreement and Release shall specifically relate to all the Executive's rights and claims in existence at the time of such execution and shall confirm the Executive's obligations under the Company's standard form of Confidential Information, Secrecy and Invention Agreement. If and only if the Executive is covered by the federal Age Discrimination in Employment Act of 1967, as amended ("ADEA") (currently all those 40 years of age or over on the date of termination), the Executive has twenty-one (21) days to consider whether to execute such Employee Agreement and Release and the Executive may revoke such Employee Agreement and Release within seven (7) days after execution of such Employee Agreement and Release. In the event the Executive is covered by ADEA and does not execute such Employee Agreement and Release within the twenty-one (21) days specified above, or if the Executive revokes such Employee Agreement and Release within the seven (7) day period specified above, no benefits (including the acceleration benefits) under Section 3 of this Agreement shall be payable or made available to the Executive on account of a termination.

6. Termination. Prior to a Change of Control of the Company, this Agreement shall automatically terminate on the date the Executive ceases to be a Section 16 Officer, as evidenced by action of the Board removing the Executive as a Section 16 Officer or otherwise; provided, however, that if the Executive ceases to be a Section 16 Officer prior to a Change of Control at the direction of a person who has entered into an agreement with the Company the consummation of which will constitute a Change of Control, this Agreement shall not terminate due to the change in status of the Executive.

7. At-Will Employment. The Company and the Executive acknowledge that the Executive's employment is and shall continue to be at-will, as defined under applicable law. This Agreement shall not be construed as creating an express or implied contract of employment between the Executive and the Company. The Executive shall not have any right to be retained in the employment of the Company.

8. Notices. Any notice provided under this Agreement shall be in writing and shall be deemed to have been effectively given (i) upon receipt when delivered personally, (ii) one day after sending when sent by express mail service (such as Federal Express), or (iii) five (5) days after sending when sent by regular mail to the following address:

In the case of the Company:

Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Attn: Human Resources

In the case of the Executive:

Douglas Sheehy
[Address]

or to such other address as the Company or the Executive hereafter designates by written notice in accordance with this Section 8.

9. Litigation/Arbitration Expenses. Reasonable litigation and/or arbitration costs and expenses shall be paid by the Company, win or lose, in connection with any dispute between the Company (and its successors) and the Executive concerning this Agreement; provided, however, that if the litigation or arbitration is found to have been commenced in bad faith by the Executive, the Executive shall bear all of his or her own costs and expenses in connection with such litigation or arbitration.

10. Successors and Assigns. This Agreement is intended to bind and inure to the benefit of and be enforceable by the Executive, and the Company, and any surviving entity resulting from a Change of Control and upon any other person who is a successor by merger, acquisition, consolidation or otherwise to the business formerly carried on by the Company, and their respective successors, assigns, heirs, executors and administrators, without regard to whether or not such person actively assumes any rights or duties hereunder; provided, however, that the Executive may not assign any duties hereunder without the prior written consent of the Company.

11. Miscellaneous.

(a) No provision of this Agreement may be modified, waived or discharged unless such waiver, modification or discharge is agreed to in writing by each of the parties.

(b) No agreements or representations, oral or otherwise, express or implied, with respect to the subject matter hereof have been made by either party that are not expressly set forth in this Agreement.

(c) The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, which shall remain in full force and effect.

12. Governing Law. This Agreement shall be governed by, and construed in accordance with, the laws of the State of California, regardless of the law that might be applied under applicable principles of conflicts of law.

13. Entire Understanding. This Agreement constitutes the entire agreement and understanding between the parties hereto with respect to the termination of the Executive's employment after a Change of Control, and supersedes all other prior agreements, representations and understandings, both written and oral, between the parties hereto with respect to the subject matter hereof.

CODEXIS, INC.

By: /s/ Alan Shaw

Name: Alan Shaw

Title: President & CEO

THE EXECUTIVE

/s/ Douglas T. Sheehy

Name: Douglas T. Sheehy

CODEXIS, INC.

**CONFIDENTIAL INFORMATION, SECRECY, AND INVENTION
AGREEMENT**

This Agreement is entered into on _____, 200__ between Codexis (“Codexis” or “the Company”), a Delaware corporation, and _____ (“Employee”).

In consideration of Employee’s employment by Codexis and the compensation paid to Employee, this Agreement being a condition of that employment, Employee and Codexis agree as follows:

1. DEFINITIONS

For purposes of this Agreement, the following terms have the following definitions:

(a) **Confidential Information** means proprietary techniques and confidential information that Codexis develops, compiles or owns, or that Codexis receives under conditions of confidentiality from the entities with which it has business relationships. Confidential Information may be disclosed to or developed, learned or acquired by Employee in the course of Employee’s employment with Codexis, whether or not related to Employee’s duties. Confidential Information is broadly defined, and includes (i) all information that has or could have commercial value or other utility in the businesses in which Codexis is engaged or in which it contemplates engaging, and (ii) all information that, if disclosed without authorization, could be detrimental to the interests of Codexis or the entities with which it has business relationships, whether or not this information is identified as Confidential Information. By example, and without limitation, Confidential Information includes but is not limited to Codexis’s research programs, product development, biological materials, research methods, related products, technology, inventions, patent applications, trade secrets or other products and any other information of value relating to the business affairs and/or fields of interest of Codexis, whether communicated orally or in writing, including without limitation, concepts, techniques, processes, designs, biological materials, methods for developing or identifying novel products, cost data, and other technical know-how, financial, research, marketing and personnel information, and other business information including information with respect to which Codexis is under an obligation of confidentiality with any third party. Confidential Information does not include information: (i) generally known in the relevant trade or industry; or (ii) known to and freely usable by Employee before Employee’s employment by Codexis; and Confidential Information shall not be deemed to be generally known (x) merely because it is embraced by more general information subject to the above, or (y) merely because it is published in general terms without description of the specific Confidential Information subject to this section.

(b) **Invention(s)** means any and all inventions, discoveries, original works of authorship, developments, improvements, formulas, techniques, concepts, data and ideas (whether or not patentable or registrable under copyright or similar statute) made, conceived, reduced to practice, or learned by Employee, either alone or jointly with others, that (i) result from work performed by Employee for Codexis, (ii) utilize the equipment, supplies, facilities, or Confidential Information of Codexis or are made, conceived or completed during hours in which Employee is employed by Codexis, or (iii) are related to the business or the actual or demonstrably anticipated research or development of Codexis.

(c) **Trade Secret(s)** means all information, know-how, concepts, data, ideas and materials, however embodied, relating to the business of Codexis or to entities with which Codexis has business relationships, which have not been released publicly by an authorized representative of Codexis or have not otherwise lawfully entered the public domain.

(d) **Effective Date** means the date on which this Agreement will become effective. The Effective Date is the earlier of (i) the beginning of Employee's employment with Codexis, or (ii) the date and time at which any Confidential Information was, or is, first disclosed to Employee.

2. EMPLOYEE'S PRIOR KNOWLEDGE AND RELATIONSHIPS

(a) Prior Knowledge. Except as is disclosed on Exhibit B to this Agreement, Employee does not know anything about the Company's Confidential Information, other than information learned from Codexis.

