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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended September 30, 2022

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-34705

Codexis, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**71-0872999**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
200 Penobscot Drive, Redwood City, California	**94063**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (650) 421-8100

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of Each Exchange on Which Registered
Common Stock, par value $0.0001 per share	CDXS	The Nasdaq Global Select Market

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of November 1, 2022, there were 65,687,012 shares of the registrant's Common Stock, par value $0.0001 per share, outstanding.

Codexis, Inc.
Quarterly Report on Form 10-Q
For the Quarter Ended September 30, 2022

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PART I. FINANCIAL INFORMATION
Item 1. Financial Statements

Codexis, Inc.
Condensed Consolidated Balance Sheets
(Unaudited)
(In Thousands, Except Per Share Amounts)

	September 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 108,689	$ 116,797
Restricted cash, current	528	579
Financial assets:		
Accounts receivable	16,527	24,953
Contract assets	5,867	4,557
Unbilled receivables	7,490	8,558
Total financial assets	29,884	38,068
Less: allowances	(109)	(416)
Total financial assets, net	29,775	37,652
Inventories	1,623	1,160
Prepaid expenses and other current assets	5,382	5,700
Total current assets	145,997	161,888
Restricted cash	1,520	1,519
Investment in non-marketable equity securities ($13,921 and $12,713 with a related party)	20,510	14,002
Right-of-use assets - Operating leases, net	40,493	44,095
Right-of-use assets - Finance leases, net	—	17
Property and equipment, net	23,319	21,345
Goodwill	3,241	3,241
Other non-current assets	208	276
Total assets	$ 235,288	$ 246,383
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,621	$ 2,995
Accrued compensation	9,463	11,119
Other accrued liabilities	12,992	12,578
Current portion of lease obligations - Operating leases	5,230	4,093
Deferred revenue ($0 and $245 to a related party)	1,602	2,586
Total current liabilities	31,908	33,371
Deferred revenue, net of current portion	8,238	3,749
Long-term lease obligations - Operating leases	39,655	43,561
Other long-term liabilities	1,356	1,311
Total liabilities	81,157	81,992
Commitments and Contingencies (Note 10)		
Stockholders' equity:		
Preferred stock, $0.0001 par value per share; 5,000 shares authorized, none issued and outstanding	—	—
Common stock, $0.0001 par value per share; 100,000 shares authorized; 65,613 shares and 65,109 shares issued and outstanding at September 30, 2022 and December 31, 2021, respectively	6	6
Additional paid-in capital	562,811	552,083
Accumulated deficit	(408,686)	(387,698)
Total stockholders' equity	154,131	164,391
Total liabilities and stockholders' equity	$ 235,288	$ 246,383

See accompanying notes to the unaudited condensed consolidated financial statements.

Codexis, Inc.
Condensed Consolidated Statements of Operations
(Unaudited)
(In Thousands, Except Per Share Amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Revenues:				
Product revenue ($215, $0, $358 and $0 from a related party)	$ 28,042	$ 28,731	$ 93,376	$ 53,674
Research and development revenue ($1,000, $199, $1,245 and $675 from a related party)	6,428	8,038	14,839	26,579
Total revenues	34,470	36,769	108,215	80,253
Costs and operating expenses:				
Cost of product revenue	9,786	6,867	29,577	15,403
Research and development	21,821	15,165	60,410	39,562
Selling, general and administrative	13,499	13,407	39,859	37,600
Total costs and operating expenses	45,106	35,439	129,846	92,565
Income (loss) from operations	(10,636)	1,330	(21,631)	(12,312)
Interest income	436	41	618	424
Other income, net	216	983	150	920
Income (loss) before income taxes	(9,984)	2,354	(20,863)	(10,968)
Provision for income taxes	8	110	125	121
Net income (loss)	$ (9,992)	$ 2,244	$ (20,988)	$ (11,089)
Net income (loss) per share, basic	$ (0.15)	$ 0.03	$ (0.32)	$ (0.17)
Net income (loss) per share, diluted	$ (0.15)	$ 0.03	$ (0.32)	$ (0.17)
Weighted average common stock shares used in computing net income (loss) per share, basic	65,426	64,628	65,271	64,452
Weighted average common stock shares used in computing net income (loss) per share, diluted	65,426	67,741	65,271	64,452

See accompanying notes to the unaudited condensed consolidated financial statements.

Codexis, Inc.
Condensed Consolidated Statements of Stockholders' Equity
(Unaudited)
(In Thousands)

Three Months Ended September 30, 2022	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
Balance as of July 1, 2022	65,494	$ 6	$ 558,147	$ (398,694)	$ 159,459
Exercise of stock options	77	—	180	—	180
Release of stock awards	47	—	—	—	—
Employee stock-based compensation	—	—	4,516	—	4,516
Non-employee stock-based compensation	—	—	15	—	15
Taxes paid related to net share settlement of equity awards	(5)	—	(47)	—	(47)
Net loss	—	—	—	(9,992)	(9,992)
Balance as of September 30, 2022	65,613	$ 6	$ 562,811	$ (408,686)	$ 154,131

Three Months Ended September 30, 2021	Common Stock Shares	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
Balance as of July 1, 2021	64,623	$ 6	$ 542,519	$ (379,752)	$ 162,773
Exercise of stock options	210	—	1,022	—	1,022
Employee stock-based compensation	—	—	2,955	—	2,955
Non-employee stock-based compensation	—	—	61	—	61
Net income	—	—	—	2,244	2,244
Balance as of September 30, 2021	64,833	$ 6	$ 546,557	$ (377,508)	$ 169,055

See accompanying notes to the unaudited condensed consolidated financial statements.

Codexis, Inc.
Condensed Consolidated Statements of Stockholders' Equity
(Unaudited)
(In Thousands)

Nine Months Ended September 30, 2022	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of January 1, 2022	65,109	$ 6	$ 552,083	$ (387,698)	$ 164,391
Exercise of stock options	252	—	612	—	612
Release of stock awards	332	—	—	—	—
Employee stock-based compensation	—	—	11,467	—	11,467
Non-employee stock-based compensation	—	—	133	—	133
Taxes paid related to net share settlement of equity awards	(80)	—	(1,484)	—	(1,484)
Net loss	—	—	—	(20,988)	(20,988)
Balance as of September 30, 2022	65,613	$ 6	$ 562,811	$ (408,686)	$ 154,131

Nine Months Ended September 30, 2021	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance as of January 1, 2021	64,283	$ 6	$ 536,516	$ (366,419)	$ 170,103
Exercise of stock options	423	—	2,700	—	2,700
Release of stock awards	181	—	—	—	—
Employee stock-based compensation	—	—	8,360	—	8,360
Non-employee stock-based compensation	—	—	187	—	187
Taxes paid related to net share settlement of equity awards	(54)	—	(1,206)	—	(1,206)
Net loss	—	—	—	(11,089)	(11,089)
Balance as of September 30, 2021	64,833	$ 6	$ 546,557	$ (377,508)	$ 169,055

See accompanying notes to the unaudited condensed consolidated financial statements.

Codexis, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)
(In Thousands)

	Nine Months Ended September 30,	
	2022	**2021**
Operating activities:		
Net loss	$ (20,988)	$ (11,089)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation	3,961	2,143
Amortization expense - right-of-use assets - operating and finance leases	3,618	1,980
Stock-based compensation	11,600	8,547
Provision (recovery) for credit losses	(307)	—
Equity securities earned from research and development activities from a related party	(1,245)	(675)
Unrealized gain on non-marketable securities	(208)	(1,033)
Other non-cash items	(29)	(19)
Changes in operating assets and liabilities:		
Financial assets	8,184	(19,633)
Inventories	(463)	(120)
Prepaid expenses and other assets	429	(1,195)
Accounts payable	(351)	575
Accrued compensation and other accrued liabilities	2,279	7,036
Other long-term liabilities	(3,863)	(2,324)
Deferred revenue	3,750	880
Net cash provided by (used in) operating activities	6,367	(14,927)
Investing activities:		
Purchase of property and equipment	(8,340)	(8,348)
Proceeds from sale of property and equipment	29	36
Investment in non-marketable securities	(5,300)	(7,630)
Net cash used in investing activities	(13,611)	(15,942)
Financing activities:		
Proceeds from exercises of stock options	612	2,700
Costs incurred in connection with equity financing	(42)	(153)
Taxes paid related to net share settlement of equity awards	(1,484)	(1,206)
Net cash provided by (used in) financing activities	(914)	1,341
Net decrease in cash, cash equivalents and restricted cash	(8,158)	(29,528)
Cash, cash equivalents and restricted cash at the beginning of the period	118,895	150,817
Cash, cash equivalents and restricted cash at the end of the period	$ 110,737	$ 121,289
Supplemental disclosure of cash flow information:		
Interest paid	$ 22	$ 6
Income taxes paid	$ 100	$ 101
Supplemental non-cash investing and financing activities:		
Capital expenditures incurred but not yet paid	$ 128	$ 2,012

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the unaudited condensed consolidated balance sheets as of September 30, 2022 and 2021 to the total of the same such amounts shown above in the unaudited condensed consolidated statements of cash flows:

	September 30,	
	2022	**2021**
Cash and cash equivalents	$ 108,689	$ 119,189
Restricted cash, current and non-current	2,048	2,100
Total cash, cash equivalents and restricted cash	$ 110,737	$ 121,289

See accompanying notes to the unaudited condensed consolidated financial statements.

Codexis Inc.

Notes to Condensed Consolidated Financial Statements

(Unaudited)

Note 1. Description of Business

In these notes to the unaudited condensed consolidated financial statements, the "Company," "we," "us," and "our" refers to Codexis, Inc. and its subsidiaries on a consolidated basis.

We discover, develop and sell enzymes and other proteins that deliver value to our clients in a growing set of industries to commercialize an increasing number of novel enzymes, both as proprietary Codexis products and in partnership with our customers.

We report our financial results based on two reportable segments: Performance Enzymes and Novel Biotherapeutics. The segment information aligns with how the chief operating decision maker (CODM), who is our Chief Executive Officer (CEO), reviews and manages the business.

Business Update Regarding COVID-19

We are subject to risks and uncertainties as a result of the current COVID-19 pandemic. The COVID-19 pandemic has presented a substantial public health and economic challenge around the world and is affecting our employees, communities and business operations, as well as the U.S. economy and other economies worldwide. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition will depend on future developments that are highly uncertain and may not be accurately predicted, including the duration and severity of the pandemic, the prevalence of more contagious and or virulent variants, and the extent and severity of the impact on our customers, new information that may emerge concerning COVID-19, the actions taken to contain it or treat its impact and the economic impact on local, regional, national and international markets.

To date, we and our collaboration partners have been able to continue to supply our enzymes to our customers worldwide. However, we are dependent on our manufacturing and logistics partners and consequently, disruptions in operations of our partners and customers may affect our ability to supply enzymes to our customers. Furthermore, our ability to provide future R&D services may continue to be impacted by any disruptions in operations of our customers with whom we collaborate. We believe that these disruptions have had a minimal impact on revenue for the three and nine months ended September 30, 2022. The extent to which the pandemic may impact our business operations and operating results will continue to remain highly dependent on future developments, which are uncertain and cannot be predicted with confidence. Should these disruptions escalate in the future, they may negatively and materially impact our business, results of operations and financial condition.

Note 2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("GAAP") and the applicable rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information but does not include all the information and notes required by GAAP for complete financial statements. These interim unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto contained in our Annual Report on Form 10-K for the year ended December 31, 2021. The condensed consolidated balance sheet at December 31, 2021 has been derived from the audited consolidated financial statements at that date, but does not include all disclosures, including notes, required by GAAP for complete financial statements. The significant accounting policies used in preparation of the unaudited condensed consolidated financial statements for the three and nine months ended September 30, 2022 and 2021, are consistent with those discussed in Note 2 to the audited consolidated financial statements in the Company's 2021 Annual Report on Form 10-K and are updated below as necessary. There have been no significant changes in our significant accounting policies or critical accounting estimates since December 31, 2021.

The unaudited condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, reflect all adjustments of a normal recurring nature considered necessary to present fairly our financial position as of September 30, 2022, results of our operations for the three and nine months ended September 30, 2022 and 2021, changes in stockholders' equity for the three and nine months ended September 30, 2022 and 2021, and cash flows for the nine months ended September 30, 2022 and 2021. The interim results are not necessarily indicative of the results for any future interim period or for the entire year.

The unaudited condensed consolidated financial statements include the accounts of Codexis, Inc. and its wholly owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of our unaudited condensed consolidated financial statements in conformity with GAAP requires us to make estimates, judgments and assumptions that may affect the reported amounts of assets, liabilities, equity, revenues and expenses and related disclosure of contingent assets and liabilities. We regularly assess these estimates which primarily affect revenue recognition, inventories, valuation of equity investments, goodwill arising out of business acquisitions, accrued liabilities, stock awards, 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. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition, including sales, expenses, reserves and allowances, manufacturing, research and development costs and employee-related amounts, will depend on future developments that are highly uncertain, and may not be accurately predicted, including as a result of new information that may emerge concerning COVID-19 and the actions taken to contain or treat COVID-19, as well as the economic impact on local, regional, national and international customers, markets and economies.

Accounting Pronouncements

Recently adopted accounting pronouncements

In May 2021, FASB issued ASU No. 2021-04,*Earnings Per Share (Topic 260), Debt—Modifications and Extinguishments (Subtopic 470-50), Compensation—Stock Compensation (Topic 718), and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40), Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options, a consensus of the Emerging Issues Task Force*. The standard establishes a principles-based framework in accounting for modifications of freestanding equity-classified written call options on the basis of the economic substance of the underlying transaction. The standard also requires incremental financial statement disclosures. The standard affects entities that present earnings per share in accordance with the guidance in Topic 260, Earnings Per Share. We adopted the standard on January 1, 2022 on a prospective basis. The adoption of this standard had no impact on our Unaudited Condensed Consolidated Financial Statements and related disclosures.

In August 2020, FASB issued ASU No 2020-06*Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging— Contracts in Entity's Own Equity (Subtopic 815-40) No. 2020-06 August 2020 Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*, to reduce the complexity and to simplify the accounting for convertible debt instruments and convertible preferred stock, and the derivatives scope exception for contracts in an entity's own equity. In addition, the guidance on calculating diluted earnings per share has been simplified and made more internally consistent. We adopted the standard on January 1, 2022 on a modified retrospective basis. The adoption of this standard had no impact on our Unaudited Condensed Consolidated Financial Statements and related disclosures.

In March 2020, the FASB issued ASU 2020-04, Reference Rate Reform (Topic 848*): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. The standard provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions in which the reference LIBOR or another reference rate are expected to be discontinued as a result of the Reference Rate Reform. We adopted the standard on January 1, 2022 on a prospective basis. The adoption of this standard had no significant impact on our Unaudited Condensed Consolidated Financial Statements and related disclosures.

Recently issued accounting pronouncements not yet adopted

There have been no other recent accounting pronouncements or changes in accounting pronouncements during the three and nine months ended September 30, 2022, that are of significance or potential significance to us.

Note 3. Revenue Recognition

Disaggregation of Revenue

The following table provides information about disaggregated revenue from contracts with customers into the nature of the products and services, and geographic regions, and includes a reconciliation of the disaggregated revenue with reportable segments. The geographic regions that are tracked are the Americas (United States, Canada, and Latin America), EMEA (Europe, Middle East, and Africa), and APAC (Australia, New Zealand, Southeast Asia, and China).

Segment information is as follows (in thousands):

	Three Months Ended September 30, 2022			Three Months Ended September 30, 2021		
	Performance Enzymes	Novel Biotherapeutics	Total	Performance Enzymes	Novel Biotherapeutics	Total
Major products and service:						
Product revenue	$ 28,042	$ —	$ 28,042	$ 28,731	$ —	$ 28,731
Research and development revenue	3,104	3,324	6,428	3,853	4,185	8,038
Total revenues	$ 31,146	$ 3,324	$ 34,470	$ 32,584	$ 4,185	$ 36,769
Primary geographical markets:						
Americas	$ 3,654	$ 1,168	$ 4,822	$ 5,999	$ 1,817	$ 7,816
EMEA	3,831	2,156	5,987	2,317	2,368	4,685
APAC	23,661	—	23,661	24,268	—	24,268
Total revenues	$ 31,146	$ 3,324	$ 34,470	$ 32,584	$ 4,185	$ 36,769

	Nine Months Ended September 30, 2022			Nine Months Ended September 30, 2021		
	Performance Enzymes	Novel Biotherapeutics	Total	Performance Enzymes	Novel Biotherapeutics	Total
Major products and service:						
Product revenue	$ 93,376	$ —	$ 93,376	$ 53,674	$ —	$ 53,674
Research and development revenue	7,398	7,441	14,839	14,723	11,856	26,579
Total revenues	$ 100,774	$ 7,441	$ 108,215	$ 68,397	$ 11,856	$ 80,253
Primary geographical markets:						
Americas	$ 8,514	$ 3,653	$ 12,167	$ 12,573	$ 6,015	$ 18,588
EMEA	11,017	3,788	14,805	11,294	5,841	17,135
APAC	81,243	—	81,243	44,530	—	44,530
Total revenues	$ 100,774	$ 7,441	$ 108,215	$ 68,397	$ 11,856	$ 80,253

Contract Balances

The following table presents balances of contract assets, unbilled receivables, contract costs, and contract liabilities (in thousands):

	September 30, 2022	December 31, 2021
Contract assets	$ 5,867	$ 4,557
Unbilled receivables	$ 7,490	$ 8,558
Contract costs	$ 28	$ 56
Contract liabilities: deferred revenue	$ 9,840	$ 6,335

We had no asset impairment charges related to financial assets in the three and nine months ended September 30, 2022 and 2021.

The increase in contract assets was primarily due to increases in product revenue from contracts subject to over time revenue recognition. The decrease in unbilled receivables was primarily due to the timing of billings. The increase in deferred revenue was primarily due to the receipt of the $25.9 million fee from Pfizer in August 2022, pursuant to the terms of the Enzyme Supply Agreement (the "Pfizer Supply Agreement") that was executed in July 2022, which was partially offset by the recognition of $19.4 million in contract assets relating to the same performance obligation within the same agreement.

We recognized the following revenues (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
Revenue recognized in the period for:	2022	2021	2022	2021
Amounts included in contract liabilities at the beginning of the period:				
Performance obligations satisfied	$ 889	$ 658	$ 1,694	$ 1,997
Changes in the period:				
Changes in the estimated transaction price allocated to performance obligations satisfied in prior periods	495	1,521	365	5,848
Performance obligations satisfied from new activities in the period - contract revenue	33,086	34,590	106,156	72,408
Total revenues	$ 34,470	$ 36,769	$ 108,215	$ 80,253

Performance Obligations

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied or partially unsatisfied at the end of the reporting periods. The estimated revenue does not include contracts with original durations of one year or less, amounts of variable consideration attributable to royalties, or contract renewals that are unexercised as of September 30, 2022.

The balances in the table below are partially based on judgments involved in estimating future orders from customers subject to the exercise of material rights pursuant to respective contracts as of September 30, 2022 (in thousands):

	Remainder of 2022	2023	2024	2025 and Thereafter	Total
Product revenue	$ 5	$ 127	$ 5,276	$ 2,962	$ 8,370
Research and development revenue	423	1,047	—	—	1,470
Total revenues	$ 428	$ 1,174	$ 5,276	$ 2,962	$ 9,840

Note 4. Net Income (Loss) per Share

Basic net income (loss) per share is computed by dividing the net income (loss) by the weighted-average number of shares of common stock outstanding, less restricted stock awards ("RSAs") subject to forfeiture. Diluted net income (loss) per share is computed by dividing net income (loss) by the weighted-average number of shares of common stock shares outstanding, less RSAs subject to forfeiture, plus all additional common shares that would have been outstanding, assuming dilutive potential common stock shares had been issued for other dilutive securities.

Anti-Dilutive Securities

In periods of net loss, the weighted average number of shares outstanding, prior to the application of the treasury stock method, excludes potentially dilutive securities from the computation of diluted net loss per common share because including such shares would have an anti-dilutive effect.

The following table sets forth the computation of basic and diluted net income (loss) per share during the three and nine months ended September 30, 2022 and 2021 (in thousands, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Numerator:				
Net income (loss)	$ (9,992)	$ 2,244	$ (20,988)	$ (11,089)
Denominator:				
Weighted average common stock shares used in computing net income (loss) per share, basic	65,426	64,628	65,271	64,452
Effect of dilutive shares	—	3,113	—	—
Weighted average common stock shares used in computing net income (loss) per share, diluted	65,426	67,741	65,271	64,452
Net income (loss) per share, basic	$ (0.15)	$ 0.03	$ (0.32)	$ (0.17)
Net income (loss) per share, diluted	$ (0.15)	$ 0.03	$ (0.32)	$ (0.17)

The following shares were not considered in the computation of diluted net income (loss) per share because their effect was anti-dilutive (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Shares issuable under the Equity Incentive Plan	6,604	451	6,604	5,148

Note 5. Investments in Non-Marketable Securities

Non-Marketable Debt Securities

We classify non-marketable debt securities, which are accounted for as available-for-sale, within Level 3 in the fair value hierarchy because we estimate the fair value based on a qualitative analysis using the most recent observable transaction price and other significant unobservable inputs including volatility, rights, and obligations of the securities we hold.

We determine gains or losses on the sale or extinguishment of non-marketable debt securities using a specific identification method. Unrealized gains and losses from bifurcated embedded derivatives, which represent share-settled redemption features, are recorded as other expense, net, in the unaudited condensed consolidated statements of operations. Unrealized gains and losses on non-marketable debt securities are recorded as a component of other comprehensive loss until realized. Realized gains or losses are recorded as a component of other income, net.

In November 2020, we purchased convertible subordinated notes issued by Arzeda Corp. (“Arzeda”), an early-stage computational protein design company, for $3.0 million and the investment was classified as available-for-sale non-marketable interest-bearing debt securities. In July 2021, we converted the non-marketable debt security with a carrying value of $1.3 million into 207,070 shares of Series B-2 preferred stock of Arzeda Corp. During the three and nine months ended September 30, 2021 we recognized nil and $0.3 million, respectively, in interest income from interest earned on our investment in this debt security.

There were no investments in non-marketable debt securities as of September 30, 2022 and December 31, 2021.

Non-Marketable Equity Securities

In March 2022, we entered into a Stock Purchase Agreement with seqWell, Inc. (“seqWell”), a privately held biotechnology company, pursuant to which we purchased 1,000,000 shares of seqWell's Series C preferred stock for $5.0 million.

Our non-marketable equity securities are investments in privately held companies without readily determinable market value. These investments are accounted for under the measurement alternative and are measured at cost minus impairment, if any, plus or minus changes resulting from observable price changes for identical or similar securities of the same issuer. Non-marketable equity securities are measured at fair value on a non-recurring basis and classified within Level 2 in the fair value hierarchy because we estimate the fair value of these investments using the observable transaction price paid by third party investors for the same or similar security of the same issuers. We adjust the carrying value of non-marketable equity securities which have been remeasured during the period and recognize resulting gains or losses as a component of other income, net in the unaudited condensed consolidated statements of operations.

For the three months ended September 30, 2022, we recognized a $0.2 million unrealized gain in other income, net, and included as adjustment to the carrying value of our investment in MAI, for the remeasurement of the additional 1,587,049 shares of Series B preferred stock received as milestone payment during the three months ended September 30, 2022 based on the latest observed transaction price of MAI's preferred stock. See Note 11 “Related Party Transactions” for additional information on our investment in MAI. For the three months ended September 30, 2021, we recognized a $0.7 million unrealized gain in other income, net, due to an adjustment to the carrying value of our investment in MAI based on an analysis of observed transaction price from MAI's round of financing during the third quarter of 2021. There was no remeasurement event for our investments in MAI and in other non-marketable equity securities that occurred during the remainder of 2022 and 2021. We recognized no realized gains or losses during the three and nine months ended September 30, 2022 and 2021.