(b) Prior Relationships. Employee has no other agreements, relationships, or commitments to any other person or entity that conflict with Employee's obligations to Codexis under this Agreement. Employee will not use or disclose to Codexis, or induce Codexis to use or disclose, any confidential information, trade secret, or proprietary information or material belonging to any third party. Employee represents and acknowledges that Employee's employment with Codexis will not require Employee to violate any obligation to or confidence with another. Employee represents and warrants that Employee has returned all property and confidential information belonging to all prior employers. In the event Employee is sued for breach of any obligation or agreement to which Employee is a party or is bound, Employee agrees to indemnify Codexis fully for all liabilities, costs, verdicts, judgments, settlements, attorneys' fees and other losses incurred by Codexis.

3. PROTECTION OF CONFIDENTIAL INFORMATION

(a) Employee acknowledges and agrees that Confidential Information constitutes a valuable asset of Codexis, and is the sole property of Codexis.

(b) At all times during and after Employee's employment with Codexis, Employee will hold in trust, keep confidential and not disclose to any third party, or make any use of, the Confidential Information of Codexis or of the entities with which Codexis has business relationships, except as may be necessary in the course of Employee's employment, without the prior written consent of the Chief Executive Officer of Codexis. Employee agrees to abide by policies established by Codexis for the protection of Confidential Information, and to take reasonable security precautions to safeguard Confidential Information, including without limitation, the protection of documents from theft, unauthorized duplication and discovery of contents, and restrictions on access by other persons. Employee further agrees not to cause the transmission, removal, or transport of any Confidential Information from Codexis's principal place of business, or any other place of business as specified by the Chief Executive Officer of Codexis, except as required in the course of Employee's employment, without the prior written approval of the Chief Executive Officer of Codexis.

(c) Employee acknowledges that unauthorized use or disclosure of Confidential Information may be highly prejudicial to the interests of Codexis or the entities with which Codexis has business relationships, an invasion of privacy, or a misappropriation or improper disclosure of trade secrets.

(d) Employee acknowledges that all documents including, but not limited to, software, computer programs, tapes, printouts, records, databases, manuals, letters, notebooks, reports, blueprints, drawings, sketches, photographs, customer lists, and other evidence of Confidential Information and other information concerning the business, operations, or plans of Codexis or the entities with which Codexis has strategic relationships, including copies, whether produced by Employee or others, are at all times the property of Codexis or the entities with which Codexis has strategic relationships, and will be treated as Confidential Information.

(e) Employee acknowledges that Codexis has received and in the future may receive confidential or proprietary information from third parties, subject to a duty on Codexis's part to maintain the confidentiality of the information and to use it only for certain limited purposes. Employee agrees to hold all such confidential or proprietary information in the strictest confidence in compliance with the terms of any agreement Codexis may have with such third parties, and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out Employee's duties for Codexis, consistent with the terms of any agreement Codexis may have with such third parties.

(f) Employee acknowledges that any unauthorized use or disclosure to third parties of Confidential Information of Codexis or the entities with which Codexis has strategic relationships during employment will lead to disciplinary action, up to and including immediate termination, and any unauthorized use or disclosure during or after employment can lead to legal action by Codexis.

4. EMPLOYEE'S OBLIGATIONS ON TERMINATION OF EMPLOYMENT

(a) Return of Company Property. Upon separation from employment with Codexis for any reason, Employee will promptly deliver to Codexis all Company documents and materials pertaining to (i) Employee's employment, (ii) the Confidential Information of Codexis or the other entities with which Codexis has strategic relationships, and (iii) Inventions of Codexis (as defined above), whether prepared by Employee or otherwise coming into Employee's possession or control, except that Employee may retain personal copies of records relating to Employee's compensation and this Agreement. Company "documents" include, but are not limited to, drawings, sketches, photographs, charts, graphs, notebooks, customer lists, computer disks, tapes or printouts, sound recordings and other printed, type-written or handwritten documents. Company "materials" include, but are not limited to, biological materials, including cell lines, plasmids, vectors and DNA. Employee also agrees to return to Codexis all equipment, files, software programs and other personal property belonging to Codexis on separation from employment. Employee will not retain any written or other tangible materials (in hard copy or electronic form) that evidence, contain or reflect Confidential Information or Inventions of Codexis.

(b) Termination Certificate. Employee agrees to sign the Termination Certificate, a copy of which is contained in Exhibit A to this Agreement on separation from employment.

(c) Protection of Codexis's Confidential Information and Inventions. If Employee's employment with Codexis is terminated for any reason, Employee will protect the value of Codexis's Confidential Information and Inventions and will prevent their theft or disclosure. Employee will not use or disclose Confidential Information or Inventions for Employee's benefit (or for the benefit of any third party) or to the detriment of Codexis, at any time after separation from employment.

(d) Non-Interference with Codexis Employees. Employee agrees that, both during employment and for a period of twelve (12) months following separation from employment for any reason, Employee will not disrupt, damage, impair or interfere with Codexis's business by recruiting, soliciting or otherwise inducing any Codexis employee or exclusive consultant to enter into employment or an exclusive consulting relationship with any other business entity that competes with Codexis.

(e) Non-Interference with Codexis Customers. Employee also agrees that, both during employment and for a period of twelve (12) months following separation from employment for any reason, Employee will not (i) call on, solicit, or take away (directly or indirectly), or (ii) attempt to call on, solicit or take away any Codexis customer or potential customer whom the Company has identified during the term of Employee's employment with Codexis, either for Employee's own benefit or for the benefit of another person or entity, nor will Employee solicit or induce any customer or potential customer to terminate a business relationship with Codexis.

(f) Legal Sanctions. Employee understands that the unauthorized taking of any of Codexis's trade secrets could result in civil liability under the California Uniform Trade Secrets Act (Civil Code §§ 3436-3426.11) and other laws, and that willful misappropriation may result in an award against Employee for triple the amount of Codexis's damages and attorneys' fees in collecting these damages.

5. INVENTIONS

(a) Disclosure. Employee will promptly disclose all Inventions to Codexis in writing.

(b) Assignment. All Inventions are the sole property of Codexis or Codexis's designee. Employee hereby assigns to Codexis, without royalty or further consideration to Employee, all right, title, and interest Employee may have, or may acquire, in and to all Inventions, including but not limited to, patents and copyrights. Employee agrees that Codexis or its designee will be the sole owner of all domestic and foreign patents, patent rights, copyrights, and other rights pertaining to all these Inventions. Employee further agrees that all copyrightable materials that Employee prepares, individually or in cooperation with others, that is specifically requested by Codexis or commissioned for use as a contribution to a collective work, or as a supplementary work, a compilation, or an instructional text, as these terms are defined by 17 U.S.C. §101, will be considered a "work made for hire," as that term is defined by 17 U.S.C. §101.

(c) Execution of Documents. Whenever requested by Codexis, Employee will promptly sign and deliver to Codexis, both during and after employment, any and all applications, assignments and other documents that Codexis considers necessary or desirable in order to apply for, obtain, and maintain letters patent of the United States and to foreign countries for these Inventions, and to assign and convey to Codexis or its designee the sole and exclusive right, title, and interest in and to Inventions or any applications or patents thereon, or provide any other evidence of the assignment of all rights of Employee, if any, in any Inventions, and Codexis's ownership of these Inventions, without royalty or any other further consideration to Employee.

(d) Assistance to Codexis. Whenever requested by Codexis, both during and after employment, Employee will assist Codexis, at Codexis's expense, in obtaining, maintaining, defending, registering and from time to time enforcing, in any and all countries, Codexis's right to the Inventions and related intellectual property rights. This assistance may include, without limitation, testifying in a suit or other proceeding, executing all documents deemed by Codexis to be necessary or convenient for use in applying for, obtaining, and enforcing patents, copyrights, or other rights, and executing all necessary assignments to Codexis or its designee. If Codexis requires assistance from Employee after termination of Employee's employment, Employee will be compensated for time actually spent in providing assistance at an hourly rate equivalent to Employee's salary or wages upon termination of employment.