The following table presents the carrying value of our non-marketable equity securities (in thousands):

	September 30, 2022	December 31, 2021
Molecular Assemblies, Inc. (“MAI”)	$ 13,921	$ 12,713
seqWell	5,000	—
Arzeda	1,289	1,289
Other investments in non-marketable equity securities	300	—
Total non-marketable equity securities	$ 20,510	$ 14,002

Note 6. Fair Value Measurements

The following tables present the financial instruments that were measured at fair value on a recurring basis within the fair value hierarchy (in thousands):

	September 30, 2022			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 83,599	$ —	$ —	$ 83,599

	December 31, 2021			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 86,095	$ —	$ —	$ 86,095

During the three and nine months ended September 30, 2022 and 2021, we didnot recognize any significant credit losses nor other-than-temporary impairment losses on non-marketable securities.

Note 7. Balance Sheets Details

Cash Equivalents

Cash equivalents as of September 30, 2022 and December 31, 2021, consisted of the following (in thousands):

	September 30, 2022		December 31, 2021	
	Adjusted Cost	Estimated Fair Value	Adjusted Cost	Estimated Fair Value
Money market funds [1]	$ 83,599	$ 83,599	$ 86,095	$ 86,095

[1] Money market funds are classified in cash and cash equivalents on our unaudited consolidated balance sheets. Average contractual maturities (in days) is not applicable.

As of September 30, 2022, the total cash and cash equivalents balance of $108.7 million consisted of money market funds of $83.6 million and cash of $25.1 million held with major financial institutions. As of December 31, 2021, the total cash and cash equivalents balance of $116.8 million consisted of money market funds of $86.1 million and cash of $30.7 million held with major financial institutions.

Inventories

Inventories consisted of the following (in thousands):

	September 30, 2022	December 31, 2021
Raw materials	$ 49	$ 49
Work-in-process	22	65
Finished goods	1,552	1,046
Inventories	$ 1,623	$ 1,160

Inventories are recorded net of reserves of $1.3 million and $1.4 million as of September 30, 2022 and December 31, 2021, respectively.

Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	September 30, 2022	December 31, 2021
Laboratory equipment	$ 39,355	$ 33,101
Leasehold improvements	16,617	16,117
Computer equipment and software	3,912	3,481
Office equipment and furniture	1,326	1,297
Construction in progress	1,459	3,231
Property and equipment	62,669	57,227
Less: accumulated depreciation and amortization	(39,350)	(35,882)
Property and equipment, net	$ 23,319	$ 21,345

Depreciation expense included in both research and development expenses and selling, general and administrative expenses in the unaudited condensed consolidated statements of operations was as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Depreciation expense	$ 1,405	$ 768	$ 3,961	$ 2,143

Goodwill

Goodwill had a carrying value of $3.2 million as of September 30, 2022 and December 31, 2021.

Other Accrued Liabilities

Other accrued liabilities consisted of the following (in thousands):

	September 30, 2022	December 31, 2021
Accrued purchases	$ 7,573	$ 6,755
Accrued professional and outside service fees	4,276	5,147
Other	1,143	676
Total	$ 12,992	$ 12,578

Note 8. Stock-based Compensation

Equity Incentive Plans

In 2019, our board of directors (the "Board") and stockholders approved the 2019 Incentive Award Plan (the "2019 Plan"). The 2019 Plan superseded and replaced in its entirety our 2010 Equity Incentive Plan (the “2010 Plan”) which was effective in March 2010, and no further awards will be granted under the 2010 Plan; however, the terms and conditions of the 2010 Plan will continue to govern any outstanding awards thereunder.

The 2019 Plan provides for the grant of stock options, including incentive stock options and non-qualified stock options, stock appreciation rights, restricted stock awards ("RSAs"), restricted stock units ("RSUs"), performance-contingent restricted stock units ("PSUs"), performance based options ("PBOs"), other stock or cash based awards and dividend equivalents to eligible employees and consultants of the Company or any parent or subsidiary, as well as members of the Board.

The number of shares of our common stock available for issuance under the 2019 Plan is equal to the sum of (i) 7,897,144 shares, and (ii) any shares subject to awards granted under the 2010 Plan that were outstanding as of April 22, 2019 and thereafter terminate, expire, lapse or are forfeited; provided that no more than 14,000,000 shares may be issued upon the exercise of incentive stock options ("ISOs"). In June 2019, 8.1 million shares authorized for issuance under the 2019 Plan were registered under the Securities Act of 1933, as amended (the "Securities Act").

The 2010 Plan provided for the grant of incentive stock options, non-statutory stock options, RSUs, RSAs, PSUs, PBOs, stock appreciation rights, and stock purchase rights to our employees, non-employee directors and consultants.

Stock Options

The option exercise price for incentive stock options must be at least 100% of the fair value of our common stock on the date of grant and the option exercise price for non-statutory stock options is at least 85% of the fair value of our common stock on the date of grant, as determined by the Board. If, at the time of a grant, the optionee directly or by attribution owns stock possessing more than 10% of the total 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. Stock options granted to employees generally have a maximum term of ten years and vest over four years from the date of grant, of which 25% vest at the end of one year, and 75% vest monthly over the remaining three years. We may grant options with different vesting terms from time to time. Unless an employee's termination of service is due to disability or death, upon termination of service, any unexercised vested options will be forfeited at the end of three months or the expiration of the option, whichever is earlier.

Restricted Stock Units ("RSUs")

We also grant employees RSUs, which generally vest over either a three year period with 33% of the shares subject to the RSUs vesting on each yearly anniversary of the vesting commencement date or over a four year period with 25% of the shares subject to the RSU vesting on each yearly anniversary of the vesting commencement date, in each case contingent upon such employee's continued service on such vesting date. RSUs are generally subject to forfeiture if employment terminates prior to the release of vesting restrictions. We may grant RSUs with different vesting terms from time to time.

Performance-contingent Restricted Stock Units ("PSUs") and Performance Based Options ("PBOs")

The compensation committee of the Board approved, solely in respect of non-executive employees, delegated to our Chief Executive Officer the authority to approve grants of PSUs. The compensation committee of the Board also approved grants of PBOs and PSUs to our executives. The PSUs and PBOs vest based upon both the successful achievement of certain corporate operating milestones in specified timelines and continued employment through the applicable vesting date. When the performance goals are deemed to be probable of achievement for these types of awards, recognition of stock-based compensation expense commences. Once the number of shares eligible to vest is determined, those shares vest in two equal installments with 50% vesting upon achievement and the remaining 50% vesting on the first anniversary of achievement, in each case, subject to the recipient's continued service through the applicable vesting date. If the performance goals are achieved at the threshold level, the number of shares eligible to vest in respect of the PSUs and PBOs would be equal to half the number of PSUs granted and one-quarter the number of shares underlying the PBOs granted. If the performance goals are achieved at the target level, the number of shares eligible to vest in respect of the PSUs and PBOs would be equal to the number of PSUs granted and half of the shares underlying the PBOs granted. If the performance goals are achieved at the superior level, the number of shares eligible to vest in respect of the PSUs would be equal to two times the number of PSUs granted and equal to the number of PBOs granted. The number of shares issuable upon achievement of the performance goals at the levels between the threshold and target levels for the PSUs and PBOs or between the target level and superior levels for the PSUs would be determined using linear interpolation. Achievement below the threshold level would result in no shares being eligible to vest in respect of the PSUs and PBOs.

In the first quarter of 2022, we awarded PSUs ("2022 PSUs") and PBOs ("2022 PBOs"), each of which commence vesting based upon the achievement of various weighted performance goals, including total revenues, research and development revenue, product revenue (excluding sales of CDX-616 to Pfizer for its use in the manufacture of a critical intermediate for nirmatrelvir, an active pharmaceutical ingredient (API) in its PAXLOVID™ product), operating expenses excluding cost of product revenue, strategic performance enzyme deliverables, strategic biotherapeutics deliverables, organization and infrastructure upgrades, corporate developments, and significant events that can be publicly announced, subject to the recipient's continued service. As of September 30, 2022, we estimated that the 2022 PSUs and 2022 PBOs performance goals would be achieved at 97% and 49% of the target level, respectively, and recognized stock-based compensation expenses accordingly.

In 2021, we awarded PSUs ("2021 PSUs") and PBOs ("2021 PBOs"), each of which commence vesting based upon the achievement of various weighted performance goals, including total revenues, product revenue, performance enzymes pipeline advancements, biotherapeutics pipeline advancements, organization and infrastructure upgrades, and significant events that can be publicly announced. In the first quarter of 2022, we determined that the 2021 PSUs and 2021 PBOs performance goals had been achieved at 146% and 73% of the target level, respectively, and recognized stock-based compensation expenses accordingly. Accordingly, 50% of the shares underlying the 2021 PSUs and PBOs vested in the first quarter of 2022 and 50% of the shares underlying the 2021 PSUs and PBOs will vest in the first quarter of 2023, in each case subject to the recipient's continued service on each vesting date.

In 2020, we awarded PSUs ("2020 PSUs") and PBOs ("2020 PBOs"), each of which commenced vesting based upon the achievement of various weighted performance goals, including total revenues, performance enzyme segment gross margin, major new biotherapeutics publicity events, strategic performance enzyme and biotherapeutics deliverables, and strategic plan development. In the first quarter of 2021, we determined that the 2020 PSUs and 2020 PBOs performance goals had been achieved at 88% and 44% of the target level, respectively, and recognized stock-based compensation expenses accordingly. Accordingly, 50% of the shares underlying the 2020 PSUs and PBOs vested in the first quarter of 2021 and 50% of the shares underlying the 2020 PSUs and PBOs vested in the first quarter of 2022, in each case subject to the recipient's continued service on each vesting date.

Stock-Based Compensation Expense

Stock-based compensation expense is included in the unaudited condensed consolidated statements of operations as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Research and development	$ 958	$ 652	$ 2,853	$ 1,726
Selling, general and administrative	3,573	2,364	8,747	6,821
Total	$ 4,531	$ 3,016	$ 11,600	$ 8,547

The following table presents total stock-based compensation expense by security type included in the unaudited condensed consolidated statements of operations (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Stock options	$ 1,679	$ 693	$ 3,279	$ 2,040
RSUs and RSAs	1,290	742	3,785	1,974
PSUs	965	640	2,279	1,683
PBOs	597	941	2,257	2,850
Total	$ 4,531	$ 3,016	$ 11,600	$ 8,547

In connection with the retirement of John Nicols, our former President and Chief Executive Officer, in August 2022, and the Transition and Separation Agreement between Mr. Nicols and the Company effective as of July 26, 2022, certain supplementary modifications were made to Mr. Nicols' vested and unvested stock option and PBOs awards including voluntary forfeiture of certain unvested stock option and PBOs awards and the extension of the post-termination exercise period of certain vested stock option and PBOs awards. During the three and nine months ended September 30, 2022, we recorded a one-time, non-cash incremental compensation expenseof $1.0 million, net of the required reversal of previously recognized stock-based compensation expenses attributed to unvested shares, in selling, general and administrative expenses related to these stock option award modifications.

As of September 30, 2022, unrecognized stock-based compensation expense, net of expected forfeitures, was $6.7 million related to unvested stock options, $7.5 million related to unvested RSUs and RSAs, $2.9 million related to unvested PSUs, and $1.7 million related to unvested PBOs based on current estimates of the level of achievement. Stock-based compensation expense for these awards will be recognized through 2026.

Note 9. Capital Stock

Exercise of Options

For the nine months ended September 30, 2022 and September 30, 2021, we issued 252,100 and 422,964 shares, respectively, upon option exercises at a weighted-average exercise price of $2.43 and $6.45 per share, respectively, with net cash proceeds of $0.6 million and $2.7 million, respectively.

Equity Distribution Agreement

We filed a shelf Registration Statement on Form S-3 with the SEC, under which we may sell common stock, preferred stock, debt securities, warrants, purchase contracts, and units from time to time in one or more offerings. The registration statement became effective on May 7, 2021. In May 2021, we entered into an Equity Distribution Agreement ("EDA") with Piper Sandler & Co ("PSC"), under which PSC, as our exclusive agent, at our discretion and at such times that we may determine from time to time, may sell over a three-year period from the execution of the EDA up to a maximum of $50.0 million of shares of our common stock. Under the terms of the EDA, PSC may sell the shares at market prices by any method that is deemed to be an "at the market offering" as defined in Rule 415 under the Securities Act of 1933, as amended.

We are not required to sell any shares at any time during the term of the EDA. The EDA will terminate upon the earlier of: (i) the issuance and sale of all shares through PSC on the terms and conditions of the EDA, or (ii) the termination of the EDA in accordance with its terms. Either party may terminate the EDA at any time upon written notification to the other party in accordance with the EDA, and upon such notification, the offering will terminate. Under no circumstances shall any shares be sold pursuant to the EDA after the date which is three years after the registration statement is first declared effective by the SEC. We agreed to pay PSC a commission of 3% of the gross sales price of any shares sold pursuant to the EDA. With the exception of certain expenses, we will pay PSC up to 8% of the gross sales price of the shares sold pursuant to the EDA for a combined amount of commission and reimbursement of PSC's expenses and fees.

During the three and nine months ended September 30, 2022, no shares of our common stock were issued pursuant to the EDA. As of September 30, 2022, $50.0 million worth of shares remained available for sale under the EDA.

Note 10. Commitments and Contingencies

Operating Leases

Our headquarters are located in Redwood City, California, where we occupy approximately 77,300 square feet of office and laboratory space in multiple buildings within the same business park of Metropolitan Life Insurance Company ("MetLife"). Our lease agreement with MetLife ("RWC Lease") includes approximately 28,200 square feet of space located at 200 and 220 Penobscot Drive, Redwood City, California (the "200/220 Penobscot Space") and approximately 37,900 square feet of space located at 400 Penobscot Drive, Redwood City, California (the "400 Penobscot Space") (the 200/220 Penobscot Space and the 400 Penobscot Space are collectively referred to as the "Penobscot Space"), and approximately 11,200 square feet of space located at 501 Chesapeake Drive, Redwood City, California (the "501 Chesapeake Space").

We entered into the initial lease with MetLife for our facilities in Redwood City in 2004 and the RWC Lease has been amended multiple times since then to adjust the leased space and terms of the Lease. In February 2019, we entered into an Eighth Amendment to the Lease (the "Eighth Amendment") with MetLife with respect to the Penobscot Space and the 501 Chesapeake Space to extend the term of the Lease for additional periods. Pursuant to the Eighth Amendment, the term of the lease of the Penobscot Space has been extended through May 2027. The lease term for the 501 Chesapeake Space has been extended to May 2029. We have one (1) option to extend the term of the lease for the Penobscot Space for five (5) years, and one (1) separate option to extend the term of the lease for the 501 Chesapeake Space for five (5) years.

Pursuant to the terms of the RWC Lease, we exercised our right to deliver a letter of credit in lieu of a security deposit. The letter of credit is collateralized by deposit balances held by the bank in the amount of $1.1 million as of September 30, 2022 and December 31, 2021, and are recorded as non-current restricted cash on the unaudited condensed consolidated balance sheets.

In January 2021, we entered into a lease agreement with ARE-San Francisco No. 63, LLC ("ARE") to lease a portion of a facility consisted of approximately 36,593 rentable square feet in San Carlos, California to serve as additional office and research and development laboratory space (the "San Carlos Space"). The terms include an initial annualized base rent of $2.5 million, subject to scheduled 3% annual rent increases, an annualized additional allowance payment of $0.4 million, plus certain operating expenses. The lease has a 10-year term from the lease commencement date of November 30, 2021 with one option to extend the term for an additional period of 5 years. We have provided ARE with a $0.5 million security deposit in the form of a letter of credit and we commenced occupancy of the San Carlos Space in December 2021. We have the right to sublease the facility, subject to landlord consent.

We are required to restore certain areas of the Redwood City and San Carlos 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 reporting period and make adjustments if our estimates change. We recorded asset retirement obligations of $0.5 million and $0.4 million as of September 30, 2022 and December 31, 2021, respectively, which are included in other liabilities on the unaudited condensed consolidated balance sheets. Accretion expense related to our asset retirement obligations was nominal in the three and nine months ended September 30, 2022 and 2021.

Lease and other information

Lease costs, amounts included in measurement of lease obligations and other information related to non-cancellable operating leases and finance leases were as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	**2021**	**2022**	**2021**
Finance lease costs	$ —	$ 26	$ 18	$ 79
Operating lease cost	1,831	1,032	5,491	3,097
Short-term lease costs [1]	—	30	40	40
Total lease cost [2]	$ 1,831	$ 1,088	$ 5,549	$ 3,216

[1] Short-term lease costs on leases with terms of over one month and less than one year.
[2] The Company had no variable lease costs.

Other information:	**Operating Leases**
Weighted-average remaining lease term (in years)	7.3 years
Weighted-average discount rate	5.4 %

	Nine Months Ended September 30,	
Cash paid:	**2022**	**2021**
Operating cash flows from operating leases	$ 4,658	$ 3,145

As of September 30, 2022, our maturity analysis of annual undiscounted cash flows of the non-cancellable operating leases are as follows (in thousands):

Years ending December 31,	Operating Leases
2022 (remaining 3 months)	$ 1,847
2023	7,568
2024	7,783
2025	8,004
2026	8,232
2027 and thereafter	20,706
Total minimum lease payments	54,140
Less: imputed interest	9,255
Lease obligations	$ 44,885

Reconciliation of operating lease liabilities as shown within the unaudited condensed consolidated balance sheets	
Current portion of lease obligations - Operating leases	$ 5,230
Long-term lease obligations - Operating leases	39,655
Total operating lease liabilities	$ 44,885

Other Commitments

We enter into supply and service arrangements in the normal course of business. Supply arrangements are primarily for fixed-price manufacture and supply. Service agreements are primarily for the development of manufacturing processes and certain studies. Commitments under service agreements are subject to cancellation at our discretion which may require payment of certain cancellation fees. The timing of completion of service arrangements is subject to variability in estimates of the time required to complete the work.

The following table provides quantitative data regarding our other commitments. Future minimum payments reflect amounts that we expect to pay including potential obligations under services agreements subject to risk of cancellation by us (in thousands):

	Payments Due by Period				
	Total	2022 (Remaining 3 Months)	2023	2024	2025 and Thereafter
Development and manufacturing services agreements	$ 2,866	$ 1,770	$ 991	$ 105	$ —
Facility maintenance agreement	1,608	—	1,608	—	—
Total other commitments	$ 4,474	$ 1,770	$ 2,599	$ 105	$ —

Credit Facility

In June 30, 2017, we entered into a credit facility (the “Credit Facility”) with Western Alliance Bank consisting of term loans (“Term Debt”) up to $0.0 million, and advances (“Advances”) under a revolving line of credit ("Revolving Line of Credit") up to $5.0 million with an accounts receivable borrowing base of80% of eligible accounts receivable. The right to take draws on the Term Debt expired on December 31, 2021. On October 1, 2024, loans drawn, if any, under the Revolving Line of Credit terminate. Advances made under the Revolving Line of Credit bear interest at a variable annual rate equal to the greater of (i) 4.25% or (ii) the sum of (A) the prime rate plus (B)1.00%. As of September 30, 2022 and December 31, 2021, we have not drawn from the Credit Facility.

Our obligations under the Credit Facility are secured by a lien on substantially all of our personal property other than our intellectual property. The Credit Facility includes a number of customary covenants and restrictive financial covenants including meeting minimum product revenue levels and maintaining certain minimum cash levels with the lender. The Credit Facility's financial covenants restrict the ability of the Company to transfer collateral, incur additional indebtedness, engage in mergers or acquisitions, pay dividends or make other distributions, make investments, create liens, sell assets, or sell certain assets held at foreign subsidiaries. A failure to comply with these covenants could permit the lender to exercise remedies against us and the collateral securing the Credit Facility, including foreclosure of our properties securing the Credit Facilities and our cash. As of September 30, 2022 and December 31, 2021, we were in compliance with the covenants for the Credit Facility.

Legal Proceedings

We may be involved in legal actions in the ordinary course of business, including inquiries and proceedings concerning business practices and intellectual property infringement, employee relations and other claims. We will recognize a loss contingency in the condensed consolidated financial statements when it is probable a liability has been incurred and the amount of the loss can be reasonably estimated. We will disclose any loss contingencies that do not meet both conditions if there is a reasonable possibility that a material loss may have been incurred. Gain contingencies are not recorded until they are realized.

In April 2022, we reached a settlement resolving a non-material dispute involving the Company's trademark. The terms of the settlement are not material to the business or the results of operations of the Company. We are currently not a party to any material pending litigation of other material proceedings.

Indemnifications

We are required to recognize a liability for the fair value of any obligations we assume upon the issuance of a guarantee. 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.

Note 11. Related Party Transactions

Molecular Assemblies, Inc.

In June 2020, we entered into a Stock Purchase Agreement with MAI pursuant to which we purchased1,587,050 shares of MAI's Series A preferred stock for $1.0 million. In connection with the transaction, Mr. Nicols, our former President and Chief Executive Officer, also joined MAI’s board of directors. Concurrently with our initial equity investment, we entered into a Master Collaboration and Research Agreement with MAI (the “MAI Agreement”), pursuant to which we are leveraging our CodeEvolver® protein engineering platform technology to improve the DNA polymerase enzymes that are critical for enzymatic DNA synthesis. Under the MAI Agreement, we are performing services utilizing our CodeEvolver® protein engineering platform technology to improve DNA polymerase enzymes in exchange for compensation in the form of additional shares of MAI's Series A and B preferred stock which are valued based on the observed transaction price of similar securities of MAI issued to third parties We completed the R&D service with MAI pursuant to the MAI Agreement during the first quarter of 2022. In December 2021, we received the primary milestone payment pursuant to the MAI Agreement of $1.0 million in the form of an additional 1,587,049 shares of Series B preferred stock. Upon execution of the Commercial License and Enzyme Supply Agreement with MAI (“MAI Supply Agreement”) in July 2022, we received the commercialization and enzyme supply agreement milestone payment pursuant to the MAI Agreement of $1.0 million in the form of an additional 1,587,049 shares of Series B preferred stock. In addition to our initial equity investment and the shares we have received under the MAI Agreement, in April 2021, we purchased an additional 1,000,000 shares of MAI's Series A preferred stock for $0.6 million and in September 2021, we purchased 9,198,423 shares of MAI's Series B preferred stock for $7.0 million.

We recognized $1.0 million and $1.2 million in research and development revenue from transactions with MAI in the three and nine months ended September 30, 2022, respectively, and we recognized $0.2 million and $0.7 million in research and development service transactions with MAI in the three and nine months ended September 30, 2021, respectively. Payment for the R&D services rendered under the MAI Agreement was received in the form of additional shares of MAI's Series A and Series B preferred stock. We received an aggregate of 1,587,049 shares of MAI's Series A and B preferred stock in the three and nine months ended September 30, 2022 and we received an aggregate of 476,114 and an aggregate of 1,904,456 shares of MAI's Series A and B preferred stock in the three and nine months ended September 30, 2021, respectively. As of September 30, 2022 we hold an aggregate of 18,292,369 shares of MAI's Series A and B preferred stock that we have earned or purchased since executing the Stock Purchase Agreement with MAI.

In April 2022, we received a purchase order from MAI for the delivery of certain enzyme products to MAI in 2022. In July 2022, we and MAI executed the MAI Supply Agreement that will enable MAI to utilize an evolved terminal deoxynucleotidyl transferase (TdT) enzyme in MAI's Fully Enzymatic Synthesis™ (or FES™) technology. We recognized $0.2 million and $0.4 million in product revenue in the three and nine months ended September 30, 2022, respectively.

The carrying value of our investment in MAI Series A and B preferred stock was $13.9 million and $12.7 million as of September 30, 2022 and December 31, 2021, respectively (see Note 6 "Fair Value Measurements"). We had nil and $0.2 million in deferred revenue from MAI as of September 30, 2022 and December 31, 2021 respectively.

Note 12. Segment, Geographical and Other Revenue Information

Segment Information

We manage our business as two business segments: Performance Enzymes and Novel Biotherapeutics. Our chief operating decision maker ("CODM") is our Chief Executive Officer. Our business segments are primarily based on our organizational structure and our operating results as used by our CODM in assessing performance and allocating resources for the Company.