(e) Power of Attorney. If Codexis cannot obtain Employee's signature on any document necessary to apply for, prosecute, obtain or enforce any patent, copyright or

other right or protection relating to any Invention, whether due to Employee's mental or physical incapacity, or any other reason, Employee hereby irrevocably designates and appoints Codexis and each of its duly authorized officers and agents as Employee's agent and attorney-in-fact, to act for, and on Employee's behalf, to execute and file any such document and to do all other lawfully permitted acts to further the prosecution, issuance, and enforcement of patents, copyrights, or other rights or protections, with the same force and effect as if executed and delivered by Employee.

(f) Evidence. Employee agrees, whenever requested to do so by Codexis, both during and after employment, to deliver to Codexis any evidence required for legal proceedings and to testify in any such proceedings, and otherwise to cooperate as reasonably requested by Codexis in connection therewith.

(g) Records of Inventions. Employee agrees to keep adequate and current written records of all Inventions, in the form of notes, sketches, drawings and/or reports, which records are, and will remain, the property of Codexis and will be available to Codexis at all times.

(h) California Labor Code § 2870. This Paragraph does not apply to an Invention that is subject to the provisions of Section 2870 of the California Labor Code, which is reprinted in its entirety in Exhibit B to this Agreement.

6. EXCLUDED INVENTIONS

Employee represents that any inventions, original works of authorship, discoveries, concepts or ideas, if any ("Excluded Inventions"), to which Employee presently has any right, title or interest, and which were previously conceived either wholly or in part by Employee, and that Employee desires to exclude from the operation of this Agreement are identified on Exhibit C of this Agreement. Employee represents that the list contained in Exhibit C is complete to the best of Employee's knowledge, and that the exclusion of any Inventions from the list will not materially affect Employee's ability to perform all obligations under this Agreement. The Company agrees to receive and hold all disclosures in confidence.

7. INJUNCTIVE RELIEF

Employee acknowledges that it would be difficult for Codexis to measure actual damages resulting from any breach by Employee of Paragraphs 2 through 5 of this Agreement, and that money damages alone would be an inadequate remedy for any such breach. Accordingly, Employee agrees that if Employee breaches any provision of Paragraphs 2 through 5, Codexis will be entitled, in addition to any other remedies it may have, to specific performance, injunctions, or other appropriate orders to correct or restrain any such breach by Employee, without showing or proving any actual damage sustained by Codexis or posting any bond or other security.

8. ATTORNEY FEES

If any action is necessary to enforce this Agreement, including any action under Paragraph 7, the prevailing party will be entitled to recover its reasonable costs and attorney fees, including reasonable expert witness fees.

9. NON-COMPETITION

(a) Employee agrees that, during the term of employment with Codexis, Employee will not establish or act, directly or indirectly, by way of ownership, management or otherwise, whether or not for compensation, as a consultant, employer, employee, agent, principal, partner, stockholder (other than ownership of less than 5% of the outstanding capital stock of a publicly-traded corporation), officer, director or in any other representative or individual capacity for any business that (i) is similar to, or (ii) is directly competitive with, or (iii) provides goods or services to any aspect of the business in which Codexis is engaged or contemplates engaging.

(b) Employee agrees not to enter into any agreement that contains any term that may conflict, either actually or potentially, with the terms of this Agreement.

(c) Employee agrees that during the employment term, Employee will not take for Employee's own use, and will promptly notify Codexis of, any and all business opportunities of which Employee becomes aware that relate, directly or indirectly, to the current or reasonably anticipated future business of Codexis.

10. NON-DISPARAGEMENT

Employee agrees that, during employment with Codexis and thereafter, Employee will not make comments, whether oral or in writing, that tend to disparage or injure Codexis, its officers, directors, agents, employees, products and services. Nothing in this Agreement will be construed to preclude Employee from complying with the terms of a validly issued subpoena.

11. NOTIFICATION TO NEW EMPLOYER

In the event that Employee's employment with Codexis terminates for any reason, Employee hereby grants consent to Codexis to notify Employee's new employer about Employee's rights and obligations under this Agreement.

12. AT-WILL EMPLOYMENT

This Agreement expressly defines certain obligations of Employee that will apply during and after Employee's employment with Codexis. This Agreement is not a contract of employment and does not alter the employment relationship between Employee and Codexis, which at all times remains at will. At will employment means that Employee's employment and compensation can be terminated by either party, with or without cause and with or without advance notice.

13. GENERAL TERMS

(a) Employee agrees that upon the request of Codexis, Employee will meet with representatives of Codexis to review the terms of this Agreement and Employee's obligations under it.

(b) Employee will keep Codexis advised of Employee's home and business address for a period of three years after termination of Employment, so that Codexis can contact Employee regarding the continuing obligations imposed by this Agreement.

(c) To the extent any provision of this Agreement, or any portion thereof, is found to be illegal or unenforceable for any reason, the provision or portion will be modified or deleted in such manner so as to make the Agreement as modified legal and enforceable under the applicable laws, and the balance of the Agreement will be construed as severable and independent.

(d) This Agreement will be binding upon Employee and Employee's heirs, executors, assigns, and administrators, and will inure to the benefit of Codexis, its successors, designees, and assigns.

(e) This Agreement will be governed by the laws of the State of California and will in all respects be interpreted and enforced under the laws of California, without reference to principles of conflicts of laws.

(f) Employee and Codexis specifically agree that any legal action relating to this Agreement will be instituted and prosecuted in the courts in San Mateo County, California. Each party hereby waives the right to change venue, and consents to personal jurisdiction for purposes of any action arising under this Agreement.

(g) The language of all parts of this Agreement will in all cases be construed as a whole, according to its fair meaning and not strictly for or against either of the parties.

(h) This Agreement may be signed in two counterparts, each of which shall be deemed an original.

(i) The use of the singular in this Agreement includes the plural, as appropriate.

(j) This Agreement sets forth the entire Agreement between Employee and Codexis with respect to its subject matter, and it fully supersedes any and all previous oral or written communications, correspondences, representations, promises, or agreements between the parties relating to this subject. No party has been induced to enter into this Agreement by, nor is any party relying on, any representation or warranty outside of those expressly set forth in this Agreement.

(k) This Agreement may not be supplemented, changed or otherwise modified except by an instrument in writing signed by both Employee and an authorized representative of Codexis.

(l) Waiver by Codexis of a breach of any provision of this Agreement or of another employee's agreement will not waive any other or subsequent breach by Employee.

(m) The following exhibits constitute part of this Agreement and are incorporated by reference:

Exhibit A – Termination Certificate

Exhibit B – Written Notification to Employee of California Labor Code §2870

Exhibit C – Employee Statement

14. SURVIVAL OF AGREEMENT

The rights and obligations of the parties to this Agreement will survive termination of employment of Employee with Codexis.

Employee has carefully read this Agreement, and understands its terms. Employee has completely filled out Exhibits A and C, and has received a copy of Exhibit B, Written Notification to Employee of California Labor Code § 2870. Employee signs this Agreement freely and voluntarily.

EMPLOYEE

Name: _____

Date: _____

Signature: _____

CODEXIS, INC.

Name: _____

Date: _____

Signature: _____

EXHIBIT A

TERMINATION CERTIFICATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, sketches, materials, equipment, other documents or property or any reproductions of any of these items belonging to Codexis, its subsidiaries, affiliates, successors or assigns (collectively "the Company").