We report corporate-related expenses such as legal, accounting, information technology, and other costs that are not otherwise included in our reportable business segments as "corporate costs." All items not included in income (loss) from operations are excluded from the business segments.

We manage our assets on a total company basis, not by business segment, as the majority of our operating assets are shared or commingled. Our CODM does not review asset information by business segment in assessing performance or allocating resources, and accordingly, we do not report asset information by business segment. All of our long lived assets are located in the United States.

Factors considered in determining the two reportable segments of the Company include the nature of business activities, the management structure directly accountable to our CODM for operating and administrative activities, availability of discrete financial information and information presented to the Board of Directors. Our CODM regularly reviews our segments and the approach provided by management for performance evaluation and resource allocation.

Operating expenses that directly support the segment activity are allocated based on segment headcount, revenue contribution or activity of the business units within the segments, based on the corporate activity type provided to the segment. The expense allocation excludes certain corporate costs that are separately managed from the segments. This provides the CODM with more meaningful segment profitability reporting to support operating decisions and allocate resources.

The following table provides financial information by our reportable business segments along with a reconciliation to consolidated income (loss) before income taxes (in thousands):

	Three Months Ended September 30, 2022			Three Months Ended September 30, 2021		
	Performance Enzymes	Novel Biotherapeutics	Total	Performance Enzymes	Novel Biotherapeutics	Total
Revenues:						
Product revenue	$ 28,042	$ —	$ 28,042	$ 28,731	$ —	$ 28,731
Research and development revenue	3,104	3,324	6,428	3,853	4,185	8,038
Total revenues	31,146	3,324	34,470	32,584	4,185	36,769
Costs and operating expenses:						
Cost of product revenue	9,786	—	9,786	6,867	—	6,867
Research and development[1]	6,782	13,855	20,637	5,670	8,850	14,520
Selling, general and administrative[1]	3,791	888	4,679	3,306	831	4,137
Total segment costs and operating expenses	20,359	14,743	35,102	15,843	9,681	25,524
Income (loss) from operations	$ 10,787	$ (11,419)	(632)	$ 16,741	$ (5,496)	11,245
Corporate costs [2]			(7,947)			(8,097)
Unallocated depreciation and amortization			(1,405)			(794)
Income (loss) before income taxes			$ (9,984)			$ 2,354

	Nine Months Ended September 30, 2022			Nine Months Ended September 30, 2021		
	Performance Enzymes	Novel Biotherapeutics	Total	Performance Enzymes	Novel Biotherapeutics	Total
Revenues:						
Product revenue	$ 93,376	$ —	$ 93,376	$ 53,674	$ —	$ 53,674
Research and development revenue	7,398	7,441	14,839	14,723	11,856	26,579
Total revenues	100,774	7,441	108,215	68,397	11,856	80,253
Costs and operating expenses:						
Cost of product revenue	29,577	—	29,577	15,403	—	15,403
Research and development[1]	19,833	37,279	57,112	17,172	20,649	37,821
Selling, general and administrative[1]	11,208	2,288	13,496	9,294	2,052	11,346
Total segment costs and operating expenses	60,618	39,567	100,185	41,869	22,701	64,570
Income (loss) from operations	$ 40,156	$ (32,126)	8,030	$ 26,528	$ (10,845)	15,683
Corporate costs [2]			(24,940)			(24,431)
Unallocated depreciation and amortization			(3,953)			(2,220)
Loss before income taxes			$ (20,863)			$ (10,968)

[1] Research and development expenses and selling, general and administrative expenses exclude depreciation and amortization of finance leases.
[2] Corporate costs include unallocated selling, general and administrative expenses, interest income, and other income, net.

The following table provides stock-based compensation expense included in income (loss) from operations (in thousands):

	Three Months Ended September 30,							
	2022				2021			
	Performance Enzymes	Novel Biotherapeutics	Corporate cost	Total	Performance Enzymes	Novel Biotherapeutics	Corporate cost	Total
Stock-based compensation	$ 1,382	$ 414	$ 2,735	$ 4,531	$ 1,228	$ 272	$ 1,516	$ 3,016

	Nine Months Ended September 30,							
	2022				2021			
	Performance Enzymes	Novel Biotherapeutics	Corporate cost	Total	Performance Enzymes	Novel Biotherapeutics	Corporate cost	Total
Stock-based compensation	$ 4,151	$ 1,182	$ 6,267	$ 11,600	$ 3,337	$ 767	$ 4,443	$ 8,547

Significant Customers

Customers that each accounted for 10% or more of our total revenues were as follows:

	Percentage of Total Revenues for the			
	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Customer A	39 %	51 %	54 %	29 %
Customer B	*	*	*	12 %
Customer C	13 %	*	*	10 %

** Percentage was less than 10%*

Customers that each accounted for 10% or more of accounts receivable balances as of the periods presented as follows:

	Percentage of Accounts Receivables as of	
	September 30, 2022	December 31, 2021
Customer A	21 %	62 %
Customer B	16 %	*
Customer D	14 %	*

Geographical Information

Geographic revenues are identified by the location of the customer and consist of the following (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Revenues				
Americas	$ 4,822	$ 7,816	$ 12,167	$ 18,588
EMEA	5,987	4,685	14,805	17,135
APAC	23,661	24,268	81,243	44,530
Total revenues	$ 34,470	$ 36,769	$ 108,215	$ 80,253

Identifiable long-lived assets by location was as follows (in thousands):

	September 30, 2022	December 31, 2021
United States	$ 63,812	$ 65,457

Identifiable goodwill by reporting unit was as follows (in thousands):

	As of September 30, 2022 and December 31, 2021		
	Performance Enzymes	Novel Biotherapeutics	Total
Goodwill	$ 2,463	$ 778	$ 3,241

Note 13. Allowance for Credit Losses

The following table summarizes the financial assets allowance for credit losses (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Balance at beginning of period	$ 109	$ 74	$ 416	$ 74
Provision for credit losses	—	—	—	—
Write-offs	—	—	(257)	—
Adjustment to the existing allowance	—	—	(50)	—
Balance at end of period	$ 109	$ 74	$ 109	$ 74

The following tables summarize accounts receivable by aging category (in thousands):

	September 30, 2022					
	Current	31-60 Days	61-90 Days	91 Days and over	Total over 31 Days	Total balance
Accounts receivable	$ 13,044	$ 1,941	$ 345	$ 1,197	$ 3,483	$ 16,527

	December 31, 2021					
	Current	31-60 Days	61-90 Days	91 Days and over	Total over 31 Days	Total balance
Accounts receivable	$ 22,697	$ 536	$ 569	$ 1,151	$ 2,256	$ 24,953

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following management's discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited condensed consolidated financial statements and the related notes thereto included elsewhere in this Quarterly Report on Form 10-Q and the audited consolidated financial statements and notes thereto and management's discussion and analysis of financial condition and results of operations for the year ended December 31, 2021 included in our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the SEC on February 28, 2022 (the "Annual Report"). This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements include, but are not limited to, expectations regarding our strategy, business plans, financial performance and developments relating to our industry. These statements are often identified by the use of words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "should," "estimate," or "continue," and similar expressions or variations. Such forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in Part II, Item 1A: "Risk Factors" of this Quarterly Report on Form 10-Q and Part I, Item 1A: "Risk Factors" of our Annual Report, as incorporated herein and referenced in Part II, Item 1A: "Risk Factors" of this Quarterly Report on Form 10-Q and elsewhere in this report. The forward-looking statements in this Quarterly Report on Form 10-Q represent our views as of the date of this Quarterly Report on Form 10-Q. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Quarterly Report on Form 10-Q.

BUSINESS OVERVIEW

We discover, develop and sell enzymes and other proteins that deliver value to our clients in a growing set of industries. We view proteins as a vast, largely untapped source of value-creating products, and we are using our proven technologies, which we have been continuously improving since our inception in 2002, to commercialize an increasing number of novel enzymes, both as proprietary Codexis products and in partnership with our customers.

We are a pioneer in harnessing computational technologies to drive biology advancements. Since 2002, we have made substantial investments in the development of our CodeEvolver® protein engineering technology platform, the primary source of our competitive advantage. Our technology platform is powered by proprietary, artificial intelligence-based, computational algorithms that rapidly mine the structural and performance attributes of our large and continuously growing library of protein variants. These computational outputs enable increasingly reliable predictions for next generation protein variants to be engineered, enabling time- and cost-efficient delivery of the targeted performance enhancements. In addition to its computational prowess, our CodeEvolver® protein engineering technology platform integrates additional modular competencies, including robotic high-throughput screening and genomic sequencing, organic chemistry and bioprocess development which are all coordinated to rapidly innovate novel, fit-for-purpose products.

The core historical application of the technology has been in developing commercially viable biocatalytic manufacturing processes for more sustainable production of complex chemicals. It begins by conceptually designing the most cost-effective and practical process for a targeted product. We then develop optimized biocatalysts to enable the designed process, using our CodeEvolver® platform. Engineered biocatalyst candidates, numbering many thousands for each project, are then rapidly screened and validated using high throughput methods under process-relevant operating conditions. This approach results in an optimized biocatalyst that enables cost-efficient processes that are relatively simple to run in conventional manufacturing equipment allowing for efficient technical transfer of our processes to our manufacturing partners. This also allows for efficient technical transfer of our processes to our manufacturing partners.

We initially commercialized our CodeEvolver® protein engineering technology platform and products in the manufacture of small molecule pharmaceuticals, which remains a primary business focus. Our customers, which include many large, global pharmaceutical companies, use our technology, products and services in their process development and in manufacturing. Additionally, we have licensed our proprietary CodeEvolver® protein engineering technology platform to global pharmaceutical companies enabling them to use this technology, in house, to engineer enzymes for their own businesses. In May 2019, we entered into a Platform Technology Transfer and License Agreement (the "Novartis CodeEvolver® Agreement") with Novartis Pharma AG ("Novartis"). The Novartis CodeEvolver® Agreement (Codexis' third such agreement with large pharmaceutical companies) allows Novartis to use our proprietary CodeEvolver® protein engineering platform technology in the field of human healthcare.

As evidence of our strategy to extend our technology beyond pharmaceutical manufacturing, we have also used the technology to develop biocatalysts and enzyme products for use in a broader set of industrial markets, including several large verticals, such as food, feed, consumer care and fine chemicals. In addition, we are using our technology to develop enzymes for various life science related applications, such as next generation sequencing ("NGS"), and polymerase chain reaction ("PCR/qPCR") for in vitro molecular diagnostics and genomic research applications. In December 2019, we entered into a license agreement to provide Roche Sequencing Solutions, Inc. with our first enzyme for this target market: the Company's EvoT4™ DNA ligase. In June 2020, we also entered into the MAI Agreement pursuant to which we are leveraging our CodeEvolver® platform technology to improve the DNA polymerase enzymes that are critical for enzymatic DNA synthesis.

We have been using the CodeEvolver® protein engineering technology platform to develop early stage, novel biotherapeutic product candidates, both in partnership with customers and for our own proprietary Codexis drug candidates. Our first program was for the potential treatment of phenylketonuria ("PKU") in humans. PKU is an inherited metabolic disorder in which the enzyme that converts the essential amino acid phenylalanine into tyrosine is deficient. In October 2017, we entered into a Global Development, Option and License Agreement (the "Nestlé License Agreement") with Societé des Produits Nestlé S.A., formerly known as Nestec Ltd. ("Nestlé Health Science") to advance CDX-6114, our enzyme biotherapeutic product candidate for the potential treatment of PKU. In February 2019, Nestlé Health Science exercised its option to obtain an exclusive license to develop and commercialize CDX-6114. Also in October 2017, we entered into a strategic collaboration agreement with Nestle Health Science ("Nestlé SCA") pursuant to which we and Nestlé Health Science are collaborating to leverage the CodeEvolver® platform technology to develop other novel enzymes for Nestlé Health Science's established Consumer Care and Medical Nutrition business areas. In March 2020, we entered into a Strategic Collaboration and License Agreement ("Takeda Agreement") with Shire Human Genetic Therapies, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Company Limited ("Takeda") for the research and development of novel gene therapies for certain disease indications, including the treatment of lysosomal storage disorders and a blood factor deficiency.

BUSINESS SEGMENTS

We manage our business as two business segments: Performance Enzymes and Novel Biotherapeutics. See Note 12, "Segment, Geographical and Other Revenue Information" in the Notes to Unaudited Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q.

Performance Enzymes

We initially commercialized our CodeEvolver® protein engineering technology platform and products in the manufacture of small molecule pharmaceuticals and, to date, this continues to be our largest market served. Our customers, which include many large global pharmaceutical companies, use our technology, products and services in their manufacturing processes and process development. We have also used the technology to develop customized enzymes for use in other industrial markets. These markets consist of several large industrial verticals, including food, feed, consumer care, and fine chemicals. We also use our technology in the life sciences markets to develop enzymes for customers using NGS and PCR/qPCR for in vitro molecular diagnostic and molecular biology research applications, as well DNA/RNA synthesis and health monitoring applications.

Novel Biotherapeutics

We are also targeting new opportunities in the pharmaceutical industry to discover, improve, and/or develop biotherapeutic drug candidates. We believe that our CodeEvolver® protein engineering platform technology can be used to discover novel biotherapeutic drug candidates that will target human diseases that are in need of improved therapeutic interventions. Similarly, we believe that we can deploy our platform technology to improve specific characteristics of a customer's pre-existing biotherapeutic drug candidate, such as its activity, stability or immunogenicity.

BUSINESS UPDATE REGARDING COVID-19

We are subject to risks and uncertainties as a result of the current COVID-19 pandemic. The COVID-19 pandemic has presented a substantial public health and economic challenge around the world and is affecting our employees, communities and business operations, as well as the U.S. economy and other economies worldwide. The full extent to which the COVID-19 pandemic will directly or indirectly impact our business, results of operations and financial condition will depend on future developments that are highly uncertain and may not be accurately predicted, including the duration and severity of the pandemic, the prevalence of more contagious and or virulent variants, and the extent and severity of the impact on our customers, new information that may emerge concerning COVID-19, the actions taken to contain it or treat its impact and the economic impact on local, regional, national and international markets.

To date, we and our collaboration partners have been able to continue to supply our enzymes to our customers worldwide, however, there can be no guarantee this will continue. Furthermore, our ability to provide future R&D services will continue to be impacted by any disruptions in operations of our customers with whom we collaborate. We believe that these disruptions have had minimal impact on our revenue for the three and nine months ended September 30, 2022. The extent to which the pandemic may impact our business operations and operating results will continue to remain highly dependent on future developments, which are uncertain and cannot be predicted with confidence. Should these disruptions escalate in the future, they may negatively and materially impact our business. results of operations and financial condition.

As a result of the COVID-19 pandemic, we have received purchase orders from Pfizer Inc. ("Pfizer") for large quantities of our proprietary enzyme product, CDX-616, for use by Pfizer in the manufacture of a critical intermediate for its proprietary API, nirmatrelvir, used by Pfizer in combination with the API ritonavir, as its PAXLOVID™ (nirmatrelvir tablets; ritonavir tablets) product for the treatment of COVID-19 infections in humans. In July 2022, we entered into an Enzyme Supply Agreement, effective as of October 30, 2021, with Pfizer Ireland Pharmaceuticals, a subsidiary of Pfizer, Inc. (the "Pfizer Supply Agreement"), covering the manufacture, sale and purchase of CDX-616 for use by Pfizer in the manufacture of nirmatrelvir. In addition to defining terms under which Pfizer has and will continue to purchase quantities of CDX-616 from us, pursuant to the terms of the Pfizer Supply Agreement, Pfizer paid us a fee of $25.9 million in August 2022 which is creditable against future orders of CDX-616 used to manufacture its PAXLOVID™. The sale of CDX-616 to Pfizer have had substantial impact on our revenue for the three and nine months ended September 30, 2022 and for the year ended December 31, 2021.

Our future results of operations and liquidity could be adversely impacted by delays in payments of outstanding receivable amounts beyond normal payment terms, supply chain disruptions and uncertain demand, and the impact of any initiatives or programs that we may undertake to address financial and operations challenges faced by our customers. The near-and-long term impact of COVID-19 to our financial condition, liquidity, or results of operations remains uncertain. Although some of the government orders that were enacted to control the spread of COVID-19 have been scaled back and the vaccine rollout has expanded, surges in the spread of COVID-19 due to the emergence of new more contagious or virulent variants or the ineffectiveness of the vaccines against such strains, may result in the reimplementation of certain government orders, which could adversely impact our business. The extent to which the COVID-19 pandemic may materially impact our financial condition, liquidity, or results of operations in the future is uncertain.

Results of Operations Overview

Revenues were $34.5 million in the third quarter of 2022, a 6% decrease from $36.8 million in the third quarter of 2021.

Product revenue, which consists primarily of sales of biocatalysts, pharmaceutical intermediates, and Codex® biocatalyst panels and kits, was $28.0 million in the third quarter of 2022, a decrease of 2% from $28.7 million in the third quarter of 2021. The decrease was primarily due to $6.0 million lower revenue from Pfizer related to their decreased purchases of CDX-616 during the third quarter of 2022, but was partially offset by $5.3 million higher revenue from the sales of other enzyme products used in the manufacture of branded pharmaceutical products. We expect the sale of CDX-616 to Pfizer under the Pfizer Supply Agreement to remain a significant component of our product revenue in 2022.

Research and development revenues, which include license, technology access and exclusivity fees, research service fees, milestone payments, royalties, and optimization and screening fees, totaled $6.4 million in the third quarter of 2022, a 20% decrease compared with $8.0 million in the third quarter of 2021. The decrease in research and development revenue was primarily due to lower research and development fees from Takeda under the Takeda Agreement and lower research and development fees from other existing collaboration agreements being recognized in the third quarter of 2022 as compared to the same period in the prior year.

Our products' profitability is affected by many factors including the average profit margin on the products we sell. Our profit margins are affected by many factors including the costs of internal and third-party fixed and variable costs, including materials and supplies, labor, facilities and other overhead costs. Profit margin data is used as a management performance measure to provide additional information regarding our results of operations on a consolidated basis. Product gross margins were 65% in the third quarter of 2022, compared to 76% in the third quarter of 2021, due to a less favorable product mix, variation in prices per volume sold and higher shipping costs.

Research and development expenses were $21.8 million in the third quarter of 2022, an increase of 44% from $15.2 million in the third quarter of 2021. The increase was primarily due to increases in costs associated with higher headcount, higher facilities cost and lab supplies, increase in outside services costs related to Chemistry, Manufacturing and Controls ("CMC") and regulatory expenses, higher stock-based compensation and higher depreciation expense and other outside services. We expect research and development expenses for the rest of the year to be higher than the comparative prior year periods mainly due to increases in headcount, higher allocation of facilities cost due to the additional research and development laboratory space in which we commenced occupancy in December 2021, and other external costs as we continue our efforts on advancing our internal and collaborative programs.

Selling, general and administrative expenses were $13.5 million in the third quarter of 2022 and remained unchanged as compared to the same period in 2021.

Net loss was $10.0 million, or a net loss of$0.15 per basic and diluted share in the third quarter of 2022 compared to a net income of $2.2 million, or a net income of $0.03 per basic and diluted share for the third quarter of 2021. The increase in net loss is primarily related to lower product revenue, lower research and development revenues and higher operating expenses.

Cash and cash equivalents decreased to $108.7 million as of September 30, 2022 compared to $116.8 million as of December 31, 2021. In addition,net cash inflows from operations was $6.4 million in the nine months ended September 30, 2022 compared to $14.9 million net cash outflows in the nine months ended September 30, 2021. We believe that our existing cash and cash equivalents, combined with our future expectations for product revenues, research and development revenues, and expense management will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements through at least the end of 2024.

In June 2017, we entered into a loan and security agreement with Western Alliance Bank that allows us to borrow up to $10.0 million under a term loan, and up to $5.0 million under a revolving credit facility with 80% of certain eligible accounts receivable as a borrowing base (the “Credit Facility”). Obligations under the Credit Facility are secured by a lien on substantially all of our personal property other than our intellectual property. Draws on the term debt are subject to customary conditions for funding. Our ability to take draws on the term debt expired on December 31, 2021. As of September 30, 2022, no amounts were borrowed under the Credit Facility and we were in compliance with the covenants for the Credit Facility. See Note 10, “Commitments and Contingencies” in the Notes to Unaudited Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q.

Merck Sitagliptin Catalyst Supply Agreement

In February 2012, we entered into a five-year Sitagliptin Catalyst Supply Agreement (“Sitagliptin Supply Agreement”) with Merck whereby Merck may obtain commercial scale enzyme for use in the manufacture of Januvia®, its product based on the active ingredient sitagliptin. In December 2015, Merck exercised its option under the terms of the Sitagliptin Catalyst Supply Agreement to extend the agreement for an additional five years through February 2022. In September 2021, the Sitagliptin Catalyst Supply Agreement was amended to extend the agreement through December 2026.

Effective as of January 2016, we and Merck amended the Sitagliptin Supply Agreement to prospectively provide for variable pricing based on the cumulative volume of sitagliptin enzyme purchased by Merck. We have previously determined that the variable pricing, which provides a discount based on the cumulative volume of sitagliptin enzyme purchased by Merck, provides Merck material rights and we recognized product revenues using the alternative method wherein we estimated the total expected consideration and allocated it proportionately with the expected sales. Pursuant to the latest amendment of the Sitagliptin Supply Agreement, we have determined that the latest price per volume of sitagliptin enzyme to be purchased by Merck no longer provides Merck material rights, and as such we are recognizing product revenue based on contractually stated prices effective as of February 2022.

We recognized product revenue of $2.4 million and $5.1 million under this agreement for the three and nine months ended September 30, 2022, respectively, compared to $1.9 million and $7.3 million for the three and nine months ended September 30, 2021, respectively. Revenues recognized by us under the Sitagliptin Catalyst Supply Agreement comprised 7% and 5% of our total revenues for the three and nine months ended September 30, 2022, respectively, compared to 5% and 9% for the three and nine months ended September 30, 2021, respectively.

As of September 30, 2022, we recorded revenue of$2.0 million from sitagliptin enzyme sales that were recognized over time based on the progress of the manufacturing process. These products will be shipped within the six month period following the end of the third quarter of 2022.

Global Development, Option and License Agreement and Strategic Collaboration Agreement

In October 2017, we entered into the Nestlé License Agreement with Nestlé Health Science and, solely for the purpose of the integration and the dispute resolution clauses of the Nestlé License Agreement, Nestlé Health Science S.A., to advance CDX-6114, our enzyme biotherapeutic product candidate for the potential treatment of PKU.

In January 2019, we received notice from the U.S. Food and Drug Administration ("FDA") that it had completed its review of our IND for CDX-6114 and concluded that we may proceed with the proposed Phase 1b multiple ascending dose study in healthy volunteers in the United States. In February 2019, Nestlé Health Science exercised its option to obtain an exclusive, worldwide, royalty-bearing, sub-licensable license for the global development and commercialization of CDX-6114 for the management of PKU. Upon exercising its option, Nestlé Health Science made an option payment and assumed all responsibilities for future clinical development and commercialization of CDX-6114. We are also eligible to receive payments from Nestlé Health Science under the Nestlé License Agreement that include (i) development and approval milestones of up to $85.0 million, (ii) sales-based milestones of up to $250.0 million in the aggregate, which aggregate amount is achievable if net sales exceed $1.0 billion in a single year, and (iii) tiered royalties, at percentages ranging from the mid-single digits to low double-digits of net sales of product.

In October 2017, we entered into the Nestlé SCA pursuant to which we and Nestlé Health Science are collaborating to leverage the CodeEvolver® protein engineering technology platform to develop novel enzymes for Nestlé Health Science's established Consumer Care and Medical Nutrition business areas. The term of the Nestlé SCA has been extended through December 2022.

In January 2020, we entered into a development agreement with Nestlé Health Science pursuant to which we and Nestlé Health Science are collaborating to advance a lead candidate discovered through our Nestlé SCA, CDX-7108, targeting Exocrine Pancreatic Insufficiency, into preclinical and early clinical studies. We, together with Nestlé Health Science, are continuing to advance CDX-7108 and initiated a Phase 1 clinical trial with the first subject being dosed in the fourth quarter of 2021.

Under the Nestlé SCA and the development agreement, we recognzed $2.2 million and $3.8 million in research and development fees for the three and nine months ended September 30, 2022, respectively, compared to $2.4 million and $5.8 million for the three and nine months ended September 30, 2021, respectively.

Platform Technology Transfer and License Agreement

In May 2019, we entered into the Novartis CodeEvolver® Agreement with Novartis. The Agreement allows Novartis to use our proprietary CodeEvolver® protein engineering platform technology in the field of human healthcare. In July 2021, we announced the completion of the technology transfer period during which we transferred our proprietary CodeEvolver® protein engineering platform technology to Novartis (the "Technology Transfer Period"). As a part of this technology transfer, we provided to Novartis our proprietary enzymes, proprietary protein engineering protocols and methods, and proprietary software algorithms. In addition, our teams and Novartis scientists participated in technology training sessions and collaborative research projects at our laboratories in Redwood City, California and at a designated Novartis laboratory in Basel, Switzerland. Novartis has now installed the CodeEvolver® protein engineering platform technology at its designated laboratory.

Pursuant to the agreement, we received an upfront payment of $5.0 million shortly after the effective date of the Novartis CodeEvolver® Agreement. We completed the second technology milestone transfer under the agreement in 2020 and received a milestone payment of $4.0 million. We have also received an aggregate of $5.0 million for the completion of the third technology milestone in 2021. In consideration for the continued disclosure and license of improvements to the technology and materials during a multi-year period that began on the conclusion of the Technology Transfer Period ("Improvements Term"), Novartis will pay Codexis annual payments over four years which amount to an additional $8.0 million in aggregate. We expect to receive the first annual payment of $2.0 million in the fourth quarter of 2022. The Company also has the potential to receive quantity-dependent, usage payments for each API that is manufactured by Novartis using one or more enzymes that have been developed or are in development using the CodeEvolver® protein engineering platform technology during the period that began on the conclusion of the Technology Transfer Period and ends on the expiration date of the last to expire licensed patent. Revenue for the combined initial license and technology transfer performance obligation was recognized using a single measure of progress that depicted our performance in transferring control of the services. Revenue allocated to improvements made during the Improvements Term are being recognized during the Improvements Term.

We recognized $0.2 million and $0.7 million in research and development revenue for the three and nine months ended September 30, 2022, respectively, compared to $0.2 million and $1.4 million for the three and nine months ended September 30, 2021, respectively.

Strategic Collaboration and License Agreement

In March 2020, we entered into the Takeda Agreement with Shire Human Genetic Therapies, Inc., a wholly-owned subsidiary of Takeda Pharmaceutical Co. Ltd. ("Takeda"), under which we are collaborating to research and develop protein sequences for use in gene therapy products for certain diseases in accordance with each applicable program plan.

On execution of the Takeda Agreement, we received an upfront non-refundable cash payment of $8.5 million and we initiated activities under three program plans for Fabry Disease, Pompe Disease, and an undisclosed blood factor deficiency, respectively (the "Initial Programs"). In May 2021, Takeda elected to exercise its option to initiate an additional program for a certain undisclosed rare genetic disorder; as a result we received the option exercise fee during the third quarter of 2021. Pursuant to the Takeda Agreement, we are eligible to receive other payments that include (i) reimbursement of research and development fees and preclinical development milestones for the Initial Programs of $10.5 million, in aggregate, and $4.7 million for the fourth program, (ii) clinical development and commercialization-based milestones, per target gene, of up to $100.0 million and (iii) tiered royalty payments based on net sales of applicable products at percentages ranging from the mid-single digits to low single-digits.

Revenue recognized relating to the functional licenses provided to Takeda was recognized at a point in time when the control of the license transferred to the customer. We recognized research and development revenue related to the Takeda Agreement of $1.2 million and $3.7 million for the three and nine months ended September 30, 2022, respectively, compared to $1.8 million and $6.0 million for the three and nine months ended September 30, 2021, respectively.

Enzyme Supply Agreement

In July 2022, we entered into the Pfizer Supply Agreement covering the manufacture, sale and purchase of CDX-616 for use by Pfizer in the manufacture of nirmatrelvir. Pfizer markets, sells and distributes nirmatrelvir, in combination with the active pharmaceutical ingredient ritonavir, as its PAXLOVID™ (nirmatrelvir tablets; ritonavir tablets) product. In addition to defining terms under which Pfizer has and will continue to purchase quantities of CDX-616 from us, pursuant to the terms of the Pfizer Supply Agreement, Pfizer paid us a fee of $25.9 million in August 2022 which was recorded as deferred revenue. The fee is creditable against future orders of CDX-616 used to manufacture PAXLOVID™ with shipment dates prior to December 31, 2023 and for fees associated with any new development and licensing agreements with Pfizer entered into prior to December 31, 2022 that are invoiced prior to December 31, 2023. Up to 50% of any portion of the fee which has not been credited pursuant to credits granted under the preceding sentence is creditable against future orders of CDX-616 used to manufacture PAXLOVID™ with shipment dates prior to December 31, 2024.

We recognized product revenue of $12.9 million and $58.0 million for the three and nine months ended September 30, 2022, respectively, compared to $18.9 million and $23.2 million for the three and nine months ended September 30, 2021, respectively, from the sale of quantities of CDX-616 to Pfizer. Revenues recognized by us from sales of CDX-616 to Pfizer comprised 38% and 54% of our total revenues for the three and nine months ended September 30, 2022, respectively, and 51% and 29% for the three and nine months ended September 30, 2021, respectively. As of September 30, 2022, we recorded revenue of $19.4 million from the sale of certain quantities of CDX-616 that were recognized over time based on the progress of the manufacturing process. These quantities will be shipped within the four month period following the end of the third quarter of 2022.

As of September 30, 2022, we had $5.2 million in deferred revenue related to the $25.9 million fee received from Pfizer, net of $19.4 million in contract assets that was offset against deferred revenue as it relates to the same performance obligation within the same agreement and net of $1.3 million of product revenue recognized from the fee during the three months ended September 30, 2022. We had nil in contract assets as of September 30, 2022.

RESULTS OF OPERATIONS

The following table shows the amounts from our unaudited condensed consolidated statements of operations for the periods presented (in thousands, except percentages):

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	$	%	2022	2021	$	%
Revenues:								
Product revenue	$ 28,042	$ 28,731	$ (689)	(2) %	$ 93,376	$ 53,674	$ 39,702	74 %
Research and development revenue	6,428	8,038	(1,610)	(20) %	14,839	26,579	(11,740)	(44) %
Total revenues	34,470	36,769	(2,299)	(6) %	108,215	80,253	27,962	35 %
Costs and operating expenses:								
Cost of product revenue	9,786	6,867	2,919	43 %	29,577	15,403	14,174	92 %
Research and development	21,821	15,165	6,656	44 %	60,410	39,562	20,848	53 %
Selling, general and administrative	13,499	13,407	92	1 %	39,859	37,600	2,259	6 %
Total costs and operating expenses	45,106	35,439	9,667	27 %	129,846	92,565	37,281	40 %
Income (loss) from operations	(10,636)	1,330	(11,966)	(900) %	(21,631)	(12,312)	(9,319)	76 %
Interest income	436	41	395	963 %	618	424	194	46 %
Other income, net	216	983	(767)	(78) %	150	920	(770)	(84) %
Income (loss) before income taxes	(9,984)	2,354	(12,338)	(524) %	(20,863)	(10,968)	(9,895)	90 %
Provision for income taxes	8	110	(102)	(93) %	125	121	4	3 %
Net income (loss)	$ (9,992)	$ 2,244	$ (12,236)	(545) %	$ (20,988)	$ (11,089)	$ (9,899)	89 %

Revenues

Our revenues consisted of product revenue and research and development revenue as follows:

- Product revenue consist of sales of biocatalysts, pharmaceutical intermediates, and Codex® biocatalyst panels and kits.
- Research and development revenue include license, technology access and exclusivity fees, research services fees, milestone payments, royalties, optimization and screening fees.

Revenues are as follows (in thousands, except percentages):

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	$	%	2022	2021	$	%
Product revenue	$ 28,042	$ 28,731	$ (689)	(2) %	$ 93,376	$ 53,674	$ 39,702	74 %
Research and development revenue	6,428	8,038	(1,610)	(20) %	14,839	26,579	(11,740)	(44) %
Total revenues	$ 34,470	$ 36,769	$ (2,299)	(6) %	$ 108,215	$ 80,253	$ 27,962	35 %

Revenues typically fluctuate on a quarterly basis due to the variability in our customers' manufacturing schedules and the timing of our customers' clinical trials. In addition, we have limited internal capacity to manufacture enzymes. As a result, we are dependent upon the performance and capacity of third-party manufacturers for the commercial scale manufacturing of the enzymes used in our pharmaceutical and fine chemicals business.

We accept purchase orders for deliveries covering periods from one day up to 14 months from the date on which the order is placed. However, some of our purchase orders can be revised or cancelled by the customer without penalty. Considering these industry practices and our experience, we do not believe the total of customer purchase orders outstanding (backlog) provides meaningful information that can be relied on to predict actual sales for future periods.

Total revenues decreased by $2.3 million in the three months ended September 30, 2022, compared to the same period in 2021, primarily due to lower product revenue and lower research and development revenue. The increase of $28.0 million in the nine months ended September 30, 2022, compared to the same period in 2021, was primarily due to higher product revenue, which was partially offset by lower research and development revenue.

Product revenue, decreased by $0.7 million in the three months ended September 30, 2022, compared to the same period in 2021, primarily due to $6.0 million lower revenue from Pfizer related to their decreased purchases of CDX-616 during the third quarter of 2022, but was partially offset by $5.3 million higher revenue from the sales of other enzyme products used in the manufacture of branded pharmaceutical products, The increase of $39.7 million in the nine months ended September 30, 2022, compared to the same period in 2021, was primarily due to 2021 revenue from Pfizer sales largely occurring in the second half of 2021 whereas we reported $58.0 million in revenue from Pfizer related to the purchase of CDX-616 in the nine months ended September 30, 2022.

Research and development revenue decreased by $1.6 million and $11.7 million in the three and nine months ended September 30, 2022, respectively, compared to the same periods in 2021, primarily due to lower research and development fees from Takeda under the Takeda Agreement and lower research and development fees from other existing collaboration agreements being recognized in 2022 as compared to the same periods in the prior year.

Cost and Operating Expenses

Our cost and operating expenses consist of cost of product revenue, research and development expense, and selling, general and administrative expense. The following table shows the amounts of our cost of product revenue, research and development expense, and selling, general and administrative expense from our unaudited condensed consolidated statements of operations for the periods presented (in thousands, except percentages):

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	$	%	2022	2021	$	%
Cost of product revenue	$ 9,786	$ 6,867	$ 2,919	43 %	$ 29,577	$ 15,403	$ 14,174	92 %
Research and development	21,821	15,165	6,656	44 %	60,410	39,562	20,848	53 %
Selling, general and administrative	13,499	13,407	92	1 %	39,859	37,600	2,259	6 %
Total costs and operating expenses	$ 45,106	$ 35,439	$ 9,667	27 %	$ 129,846	$ 92,565	$ 37,281	40 %

Cost of Product Revenue and Product Gross Margin

Our product revenues are derived entirely from our Performance Enzymes segment. Revenues from the Novel Biotherapeutics segment are only from collaborative research and development activities.

The following table shows the amounts of our product revenue, cost of product revenue, product gross profit and product gross margin from our unaudited condensed consolidated statements of operations for the periods presented (in thousands, except percentages):

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	$	%	2022	2021	$	%
Product revenue	$ 28,042	$ 28,731	$ (689)	(2) %	$ 93,376	$ 53,674	$ 39,702	74 %
Cost of product revenue [1]	9,786	6,867	2,919	43 %	29,577	15,403	14,174	92 %
Product gross profit	$ 18,256	$ 21,864	$ (3,608)	(17) %	$ 63,799	$ 38,271	$ 25,528	67 %
Product gross margin (%) [2]	65 %	76 %			68 %	71 %		

[1] Cost of product revenue consist of both internal and third-party fixed and variable costs, including materials and supplies, labor, facilities and other overhead costs associated with our product revenue.
[2] Product gross margin is used as a performance measure to provide additional information regarding our results of operations on a consolidated basis.

Cost of product revenue increased by $2.9 million in the three months ended September 30, 2022 and by $14.2 million in the nine months ended September 30, 2022 compared to the same periods in 2021. The increase was primarily due to a higher volume of product sales and variations in product mix. Product gross margins were 65% and 68% in the three and nine months ended September 30, 2022, respectively, compared to 76% and 71% in the corresponding periods in 2021 due to variations in product mix, variation in prices per volume sold and higher shipping costs.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects as well as collaborative research and development activities. These costs primarily consist of (i) employee-related costs, which include salaries and other personnel-related expenses (including stock-based compensation), (ii) various allocable expenses, which include occupancy-related costs, supplies, depreciation of facilities and laboratory equipment, and (iii) external costs. Research and development expenses are expensed when incurred.

Research and development expenses increased by $6.7 million, or 44%, during the three months ended September 30, 2022, and by $20.8 million, or 53%, in the nine months ended September 30, 2022, compared to the same periods in 2021. The increase in research and development expenses was primarily due to increases in costs associated with higher headcount, higher facilities cost and lab supplies, increase in outside services related to CMC and regulatory expenses, higher stock-based compensation and higher depreciation expense and other outside services.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist of employee-related costs, which include salaries and other personnel-related expenses (including stock-based compensation), hiring and training costs, consulting and outside services expenses (including audit and legal counsel related costs), marketing costs, building lease costs, and depreciation expenses and amortization expenses.

Selling, general and administrative expenses remained unchanged for the three months ended September 30, 2022 as compared to the same period in 2021. The increase of $2.3 million, or 6%, in the nine months ended September 30, 2022 compared to the same period in 2021, was primarily due to increase in costs associated with a higher headcount and higher outside and temporary services, and was partially offset by decrease in legal fees and lower allocable expenses.

Interest Income and Other Income, net (in thousands, except percentages):

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	$	%	2022	2021	$	%
Interest income	$ 436	$ 41	$ 395	963 %	$ 618	$ 424	$ 194	46 %
Other income, net	216	983	(767)	(78) %	150	920	(770)	(84) %
Total other income	$ 652	$ 1,024	$ (372)	(36) %	$ 768	$ 1,344	$ (576)	(43) %

Interest Income

Interest income increased by $0.4 million and $0.2 million in the three and nine months ended September 30, 2022, respectively, compared to the same periods in 2021, primarily due to higher average interest rates on cash balances and was partially offset by earned interest income and amortization of debt discount on non-marketable debt security in the prior year.

Other Income, net

Other income, net, decreased by $0.8 million and $0.8 million in the three and nine months ended September 30, 2022, respectively, compared to the same periods in 2021, primarily due to a higher gain recognized from remeasurement of the carrying value of our investment in MAI in the prior year compared to this year.

Provision for Income Taxes (in thousands, except percentages):

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
	2022	2021	$	%	2022	2021	$	%
Provision for income taxes	$ 8	$ 110	$ (102)	(93) %	$ 125	$ 121	$ 4	3 %

The provision for income taxes for the three and nine months ended September 30, 2022 and 2021 were primarily due to the income tax withholding imposed by foreign taxing authorities on income earned in certain countries outside of the United States and remitted to the United States and the accrual of interest and penalties on historic uncertain tax positions.

The Tax Cuts and Jobs Act of 2017 provided for significant changes to the U.S tax system including the mandatory capitalization of research and development expenses starting in 2022. While we are still assessing the legislation's potential impact, we do not expect it to have a material effect on our financial statements.

Net Loss

Net loss for the three months ended September 30, 2022 was $10.0 million, or a net loss per basic and diluted share of $0.15. This compared to a net income of $2.2 million, or a net income per basic and diluted share of $0.03 for the three months ended September 30, 2021. Net loss for the nine months ended September 30, 2022 was $21.0 million, or a net loss per basic and diluted share of $0.32. This compared to a net loss of $11.1 million, or a net loss per basic and diluted share of $0.17 for the nine months ended September 30, 2021. The increase in net loss for both the three and nine months ended September 30, 2022 was primarily related to a decrease in product revenues with higher margins, lower research and development revenues and higher operating expenses.

RESULTS OF OPERATIONS BY SEGMENT (in thousands, except percentages):

Revenues by segment

	Three Months Ended September 30,						Change			
	2022			2021			Performance Enzymes		Novel Biotherapeutics	
	Performance Enzymes	Novel Biotherapeutics	Total	Performance Enzymes	Novel Biotherapeutics	Total	$	%	$	%
Revenues:										
Product revenue	$ 28,042	$ —	$ 28,042	$ 28,731	$ —	$ 28,731	$ (689)	(2) %	$ —	— %
Research and development revenue	3,104	3,324	6,428	3,853	4,185	8,038	(749)	(19) %	(861)	(21) %
Total revenues	$ 31,146	$ 3,324	$ 34,470	$ 32,584	$ 4,185	$ 36,769	$ (1,438)	(4) %	$ (861)	(21) %

	Nine Months Ended September 30,						Change			
	2022			2021			Performance Enzymes		Novel Biotherapeutics	
	Performance Enzymes	Novel Biotherapeutics	Total	Performance Enzymes	Novel Biotherapeutics	Total	$	%	$	%
Revenues:										
Product revenue	$ 93,376	$ —	$ 93,376	$ 53,674	$ —	$ 53,674	$ 39,702	74 %	$ —	— %
Research and development revenue	7,398	7,441	14,839	14,723	11,856	26,579	(7,325)	(50)%	(4,415)	(37)%
Total revenues	$ 100,774	$ 7,441	$ 108,215	$ 68,397	$ 11,856	$ 80,253	$ 32,377	47 %	$ (4,415)	(37)%

Revenues from the Performance Enzymes segment decreased by $1.4 million, or 4%, for the three months ended September 30, 2022 and increased by $32.4 million, or 47%, for the nine months ended September 30, 2022 compared to the same periods in 2021. The decrease in product revenue of $0.7 million, or 2%, in the three months ended September 30, 2022, compared to the same period in 2021 was primarily due to $6.0 million lower revenue from Pfizer related to their decreased purchases of CDX-616 during the third quarter of 2022, but was partially offset by $5.3 million higher revenue from the sales of other enzyme products used in the manufacture of branded pharmaceutical products. The increase in product revenue of $39.7 million, or 74%, in the nine months ended September 30, 2022, compared to the same period in 2021, was primarily due to 2021 product revenue from Pfizer sales largely occurring in the second half of 2021 whereas we reported $58.0 million in revenue from Pfizer for the nine months ended September 30, 2022. The decrease in research and development revenue of $0.7 million, or 19%, for the three months ended September 30, 2022 and of $7.3 million, or 50%, in the nine months ended September 30, 2022, compared to the same periods in 2021 was primarily due to lower revenues from Novartis under the Novartis CodeEvolver® Agreement as we completed the technology transfer to Novartis during the third quarter of 2021 and lower research and development fees from other existing collaboration agreements compared to the same period in the prior year.

Revenues from the Novel Biotherapeutics segment decreased by $0.9 million, or 21%, for the three months ended September 30, 2022 and by $4.4 million, or 37%, for the nine months ended September 30, 2022 compared to the same periods in 2021, primarily due to lower research and development fees from Takeda under the Takeda Agreement and lower research and development revenue from Nestlé Health Science recognized this year compared to the prior year.

Costs and operating expenses by segment

	Three Months Ended September 30,						Change			
	2022			2021			Performance Enzymes		Novel Biotherapeutics	
	Performance Enzymes	Novel Biotherapeutics	Total	Performance Enzymes	Novel Biotherapeutics	Total	$	%	$	%
Cost of product revenue	$ 9,786	$ —	$ 9,786	$ 6,867	$ —	$ 6,867	$ 2,919	43 %	$ —	— %
Research and development [1]	6,782	13,855	20,637	5,670	8,850	14,520	1,112	20 %	5,005	57 %
Selling, general and administrative [1]	3,791	888	4,679	3,306	831	4,137	485	15 %	57	7 %
Total segment costs and operating expenses	$ 20,359	$ 14,743	35,102	$ 15,843	$ 9,681	25,524	$ 4,516	29 %	$ 5,062	52 %
Corporate costs [2]			8,599			9,121				
Unallocated depreciation and amortization			1,405			794				
Total costs and operating expenses			$ 45,106			$ 35,439				

	Nine Months Ended September 30,						Change			
	2022			2021			Performance Enzymes		Novel Biotherapeutics	
	Performance Enzymes	Novel Biotherapeutics	Total	Performance Enzymes	Novel Biotherapeutics	Total	$	%	$	%
Cost of product revenue	$ 29,577	$ —	$ 29,577	$ 15,403	$ —	$ 15,403	$ 14,174	92 %	$ —	— %
Research and development [1]	19,833	37,279	57,112	17,172	20,649	37,821	2,661	15 %	16,630	81 %
Selling, general and administrative [1]	11,208	2,288	13,496	9,294	2,052	11,346	1,914	21 %	236	12 %
Total segment costs and operating expenses	$ 60,618	$ 39,567	100,185	$ 41,869	$ 22,701	64,570	$ 18,749	45 %	$ 16,866	74 %
Corporate costs [2]			25,708			25,775				
Unallocated depreciation and amortization			3,953			2,220				
Total costs and operating expenses			$ 129,846			$ 92,565				

[1] Research and development expenses and selling, general and administrative expenses exclude depreciation and amortization of finance leases.
[2] Corporate costs include unallocated selling, general and administrative expenses.

For a discussion of product cost of revenue, see *"Results of Operations"*.

Research and development expense in the Performance Enzymes segment increased by $1.1 million, or 20%, in the three months ended September 30, 2022 and by $2.7 million, or 15%, in the nine months ended September 30, 2022, as compared to the same periods in 2021. The increase was primarily due to an increase in costs associated with outside services, lab supplies and higher headcount.

Selling, general and administrative expense in the Performance Enzymes segment increased by $0.5 million, or 15%, in the three months ended September 30, 2022, and increased by $1.9 million, or 21%, in the nine months ended September 30, 2022, as compared to the same periods in 2021, primarily due to an increase in costs associated with higher headcount and higher outside services expenses.

Research and development expense in the Novel Biotherapeutics segment increased by $5.0 million, or 57%, in the three months ended September 30, 2022 and by $16.6 million, or 81% in the nine months ended September 30, 2022, as compared to the same periods in 2021. The increase was primarily due to increased costs associated with higher headcount, higher facilities cost and lab supplies, increase in outside services related to CMC and regulatory expenses and higher allocable expenses.

Selling, general and administrative expense in the Novel Biotherapeutics segment increased by $0.1 million, or 7%, in the three months ended September 30, 2022 and by $0.2 million, or 12%, in the nine months ended September 30, 2022, as compared to the same periods in 2021. The increase was primarily due to increased costs associated with higher headcount.

LIQUIDITY AND CAPITAL RESOURCES

Liquidity is the measurement of our ability to meet working capital needs and to fund capital expenditures. We have historically funded our operations primarily through cash generated from operations, stock option exercises and public and private offerings of our common stock. We also have the ability to borrow up to $5.0 million under our Credit Facility. We actively manage our cash usage and investment of liquid cash to ensure the maintenance of sufficient funds to meet our working capital needs. Our cash and cash equivalents are held in U.S. banks.

The following summarizes our cash and cash equivalents balance and working capital as of September 30, 2022 and December 31, 2021 (in thousands):

	September 30, 2022	December 31, 2021
Cash and cash equivalents	$ 108,689	$ 116,797
Working capital	$ 114,089	$ 128,517

Sources of Capital

In addition to our existing cash and cash equivalents, we are eligible to earn milestone and other contingent payments for the achievement of defined collaboration objectives and certain royalty payments under our collaboration agreements. Our ability to earn these milestone and contingent payments and the timing of achieving these milestones is primarily dependent upon the outcome of our collaborators' research and development activities and is uncertain at this time. Under the Merck CodeEvolver® Agreement, we are eligible to receive payments of up to $15.0 million for each commercial API that is manufactured by Merck using one or more novel enzymes developed by Merck using the CodeEvolve® technology. In addition, under the GSK CodeEvolver® Agreement, depending upon GSK's successful application of the licensed technology, we have the potential to receive additional contingent payments that range from $5.8 million to $38.5 million per project.