I further certify that I have complied with, and will continue to comply with, all the terms of the Codexis Confidential Information, Secrecy and Invention Agreement that I signed, including the reporting of any inventions or original works of authorship, as defined in that Agreement, conceived or made by me (jointly or with others) that are covered by that Agreement.

I agree that, in compliance with the Confidential Information, Secrecy and Invention Agreement, I will preserve as confidential, and not use, any or all Confidential Information, Inventions, or other information that has or could have commercial value or other utility in the business in which Codexis is engaged or in which it contemplates engaging. I will not use or participate in the unauthorized disclosure of information that could be detrimental to the interests of Codexis, whether or not such information is identified as Confidential Information.

I further agree that for a period of twelve (12) months immediately following the termination of my relationship with the Company for any reason, I will not either directly or indirectly:

(a) disrupt, damage, impair or interfere with Codexis's business by recruiting, soliciting or otherwise inducing any Codexis employee or exclusive consultant to enter into employment or an exclusive consulting relationship with any other business entity that competes with Codexis; or

(b) (i) call on, solicit, or take away (directly or indirectly), or (ii) attempt to call on, solicit or take away any Codexis customer or potential customer whom the Company has identified during the term of Employee's employment with Codexis, either for my own benefit or for the benefit of another person or entity, nor solicit or induce any customer or potential customer to terminate a business relationship with Codexis.

Upon the termination of my employment with Codexis, I will be employed by _____

and will be working in connection with the following projects:

Dated: _____

[Employee Signature]

[Employee Name Printed]

Address for Notifications:

EXHIBIT B

**WRITTEN NOTIFICATION TO EMPLOYEE OF
CALIFORNIA LABOR CODE § 2870**

In accordance with California Labor Code section 2870, you are hereby notified that your Confidential Information, Secrecy and Invention Agreement does not require you to assign to Codexis any invention for which no equipment, supplies, facility, or trade secret information of Codexis was used, that was developed entirely on your own time, and that does not relate to the business of Codexis or to Codexis's actual or demonstrably anticipated research or development, or does not result from any work performed by you for Codexis.

The text of California Labor Code section 2870 is set forth below.

**CALIFORNIA LABOR CODE § 2870
INVENTION ON OWN TIME — EXEMPTION FROM AGREEMENT.**

(a) Any provision in an employment agreement which provides that an employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:

(1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer; or

(2) Result from any work performed by the employee for the employer.

(b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable.

I hereby acknowledge receipt of this written notification.

Dated: _____

[Employee Signature]

[Employee Name Printed]

EXHIBIT C

EMPLOYEE STATEMENT

1. Confidential Information. Except as set forth below, I acknowledge at this time that I know nothing about the Confidential Information of Codexis, except information that has been disclosed to me by Codexis. If I know of no such information, I will so state.

2. Prior Inventions. Except as set forth below, I acknowledge at this time that I have not made or reduced to practice (alone or jointly with others) any inventions relevant to the subject matter of my employment with Codexis. If there are no such inventions, I will so state.

Dated: _____

[Employee Signature]

[Employee Name Printed]

CODEXIS, INC.

AGREEMENT AND RELEASE

I hereby confirm my obligations under the Confidential Information, Secrecy and Invention Agreement that I have previously entered into with the Company.

I acknowledge that I have read and understand Section 1542 of the California Civil Code that reads as follows:

A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with debtor.

I hereby expressly waive and relinquish all rights and benefits under that section and any law of any jurisdiction of similar effect with respect to my release of any claims I may have against the Company.

Except as otherwise set forth in this Agreement and Release (the "Release") and except for obligation of the Company set forth in the Change of Control Agreement entered into between the Company and me, I hereby release, acquit and forever discharge the Company, its parents and subsidiaries, and their officers, directors, agents, servants, employees, shareholders, successors, assigns and affiliates, of and from any and all claims, liabilities, demands, causes of action, costs, expenses, attorneys fees, damages, indemnities and obligations of every kind and nature, in law, equity, or otherwise, known and unknown, suspected and unsuspected, disclosed and undisclosed (other than any claim for indemnification I may have as a result of any third party action against me based on my employment with the Company), arising out of or in any way related to agreements, events, acts or conduct at any time prior to and including the Effective Date of this Release (as defined below), including but not limited to: all such claims and demands directly or indirectly arising out of or in any way connected with my employment with the Company or the termination of that employment, including but not limited to, claims of intentional and negligent infliction of emotional distress, any and all tort claims for personal injury, claims or demands related to salary, bonuses, commissions, stock, stock options, or any other ownership interests in the Company, vacation pay, fringe benefits, expense reimbursements, severance pay, or any other form of compensation; claims pursuant to any federal, state or local law or cause of action including, but not limited to, the federal Civil Rights Act of 1964, as amended; the federal Age Discrimination in Employment Act of 1967, as amended ("ADEA"); the federal Americans with Disabilities Act of 1990; the California Fair Employment and Housing Act, as amended; tort law; contract law; wrongful discharge; discrimination;

fraud; defamation; emotional distress; and breach of the implied covenant of good faith and fair dealing; provided, however, that nothing in this paragraph shall be construed in any way to release the Company from its obligation to (i) indemnify me pursuant to any applicable indemnification agreement and to provide me with continued coverage under the Company's directors and officers liability insurance policy to the same extent that it has provided such coverage to previously departed officers and directors of the Company or (ii) provide the benefits to me set forth in the Change of Control Agreement entered into between the Company and me.

I acknowledge that I am knowingly and voluntarily waiving and releasing any rights I may have under ADEA. I also acknowledge that the consideration given for the waiver and release in the preceding paragraph hereof is in addition to anything of value to which I was already entitled. If and only if I am covered by ADEA, I further acknowledge that I have been advised by this writing, as required by the ADEA, that: (A) my waiver and release do not apply to any rights or claims that may arise after the Effective Date of this Release; (B) I have the right to consult with an attorney prior to executing this Release; (c) I have twenty-one (21) days to consider this Release (although I may choose to voluntarily execute this Release earlier); (D) I have seven (7) days following the execution of this Release to revoke the Release; and (E) this Release shall not be effective until the date upon which the revocation period has expired, which shall be the eighth day after this Release is executed by me (the "Effective Date"). If I am not covered by ADEA, I acknowledge that this Agreement shall be effective as of the date upon which this Release has been executed by me (the "Effective Date").

By: _____
THE EXECUTIVE

Date: _____

Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Tel: 650.980.5600
Fax: 650.298.5449
www.codexis.com

CODEXIS®

February 12, 2008

David Anton, Ph. D.

[Address]

Dear Dave:

On behalf of Codexis, I'm delighted to confirm our verbal offer of full-time employment as Vice President, Bioindustrial Research and Development, reporting to Alan Shaw, President & CEO.

This offer is contingent on our receiving positive employment references.

Your employment is subject to proof of your legal right to work in the United States, and to your completing the United States Citizenship and Immigration Service Employment Eligibility Verification Form I-9.

Compensation

If you accept this offer and begin employment with Codexis, you will receive an initial salary of \$19,583 per month (equivalent to \$235,000 per year), payable in periodic installments on our regular paydays. You will also be a participant in the Codexis Executive Incentive Compensation Plan (prorated to your actual start date). For 2008, your target will be 25% of your annualized base salary, which will be awarded at the discretion of the Codexis Board of Directors based on the Company's performance relative to its corporate objectives for the year. You must be employed by Codexis on the date that the bonus is paid in order to be eligible for the bonus.