In May 2019, we entered into the Platform Technology Transfer and License Agreement with Novartis. The Novartis CodeEvolver® Agreement allows Novartis to use Codexis' proprietary CodeEvolver® protein engineering platform technology in the field of human healthcare. Pursuant to the agreement, we received an upfront payment shortly after the effective date and we also received milestone payments upon completion of the second technology milestone transfer in 2020 and the third technology milestone in 2021. In consideration for the continued disclosure and license of improvements to the technology and materials during a multi-year period that began on the conclusion of the Technology Transfer Period ("Improvements Term"), Novartis will pay an additional $8.0 million in aggregate over four years. We expect to receive the first annual payment of $2.0 million in the fourth quarter of 2022.

In October 2017, we entered into the Nestlé License Agreement with Nestlé Health Science. Pursuant to the Nestlé License Agreement, Nestlé Health Science paid us an upfront cash payment and milestone payments after dosing the first subjects in a first-in-human Phase 1a dose-escalation trial with CDX-6114 and achievement of a formulation relating to CDX-6114. We are also eligible to receive payments from Nestlé Health Science under the Nestlé License Agreement that include (i) development and approval milestones of up to $85.0 million, (ii) sales-based milestones of up to $250.0 million in the aggregate, which aggregate amount is achievable if net sales exceed $1.0 billion in a single year, and (iii) tiered royalties, at percentages ranging from the mid-single digits to low double-digits, of net sales of product.

Pursuant to the terms of the Pfizer Supply Agreement, we received a fee of $25.9 million in August 2022. The fee is creditable against future orders of CDX-616 used to manufacture PAXLOVID™ with shipment dates prior to December 31, 2023 and for fees associated with any new development and licensing agreements with Pfizer entered into prior to December 31, 2022 that are invoiced prior to December 31, 2023. Up to 50% of any portion of the fee which has not been credited pursuant to credits granted under the preceding sentence is creditable against future orders of CDX-616 used to manufacture PAXLOVID™ with shipment dates prior to December 31, 2024.

We are actively collaborating with new and existing customers in the pharmaceutical and food industries. We believe that we can utilize our current products and services, and develop new products and services, to increase our revenues and gross margins in future periods.

We have historically experienced negative cash flows from operations as we continue to invest in key technology development projects and improvements to our CodeEvolver® protein engineering technology platform and expand our business development and collaboration with new customers. Our cash flows from operations will continue to be affected principally by product sales and product gross margins, sales from licensing our technology to major pharmaceutical companies, and collaborative research and development services provided to customers, as well as our headcount costs, primarily in research and development. Our primary source of cash flows from operating activities is cash receipts from our customers for purchases of products, collaborative research and development services, and licensing our technology to major pharmaceutical companies. Our largest uses of cash from operating activities are for employee-related expenditures, rent payments, inventory purchases to support our product sales and non-payroll research and development costs.

Equity Distribution Agreement

In May 2021, we entered into an Equity DistributionAgreement ("EDA") with Piper Sandler & Co ("PSC"), under which PSC, as our exclusive agent, at our discretion and at such times that we may determine from time to time, may sell over a three-year period from the execution of the EDA up to a maximum of $50.0 million of shares of our common stock. During the nine months ended September 30, 2022, no shares of our common stock were issued pursuant to the EDA and as of September 30, 2022, $50.0 million worth of shares remained available for sale under the EDA. Sales of our common stock under this arrangement could be subject to business, economic or competitive uncertainties and contingencies, many of which may be beyond our control, and which could cause actual results from the sale of our common stock to differ materially from expectations.

Credit Facility

In June 30, 2017, we entered into the Credit Facility with Western Alliance Bank consisting of term loans up to $10.0 million, and advances under a revolving credit facility of up to $5.0 million with an accounts receivable borrowing base of 80% of eligible accounts receivable. Our right to take draws on the term debt expired on December 31, 2021. On October 1, 2024, loans drawn, if any, under the Revolving Line of Credit terminate.

The Credit Facility requires us to maintain compliance with certain financial covenants including attainment of certain lender-approved projections or maintenance of certain minimum cash levels. Restrictive covenants in the Credit Facility restrict the payment of dividends or other distributions. As of September 30, 2022, no amounts were borrowed under the Credit Facility and we were in compliance with the covenants for the Credit Facility. For additional information about our contractual obligations, see Note 10, "Commitments and Contingencies" in the Notes to Unaudited Condensed Consolidated Financial Statements included in this Quarterly Report on Form 10-Q.

We believe that our existing cash and cash equivalents, combined with our future expectations for product revenues, research and development revenue, and expense management will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements through the end of 2024. We have based this estimate on assumptions that may prove to be wrong, and we could utilize our capital resources sooner than we expect.

However, we may need additional capital if our current plans and assumptions change. In addition, we may choose to seek other sources of capital even if we believe we have generated sufficient cash flows to support our operating needs. Our need for additional capital will depend on many factors, including the financial success of our business, the spending required to develop and commercialize new and existing products, the effect of any acquisitions of other businesses, technologies or facilities that we may make or develop in the future, our spending on new market opportunities, and the potential costs for the filing, prosecution, enforcement and defense of patent claims, if necessary. 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 raise debt financing or enter into credit facilities, 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 fail to generate sufficient revenues to achieve planned gross margins and to control operating costs, 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.

Cash Flows

The following is a summary of cash flows for nine months ended September 30, 2022 and 2021 (in thousands):

	Nine Months Ended September 30,	
	2022	**2021**
Net cash provided by (used in) operating activities	$ 6,367	$ (14,927)
Net cash used in investing activities	(13,611)	(15,942)
Net cash provided by (used in) financing activities	(914)	1,341
Net decrease in cash, cash equivalents and restricted cash	$ (8,158)	$ (29,528)

Cash Flows from Operating Activities

Cash used in operating activities for the nine months ended September 30, 2022 of $6.4 million consisted of net loss adjusted for certain non-cash items and changes in operating assets and liabilities.

The $21.3 million increase in net cash provided by operating activities for the nine months ended September 30, 2022 as compared to the same period in 2021, was primarily due to the receipt of $25.9 million fee from Pfizer and increases in cash received from revenue, partially offset by increased payments associated with higher operating costs.

Cash Flows from Investing Activities

Cash used in investing activities for the nine months ended September 30, 2022 was primarily attributable to $5.3 million for additional new equity investments in privately held companies and $8.3 million for purchases of property and equipment during the period.

The $2.3 million decrease in net cash used in investing activities for the nine months ended September 30, 2022 as compared to the same period in 2021, was primarily due to higher cash utilized for additional investments in equity securities and purchases of property and equipment in prior year.

Cash Flows from Financing Activities

Cash used in financing activities for the nine months ended September 30, 2022 included $1.5 million for taxes paid related to net share settlement of equity awards offset by $0.6 million of proceeds from exercises of stock options.

The $2.3 million decrease in net cash provided by financing activities for the nine months ended September 30, 2022 as compared to the same period in 2021 was primarily due to higher cash paid on taxes related to net share settlement of equity awards and lower proceeds from exercises of stock options.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make judgments, estimates and assumptions in the preparation of our consolidated financial statements and accompanying notes. Actual results could differ from those estimates. There have been no material changes to our critical accounting policies or estimates during the three and nine months ended September 30, 2022 from those discussed in our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 28, 2022.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk Management

Our cash flows and earnings are subject to fluctuations due to changes in foreign currency exchange rates, interest rates and other factors. These market risk exposures are disclosed in Part II, Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 28, 2022.

Interest Rate Sensitivity

Our unrestricted cash and cash equivalents total $108.7 million at September 30, 2022. We primarily invest these amounts in money market funds which are held for working capital purposes. We do not enter into investments for trading or speculative purposes. As of September 30, 2022, the effect of a hypothetical 10% decrease in market interest rates would have a $0.2 million impact on a potential loss in future interest income and cash flows.

In June 2017, we entered into the Credit Facility with Western Alliance Bank consisting of term loans up to $10.0 million, and advances under a revolving line of credit up to $5.0 million. Term loans made under the Term Debt bear interest at variable rate through maturity at the greater of (i) 3.75% or (ii) the sum of (A) Index Rate (prime rate published in the Money Rates section of the Western Edition of The Wall Street Journal plus (B) 0.50%. Advances made under the Revolving Line of Credit bear interest at a variable annual rate equal to the greater of (i) 4.25% or (ii) the sum of (A) the prime rate plus (B) 1.00%. Increases in these variable interest rates will increase our future interest expense and decrease our results of operations and cash flows. Our right to take draws on the long term debt expired on December 31, 2021 and no amounts were drawn under the Credit Facility as of September 30, 2022. Our exposure to interest rates risk relates to our Credit Facility with variable interest rates, where an increase in interest rates may result in higher borrowing costs. Since we have no outstanding borrowings under our Credit Facility as of September 30, 2022, the effect of a hypothetical 10% change in interest rates would not have any impact on our interest expense.

Foreign Currency Risk

Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. In periods when the USD declines in value as compared to the foreign currencies in which we incur expenses, our foreign-currency based expenses increase when translated into United States dollars. Although substantially all of our sales are denominated in United States dollars, future fluctuations in the value of the USD may affect the price competitiveness of our products outside the United States. Our most significant foreign currency exposure is due to non-functional currency denominated monetary assets, primarily currencies denominated in other than their functional currency. These non-functional currency denominated monetary assets are subject to re-measurement which may create fluctuations in other expense, net, a component in our consolidated statement of operations and in the fair value of the assets in the consolidated balance sheets. As of September 30, 2022, the effect of a hypothetical 10% unfavorable change in exchange rates on currencies denominated in other than their functional currency would result in a potential loss in future earnings in our consolidated statement of operations and a reduction in the fair value of the assets of approximately $42 thousand.

Investment in Non-Marketable Equity Securities

We own investments in non-marketable equity securities without readily determinable fair values. We may value these equity securities based on significant recent arms-length equity transactions with sophisticated non-strategic unrelated investors, providing the terms of these security transactions are substantially similar to the security transactions terms between the investors and us. The impact of the difference in transaction terms on the market value of the portfolio company may be difficult or impossible to quantify.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures and internal controls that are designed to provide reasonable assurance that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to our management, including our principal executive officer and our principal financial and accounting officer, as appropriate, to allow timely decisions regarding required disclosure.

Our management, including our principal executive officer and our principal financial and accounting officer, evaluated the effectiveness of our disclosure controls and procedures as defined by Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based on this evaluation, our principal executive officer and our principal financial and accounting officer have concluded that, because a material weakness in our internal control over financial reporting existed as of March 31, 2022 and had not been remediated as of September 30, 2022, these disclosure controls and procedures were not effective as of September 30, 2022.

Management concluded that, as of March 31, 2022, a material weakness in internal control over financial reporting exists related to management's controls over the revenue recognition process in the three months ended March 31, 2022. Specifically, our controls addressing the completeness and accuracy of reports used to calculate product revenue from arrangements subject to over time revenue recognition did not operate at the proper level of precision to identify material errors. The control deficiency resulted in a material misstatement of revenue related accounts in the three months ended March 31, 2022, which management corrected before the financial statements for the three months ended March 31, 2022 were issued. This material weakness has not been remediated as of September 30, 2022.

Management's Plan to Remediate Material Weakness

We are in the process of implementing a detailed plan for the remediation of the material weakness identified in the first quarter of 2022, including enhancing management's review controls over revenue and the level of detail and precision applied when reviewing the completeness and accuracy of reports used to determine product revenue for arrangements subject to over time revenue recognition. Although we have begun implementing the enhancements described above, the material weakness will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively. Until this material weakness is remediated, we plan to continue to perform additional analyses and other procedures to ensure that our consolidated financial statements are prepared in accordance with GAAP.

Changes in Internal Control over Financial Reporting

Other than as described above, there were no changes in our internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. There were no significant changes to our internal control over financial reporting due to the adoption of new standards.

Inherent Limitations on Effectiveness of Controls

In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, even if determined effective and no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives to prevent or detect misstatements. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints, and that management is required to apply judgment in evaluating the benefits of possible controls and procedures relative to their costs. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

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

ITEM 1A. RISK FACTORS

We have included in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2021, a description of certain risks and uncertainties that could affect our business, future performance or financial condition (the "Risk Factors"). Other than in respect of the additional risk factor included below, during the three months ended September 30, 2022, there were no material changes from the disclosure provided in the Form 10-K for the year ended December 31, 2021 with respect to the Risk Factors. Investors should consider the Risk Factors prior to making an investment decision with respect to our stock.

We have identified a material weakness in our internal control over accounting related to our product revenue recognition process and such weakness led to a conclusion that our internal control over financial reporting and disclosure controls and procedures were not effective as of March 31, 2022. This material weakness has not been remediated as of September 30, 2022. Our inability to remediate the material weakness, our discovery of any additional weaknesses, and/or our inability to achieve and maintain effective disclosure controls and procedures and internal control over financial reporting could adversely affect our results of operations and our stock price.

Section 404 of the Sarbanes-Oxley Act of 2002 requires that companies evaluate and report on the effectiveness of their internal control over financial reporting. In addition, we regularly engage our independent registered public accounting firm to report on its evaluation of those controls. As disclosed in more detail under Part I, Item 4, "Controls and Procedures" above, we have identified a material weakness in our internal control as of March 31, 2022 related to management's controls over the revenue recognition process. Specifically, our controls addressing the completeness and accuracy of reports used to calculate product revenue from arrangements subject to over time revenue recognition did not operate at the proper level of precision to identify the errors. This material weakness has not been remediated as of September 30, 2022. Due to the material weakness in our internal control over financial reporting, we have concluded that our disclosure controls and procedures were not effective as of September 30, 2022.

Failure to have effective internal control over financial reporting and disclosure controls and procedures could impair our ability to produce accurate financial statements on a timely basis and could lead to a restatement of our financial statements. If, as a result of the ineffectiveness of our internal control over financial reporting and disclosure controls and procedures, we cannot provide reliable financial statements, our business decision processes may be adversely affected, our business and results of operations could be harmed and investors could lose confidence in our reported financial information. In addition, in some circumstances, failure to maintain effective internal control over financial reporting could result in investigations or sanctions by regulatory authorities.

Our management is taking steps to remediate the material weakness, including enhancing management's review controls over revenue and the level of detail and precision applied when reviewing the completeness and accuracy of reports used to determine product revenue for arrangements subject to over time revenue recognition. Although we have begun implementing the enhancements described above, the material weakness will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively. Additional details regarding the remediation efforts are disclosed under Part I, Item 4, "Controls and Procedures" above. In addition, we may in the future identify additional internal control deficiencies that could rise to the level of a material weakness or uncover other errors in financial reporting. During the course of our evaluation of this material weakness, we may identify areas requiring improvement and may be required to design additional enhanced processes and controls to address issues identified through this review. In addition, there can be no assurance that such remediation efforts will be successful, that our internal control over financial reporting will be effective as a result of these efforts or that any such future deficiencies identified may not be material weaknesses that would be required to be reported in future periods. In addition, we cannot assure you that our independent registered public accounting firm will be able to attest that such internal controls are effective when they are required to do so.

If we fail to remediate the material weakness and maintain effective internal control over financial reporting or disclosure controls and procedures, we may not be able to rely on the integrity of our financial results, which could result in inaccurate or late reporting of our financial results, as well as delays or the inability to meet our reporting obligations or to comply with SEC rules and regulations. Any of these could result in delisting actions by the Nasdaq Stock Market, investigation and sanctions by regulatory authorities, stockholder investigations and lawsuits, and could adversely affect our business and the trading price of our common stock.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

3.1		Amended and Restated Certificate of Incorporation of Codexis, Inc. filed with the Secretary of the State of the State of Delaware on April 27, 2010 and effective as of April 27, 2010 (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed on May 28, 2010).
3.2		Certificate of Designations of Series A Junior Participating Preferred Stock of Codexis, Inc., filed with the Secretary of State of the State of Delaware on September 4, 2012 (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed on September 4, 2012).
3.3		Amended and Restated Bylaws of Codexis, Inc. effective as of April 27, 2010 (incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed on May 28, 2010).
4.1		Reference is made to Exhibits 3.1 through 3.3.
10.1	+	Transition and Separation Agreement by and between the Company and John Nicols, dated as of July 18, 2022.
10.2	+	Employment Agreement by and between the Company and Stephen Dilly dated as of August 9, 2022.
10.3	+	Offer Letter by and between the Company and Kevin Norrett dated as of September 12, 2022.
10.4	+	Change in Control Severance Agreement by and between the Company and Kevin Norrett dated September 12, 2022.
10.5	*	Enzyme Supply Agreement by and between the Company and Pfizer Ireland Pharmaceuticals, dated as of July 14, 2022.
31.1		Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2		Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1		Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350.
101		The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, formatted in Inline Extensible Business Reporting Language ("iXBRL") includes: (i) Unaudited Condensed Consolidated Balance Sheets at September 30, 2022 and December 31, 2021 (ii) Unaudited Condensed Consolidated Statements of Operations for the Three and Nine Months Ended September 30, 2022 and 2021, (iii) Unaudited Condensed Consolidated Statements of Stockholders' Equity for the Three and Nine Months Ended September 30, 2022 and 2021, (iv) Unaudited Condensed Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2022 and 2021 and (v) Notes to Unaudited Condensed Consolidated Financial Statements.
101.SCH		Inline XBRL Taxonomy Extension Schema Document
101.CAL		Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF		Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB		Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE		Inline XBRL Taxonomy Extension Presentation Linkbase Document
104		The cover page from the Company’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, formatted in Inline XBRL and contained in Exhibit 101.

\+ Indicates a management contract or compensatory plan or arrangement.

* Portions of the exhibit, marked by brackets, have been omitted because the omitted information is (i) not material and (ii) would be competitively harmful if publicly disclosed.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Codexis, Inc.

Date: November 4, 2022

By: /s/ Stephen Dilly

Stephen Dilly
President and Chief Executive Officer
(principal executive officer)

Date: November 4, 2022

By: /s/ Ross Taylor

Ross Taylor
Senior Vice President and Chief Financial Officer
(principal financial and accounting officer)

TRANSITION AND SEPARATION AGREEMENT

This Transition and Separation Agreement (the " Agreement") by and between John Nicols ("Executive") and Codexis, Inc., a Delaware corporation (the "Company"), is made effective as of the eighth day following the date Executive signs this Agreement (the " Effective Date") with reference to the following facts:

A. Executive has notified the Board of Directors of the Company (the "Board") of Executive's intent to retire from the Company.

B. Executive has agreed to continue to serve as the Company's President and Chief Executive Officer while the Company recruits a new Chief Executive Officer and, thereafter, to provide advisory services to the Company on an as-needed basis to transition Executive's duties.

C. 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 the Executive.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, the parties agree as follows:

1. Resignation. Executive and the Company acknowledge and agree that Executive's status as an employee of the Company shall continue for a specified term, which shall end effective as of the earliest of (a) August 7, 2024 (or such later date as mutually agreed between the Company and Executive in writing, the "Planned Resignation Date"), (b) the date the Company terminates Executive's employment for Cause (as defined in that certain Employment Agreement entered into between Executive and the Company effective as of May 28, 2012, as amended (the "Employment Agreement")) or (c) the date Executive voluntarily resigns Executive's employment for any reason (the earliest such date, the "Termination Date"). Executive shall continue to serve as a member of the Company's Board of Directors (the "Board") through the earlier of the Termination Date or the date of the Company's 2023 annual meeting of stockholders (such earlier date, the " Board Service 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 foregoing termination of Executive's status as a director of the Company as of such earlier date; provided that such documents shall not be inconsistent with any of the terms of this Agreement. Executive further acknowledges and agrees that his status as an officer of the Company, and as a director and/or officer of each of its subsidiaries, shall end effective as of the earlier of the Termination Date or the Transition Date (as defined below). 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 of the Company and as a director and/or officer of each of its subsidiaries as of such earlier date; provided that such documents shall not be inconsistent with any of the terms of this Agreement.

2. Chief Executive Officer Employment.

(a) *Full-Time Employment Period; Duties* . During the period (the "Full-Time Employment Period") commencing on the date hereof and ending on the earlier of (i) the date the Company appoints a new interim or permanent Chief Executive Officer (the "Transition Date") or (ii) the Termination Date, Executive shall remain employed by the Company as the Company's President and Chief Executive Officer reporting to the Board. During the Full-Time Employment Period, Executive shall continue to perform such duties as are customarily associated with the positions of President and Chief Executive Officer and such other duties as are assigned to Executive by the Board. During the Full-Time Employment Period, Executive will devote Executive's best efforts and substantially all of Executive's business time and attention (except for vacation periods and reasonable periods of illness or other incapacities permitted by the Company's general employment policies) to the business of the Company; provided, however, that Executive will be permitted to serve on the boards of directors of non-competitive private or public companies, including

continued service on the boards of directors of Molecular Assemblies, Inc. and California Life Sciences Association.

(b) *Salary and Benefits Continuation*. During the Full-Time Employment Period, Executive will continue to be paid base salary at the rate in effect on the date of this Agreement in accordance with the Company's regular payroll procedures, accrue paid vacation, be eligible for all employee benefit plans available to senior executives of the Company and continue to vest into outstanding equity awards, in each case, in accordance with their terms and the Employment Agreement. All payments made to Executive during the Full-Time Employment Period will be subject to required withholding taxes and authorized deductions.

(c) *Annual Bonus.* Executive shall be paid Executive's annual bonus for fiscal year 2022 based on actual achievement of corporate performance objectives pursuant to the terms and conditions of the Company's annual performance bonus program and the Employment Agreement. Any earned bonus will be pro-rated based on Executive's service through the Transition Date.

(d) *Protection of Information*. Executive reaffirms Executive's commitment to remain in compliance with that certain Confidential Information, Secrecy, and Invention Agreement entered into between Executive and the Company, as well as Section 7 of the Employment Agreement (together, the "Restrictive Covenants"). Without limiting the foregoing, Executive acknowledges and agrees that, during the Full-Time Employment Period, Executive shall not, directly or indirectly, become employed by or provide assistance to any competitor of the Company.

(e) *Continued Effectiveness of Employment Agreement Through Transition Date* . Except as otherwise expressly set forth in this Agreement, the Employment Agreement shall remain in full force and effect from the Effective Date until the earlier to occur of (x) the Transition Date, and (y) the Termination Date (and, for the avoidance of doubt, if the Termination Date occurs prior to the Transition Date, the Company's obligations (e.g., severance pay or benefits) to Executive, if any, shall be determined in accordance with Section 5 of the Employment Agreement). For the avoidance of doubt, other than the Restrictive Covenants, the Employment Agreement shall terminate and be of no further force or effect as of the Transition Date.

3. Transition Period.

(f) *Transition Period*. In the event that the Transition Date occurs prior to the Termination Date, then during the period of time (the "Transition Period") commencing on the Transition Date and ending on the Termination Date, Executive shall serve as Strategic Advisor to the Company and shall provide transition services (the "Transition Services") on an as-requested and as-needed basis in Executive's areas of expertise and work experience and responsibility. The Company and Executive intend and anticipate that the Transition Services shall require Executive to devote not less than eight hours per week during the first year of the Transition Period and four hours per week for the balance of the Transition Period to the provision of such Transition Services (it being understood that, if such Transition Services are expected to require a material increase in Executive's time commitment, Executive and the Company shall discuss in good faith amendments to this Agreement, including to Executive's compensation during the Transition Period to accommodate such increase). The Transition Services shall be provided by telephone, videoconference, or in person or, at the Company's request, at the Company's business premises or such other locations as the Company may reasonably designate (subject to reasonable accommodation for restrictions imposed from time to time by applicable federal, state, and local governments as a result of the COVID-19 pandemic and Executive's scheduling needs). During the Transition Period, Executive agrees to remain in compliance with the Restrictive Covenants. Without limiting the foregoing, Executive acknowledges and agrees that, during the Transition Period, Executive shall not, directly or indirectly, become

employed by or provide assistance to any competitor of the Company. For the avoidance of doubt, during the Transition Period, Executive will be permitted to engage in outside for-profit business and consulting activities and other outside activities, including, without limitation, supervision of personal investments and activities involving professional, charitable, educational, religious, civic, and similar types of activities, speaking engagements, and serve on the boards of directors of non-competitive private or public companies, including continued service on the boards of directors of Molecular Assemblies, Inc. and California Life Sciences Association; provided, that such activities are not competitive with the Company and do not individually or in the aggregate materially interfere with the performance of the Transition Services in accordance with this Agreement.