Signing Bonus

Codexis will pay you a signing bonus of \$10,000 (less applicable withholding). This bonus is contingent upon your starting work with Codexis on or before March 24, 2008.

Stock Options

Subject to approval by the Codexis Board of Directors, you will be granted an option to purchase 100,000 shares of stock at an exercise price equal to the fair market value of the shares on the date the option is granted. The shares subject to the Option will vest one fourth or 25% on the first anniversary of your employment start date and thereafter will vest as to 1/48 of the shares subject to the Option per month for the following 36 months until the option is 100% vested. Your stock options will be subject to the terms of the Codexis Inc. 2002 Stock Plan and will be conditioned on your acceptance of an appropriate stock option agreement.

Employee Benefits

As a fulltime employee, you will be eligible for the Codexis employee benefit plans, including medical, dental, vision, long and short-term disability plans, life insurance, a 401(k) savings plan, and our flexible time off plan that allows fulltime employees to accrue 20 days of flexible time off each year of employment.

Bringing Life to Chemistry



Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Tel: 650.980.5600
Fax: 650.298.5449
www.codexis.com

Relocation

Codexis will offer relocation assistance per the attached Summary.

Other Terms and Conditions of Employment

All employment with Codexis is at will. "Employment at will" means that you are free to resign from your employment at any time, for any reason or no reason at all, with or without cause and with or without notice. Similarly, Codexis may terminate your employment at any time for any legal reason, with or without cause and with or without notice. By accepting this offer of employment, you agree that your employment is at will, and acknowledge that no one, other than the President of Codexis or the Chairman of the Board of Directors of Codexis has the authority to promise you, either orally or in writing, anything to the contrary. Any such agreement must be in writing and signed by both you and such individual to be effective.

Employment with any other entity or for yourself in competition with Codexis, or any affiliate or subsidiary of Codexis is not permitted. If you want to take an outside job, paid or unpaid, you should discuss the outside opportunity with your manager and the Human Resources Department in advance so that we can determine if any actual or potential conflict of interest exists.

During the course of your employment, you may create, develop or have access to confidential information belonging to Codexis, including trade secrets and proprietary information, such as technical and scientific research and/or protocols, customer and supplier information, business plans, marketing plans, unpublished financial information, designs, drawings, innovations, inventions, discoveries, specifications, software, source codes, and personnel information. You agree that as a condition of your employment with Codexis, you will sign and comply with the Codexis Confidential Information, Secrecy and Invention Agreement.

Arbitration of Disputes

You agree that, except as described below, any dispute relating to your employment or the termination of your employment with Codexis will be finally settled by binding arbitration in Palo Alto, California before a neutral arbitrator of the American Arbitration Association ("AAA") under its National Rules for the Resolution of Employment Disputes. Claims subject to arbitration include, but are not limited to, claims under Title VII of the Civil Rights Act of 1964 (as amended) and other civil rights statutes of the United States, the Age Discrimination in Employment Act, the Americans with Disabilities Act, the Family and Medical Leave Act, the Employee Retirement Income Security Act of 1974, the California Fair Employment and Housing Act, the California Labor Code, and any other federal, state or local statute or regulation, and the common law of contract and tort. However, this agreement to arbitrate will not apply to claims (a) for workers' compensation, (b) for unemployment compensation or (c) injunctive relief arising out of or related to misappropriation of trade secrets or misuse or improper disclosure of confidential information, unfair competition or breach of any non-competition or non-solicitation agreement between you and Codexis.

You understand that by this agreement, you and Codexis are waiving your respective rights to trial by jury, and that judgment upon any arbitration award may be entered in any court having

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Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
Tel: 650.980.5600
Fax: 650.298.5449
www.codexis.com

jurisdiction of the matter. Any controversy or claim subject to arbitration will be waived and forever barred if arbitration is not initiated within one year after the date the controversy or claim first arose, or if statutory rights are involved, within the time limit established by the applicable statute of limitations.

With regard to statutory claims, you and Codexis will have the same remedies available in arbitration as those available had the claim been filed in a court of law, including, where authorized by statute, compensatory and punitive damages, injunctive relief and attorneys' fees. Although Codexis will pay all costs of the AAA and the arbitrator, you agree to pay all costs you would otherwise be required to pay were your claims litigated in a court of law, such as costs of your attorney, deposition transcripts and expert witness fees and expenses.

The terms described in this letter replace all prior agreements, understandings and promises between Codexis and you concerning the terms and conditions of your employment with Codexis.

Dave, we're pleased to extend this offer of employment to you, and hope that your association with Codexis will be mutually successful and rewarding. Please indicate your acceptance of this offer by signing this letter below and faxing it to me (at 650-421-8145) by February 15, 2008. We look forward to welcoming you aboard!

Sincerely,

Codexis, Inc.

By: /s/ Andy Danforth

Andy Danforth
VP, Human Resources
Codexis, Inc.

I understand and agree to the foregoing terms and conditions of employment with Codexis.

/s/ David L. Anton, Ph. D.

David L. Anton, Ph. D.

2/15/2008 March 24, 2008

Date / Start Date

Attachment

Bringing Life to Chemistry

CONTRACT OF EMPLOYMENT

Codexis, Inc.
 200 Penobscot Drive
 Redwood City, CA 94063
 Tel: 650.980.5600
 Fax: 650.298.5449
 www.codexis.com

1. Employment

This Contract of Employment is concluded between

Codexis, Inc
 200 Penobscot Drive, Redwood City
 CA 94063
 in the following referred to as "**Employer**" or the "**Company**"

and

Dr. Peter Seufer-Wasserthal

[Address]

Austria
 Austrian Citizenship
 in the following referred to as "**Employee**"

The Employee joins the Company on February 27th, 2006. The first month is classified as probationary month according to Sec 19 (2) AngG.

2. Assignment and classification

- (1) The Employee is engaged as VP, General Manager, Codexis Enzymes and Intermediates of the Company and principally has to carry out the following tasks:
- Prepare a business plan to grow the Julich business and establish it as a stand alone profitable business unit with the potential to be spun off as a stand alone company when Codexis IPOs.
 - Implement the business plan; set, gain approval for and achieve the business growth, sales & profit targets.
 - Establish the enhanced Julich portfolio on the European and USA markets
 - Ensure the product portfolio is continually enhanced in line with client and business growth requirements.
 - When appropriate, identify and evaluate technology or business acquisition options that can enhance the product portfolio to open up new markets, enhance the offering to existing clients or present opportunity for new client acquisition.
 - Identify, and where appropriate, establish new as well as enhancing the existing sales channels to market globally.
 - Enhance the marketing activities to support the evolving company portfolio.
 - Identify and cultivate relationships with the key pharmaceutical, biotechnology and chemical companies.
 - Recruit, train, develop and monitor staff.
 - Establish effective systems that ensures efficient order processing and product delivery to clients.

-
- Ensure that there is an appropriate route for client enquiries and that client problems are handled promptly and effectively, to ensure maximum customer satisfaction.
- (2) The Employee has to perform all services connected with the assignment. The Employer is in the position to allocate the Employee to another assignment.
- 3. Remuneration**
- a. The Employee's basic salary is EUR 165.642 gross plus 50% of the Employee's part of the social security contributions according to the Austrian Social Security Act per annum, and will be split in 14 equal payments, 12 of them to be paid monthly in arrears on not later than the last working day of each calendar month to the announced bank account.
- b. Holiday pay is due on 30th June and Christmas remuneration is due on 31st December as supplementary grants (13th and 14th monthly pay).
- 4. Executive Bonus Plan**
- For 2006 the Employee will be eligible for the Codexis Executive Bonus Plan. The bonus will be paid out in the form of stock options or cash, or a combination of cash and stock options, at the discretion of the compensation Committee of the Board of Directors. Payout is based on achievement of both corporate and individual objectives as defined by the CEO and the Board of Directors and subject to the final approval of the Compensation Committee. The dollar value of the bonus payout for the Vice President level will be approximately up to 20% of annual salary, consistent with Codexis' compensation policy established for other senior executives and subject to confirmation by the Compensation Committee in 2006.
- 5. Stock Options**
- Subject to approval by the Codexis Board of Directors, the Employee will be granted an option to purchase 80,000 shares of stock at an exercise price equal to the fair market value of the shares on the date the option is granted. The shares subject to the option shall vest one fourth or 25% on the first anniversary of the Employee's employment start date and thereafter shall vest as to 1/48 of the shares subject to the option per month for the following 36 months until the option is 100% vested. The Employee's stock options will be subject to the terms of the Codexis 2002 Equity Incentive Plan and will be conditioned on the Employee's acceptance of an appropriate stock option agreement.
- 6. Car allowance**
- The Employee will be eligible for a car allowance amounting to EUR 600 per month for the use of his private car for occupational purposes.

7. Travel and Expenses

If the Employee is required to travel or incur expenses on the business of the Employer or any group company, these will be reimbursed to him on production of satisfactory vouchers and receipts and completion of the Employer's expense claims forms. All such expenditure claims must be approved by the Employee's Manager.

8. Hours of work

As agreed the regular weekly working time are 40 hours. Saturdays, Sundays, as well as public holidays are non working days; however the Employee is expected to work such additional hours as are required to carry out his duties to the satisfaction of the Employer.

9. Excess work and overtime

- a. In addition to Clause 8. the Employee is obliged to perform excess work and overtime if envisaged by the Employer in due time.
- b. The remuneration (see Clause 3) covers the overtime done.

10. Place of work

- a. The Employee's normal place of work will be at home:
[Address]
Austria
- b. In the course of his duties he may also be required to undertake business trips of a temporary nature throughout the world.

11. Justifiably absence

- a. Justifiable absence as a result of disease or accident has to be announced to the Employer or his representative immediately, meaning the same day of the occurrence of the hindrance (via telephone or in written form). Otherwise the Employee loses the claim on salary for the time of the delay.
- b. In case of justifiable absence of more than 3 days the Employee has to present a confirmation of the responsible health fund or doctor regarding the cause and the duration of the delay without request. The confirmation has to reach the Employer within 4 days after the occurrence of the hindrance.
- c. It is up to the Employer to demand such confirmation also for shorter diseases according to Sec 8 (8) AngG.

12. Dismissal by the Employer

The employment can be terminated by the Employer by the end of each month under consideration of a three months notice period.

13. Notice of termination by the Employee

The Employee is in the position to terminate the employment by the end of each month with a notice period of three months.

14. Paid vacation

The Employee has a right to paid vacation of 25 working days. The time of consumption has to be agreed upon by the Employer in good time.

15. Employee Benefits

- a. The Company will pay for the benefits programs as required by the local employment law. In addition to that the Employer will pay 50% of the Employee's part of the social security contributions according to the Austrian Social Security Act (see Clause 3.).
- b. The Company will contribute 5% of base salary to a personal pension plan. The Employee will be required to set-up his own scheme.
- c. Details of the benefits programs will be defined and agreed on between the Employee and the Company.

16. Life Insurance

- a. The Company will pay for life insurance equating 3 times of the Employee's annual base salary.
- b. Details of the life insurance will be defined and agreed on between the Employee and the Company.

17. Other Terms and Conditions of Employment:

- a. Employment with any other entity or for the Employee himself in competition with Codexis, Maxygen or any affiliate or subsidiary of Maxygen is not permitted. If the Employee wants to take an outside job, he should discuss the outside opportunity with his manager and the Human Resources Department in advance so that the Company can determine if any actual or potential conflict of interest exists.
- b. During the course of the employment, the Employee may create, develop or have access to confidential information belonging to Codexis and/or Maxygen, including trade secrets and proprietary information, such as technical and scientific research and/or protocols, customer and supplier information, business plans marketing plans,

unpublished financial information, designs, drawings, innovations, inventions, discoveries, specifications, software, source codes, and personnel information. The Employee agrees that as a condition of his employment with the Company he will sign and comply with the Codexis Confidential Information, Secrecy and Invention Agreement.

18. Arbitration of Disputes

All disputes arising out of or in connection with the present Contract shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by three arbitrators. Each party will appoint one arbitrator and both arbitrators will appoint their chairman. Place of Arbitration shall be Vienna, Austria. The language of the case will be English. Austrian Law shall be applicable.

19. Mitarbeitervorsorgekasse - Severance Payments Funds

As Mitarbeitervorsorgekasse (Severance Payments Funds) where according to § 6 Abs 1 BMVG the Severance Payments premiums have to be paid to, the Mitarbeitervorsorgekasse (Severance Payment Funds) **VBV Mitarbeitervorsorgekasse AG**, 1020 Wien, Donaustraße 49-53 has been chosen.

20. Miscellaneous

- a. The Employee has to observe the Austrian Law, in particular the regulations concerning order, security as well as the Data Protection Act.
- b. Adjustments or amendments to this contract as well as the clause of written form itself must be in written form in order to be effective.
- c. In the event a provision of this Employment Contract is not valid or becomes invalid or unenforceable, this does not affect the validity of the remaining provisions. The parties to this contract undertake to agree upon such provisions without delay which come closest to the economic aim of the invalid provisions and to the intentions of the parties when replacing the invalid provisions.
- d. The terms described in this letter replace all prior agreements, understandings, and promises between the Company and the Employee concerning the terms and conditions of the Employee's employment with the Company.

REDWOOD CITY, 06.03.2006

[Place and Date]

/s/ Peter Seufer-Wasserthal

Employee

/s/ DAVID CAO

Employer

INDEMNIFICATION AGREEMENT

This Indemnification Agreement (the "Agreement") is made as of [DATE] by and between Codexis, Inc., a Delaware corporation (the "Company"), and [INDEMNITEE] (the "Indemnitee").

RECITALS

The Company and Indemnitee recognize the increasing difficulty in obtaining liability insurance for directors, officers and key employees, the significant increases in the cost of such insurance and the general reductions in the coverage of such insurance. The Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting directors, officers and key employees to expensive litigation risks at the same time as the availability and coverage of liability insurance has been severely limited. Indemnitee does not regard the current protection available as adequate under the present circumstances, and Indemnitee and agents of the Company may not be willing to continue to serve as agents of the Company without additional protection. The Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, and to indemnify its directors, officers and key employees so as to provide them with the maximum protection permitted by law. The Company and Indemnitee desire to terminate any and all prior indemnification agreements and accept the rights and covenants hereof in lieu of their rights and covenants under such prior agreements.