(g) *Salary and Benefits Continuation*. Executive will be paid base salary at the rate of $40,000 per month during the first year of the Transition Period and $20,000 per month for the balance of the Transition Period, in each case, in accordance with the Company's regular payroll practices, pro-rated for any partial month of service. During the Transition Period, Executive will be eligible for all employee benefit plans available to senior executives of the Company, in accordance with their terms. Notwithstanding the foregoing, as of the Transition Date, Executive shall cease to accrue additional vacation time under the applicable Company policy, and, on the first Company payroll date following the Transition Date, Executive shall be paid an additional lump sum amount equal to (and in full satisfaction of) all Executive's accrued but unpaid vacation time as of the Transition Date (with such payment based on Executive's base salary in effect as of immediately prior to the Transition Date). All payments made to Executive during the Transition Period will be subject to required withholding taxes and authorized deductions.

(h) *Equity Awards*. On the Transition Date, each outstanding option to purchase Company common stock, restricted stock unit and performance stock unit that is unvested as of the Transition Date shall thereupon terminate. Each outstanding option to purchase Company common stock that is vested as of the Transition Date shall remain outstanding pursuant to its terms through the three month anniversary of the Termination Date (or, if earlier, through the date of expiration of an applicable option's original ten-year term).

(i) *COBRA.* In the event Executive ceases to be eligible to participate in the Company's health, dental and/or vision plans as an employee, then if Executive timely elects to receive continued healthcare coverage pursuant to the provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended (together with any state equivalent thereof, "COBRA"), the Company shall directly pay the COBRA premiums for Executive and Executive's covered dependents through the earlier of (i) the third anniversary of the Termination Date (the "Outside Continuation Date") or (ii) the date Executive and Executive's covered dependents are no longer eligible for COBRA coverage; *provided*, that after the Company ceases to directly pay premiums pursuant to the preceding, Executive may, if eligible, elect to continue healthcare coverage at Executive's expense in accordance with the provisions of COBRA. Executive acknowledges that Executive shall be solely responsible for all matters relating to Executive's continuation of coverage pursuant to COBRA, including, without limitation, Executive's election of such coverage and his timely payment of premiums following the end of the Company's subsidy obligation (if applicable). Notwithstanding the foregoing, (i) if any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the period of continuation coverage to be, exempt from the application of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), under Treasury Regulation Section 1.409A-1(a)(5), (ii) the Company is otherwise unable to continue to cover Executive under its group health plans without penalty under applicable law (including without limitation, Section 2716 of the Public Health Service Act), or (iii) Executive's eligibility for continuation coverage ends prior to the Outside Continuation Date because it is time-limited under the applicable COBRA regime after the eighteen-month anniversary of the applicable COBRA "qualifying event," then, in each case, in lieu of the Company subsidy described above, the Company shall provide Executive through the Outside Continuation Date with a monthly amount that is sufficient on an after-tax basis for Executive to purchase medical, dental, prescription drug, and vision insurance coverage for Executive

and his dependents that are each substantially comparable to the applicable Company group medical, dental, prescription drug, and vision insurance in which Executive participated pursuant to COBRA.

(j) *SEC Reporting.* Executive acknowledges that to the extent required by the Securities Exchange Act of 1934, as amended (the "Exchange Act"), he will have continuing obligations under Section 16(a) and 16(b) of the Exchange Act to report transactions, if any, in Company common stock for up to six (6) months following the date Executive ceases to serve as a member of the Board. Executive further acknowledges that any transactions by Executive involving Company securities will remain subject to securities laws in all respects, including, without limitation, laws regarding trading on the basis of material nonpublic information.

(k) *Protection of Information*. Executive agrees that, during the Transition Period and thereafter, Executive will not, except for the purposes of performing the Transition Services, seek to obtain any confidential or proprietary information or materials of the Company.

(l) *Expenses and Indemnification*. During the Transition Period, the Company shall continue to reimburse Executive for all reasonable, documented, out-of-pocket travel and other business expenses incurred by Executive in the performance of the Transition Services in accordance with the Company's applicable expense reimbursement policies and procedures. In addition, the Company shall maintain Executive's coverage under the Company's directors' and officers' indemnification insurance policy at a level no less than in effect as of the Effective Date for a period of no less than six (6) years following the Termination Date.

(m) *Taxes*. Executive understands and agrees that all payments under this Agreement 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. 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.

4. Final Paycheck; Payment of Accrued Wages and Expenses . As soon as administratively practicable on or after the Termination Date, the Company will pay Executive all accrued but unpaid base salary and any earned but unpaid annual bonus, subject to standard payroll deductions and withholdings. The Company will also 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 these payments regardless of whether Executive executes this Agreement.

5. 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 Restrictive Covenants, agreements evidencing Executive's equity awards (as modified under Section 3(c) hereof) and as explicitly set forth in Sections 2(e) and 12 hereof, this Agreement shall supersede each agreement entered into between Executive and the Company regarding Executive's employment, including, without limitation, the Employment Agreement, any offer letter, employment agreement, bonus plan or arrangement, severance and/or change in control agreement, and each such agreement shall be deemed terminated and of no further effect as of the Effective Date.

6. *Executive's Release of the Company*. Executive understands that by agreeing to the release provided by this Section 6, Executive is agreeing not to sue, or otherwise file any claim against, the Company or any of its directors, officers, employees, investors or other agents for any reason whatsoever based on anything that is the subject of this release and that has occurred as of the date Executive signs this Agreement.

(n) *Released Claims.* On behalf of Executive and Executive's heirs, assigns, executors, administrators, trusts, spouse and estate, 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 termination by the Releasees, or any of them, Claims arising under federal, state, or local laws relating to employment, Claims of any kind that may be brought in any court or administrative agency, 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.; the 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; the employment and civil rights laws of California; Claims for breach of implied or express contract; Claims arising in tort, including, without limitation, Claims of wrongful dismissal or discharge, discrimination, harassment, retaliation, fraud, misrepresentation, defamation, libel, slander, defamation, infliction of emotional distress, violation of public policy, and/or breach of the implied covenant of good faith and fair dealing; and Claims for damages or other remedies of any sort, including, without limitation, compensatory damages, punitive damages, injunctive relief and attorney's fees.

(o) *Unreleased Claims.* 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 accrued but unpaid base salary or any benefit entitlements vested as the date Executive signs this Agreement, pursuant to written

terms of any Company or affiliate employee benefit plan, program, or policy, including to vested equity awards (in each case giving effect to Sections 2(b), 2(c), and 3(c) hereof);

(v) Claims for indemnification under any indemnification agreement, the Company's Bylaws or other organizational documents, applicable directors' and officers' insurance coverage, or any applicable law;

(vi) Executive's right to enforce the terms of this Agreement; and

(vii) 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.

(p) *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; and

(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 Karen Frechou-Armijo at karen.armijo@codexis.com. Executive understands that if Executive revokes this Agreement, it will be null and void in its entirety, and Executive will not be entitled to any payments or benefits provided in this Agreement that are not otherwise required by applicable law.

(q) 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 OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY."

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.

7. Non-Disparagement, Transition and Transfer of Company Property. Executive further agrees that:

(r) *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, employees, products, services, technology or business, 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 7(a) shall have application to any evidence or testimony required by any court, arbitrator or government agency.

(s) *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.

(t) *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; provided, however, that the Company hereby agrees that Executive may retain a copy of his "rolodex" or other contact information in physical or electronic form (including, without limitation, a copy of Executive's Microsoft Outlook address book or other similar electronic contact information).

8. 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.

9. No Assignment by Executive. 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. In the event of Executive's death, this Agreement shall inure to the benefit of Executive and Executive's executors, administrators, heirs, distributees, devisees, and legatees. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only upon Executive's death by will or operation of law.

10. Legal Fees. The Company shall promptly reimburse or pay directly on Executive's behalf all reasonable attorney's fees and costs incurred by Executive in connection with the negotiation, drafting and finalization of this Agreement, up to a maximum of $35,000.

11. 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.

12. Miscellaneous. This Agreement, collectively with the Restrictive Covenants, any indemnification agreement between Executive and the Company and the Option Agreements, comprises 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 Employment Agreement (but subject to Section 2(e) of this 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.

13. Company Assignment and Successors. The Company shall assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise). This Agreement shall be binding upon and inure to the benefit of the Company and its successors, assigns, personnel and legal representatives.

14. Maintaining Confidential Information. Executive reaffirms his obligations under the Restrictive Covenants. For the avoidance of doubt, nothing in this Agreement or the Restrictive Covenants will be construed to prohibit Executive from filing a charge with, reporting possible violations to, or participating or cooperating with any governmental agency or entity, including but not limited to the EEOC, the Department of Justice, the Securities and Exchange Commission, Congress, or any agency Inspector General, or making other disclosures that are protected under the whistleblower, anti-discrimination, or anti-retaliation provisions of federal, state or local law or regulation; provided, however, that Executive may not disclose information of Group, the Company or any of their affiliates that is protected by the attorney-client privilege, except as otherwise required by law. Executive does not need the prior authorization of the Company to make any such reports or disclosures, and Executive is not required to notify the Company that he has made such reports or disclosures. Executive does not need the prior authorization of the Company to make any such reports or disclosures, and Executive is not required to notify the Company that Executive has made such reports or disclosures. Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in the Restrictive Covenants or this Agreement: (i) Executive will not be in breach of the Restrictive Covenants or this Agreement, and will not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

15. Executive's Cooperation. After the Termination Date, 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 or its affiliates 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 (i) 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 and (ii) this provision shall not apply to any such investigation or proceeding that arises out of or relates to a dispute between Executive and the Company and/or any of its affiliates or if Executive's reasonable interests are adverse to the Company or its affiliates in any such investigation or proceeding. The Company agrees to promptly pay or reimburse Executive upon demand for all of Executive's reasonable travel and other direct expenses reasonably incurred, or to be reasonably incurred, to comply with Executive's obligations under this Section 15.

(Signature page(s) follow)

IN WITNESS WHEREOF, the undersigned have caused this Transition and Separation Agreement to be duly executed and delivered as of the date indicated next to their respective signatures below.

DATED: July 18, 2022
/s/ John Nicols
John Nicols

CODEXIS, INC.
DATED: July 18, 2022

By: /s/ Byron Dorgan [Signature page to Codexis, Inc. - Transition and Separation Agreement]
Name: Byron Dorgan
Title: Chairman of the Board of Directors

Employment Agreement

This Employment Agreement (the "Agreement"), dated as of August 9, 2022 (the "Effective Date"), is made by and between Codexis, Inc., a Delaware corporation (the "Company"), and Stephen Dilly, MBBS, Ph.D. (the "Executive" and, together with the Company, the "Parties").

RECITALS

WHEREAS, the Company desires to assure itself of the services of Executive by engaging Executive to perform services under the terms hereof; and

WHEREAS, Executive desires to provide services to the Company on the terms herein provided.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, including the respective covenants and agreements set forth below, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto agree as follows:

1. Certain Definitions.

Capitalized terms not specifically defined in the text of this Agreement shall have the following meanings:

(a) "Affiliate" shall mean, with respect to any Person, any other Person directly or indirectly controlling, controlled by, or under common control with, such Person where "control" shall have the meaning given such term under Rule 405 of the Securities Act of 1933, as amended from time to time.

(b) "Board" shall mean the Board of Directors of the Company.

(c) The Company shall have "Cause" to terminate Executive's employment hereunder upon: (i) the willful and continued failure by Executive to substantially perform 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 Executive by the Board, which demand specifically identifies the manner in which the Board believes that Executive has not substantially performed Executive's duties (and for avoidance of doubt the mere failure to achieve goals or objectives shall not constitute Cause); (ii) commission by Executive of a felony (other than a traffic-related offense) that in the written determination of the Board is reasonably likely to cause or has caused material injury to the Company's business; (iii) documented intentional misrepresentation by Executive or omission of material fact by Executive with respect to a significant matter relating to the Company's business; or (iv) material breach by Executive of any material written agreement by and between Executive and the Company. The foregoing is an exclusive list of all acts or omissions that the Company may consider as grounds for the termination of Executive's employment for "Cause". The Board shall provide Executive with 15 days advance written notice detailing the basis for the termination of employment for Cause under clause (i) or (iv) above. During the 15 day period after Executive has received such notice, Executive shall have an opportunity to cure or remedy such alleged Cause events and to present his case to the full Board (with the assistance of his own counsel) before any termination for Cause is finalized by a vote of a majority of the members of the Board excluding Executive. Executive shall continue to receive the compensation and benefits provided by this Agreement

during the 15 day cure/remedy period. For the avoidance of doubt, there shall be no 15 day cure/remedy period for Cause under clause (ii) or (iii) above.

(d) "Change in Control" shall mean (i) a dissolution or liquidation of the Company; (ii) a sale or exclusive license of all or substantially all of 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 Securities and Exchange Act of 1934, as amended (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; (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; or (vii) a "Change in Control" as defined in the Company's 2019 Incentive Award Plan. Notwithstanding the foregoing, a Change in Control shall not include any transaction effected primarily for the purpose of financing the Company with cash (as determined by the Board acting in good faith and without regard to whether such transaction is effectuated by a merger, equity financing or otherwise) or a public offering of the Company's common stock. Without limiting the foregoing, it shall be deemed to be a Change in Control under clause (i) above if at least fifty percent (50%) of the fair market value (disregarding liabilities) of Company assets are sold to, disposed of or transferred to unrelated third party(ies).

(e) "Change in Control Period" shall mean the period that commences three months prior to a Change in Control and ends on the second anniversary of the Change in Control.

(f) "Code" shall mean the Internal Revenue Code of 1986, as amended.

(g) "Date of Termination" shall mean (i) if Executive's employment is terminated due to Executive's death, the date of Executive's death; (ii) if Executive's employment is terminated due to Executive's Disability, the date determined pursuant to Section 4(a)(ii) hereof; or (iii) if Executive's employment is terminated pursuant to Section 4(a)(iii)-(viii) hereof either the date indicated in the Notice of Termination or the date specified by the Company pursuant to Section 4(b) hereof, whichever is earlier.

(h) "Disability" shall mean Executive's inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that (i) can be expected to result in death or that can be expected to last for a continuous period of not less than twelve (12) months; or (ii) is, by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for a period of not less than three (3) months under an accident and health plan covering employees or directors of the Company. Medical determination of Disability may be made by either the Social Security Administration or by the provider of an accident or health plan covering employees or directors of the Company provided that the definition of "disability" applied under such disability insurance program complies with the requirements of the preceding sentence. Upon the request

of the Board, Executive must submit proof to the plan administrator of the Social Security Administration's or the provider's determination.

(i) Executive shall have "Good Reason" to terminate Executive's employment hereunder after the occurrence of any of the following without Executive's prior written consent: (i) a diminution in Executive's base compensation or bonus opportunity; (ii) a diminution in Executive's title, authority, duties or responsibilities as indicated herein; (iii) a material change of at least thirty-five (35) miles in the geographic location at which Executive must perform Executive's services; (iv) a material breach of this Agreement (or any other agreement) by the Company or any Company affiliate; or (v) any failure of the Company to nominate and the Board to recommend Executive for re-election to the Board for any year in which Executive is up for re-election. Notwithstanding the foregoing, Executive shall not have "Good Reason" unless the condition giving rise to Executive's resignation continues more than thirty (30) days following Executive's written notice of the condition provided to the Company within ninety (90) days of the first occurrence of such condition and Executive's resignation is effective within one hundred eighty (180) days following the first occurrence of such condition.

(j) "Incumbent Board" shall mean 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.

(k) "Person" shall mean any individual, natural person, corporation (including any non-profit corporation), general partnership, limited partnership, limited liability partnership, joint venture, estate, trust, company (including any company limited by shares, limited liability company or joint stock company), incorporated or unincorporated association, governmental authority, firm, society or other enterprise, organization or other entity of any nature.

(l) "Section 409A" shall mean Section 409A of the Code and the Department of Treasury regulations and other interpretive guidance issued thereunder, including without limitation any such regulations or other guidance that may be issued after the Effective Date.

2. Employment.

(m) General. The Company shall employ Executive and Executive shall enter the employ of the Company, for the period and in the position set forth in this Section 2, and upon the other terms and conditions herein provided.

(n) Employment Term. The term of employment under this Agreement (the "Term") shall be for the period beginning on August 6, 2022 (the actual date Executive commences employment hereunder, the "Commencement Date") and ending on the date terminated pursuant to Section 4 below.

(o) Position and Duties. During the Term, Executive: (i) shall serve as the President and Chief Executive Officer of the Company, with responsibilities, duties and authority customary for such position, subject to direction by the Board; (ii) shall report directly to the Board; (iii) shall devote substantially all Executive's working time and efforts to the business and affairs of the Company and its subsidiaries; and (iv) agrees to observe and comply with the Company's written rules and policies as adopted by the Company from time to time. Executive may serve as an advisor or on outside boards of directors, subject to the consent of the Board (which shall not unreasonably be withheld). The Board has already consented to Executive's continuing service as an advisor and/or on the board of directors of which Executive is now a member as set forth on Exhibit A attached hereto, which consent shall continue until such time as the Board provides notice to Executive that, in its reasonable judgment, such company competes

with the Company, such service materially interferes with Executive's duties as President and Chief Executive Officer of the Company or places Executive in a competing position, or otherwise materially conflicts with, the interests of the Company. Notwithstanding the foregoing, Executive may devote reasonable time to unpaid activities such as supervision of personal investments and activities involving professional, charitable, educational, religious, civic and similar types of activities, speaking engagements and membership on committees, *provided* such activities do not individually or in the aggregate materially interfere with the performance of Executive's duties under this Agreement, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies. Executive cannot serve as an advisor or on the board of directors of a private or publicly traded company (other than the Board) without the Board's prior written consent (which shall not unreasonably be withheld). In addition, as of the Commencement Date, the Company shall appoint or use commercially reasonable efforts to cause Executive to be elected to the Board. During the Term, the Board shall recommend Executive for re-election to the Board.

3. Compensation and Related Matters.

(p) Annual Base Salary. During the Term, Executive shall receive a base salary at a rate of $710,000 per annum (the "Annual Base Salary"), which shall be paid in accordance with the customary payroll practices and procedures of the Company (but with pro rata installments no less frequently than once per calendar month). Such Annual Base Salary shall be reviewed by the Board not less often than annually, and may be increased (but not decreased) from time to time.

(q) Annual Target Bonus. Commencing in 2022, with respect to each Company fiscal year that ends during the Term, Executive will be eligible to receive an annual performance bonus, with seventy-five percent (75%) of the highest annualized rate of Annual Base Salary for such fiscal year (the "Annual Target Bonus") being payable in the event the performance goals with respect thereto are achieved at target, prorated for any partial year served. The Annual Target Bonus shall be subject to upward adjustment up to one hundred fifty percent (150%) of Annual Base Salary upon the achievement of performance goals at the maximum level. The Annual Target Bonus amount payable shall be based on the achievement of written performance goals established by the Board in consultation with Executive. The amount of any Annual Target Bonus for which Executive is eligible shall be reviewed by the Board from time to time. The Annual Target Bonus shall be payable on such date as is determined by the Board in its sole discretion as soon as reasonably practicable after the final audited financial performance information for the Company is available for the calendar year with respect to which such Annual Target Bonus relates. Notwithstanding any other provision of this Section 3, no bonus shall be payable with respect to any calendar year unless Executive remains continuously employed with the Company during the period beginning on the Commencement Date and ending December 31st of the year for which the bonus is to be paid. Any Annual Target Bonus earned by Executive pursuant to this section shall be paid to Executive, less authorized deductions and required withholding obligations, within two and a half months following the end of the calendar year to which the bonus relates.

(r) Sign On Bonus. Executive shall be entitled to a one-time sign on bonus (the "Sign-On Bonus") of $200,000 payable in a single lump sum on the first payroll date following the Commencement Date, less applicable withholding taxes. Notwithstanding the foregoing, the Sign-On Bonus shall not be earned to any extent as of the payment date. Instead, fifty percent (50%) of the Sign-On Bonus shall be earned upon the completion of each six months of continuous employment by Executive with the Company following the Commencement Date. In the event Executive's employment hereunder is terminated by the Company for Cause (as defined below) or Executive resigns other than for Good Reason (as defined below), in each case, prior to the first anniversary of the Commencement Date, then Executive agrees to repay

the portion of the Sign-On Bonus that remains unearned as of the date of termination or resignation, provided, that any such repayment made in 2023 shall be on an after tax basis. For the avoidance of doubt, in the event Executive's employment hereunder is terminated by the Company for other than Cause, by Executive for Good Reason or as a result of Executive's death or Disability, then Executive shall not be obligated to repay the unearned portion of the Sign-On Bonus.

(s) Travel Allowance. In addition, during the Term, the Company will pay Executive an annual travel allowance of $40,000, less applicable withholding taxes and pro-rated for any partial year of service. The travel allowance will be paid periodically over the year, in accordance with the Company's standard payroll procedures.

(t) Benefits. During the Term, Executive may participate in such employee and executive benefit plans and programs, including paid time-off, as the Company may from time to time offer to provide to its employees and executives, pursuant to the terms and eligibility requirements of those plans.

(u) Business Expenses. During the Term, the Company shall reimburse Executive for all reasonable, documented, out-of-pocket business travel and other business expenses incurred by Executive in the performance of Executive's duties to the Company in accordance with the Company's applicable expense reimbursement policies and procedures.

4. Termination.

(v) Circumstances. Executive's employment hereunder may be terminated by the Company or Executive, as applicable, without any breach of this Agreement under the following circumstances:

(i) Death. Executive's employment hereunder shall terminate upon Executive's death.

(ii) Disability. If Executive incurs a Disability, the Company may give Executive written notice of its intention to terminate Executive's employment. In that event, Executive's employment with the Company shall terminate, effective on the later of the thirtieth (30th) day after receipt of such notice by Executive or the date specified in such notice; *provided* that within the thirty (30) day period following receipt of such notice, Executive shall not have returned to full-time performance of Executive's duties hereunder.

(iii) Termination for Cause. The Company may terminate Executive's employment for Cause at any time.

(iv) Termination Without Cause. The Company may terminate Executive's employment without Cause at any time.

(v) Resignation for Good Reason. Executive may resign from Executive's employment for Good Reason at any time.

(vi) Resignation for Any Other Reason. Executive may resign from Executive's employment without Good Reason at any time.

(w) Notice of Termination. Any termination of Executive's employment by the Company or by Executive under this Section 4 (other than termination pursuant to paragraph (a)(i)) shall be communicated by a written notice to the other party hereto (i) indicating the

specific termination provision in this Agreement relied upon, (ii) setting forth in reasonable detail the facts and circumstances claimed to provide a basis for termination of Executive's employment under the provision so indicated, and (iii) specifying a Date of Termination which, if submitted by Executive, shall be at least thirty (30) days following the date such notice is received by the Company (a "Notice of Termination"); *provided, however,* that in the event that Executive delivers a Notice of Termination to the Company, the Company may, in its sole discretion, change the Date of Termination to any date that occurs following the date of Company's receipt of such Notice of Termination and is prior to the date specified in such Notice of Termination. A Notice of Termination submitted by the Company may provide for a Date of Termination on the date Executive receives the Notice of Termination (except in the case of a termination for Cause under clause (i) or (iv) of the definition thereof in which Executive has an ability to cure or remedy the alleged Cause event, in which case the Date of Termination shall be the 15th day following the receipt of such Notice of Termination unless Cause is cured or remedied prior thereto), or any date thereafter elected by the Company in its sole discretion.

(x) Deemed Resignation. Upon termination of Executive's employment for any reason, Executive shall be deemed to have resigned from all offices and directorships, if any, then held with the Company or any of its Affiliates.