AGREEMENT

In consideration of the mutual promises made in this Agreement, and for other good and valuable consideration, receipt of which is hereby acknowledged, the Company and Indemnitee hereby agree as follows:

1. Indemnification.

(a) **Third Party Proceedings.** The Company shall indemnify Indemnitee if Indemnitee is or was a party to or witness or other participant in or is threatened to be made a party to or witness or other participant in any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that might reasonably be expected to lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Company) by reason of (or arising in part out of) any event or occurrence related to the fact that Indemnitee is or was a director, officer, employee, agent, fiduciary or controlling person of the Company, or any subsidiary of the Company, by reason of any action or inaction on the part of Indemnitee while an officer, director, employee, agent, fiduciary or controlling person or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee, agent, fiduciary or controlling person of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably

withheld, conditioned or delayed) actually and reasonably incurred by Indemnitee in connection with such action, suit, proceeding or alternative dispute resolution mechanism if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe Indemnitee's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, or, with respect to any criminal action or proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

(b) **Proceedings By or in the Right of the Company** The Company shall indemnify Indemnitee if Indemnitee was or is a party to or other witness or participant in or is threatened to be made a party to or witness or other participant in any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that might reasonably be expected to lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, by or in the right of the Company or any subsidiary of the Company to procure a judgment in its favor by reason of the fact that Indemnitee is or was a director, officer, employee, agent fiduciary or controlling person of the Company, or any subsidiary of the Company, by reason of any action or inaction on the part of Indemnitee while an officer, director, employee, agent, fiduciary or controlling person or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee, agent, fiduciary or controlling person of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) and, to the fullest extent permitted by law, amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld, conditioned or delayed), in each case to the extent actually and reasonably incurred by Indemnitee in connection with the defense or settlement of such action, suit, proceeding or alternative dispute resolution mechanism if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company and its stockholders, except that no indemnification shall be made in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudicated by court order or judgment (after all appeals) to be liable to the Company in the performance of Indemnitee's duty to the Company and its stockholders unless and only to the extent that the court in which such action or proceeding is or was pending shall determine upon application that, in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expenses which such court shall deem proper.

(c) **Contribution.** If the indemnification provided for in Section 1(a) or Section 1(b) above for any reason is held by a court of competent jurisdiction to be unavailable to Indemnitee in respect of any losses, claims, damages, expenses or liabilities referred to therein, then the Company, in lieu of indemnifying Indemnitee thereunder, shall contribute to the amount paid or payable by Indemnitee as a result of such losses, claims, damages, expenses or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the Company and Indemnitee, or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits

referred to in clause (i) above but also the relative fault of the Company and Indemnitee in connection with the action or inaction that resulted in such losses, claims, damages, expenses or liabilities, as well as any other relevant equitable considerations. In connection with the registration of the Company's securities, the relative benefits received by the Company and Indemnitee shall be deemed to be in the same respective proportions that the net proceeds from the offering (before deducting expenses) received by the Company and Indemnitee, in each case as set forth in the table on the cover page of the applicable prospectus, bear to the aggregate public offering price of the securities so offered. The relative fault of the Company and Indemnitee shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or Indemnitee and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission.

The Company and Indemnitee agree that it would not be just and equitable if contribution pursuant to this Section 1(c) were determined by pro rata or per capita allocation or by any other method of allocation that does not take account of the equitable considerations referred to in the immediately preceding paragraph. In connection with the registration of the Company's securities, other than in the case of fraud or willful misconduct, in no event shall Indemnitee be required to contribute any amount under this Section 1(c) in excess of the lesser of: (i) that proportion of the total of such losses, claims, damages or liabilities that are indemnified against, equal to the proportion of the total securities sold under such registration statement that is being sold by Indemnitee or (ii) the proceeds received by Indemnitee from its sale of securities under such registration statement. No person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act of 1933, as amended) shall be entitled to contribution from any person who was not found guilty of such fraudulent misrepresentation.

(d) **Mandatory Payment of Expenses.** To the extent that Indemnitee has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Section 1(a) or Section 1(b) or the defense of any claim, issue or matter therein, Indemnitee shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by Indemnitee in connection therewith.

2. **No Employment Rights.** Nothing contained in this Agreement is intended to create in Indemnitee any right to continued employment.

3. **Expenses; Indemnification Procedure.**

(a) **Advancement of Expenses.** The Company shall advance all expenses incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any civil or criminal action, suit, proceeding or alternative dispute resolution mechanism referred to in Section 1(a) or Section 1(b) hereof (including amounts actually paid in settlement of any such action, suit or proceeding). Indemnitee hereby undertakes to repay such amounts advanced only if, and to the extent that, it shall ultimately be determined that Indemnitee is not entitled to be indemnified by the Company as authorized hereby. Indemnitee's obligation to reimburse the Company for any expenses shall be unsecured and no interest shall be charged thereon.

(b) **Notice/Cooperation by Indemnitee.** Indemnitee shall, as a condition precedent to his or her right to be indemnified under this Agreement, give the Company notice in writing as soon as practicable of any claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the Chief Executive Officer of the Company and shall be given in accordance with the provisions of Section 12(d) below. In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

(c) **Procedure.** Any indemnification and advances provided for in Section 1 and this Section 3 shall be made no later than twenty (20) days after receipt of the written request of Indemnitee. If a claim under this Agreement, under any statute, or under any provision of the Company's Certificate of Incorporation or Bylaws providing for indemnification, is not paid in full by the Company within twenty (20) days after a written request for payment thereof has first been received by the Company, Indemnitee may, but need not, at any time thereafter bring an action against the Company to recover the unpaid amount of the claim and, subject to Section 11 of this Agreement, Indemnitee shall also be entitled to be paid for the expenses (including attorneys' fees) of bringing such action. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in connection with any action, suit or proceeding in advance of its final disposition) that Indemnitee has not met the standards of conduct which make it permissible under applicable law for the Company to indemnify Indemnitee for the amount claimed, but the burden of proving such defense shall be on the Company and Indemnitee shall be entitled to receive interim payments of expenses pursuant to Section 3(a) unless and until such defense may be finally adjudicated by court order or judgment from which no further right of appeal exists. It is the parties' intention that if the Company contests Indemnitee's right to indemnification, the question of Indemnitee's right to indemnification shall be for the court to decide, and neither the failure of the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct required by applicable law, nor an actual determination by the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) that Indemnitee has not met such applicable standard of conduct, shall create a presumption that Indemnitee has or has not met the applicable standard of conduct.

(d) **Notice to Insurers.** If, at the time of the receipt of a notice of a claim pursuant to Section 3(b) hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(e) **Selection of Counsel.** In the event the Company shall be obligated under Section 3(a) hereof to pay the expenses of any proceeding against Indemnitee, the Company, if appropriate, shall be entitled to assume the defense of such proceeding, with counsel approved by Indemnitee, upon the delivery to Indemnitee of written notice of its election so to do. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such

counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same proceeding, provided that (i) Indemnitee shall have the right to employ counsel in any such proceeding at Indemnitee's expense; and (ii) if (A) the employment of counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there may be a conflict of interest between the Company and Indemnitee in the conduct of any such defense or (C) the Company shall not, in fact, have employed counsel to assume the defense of such proceeding, then the fees and expenses of Indemnitee's counsel shall be at the expense of the Company.

4. Additional Indemnification Rights: Nonexclusivity.

(a) **Scope.** Notwithstanding any other provision of this Agreement, the Company hereby agrees to indemnify the Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In the event of any change, after the date of this Agreement, in any applicable law, statute, or rule which expands the right of a Delaware corporation to indemnify a member of its board of directors or an officer, such changes shall be deemed to be within the purview of Indemnitee's rights and the Company's obligations under this Agreement. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify a member of its board of directors or an officer, such changes, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement shall have no effect on this Agreement or the parties' rights and obligations hereunder.