5. Company Obligations upon Termination of Employment.

(y) In General. Upon a termination of Executive's employment for any reason, Executive (or Executive's estate) shall be entitled to receive from the Company: (i) any portion of Executive's Annual Base Salary and Annual Target Bonus (as adjusted pursuant to Section 3(b)) earned through the Date of Termination not theretofore paid, (ii) any expenses owed to Executive under Section 3(f) above and (iii) any amount arising from Executive's participation in, or benefits under, any employee benefit plans, programs or arrangements under Section 3(e) above, which amounts shall be payable in accordance with the terms and conditions of such employee benefit plans, programs or arrangements. Except as otherwise set forth in Sections 5(b), (c) and (d) below, the payments and benefits described in this Section 5(a) shall be the only payments and benefits payable in the event of Executive's termination of employment for any reason.

(z) Severance Payments Not In Connection With a Change in Control. In the event of Executive's termination of employment by the Company without Cause by Executive for Good Reason or because of Executive's death or Disability, in each case, that occurs other than during a Change in Control Period pursuant to Section 4(a)(i), 4(a)(ii), 4(a)(iv) or 4(a)(v) hereof, respectively, in addition to the payments and benefits described in Section 5(a) above, the Company shall, subject to Sections 12 and 5(d) hereof and subject to Executive's delivery (or delivery by Executive's estate) to the Company of a general release of claims against the Company substantially in the form attached as Exhibit B, with such changes determined necessary or appropriate by the Company to reflect changes in applicable law (a "Release"), that becomes effective and irrevocable accordance with Section 13(d) hereof:

(vii) Pay to Executive in a lump sum cash payment an amount equal to one hundred percent (100%) of Executive's Annual Base Salary as of the Date of Termination (disregarding any reductions thereof during the twelve months preceding the Date of Termination), such payment to be made on the first regular payroll date following the date the Release becomes effective and irrevocable or as otherwise provided in Section 13(d) hereof;

(viii) Pay to Executive one hundred percent (100%) of Annual Target Bonus in a lump sum cash payment, such payment to be made on the first regular payroll date

following the date the Release becomes effective and irrevocable or as otherwise provided in Section 13(d) hereof;

(ix) Each equity award held by Executive as of the Date of Termination, including, without limitation, each stock option, restricted stock unit award and performance stock unit award, shall automatically become vested and, if applicable, exercisable and any restrictions thereon shall immediately lapse, in each case, with respect to that number of shares, if any, that would have vested had Executive's employment continued through the first anniversary of the Date of Termination, with any performance goals applicable to such equity awards determined achieved at target; and

(x) If Executive elects to receive continued healthcare coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall directly pay, or reimburse Executive for, the COBRA premiums for Executive and Executive's covered dependents during the period commencing on Executive's Date of Termination and ending upon the earliest of (X) the one-year anniversary of the Date of Termination, (Y) the date that Executive and/or Executive's covered dependents, as applicable, become no longer eligible for COBRA or (Z) the date Executive becomes eligible to receive healthcare coverage from a subsequent employer. After the Company ceases to pay 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. Notwithstanding the foregoing, with regard to such COBRA continuation coverage, if the Company determines in its sole discretion that it cannot provide the foregoing benefit without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide to the Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that the Executive would be required to pay to continue the Executive's and Executive's covered dependents' group insurance coverage as in effect on the Date of Termination (which amount shall be based on the premiums for the first month of COBRA coverage).

(aa) Severance Payments In Connection with a Change in Control. In the event of Executive's termination of employment by the Company without Cause by Executive for Good Reason or because of Executive's death or Disability, in each case, that occurs during a Change in Control Period pursuant to Section 4(a)(i), 4(a)(ii), 4(a)(iv) or 4(a)(v) hereof, respectively, in addition to the payments and benefits described in Section 5(a) above, the Company shall, subject to Sections 12 and 5(d) hereof and subject to Executive's delivery (or delivery by Executive's estate) to the Company of a Release that becomes effective and irrevocable accordance with Section 13(d) hereof:

(i) Pay to Executive in a lump sum cash payment an amount equal to one hundred fifty percent (150%) of Executive's Annual Base Salary (disregarding any reductions thereof during the twelve months preceding the Date of Termination), such payment to be made on the first regular payroll date following the date the Release becomes effective and irrevocable or as otherwise provided in Section 13(d) hereof;

(ii) Pay to Executive one hundred fifty percent (150%) of Executive's Annual Target Bonus in a lump sum cash payment, such payment to be made on the first regular payroll date following the date the Release becomes irrevocable or as otherwise provided in Section 13(d) hereof;

(iii) Each outstanding equity award, including, without limitation, each stock option, restricted stock unit award and performance stock unit award, held by Executive as of the Date of Termination shall automatically become vested and, if applicable,

exercisable and any restrictions thereon shall immediately lapse, in each case, with respect to one hundred percent (100%) of the then unvested shares subject to such equity award; and

(iv) If Executive elects to receive continued healthcare coverage pursuant to the provisions of COBRA, the Company shall directly pay, or reimburse Executive for, the premium for Executive, Executive's covered dependents and Executive's spouse or domestic partner through the earlier of (i) the eighteen (18) month anniversary of the Date of Termination and (ii) the date Executive becomes eligible for healthcare coverage under a subsequent employer's plan(s). After the Company ceases to pay 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. Notwithstanding the foregoing, with regard to such COBRA continuation coverage, if the Company determines in its sole discretion that it cannot provide the foregoing benefit without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company shall in lieu thereof provide to the Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that the Executive would be required to pay to continue the Executive's and Executive's covered dependents' group insurance coverage as in effect on the Date of Termination (which amount shall be based on the premiums for the first month of COBRA coverage).

(ab) No Other Severance. The provisions of this Section 5 shall supersede in their entirety any severance payment provisions in any severance plan, policy, program or other arrangement maintained by the Company.

(ac) No Requirement to Mitigate; Survival. Executive shall not be required to mitigate the amount of any payment provided for under this Agreement by seeking other employment or in any other manner and no portion of such payments shall be subject to offset. Notwithstanding anything to the contrary in this Agreement, the termination of Executive's employment and the expiration or termination of the Term shall not impair the rights or obligations of any party hereto.

6. Equity Awards.

(ad) Stock Option. Executive shall be granted an option to purchase 700,000 shares of Company common stock (the "Option"), such grant to be made on or as soon as administratively practicable after the Commencement Date (but in no event later than 30 days after the Commencement Date). The Option will have an exercise price per share equal to the closing trading price of a share of Company common stock on the date of grant (or immediately preceding trading day if the date of grant is not a trading day). The Option shall vest as to twenty-five percent (25%) of the total number of shares underlying the Option on the first anniversary of the Commencement Date, and as to 1/48th of the total number of shares underlying the Option on each monthly anniversary thereafter, in each case, subject to Executive's continuous service to the Company through the applicable vesting date. The Option shall otherwise be subject to the terms of the Company's 2019 Incentive Award Plan (the "Plan") and an award agreement to be entered into between Executive and the Company, which award agreement will include the following terms. The term of the Option shall be ten (10) years, subject to earlier expiration in the event of the termination of Executive's services to the Company; provided, however, that the Option and any future stock options granted to Executive by the Company shall be exercisable for a period of at least twenty-four (24) months after Executive's services terminate for any reason other than Cause (or the ten year expiration date, if earlier).

(ae) Performance Stock Units. Executive shall be granted an award of 340,000 performance stock units ("PSUs"), such grant to be made on or as soon as administratively practicable after the Commencement Date (but in no event later than 30 days after the Commencement Date). The PSUs shall become earned based on the achievement of reasonable performance goals for 2022 that are established by the Board, in consultation with Executive. Up to 2 shares of Company common stock may be earned per PSU based on performance. Earned PSUs shall vest as to fifty percent (50%) upon certification of the achievement of the applicable performance goals and as to fifty percent (50%) on the first anniversary of the date of such certification, in each case, subject to Executive's continuous service to the Company through the applicable vesting date. The PSUs shall otherwise be subject to the terms of the Plan and an award agreement to be entered into between Executive and the Company in the Company's standard form.

(af) Future Equity Grants. Commencing in 2023, Executive shall be granted equity awards annually having aggregate grant date fair values in line with peer group data, as determined by the Board.

(ag) Rule 10b5-1 Plan. Executive shall be entitled to enter into a Rule 10b5-1 trading plan in accordance with Company policy, and subject to the Company's insider trading policy and applicable law.

(ah) Termination of Employment. In the event that Executive's employment with the Company is terminated by the Company without Cause in connection with the sale or exclusive license of a substantial portion of the assets of the Company, including, without limitation one or more Company divisions or the assets of one or more Company divisions, provided, in each case that such division(s) or such assets constitute at least one-third of the enterprise value of the Company, as reasonably determined by the Board (such sale or exclusive license, a "Qualifying Transaction" and the date such Qualifying Transaction, the "Transaction Date"), then, subject to Executive's delivery (or delivery by Executive's estate) to the Company of a Release that becomes effective and irrevocable accordance with Section 13(d) hereof, each outstanding equity award, including, without limitation, each stock option, restricted stock unit award and performance stock unit award, held by Executive as of the date immediately preceding the Date of Termination shall automatically become vested and, if applicable, exercisable and any restrictions thereon shall immediately lapse immediately prior to the Transaction Date, in each case, with respect to one hundred percent (100%) of the then unvested shares subject to such equity awards. Without limiting the foregoing, for the purposes of this Section 6(e) a termination of Executive's employment effected by the Company without Cause during the period commencing on the earlier of the date the term sheet or definitive agreement contemplating the Qualifying Transaction was entered into or the date that is six (6) months prior to the Transaction Date and ending thirty (30) days after the Transaction Date non-exclusively shall be deemed to be in connection with the Qualifying Transaction.

7. Restrictive Covenants.

(ai) Affiliates. As used in this Section 7, the term "Company" shall include the Company and any Affiliate of the Company.

(aj) Confidential Information Agreement. Executive shall enter into and abide by the Company's standard Confidential Information, Secrecy, and Invention Agreement (the "Confidential Information Agreement") which is attached hereto as Exhibit C. For the avoidance of doubt, nothing in the Confidential Information Agreement or this Agreement will be construed to prohibit Executive from filing a charge with, reporting possible violations to, or participating or cooperating with any governmental agency or entity, including but not limited to the EEOC, the Department of Justice, the Securities and Exchange Commission, Congress, or any agency Inspector General, or making other disclosures that are protected under the whistleblower, anti-

discrimination, or anti-retaliation provisions of federal, state or local law or regulation. Executive does not need the prior authorization of the Company to make any such reports or disclosures, and Executive is not required to notify the Company that Executive has made such reports or disclosures. Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in the Confidential Information Agreement or this Agreement: (i) Executive will not be in breach of the Confidential Information Agreement or this Agreement, and will not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

(ak) Non-Competition. Without limiting the Confidential Information Agreement, Executive hereby agrees that Executive shall not, at any time during the Term, directly or indirectly engage in, have any interest in (including, without limitation, through the investment of capital or lending of money or property), or manage, operate or otherwise render any services to, any Person (whether on his own or in association with others, as a principal, director, officer, employee, agent, representative, partner, member, security holder, consultant, advisor, independent contractor, owner, investor, participant or in any other capacity) that engages in (either directly or through any subsidiary or affiliate thereof) any business or activity in the United States (i) that is in direct or indirect competition with the business of the Company, or (ii) which the Company has taken active steps to engage in or acquire, but only if Executive directly or indirectly engages in, has any interest in (including, without limitation, through the investment of capital or lending of money or property), or manages, operates or otherwise renders any services in connection with, such business or activity (whether on his own or in association with others, as a principal, director, officer, employee, agent, representative, partner, member, security holder, consultant, advisor, independent contractor, owner, investor, participant or in any other capacity). Notwithstanding the foregoing, Executive shall be permitted to acquire a passive stock or equity interest in such a business; *provided* that such stock or other equity interest acquired is not more than one percent (1%) of the outstanding interest in such business.

(al) Non-Solicitation. Without limiting the Confidential Information Agreement, Executive hereby agrees that Executive shall not, at any time during the Term or, with respect to subsection (ii) below, within the one (1) year period immediately following the Term, directly or indirectly, either for himself or on behalf of any other Person, (i) recruit or otherwise solicit or induce any employee or consultant of the Company to terminate its employment or arrangement with the Company, or otherwise change its relationship with the Company, or (ii) hire, or cause to be hired, any person who was employed by the Company at any time during the twelve (12) month period immediately prior to the Date of Termination or who thereafter becomes employed by the Company. Notwithstanding the foregoing, nothing herein shall prevent Executive from directly or indirectly hiring any individual who submits a resume or otherwise applies for a position in response to a publicly posted job announcement or otherwise applies for employment with any Person with whom Executive may be associated absent any violation of Executive's obligations pursuant to clause (i) above.

(am) Non-Disclosure. Without limiting the Confidential Information Agreement, except as Executive reasonably and in good faith determines to be required in the faithful performance of Executive's duties hereunder or in accordance with Section 7(g) below, Executive shall, during the Term and after the Date of Termination, maintain in confidence and shall not directly or indirectly, use, disseminate, disclose or publish, for Executive's benefit or

the benefit of any other Person, any confidential or proprietary information or trade secrets of or relating to the Company, including, without limitation, information with respect to the Company's operations, processes, protocols, products, inventions, business practices, finances, principals, vendors, suppliers, customers, potential customers, marketing methods, costs, prices, contractual relationships, regulatory status, compensation paid to employees or other terms of employment ("Proprietary Information"), or deliver to any Person, any document, record, notebook, computer program or similar repository of or containing any such Proprietary Information. Executive's obligation to maintain and not use, disseminate, disclose or publish, or use for Executive's benefit or the benefit of any other Person, any Proprietary Information after the Date of Termination will continue so long as such Proprietary Information is not, or has not by legitimate means become, generally known and in the public domain (other than by means of Executive's direct or indirect disclosure of such Proprietary Information) and continues to be maintained as Proprietary Information by the Company. Notwithstanding the foregoing, "Proprietary Information" does not include information that: (i) was properly known to Executive, without restriction, prior to disclosure by Company; (ii) is obtained from a third party without an accompanying duty of confidentiality and without a breach of such third party's obligations of confidentiality; or (iii) is independently developed without use of or reference to the Proprietary Information, as shown by written records and other competent evidence prepared contemporaneously with such independent development. The parties hereby stipulate and agree that as between them, the Proprietary Information identified herein is important, material and affects the successful conduct of the businesses of the Company (and any successor or assignee of the Company).

(an) Return of Company Property. Upon termination of Executive's employment with the Company for any reason, Executive will promptly deliver to the Company (i) all correspondence, drawings, manuals, letters, notes, notebooks, reports, programs, plans, proposals, financial documents, or any other documents that are Proprietary Information, including all physical and digital copies thereof, and (ii) all other Company property (including, without limitation, any personal computer or wireless device and related accessories, keys, credit cards and other similar items) which is in his possession, custody or control.

(ao) Disclosure of Agreements. Prior to accepting other employment or any other service relationship during the Term or the one (1) year period immediately following the Term, Executive shall provide a copy of this Section 7 and the Confidential Information Agreement to any recruiter who assists Executive in obtaining other employment or any other service relationship and to any employer or other Person with which Executive discusses potential employment or any other service relationship if, in Executive's reasonable judgment, such employment or service relationship can be reasonably expected to violate the terms of Executive's applicable restrictive covenants.

(ap) Revision. In the event the terms of this Section 7 shall be determined by any court of competent jurisdiction to be unenforceable by reason of its extending for too great a period of time or over too great a geographical area or by reason of its being too extensive in any other respect, it will be interpreted to extend only over the maximum period of time for which it may be enforceable, over the maximum geographical area as to which it may be enforceable, or to the maximum extent in all other respects as to which it may be enforceable, all as determined by such court in such action. Any breach or violation by Executive of the provisions of this Section 7 shall toll the running of any time periods set forth in this Section 7 for the duration of any such breach or violation.

8. Injunctive Relief.

It is recognized and acknowledged by Executive that a breach of the covenants contained in Section 7 above could cause irreparable damage to Company and its goodwill, the exact

amount of which will be difficult or impossible to ascertain, and that the remedies at law for any such breach will be inadequate. Accordingly, Executive agrees that in the event of a breach of any of the covenants contained in Section 7 above, in addition to any other remedy which may be available at law or in equity, the Company will be entitled to specific performance and injunctive relief.

9. Assignment and Successors.

The Company may assign its rights and obligations under this Agreement to any successor to all or substantially all of the business or the assets of the Company (by merger or otherwise), and may assign or encumber this Agreement and its rights hereunder as security for indebtedness of the Company and its affiliates. This Agreement shall be binding upon and inure to the benefit of the Company, Executive and their respective successors, assigns, personnel and legal representatives, executors, administrators, heirs, distributees, devisees, and legatees, as applicable. None of Executive's rights or obligations may be assigned or transferred by Executive, other than Executive's rights to payments hereunder, which may be transferred only by will or operation of law.

10. Miscellaneous Provisions.

(aq) Defense of Claims. Executive agrees that, during the Term and for a period of twelve (12) months after the Date of Termination, upon request from the Company, Executive will cooperate with the Company and its affiliates as reasonably necessary in the defense of any claims or actions that may be made by or against the Company or any of its affiliates that affect Executive's prior areas of responsibility, except if Executive's reasonable interests are adverse to the Company or affiliates in such claim or action. The Company agrees to promptly pay or reimburse Executive upon demand for all of Executive's reasonable travel and other direct expenses incurred, or to be reasonably incurred, to comply with Executive's obligations under this Section 10(a). Any post-employment services requested in writing by the Company and rendered by Executive under this Section 10(a) shall be compensated by the Company at an hourly rate equal to Executive's last Annual Base Salary divided by 1,800 with such compensation paid to Executive within 10 business days of the Company's receipt of Executive's written invoice reasonably detailing the hours spent providing the services requested in writing by the Company.

(ar) Governing Law. This Agreement shall be governed, construed, interpreted and enforced in accordance with its express terms, and otherwise in accordance with the substantive laws of the State of California, without giving effect to any principles of conflicts of law, whether of the State of California or any other jurisdiction, and where applicable, the laws of the United States, that would result in the application of the laws of any other jurisdiction.

(as) Validity. The invalidity or unenforceability of any provision or provisions 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.

(at) Notices. Any notice, request, claim, demand, document and other communication hereunder to any Party shall be effective upon receipt (or refusal of receipt) and shall be in writing and delivered personally or sent by facsimile or certified or registered mail, postage prepaid, as follows:

(v) If to the Company:

Codexis, Inc.
200 Penobscot Drive

Redwood City, CA 94063
Attn: Board of Directors
Facsimile: (650) 421-8108

and copies to:

Latham & Watkins LLP
140 Scott Drive
Menlo Park, California 94025-1008
Attn: Brian Cuneo, Esq.
Facsimile: (650) 463-2600

(vi) If to Executive, at the address set forth in the Company's books and records.

or at any other address as any Party shall have specified by notice in writing to the other Party.

(au) Counterparts. This Agreement may be executed in several counterparts, each of which shall be deemed to be an original, but all of which together will constitute one and the same Agreement. Signatures delivered by facsimile shall be deemed effective for all purposes.

(av) Entire Agreement. The terms of this Agreement are intended by the Parties to be the final expression of their agreement with respect to the employment of Executive by the Company and supersede all prior understandings and agreements, whether written or oral. The Parties further intend that this Agreement shall constitute the complete and exclusive statement of their terms and that no extrinsic evidence whatsoever may be introduced in any judicial, administrative, or other legal proceeding to vary the terms of this Agreement. In the event of any conflict in terms between this Agreement and any other Company agreement with Executive or any Company policy, the terms of this Agreement shall prevail and govern.

(aw) Amendments; Waivers. This Agreement may not be modified, amended, or terminated except by an instrument in writing, signed by Executive and a duly authorized officer of Company, which writing explicitly states the intent of the parties hereto to supplement the terms herein. By an instrument in writing similarly executed, Executive or a duly authorized officer of the Company, as applicable, may waive compliance by the other Party with any specifically identified provision of this Agreement that such other Party was or is obligated to comply with or perform; *provided*, *however*, that such waiver shall not operate as a waiver of, or estoppel with respect to, any other or subsequent failure. No failure to exercise and no delay in exercising any right, remedy, or power hereunder preclude any other or further exercise of any other right, remedy, or power provided herein or by law or in equity.

(ax) No Inconsistent Actions. The Parties hereto shall not voluntarily undertake or fail to undertake any action or course of action inconsistent with the provisions or essential intent of this Agreem*ent. Fur*t*hermore*, it is the intent of the Parties hereto to act in a fair and reasonable manner with respect to the interpretation and application of the provisions of this Agreement.

(ay) Forum. Any suit brought hereon shall be brought in the state or federal courts sitting in San Mateo County, California, and the Parties hereby waiving any claim or defense that such forum is not convenient or proper. Each Party hereby agrees that any such court shall have *in personam* jurisdiction over it and consents to service of process in any manner authorized by California law.

(az) Enforcement. If any provision of this Agreement is held to be illegal, invalid or unenforceable under present or future laws effective during the term of this Agreement, such

provision shall be fully severable; this Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a portion of this Agreement; and the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from this Agreement. Furthermore, in lieu of such illegal, invalid or unenforceable provision there shall be added automatically as part of this Agreement a provision as similar in terms to such illegal, invalid or unenforceable provision as may be possible and be legal, valid and enforceable.

(ba) Withholding. The Company shall be entitled to withhold from any amounts payable under this Agreement any federal, state, local or foreign withholding or other taxes or charges which the Company is required to withhold. The Company shall be entitled to rely on an opinion of counsel if any questions as to the amount or requirement of withholding shall arise.

11. Legal Fees. The Company shall promptly reimburse or pay directly on Executive's behalf all attorney's fees and costs incurred by Executive in connection with the negotiation, drafting and finalization of this Agreement, up to a maximum of $20,000.

12. Golden Parachute Excise Tax.

(bb) Best Pay. Any provision of this Agreement to the contrary notwithstanding, if any payment or benefit Executive would receive from the Company pursuant to this Agreement or otherwise ("Payment") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then such Payment will be equal to the Reduced Amount (as defined below). The "Reduced Amount" will be either (l) the largest portion of the Payment that would result in no portion of the Payment (after reduction) being subject to the Excise Tax or (2) the entire Payment, whichever amount after taking into account all applicable federal, state and local employment taxes, income taxes, and the Excise Tax (all computed at the highest applicable marginal rate, net of the maximum reduction in federal income taxes which could be obtained from a deduction of such state and local taxes), results in Executive' s receipt, on an after-tax basis, of the greater economic benefit notwithstanding that all or some portion of the Payment may be subject to the Excise Tax. If a reduction in a Payment is required pursuant to the preceding sentence and the Reduced Amount is determined pursuant to clause (1) of the preceding sentence, the reduction shall occur in the manner (the "Reduction Method") that results in the greatest economic benefit for Executive. If more than one method of reduction will result in the same economic benefit, the items so reduced will be reduced pro rata (the "Pro Rata Reduction Method"). Notwithstanding the foregoing, if the Reduction Method or the Pro Rata Reduction Method would result in any portion of the Payment being subject to taxes pursuant to Section 409A of the Code that would not otherwise be subject to taxes pursuant to Section 409A of the Code, then the Reduction Method and/or the Pro Rata Reduction Method, as the case may be, shall be modified so as to avoid the imposition of taxes pursuant to Section 409A of the Code as follows: (A) as a first priority, the modification shall preserve to the greatest extent possible, the greatest economic benefit for Executive as determined on an after-tax basis; (B) as a second priority, Payments that are contingent on future events (e.g., being terminated without cause), shall be reduced (or eliminated) before Payments that are not contingent on future events; and (C) as a third priority, Payments that are "deferred compensation" within the meaning of Section 409A of the Code shall be reduced (or eliminated) before Payments that are not deferred compensation within the meaning of Section 409A of the Code.