(b) **Nonexclusivity.** The indemnification provided by this Agreement shall not be deemed exclusive of any rights to which Indemnitee may be entitled under the Company's Certificate of Incorporation, its Bylaws, any agreement, any vote of stockholders or disinterested members of the Company's Board of Directors, the General Corporation Law of the State of Delaware, or otherwise, both as to action in Indemnitee's official capacity and as to action in another capacity while holding such office. The indemnification provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnified capacity even though he or she may have ceased to serve in any such capacity at the time of any action, suit or other covered proceeding.

5. **Partial Indemnification.** If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of the expenses, judgments, fines or penalties actually or reasonably incurred in the investigation, defense, appeal or settlement of any civil or criminal action, suit or proceeding, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such expenses, judgments, fines or penalties to which Indemnitee is entitled.

6. **Mutual Acknowledgment.** Both the Company and Indemnitee acknowledge that in certain instances, Federal law or public policy may override applicable state law and prohibit the Company from indemnifying its directors and officers under this Agreement or otherwise. For example, the Company and Indemnitee acknowledge that the Securities and Exchange Commission (the "**SEC**") has taken the position that indemnification is not permissible for

liabilities arising under certain federal securities laws, and federal legislation prohibits indemnification for certain ERISA violations. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the SEC to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

7. **Officer and Director Liability Insurance.** The Company shall, from time to time, make the good faith determination whether or not it is practicable for the Company to obtain and maintain a policy or policies of insurance with reputable insurance companies providing the officers and directors of the Company with coverage for losses from wrongful acts, or to ensure the Company's performance of its indemnification obligations under this Agreement. Among other considerations, the Company will weigh the costs of obtaining such insurance coverage against the protection afforded by such coverage. In all policies of director and officer liability insurance, Indemnitee shall be named as an insured in such a manner as to provide Indemnitee the same rights and benefits as are accorded to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer; or of the Company's key employees, if Indemnitee is not an officer or director but is a key employee. Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain such insurance if the Company determines in good faith that such insurance is not reasonably available, if the premium costs for such insurance are disproportionate to the amount of coverage provided, if the coverage provided by such insurance is limited by exclusions so as to provide an insufficient benefit, or if Indemnitee is covered by similar insurance maintained by a parent or subsidiary of the Company.

8. **Severability.** Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to court order, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. The provisions of this Agreement shall be severable as provided in this Section 8. If this Agreement or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Company shall nevertheless indemnify Indemnitee to the full extent permitted by any applicable portion of this Agreement that shall not have been invalidated, and the balance of this Agreement not so invalidated shall be enforceable in accordance with its terms.

9. **Exceptions.** Any other provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) **Claims Initiated by Indemnitee.** To indemnify or advance expenses to Indemnitee with respect to proceedings or claims initiated or brought voluntarily by Indemnitee and not by way of defense, except with respect to proceedings brought to establish or enforce a right to indemnification under this Agreement or any other statute or law or otherwise as required under Section 145 of the Delaware General Corporation Law, but such indemnification or advancement of expenses may be provided by the Company in specific cases if the Board of Directors finds it to be appropriate;

(b) **Lack of Good Faith.** To indemnify Indemnitee for any expenses incurred by Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by Indemnitee in such proceeding was not made in good faith or was frivolous;

(c) **Insured Claims.** To indemnify Indemnitee for expenses or liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement) to the extent such expenses or liabilities have been paid directly to Indemnitee by an insurance carrier under a policy of officers' and directors' liability insurance maintained by the Company; or

(d) **Claims under Section 16(b).** To indemnify Indemnitee for expenses or the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute.

10. Construction of Certain Phrases.

(a) For purposes of this Agreement, references to the "Company" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that if Indemnitee is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(b) For purposes of this Agreement, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "servicing at the request of the Company" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

11. **Attorneys' Fees.** In the event that any action is instituted by Indemnitee under this Agreement to enforce or interpret any of the terms hereof, Indemnitee shall be entitled to be paid all court costs and expenses, including reasonable attorneys' fees, incurred by Indemnitee with respect to such action, unless as a part of such action, the court of competent jurisdiction determines that each of the material assertions made by Indemnitee as a basis for such action were not made in good faith or were frivolous. In the event of an action instituted by or in the name of the Company under this Agreement or to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all court costs and expenses, including attorneys' fees, incurred by Indemnitee in defense of such action (including with respect to

Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action the court determines that each of Indemnitee's material defenses to such action were made in bad faith or were frivolous.

12. **Indemnification of Venture Capital Funds.** If (i) Indemnitee is affiliated with one or more venture capital funds that has invested in the Company (each a "VC Fund"), (ii) a VC Fund is a party to or a participant in any legal proceeding, and (iii) the VC Fund's involvement in the legal proceeding arises solely as a result of Indemnitee's service to the Company as a director of the Company, then the VC Fund shall be entitled to all of the indemnification rights and remedies under this Agreement to the same extent as Indemnitee.

13. **Miscellaneous.**

(a) **Governing Law.** This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed, construed and interpreted in accordance with the laws of the State of Delaware, without giving effect to principles of conflict of law.

(b) **Entire Agreement; Enforcement of Rights.** This Agreement sets forth the entire agreement and understanding of the parties relating to the subject matter herein and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter herein. No modification or amendment to this Agreement, nor any waiver of any rights under this Agreement, shall be effective unless in writing signed by the parties to this Agreement. The failure by either party to enforce any rights under this Agreement shall not be construed as a waiver of any rights of such party.

(c) **Construction.** This Agreement is the result of negotiations between and has been reviewed by each of the parties hereto and their respective counsel, if any; accordingly, this Agreement shall be deemed to be the product of all of the parties hereto, and no ambiguity shall be construed in favor of or against any one of the parties hereto.

(d) **Notices.** Any notice, demand or request required or permitted to be given under this Agreement shall be in writing and shall be deemed sufficient when delivered personally or sent by telegram or forty-eight (48) hours after being deposited in the U.S. mail, as certified or registered mail, with postage prepaid, and addressed to the party to be notified at such party's address as set forth below or as subsequently modified by written notice.

(e) **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument.

(f) **Successors and Assigns.** This Agreement shall be binding upon the Company and its successors and assigns, and inure to the benefit of Indemnitee and Indemnitee's heirs, legal representatives and assigns.

(g) **Subrogation.** In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company to effectively bring suit to enforce such rights.

[Signature Page Follows]

The parties hereto have executed this Agreement as of the day and year set forth on the first page of this Agreement.

CODEXIS, INC.

By: _____
ALAN SHAW
President and Chief Executive Officer

Address: 200 Penobscot Drive
Redwood City, California 94063

AGREED TO AND ACCEPTED:

[INDEMNITEE]

Address: [ADDRESS]

[CODEXIS, INC. INDEMNIFICATION AGREEMENT SIGNATURE PAGE]

Subsidiaries of Codexis, Inc.

<u>Name of Subsidiary</u>	<u>State or Jurisdiction in Which Incorporated or Organized</u>
Julich Chiral Solutions GmbH	Germany
Codexis Laboratories Singapore Pte. Ltd.	Singapore
Wasabi Acquisition LLC	Delaware
Codexis Laboratories Mauritius Private Limited	Mauritius
Codexis Laboratories India Private Limited	India
Codexis Laboratories Hungary Kft.	Hungary
Codexis Laboratories Hungary LLC	Delaware

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated April 28, 2009 in the Registration Statement (Form S-1) and related Prospectus of Codexis, Inc. for the registration of its common stock.

/s/ Ernst & Young LLP

Palo Alto, California
December 28, 2009