(bc) Accounting Firm. The accounting firm engaged by the Company for general tax purposes as of the day prior to the Change in Control will perform the calculations set forth in Section 12(a) above. If the firm so engaged by the Company is serving as accountant or auditor for the acquiring company, the Company will appoint a nationally recognized accounting firm (that is not rendering services to the acquiring company) to make the determinations required

hereunder. The Company will bear all expenses with respect to the determinations by such firm required to be made hereunder. The accounting firm engaged to make the determinations hereunder will provide its calculations, together with detailed supporting documentation, to the Company within fifteen (15) days before the consummation of a Change in Control (if requested at that time by the Company) or such other time as requested by the Company. If the accounting firm determines that no Excise Tax is payable with respect to a Payment, either before or after the application of the Reduced Amount, it will furnish the Company with documentation reasonably acceptable to the Company that no Excise Tax will be imposed with respect to such Payment. Any good faith determinations of the accounting firm made hereunder will be final, binding and conclusive upon the Company, Executive, and other entities.

13. Section 409A.

(bd) General. The intent of the Parties is that the payments and benefits under this Agreement comply with or be exempt from Section 409A and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted to be in compliance therewith. If Executive notifies the Company that Executive has received advice of tax counsel of a national reputation with expertise in Section 409A that any provision of this Agreement would cause Executive to incur any additional tax or interest under Section 409A (with specificity as to the reason therefor) or the Company independently makes such determination, the Company and Executive shall take commercially reasonable efforts to reform such provision to try to comply with or be exempt from Section 409A through good faith modifications to the minimum extent reasonably appropriate to conform with Section 409A, *provided* that any such modifications shall not increase the contractual cost or liability under this Agreement to the Company. To the extent that any provision hereof is modified in order to comply with or be exempt from Section 409A, such modification shall be made in good faith and shall, to the maximum extent reasonably possible, maintain the original intent and economic benefit to Executive and the Company of the applicable provision without violating the provisions of Section 409A.

(be) Separation from Service. Notwithstanding any provision to the contrary in this Agreement: (i) no amount that constitutes "deferred compensation" under Section 409A shall be payable pursuant to Sections 5(b), 5(c) and 5(d) above unless the termination of Executive's employment constitutes a "separation from service" within the meaning of Section 1.409A-1(h) of the Department of Treasury Regulations ("Separation from Service"); and (ii) to the extent that any reimbursement of expenses or in-kind benefits constitutes "deferred compensation" under Section 409A, such reimbursement or benefit shall be provided no later than December 31st 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. The amount of any in-kind benefits provided in one year shall not affect the amount of in-kind benefits provided in any other year.

(bf) Specified Employee. Notwithstanding anything in this Agreement to the contrary, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six (6)-month period measured from the date of Executive's Separation from Service with the Company or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Section 409A period, all payments deferred pursuant to the preceding sentence shall be paid in a lump sum to Executive (or Executive's estate or beneficiaries), and any remaining payments due to Executive under this Agreement shall be paid as otherwise provided herein.

(bg) Release. Notwithstanding anything to the contrary in this Agreement, to the extent that any payments due under this Agreement as a result of Executive's termination of employment are subject to Executive's execution and delivery of a Release, (i) the Company shall deliver the Release to Executive within ten (10) business days following the Date of Termination, and the Company's failure to deliver a Release prior to the expiration of such ten (10) business day period shall constitute a waiver of any requirement to execute a Release, (ii) if Executive fails to execute the Release on or prior to the Release Expiration Date (as defined below) or timely revokes his acceptance of the Release thereafter, Executive shall not be entitled to any payments or benefits otherwise conditioned on the Release, and (iii) in any case where the Date of Termination and the Release Expiration Date fall in two separate taxable years, any payments required to be made to Executive that are conditioned on the Release and are treated as nonqualified deferred compensation for purposes of Section 409A shall be made in the later taxable year. For purposes of this Section 13(d), "Release Expiration Date" shall mean the date that is twenty-one (21) days following the date upon which the Company timely delivers the Release to Executive, or, in the event that Executive's termination of employment is "in connection with an exit incentive or other employment termination program" (as such phrase is defined in the Age Discrimination in Employment Act of 1967), the date that is forty-five (45) days following such delivery date. To the extent that any payments of nonqualified deferred compensation (within the meaning of Section 409A) due under this Agreement as a result of Executive's termination of employment are delayed pursuant to this Section 13(d), such amounts shall be paid in a lump sum on the first payroll date following the date that Executive executes and does not revoke the Release (and the applicable revocation period has expired) or, in the case of any payments subject to Section 13(d)(iii), on the first payroll period to occur in the subsequent taxable year, if later.

14. Executive Acknowledgement.

Executive acknowledges that Executive has read and understands this Agreement, is fully aware of its legal effect, has not acted in reliance upon any representations or promises made by the Company other than those contained in writing herein, and has entered into this Agreement freely based on Executive's own judgment.

[*Signature Page Follows*]

IN WITNESS WHEREOF, the Parties have duly executed this Agreement as of the Effective Date.

CODEXIS, INC.

/s/ Byron Dorgan
By: Byron Dorgan
Title: Chairman of the Board of Directors

EXECUTIVE

/s/ Stephen Dilly
Stephen Dilly, MBBS, Ph.D.

Exhibit A

Current Advisor and/or Board of Director Service

Exhibit B

Form of Release

RELEASE OF CLAIMS

This Release of Claims ("Release") is entered into as of _____, 20__, between Stephen Dilly, MBBS, Ph.D. ("Executive") and Codexis, Inc., a Delaware corporation (the "Company" and, together with Executive, the "Parties"), effective eight days after Executive's signature hereto (the "Effective Date"), unless Executive revokes his acceptance of this Release as provided in Paragraph 1(c), below.

1. Executive's Release of the Company. Executive understands that by agreeing to this Release, Executive is agreeing not to sue, or otherwise file any claim against, the Company or any of its employees or other agents for any reason whatsoever based on anything that has occurred as of the time Executive signs this Release.

(a) 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, divisions, 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 time of Executive's signing this Release of Claims, 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 Claims arising under federal, state, or local laws relating to employment, Claims of any kind that may be brought in any court or administrative agency, any Claims arising under the Age Discrimination in Employment Act ("ADEA"), 29 U.S.C. § 621, et seq.; Title VII of the Civil Rights Act of 1964, as amended by the Civil Rights Act of 1991, 42 U.S.C. § 2000 et seq.; the Equal Pay Act, 29 U.S.C. § 206(d); the Civil Rights Act of 1866, 42 U.S.C. § 1981; the Family and Medical Leave Act of 1993, 29 U.S.C. § 2601 et seq.; the Americans with Disabilities Act of 1990, 42 U.S.C. § 12101 et seq.; the False Claims Act , 31 U.S.C. § 3729 et seq.; the Employee Retirement Income Security Act, 29 U.S.C. § 1001 et seq.; the Worker Adjustment and Retraining Notification Act, 29 U.S.C. § 2101 et seq. the Fair Labor Standards Act, 29 U.S.C. § 215 et seq., the Sarbanes-Oxley Act of 2002; the California Labor Code; the employment and civil rights laws of California; Claims for breach of contract; Claims arising in tort, including, without limitation, Claims of wrongful dismissal or discharge, discrimination, harassment, retaliation, fraud, misrepresentation, defamation, libel, infliction of emotional distress, violation of public policy, and/or breach of the implied covenant of good faith and fair dealing; and Claims for damages or other remedies of any sort, including, without limitation, compensatory damages, punitive damages, injunctive relief and attorney's fees.

(b) 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 related to Executive's right to enforce the terms of the Employment Agreement between Executive and the Company, dated August [__], 2022 and this Release;

(vi) Claims related to Executive's rights following the date hereof with respect to any vested equity interests Executive holds in the Company or any of its past or present affiliates;

(vii) Claims for indemnification under any indemnification agreement with the Company, the Company's Bylaws, California Labor Code Section 2802, California Corporations Code Section 317, by contract, or any other applicable law; and

(viii) 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.

(a) In accordance with the Older Workers Benefit Protection Act of 1990, Executive has been advised of the following:

(ix) Executive has the right to consult with an attorney before signing this Release;

(x) Executive has been given at least [Single Termination: twenty-one (21) OR Group Termination: forty-five (45)] days to consider this Release[Group Termination: and acknowledges that the Company has provided Executive a list of the job titles and ages of all employees of the Company whose employment was terminated in this group termination and the ages of all employees of the Company in the same job classification or organizational unit who were not terminated];

(xi) Executive has seven (7) days after signing this Release to revoke it, and Executive will not receive the severance benefits offered by the Company in connection with Executive's termination of employment unless and until such seven (7) day period has expired. If Executive wishes to revoke this Release, 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 Release to [_____].

(a) 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 OR RELEASING PARTY DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE AND THAT, IF KNOWN BY HIM OR HER, WOULD HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR OR RELEASED PARTY."

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.

2. Non-Disparagement, Transition, and Transfer of Company Property.

(b) Executive agrees that Executive will not disparage, criticize or defame the Company, its affiliates and their respective affiliates, directors, officers, agents, partners, stockholders, employees, products, services, technology or business, either publicly or privately. The Company agrees that it will not, and will instruct its officers and directors to not, disparage, criticize or defame Executive, either publicly or privately. Nothing in this Section 2(a) will have application to any evidence or testimony required by any court, arbitrator or government agency, or any statement otherwise required by law.

(c) Executive agrees to use Executive's reasonable efforts to cooperate with the Company in good faith to facilitate a smooth transition of Executive's duties prior to Executive's termination of employment.

(d) Executive warrants and represents that Executive has turned over to the Company all files, memoranda, records, and other documents, and any other physical or personal property that are the property of the Company and that Executive had in Executive's possession, custody or control.

3. Executive Representations. Executive represents and warrants that:

(a) Executive has returned to the Company all Company property in Executive's possession;

(b) Executive is not owed wages, commissions, bonuses or other compensation, other than wages through the date of the termination of Executive's employment and any accrued, unused vacation earned through such date;

(c) During the course of Executive's employment Executive did not sustain any injuries for which Executive might be entitled to compensation pursuant to worker's compensation law or Executive has disclosed any injuries of which Executive is currently, reasonably aware for which Executive might be entitled to compensation pursuant to worker's compensation law; and

(d) Executive has not initiated any adversarial proceedings of any kind against the Company or against any other person or entity released herein, nor will Executive do so in the future, except as specifically allowed by this Release.

4. Maintaining Confidential Information. Executive reaffirms Executive's obligations under the Confidential Information, Secrecy, and Invention Agreement entered into between Executive and the Company (the "Confidentiality Agreement"). Executive acknowledges and agrees that the severance benefits provided to Executive will be subject to Executive's continued compliance with Executive's material obligations under the Confidentiality Agreement (provided Executive will not be considered non-compliant unless Executive has actual knowledge of such non-compliance or has received written notice of such non-compliance and at least thirty (30) days to cure). For the avoidance of doubt, nothing in the Confidentiality Agreement or this Release will be construed to prohibit Executive from filing a charge with, reporting possible violations to, or participating or cooperating with any governmental agency or entity, including but not limited to the EEOC, the Department of Justice, the Securities and Exchange Commission, Congress, or any agency Inspector General, or making other disclosures that are protected under the whistleblower, anti-discrimination, or anti-retaliation provisions of federal, state or local law or regulation. Executive does not need the prior authorization of the Company to make any such reports or disclosures, and Executive is not required to notify the Company that Executive has made such reports or disclosures. Furthermore, in accordance with 18 U.S.C. § 1833, notwithstanding anything to the contrary in the Confidentiality Agreement or this Release: (i) Executive will not be in breach of the Confidentiality Agreement or this Release, and will not be held criminally or civilly liable under any federal or state trade secret law (x) for the disclosure of a trade secret that is made in confidence to a federal, state, or local government official or to an attorney solely for the purpose of reporting or investigating a suspected violation of law, or (y) for the disclosure of a trade secret that is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal; and (ii) if Executive files a lawsuit for retaliation by the Company for reporting a suspected violation of law, Executive may disclose the trade secret to Executive's attorney, and may use the trade secret information in the court proceeding, if Executive files any document containing the trade secret under seal, and does not disclose the trade secret, except pursuant to court order.

5. Severability. The provisions of this Release are severable. If any provision is held to be invalid or unenforceable, it shall not affect the validity or enforceability of any other provision.

6. Choice of Law. This Release shall in all respects be governed and construed in accordance with the laws of the State of California, including all matters of construction, validity and performance, without regard to conflicts of law principles.

7. Integration Clause. This Release together with the Confidentiality Agreement contain the Parties' entire agreement with regard to the separation of Executive's employment, and supersede and replace any prior agreements as to those matters, whether oral or written. This Release may not be changed or modified, in whole or in part, except by an instrument in writing signed by Executive and a duly authorized officer or director of the Company.

8. Execution in Counterparts. This Release may be executed in counterparts with the same force and effectiveness as though executed in a single document. Facsimile signatures shall have the same force and effectiveness as original signatures.

9. Intent to be Bound. The Parties have carefully read this Release in its entirety; fully understand and agree to its terms and provisions; and intend and agree that it is final and binding on all Parties.

[Signature page follows]

IN WITNESS WHEREOF, and intending to be legally bound, the Parties have executed the foregoing on the dates shown below.

EXECUTIVE	CODEXIS, INC.
_____	_____
Stephen Dilly, MBBS, Ph.D.	By:
	Title:
Date: _____	Date: _____

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Exhibit C

Confidential Information Agreement

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Codexis, Inc.

200 Penobscot Drive
Redwood City, CA 94063
Tel: +1 (650) 421-8100
Fax: +1 (650) 421-8102
www.codexis.com

September 12, 2022

Kevin Norrett

Dear Kevin,

On behalf of Codexis, Inc. ("Codexis" or the "Company"), I am pleased to extend to you this offer of employment as Chief Operating Officer reporting to Stephen Dilly, President and CEO. Your position is a full-time and exempt from overtime pay under the Fair Labor Standards Act.

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 completion of your professional references, background and drug screening, as well as the execution of your Employee Confidential Information and Inventions Assignment Agreement (Attachment A) (your "Confidentiality Agreement").

You will not, during your employment by the Company, be employed by or otherwise engaged in any other business activity requiring any of your time, except that, with the prior written approval of the Company's Board of Directors (the "Board") or the Company's Chief Executive Officer, you may serve as a member of the board of directors of up to one organization that is not a competitor of the Company, provided that such service does not individually or in the aggregate interfere with the performance of your duties to the Company, violate the Company's standards of conduct then in effect, or raise a conflict under the Company's conflict of interest policies. In the event of any conflict between this paragraph and your Confidentiality Agreement, this paragraph shall control.

Compensation

If you accept this offer and you begin employment with Codexis, you will receive an initial salary of USD$450,000 per year, payable semi-monthly, which will be subject to all applicable withholdings.

You will also be eligible to participate in the Codexis Employee Incentive Compensation Plan (the " Incentive Plan"). Your Incentive Plan target will be 50% of your Codexis base salary earnings. If Codexis meets all of its corporate goals for 2022, and you also perform well against your individual and group goals, to be established with your supervisor, you can expect to receive an Incentive Plan payout at or near this target after our Board of Directors (the "Board") approval of our 2022 year-end financial statements. Based on the Company's performance and your individual and group's goal performance, your actual bonus may be more or less than this target, and under certain circumstances there may be no payout. Any Incentive Plan payout you receive will be based on your service during 2022 as a percentage of the full year; and no bonus will be paid unless you begin employment on or before October 1, 2022. Any payout will be subject to all applicable withholdings. Please also note that the Incentive Plan does not constitute a contract of employment or alter the "at will" status of your employment. In addition, Codexis reserves the right to modify or terminate the Incentive Plan at any time and for any reason without your consent.

Equity

We are pleased to inform you that we will recommend to the Board or a committee appointed by the Board that you be granted an award (the "Award") of performance stock units ("PSUs") with an approximate value of US$666,667.00 as determined in accordance with Codexis' policy, as may be amended from time to time. The actual number of PSUs that will be distributed to you upon vesting is contingent upon the satisfaction by the company of pre-determined performance criteria for the measurement period, which for this grant will be the

calendar year 2022. You may not receive any PSUs if the minimum performance criteria are not met. If the minimum performance criteria are met, the PSUs will vest in two, equal installments beginning within the first calendar quarter following the measurement period and until the PSUs are 100% vested one-year following the first installment vesting date. Your PSU grant will be subject to the terms of the Codexis, Inc. 2019 Equity Incentive Award Plan and will be conditioned on your acceptance of an appropriate PSU agreement.

Subject to approval by the Board or a committee appointed by the Board, you will be granted an option (the "Option") to purchase Common Stock having a value of US$1,333,333.00, as determined in accordance with Codexis' policy, as may be amended from time to time. The Option will have an exercise price per share equal to the closing trading price of a share of Common Stock on the date the Option is granted (or if the grant date is not a trading day, the immediately preceding trading day). Options are generally granted on or around the 5th day of the month following the month employees commence employment. The Option will vest and become exercisable as to one fourth or 25% of the shares initially subject to the Option on the first anniversary of the date of grant and thereafter will vest and become exercisable as to 1/48th of the shares initially subject to the Option per month for the following 36 months until the option is 100% vested on the four-year anniversary of the date of grant. Vesting is contingent upon your continued employment through the applicable vesting date. Your Option will be subject to the terms of the Plan and a stock option agreement to be entered into between you and the Company.

Please note that the Company can grant the Award and Option to you only if and as long as it is permitted and feasible under the laws of the United States of America or any laws of a country in which you reside or to which laws you may be subject. If local laws make the grant of Award or Option illegal or impractical, the Company will let you know as soon as possible.

Change of Control Severance Agreement

In connection with the commencement of your employment with Codexis, you will have the opportunity to enter into a Change of Control Severance Agreement. A copy of the Change of Control Severance Agreement (Attachment B) is included with this offer letter for your review and signature.

Employee Benefits

As a full-time employee, you will be eligible for the Codexis employee benefit plans, which currently include medical, dental, vision, long-term disability, and life insurance, as well as a 401(k) plan and flexible time off that allows full-time employees to accrue 20 days of flexible time off each year of employment. For employees working greater than or equal to 20 hours and less than 40 hours per week flexible time off is prorated. Codexis reserves the right to modify or terminate any of these plans at any time and for any reason.

Other Terms and Conditions of Employment

Your 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. It also means that your job duties, title and responsibility and reporting level, work schedule, compensation and benefits, as well as Codexis' personnel policies and procedures, may be changed with prospective effect, with or without notice, at any time in the sole discretion of Codexis. By accepting this offer of employment, you agree that your employment is at will, and acknowledge that no one, other than the President and CEO 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 the President to be effective.

Employment with any other entity or for yourself in competition with Codexis, or any direct or indirect subsidiary of Codexis, is not permitted. If you want to take an outside job, please discuss the opportunity with your manager and the Human Resources Department in advance so that a determination can be made 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 technical, research, financial, business, commercial, personnel or operational information, and/or ideas, trade secrets, know-how, procedures, strategies or plans. You agree that as a condition of your employment with Codexis, you will sign and comply with the Codexis Employee Confidential Information and Inventions Assignment Agreement, a copy of which is attached to this letter as Attachment A.

The terms described in this letter supersede and replace all prior agreements, understandings, and promises between Codexis and you concerning the terms and conditions of your employment with Codexis.

We hope that your association with Codexis will be mutually successful and rewarding, and we look forward to welcoming you aboard. Please indicate your acceptance of this offer by initialing each page and signing this letter below and **returning the letter to Karen Armijo by September 16, 2022.**

Sincerely,

Codexis, Inc.

By: /s/ Stephen Dilly
Stephen Dilly, Ph.D.
President & CEO

I understand and agree to the foregoing terms and conditions of employment with Codexis.

/s/ Kevin Norrett

9/12/2022 9/30/2022
Date / Start Date

Initial: /kn/

ATTACHMENT A

CODEXIS 2010 EMPLOYEE CONFIDENTIAL INFORMATION AND INVENTIONS ASSIGNMENT AGREEMENT

CODEXIS, INC.

EMPLOYEE CONFIDENTIAL INFORMATION AND INVENTIONS ASSIGNMENT AGREEMENT

The following confirms an agreement (the "Agreement") between Codexis, Inc., its subsidiaries, affiliates, successors or assigns (together the "Company") and me (**Kevin Norrett**). As a condition of my employment, and in consideration of my employment with the Company and my receipt of the compensation now and hereafter paid to me by Company, I agree to the following effective as of my first day of employment with the Company:

1. **At-Will Employment.** This Agreement is not an employment contract for any particular term. I have a right to resign and Company has the right to terminate my employment at will, at any time, for any or no reason, with or without cause and without notice. In addition, this Agreement does not purport to set forth all of the terms and conditions of my employment, and, as an employee of Company, I have obligations to Company which are not set forth in this Agreement. However, the terms of this Agreement govern over any inconsistent terms and can only be changed by a subsequent written agreement signed by both parties.

2. **Confidential Information.**

(a) **Company Information.** I agree at all times during the term of my employment and thereafter, to hold in strictest confidence, and not to use, except for the benefit of the Company, or to disclose to any person, firm or corporation (in writing, verbally, or via email or any other medium) without written advance authorization of the Board of Directors of the Company, any Confidential Information of the Company. I will not use any Confidential Information except in the performance of my authorized duties as an employee of Company. I understand that "Confidential Information" includes, without limitation, any tangible or intangible proprietary information, technical data, trade secrets or know-how, including, but not limited to, research ideas, concepts, tangible and biological materials (including, but not limited to, cell lines, plasmids, vectors and DNA) and data; product plans, products, and services; customer lists and customers (including, but not limited to, customers of the Company on whom I called or with whom I became acquainted during my term of my employment); business markets, software, development, discoveries, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, business plans, corporate strategy plans, financial data; or other business information made, generated or developed by me in the course of my employment with Company, or disclosed to me by Company either directly or indirectly in any form, including, without limitation, in writing, orally, electronically, or by drawings or observation of materials, parts, equipment, or research experiments. Confidential Information also includes confidential information provided to Company by any third party, which is indicated by such third party to be confidential. I further understand that Confidential Information does not include any of the foregoing items which has become publicly known and made generally available through no wrongful act of mine.

(b) **Third Party Information.** I agree that I will not, during my employment with the Company, improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer or other person or entity, and that I will not bring onto the premises of the Company any unpublished document or proprietary information belonging to any such employer, person or entity unless consented to in writing and in advance by such employer, person or entity.

(c) **Third Party Information Received by the Company.** I recognize that the Company has received and in the future will likely receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. I agree to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out my work for the Company consistent with the Company's agreement with such third party.

(d) **Defend Trade Secrets Act**. 18 U.S.C. § 1833(b) states:

"An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that—(A) is made—(i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal."

Accordingly, I have the right to disclose in confidence trade secrets to Federal, State, and local government officials, or to an attorney, for the sole purpose of reporting or investigating a suspected violation of law. I also have the right to disclose trade secrets in a document filed in a lawsuit or other proceeding, but only if the filing is made under seal and protectable from public disclosure. Nothing in this Certification is intended to conflict with 18 U.S.C. § 1833(b) or create liability for disclosures of trade secrets that are expressly allowed by 18 U.S.C. § 1833(b).

3. **Inventions.**

(a) **Inventions Retained and Licensed.** I have attached hereto, as **Exhibit A**, a list describing all inventions, original works of authorship, developments, improvements, and trade secrets (if any) which were made by me prior to my employment with the Company (collectively referred to as "Prior Inventions"), which belong to me, which relate to the Company's proposed business, products or research and development, and which are not assigned to the Company hereunder; if no such list is attached to or contained in **Exhibit A**, I represent that there are no such Prior Inventions. If in the course of my employment with the Company, I incorporate into a Company product, process or machine a Prior Invention owned by me or in which I have an interest, the Company is hereby granted and shall have a nonexclusive, fully sublicensable, royalty-free, irrevocable, perpetual, worldwide license to make, have made, modify, use, have used, sell, have sold and import such Prior Invention as part of or in connection with such product, process or machine.

(b) **Assignment of Inventions.** I agree that I will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company. I hereby assign to the Company, or its designee, all my right, title, and interest in and to any and all inventions, original works of authorship, developments, concepts, improvements or trade secrets, whether or not patentable or registrable under copyright or similar laws, which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time I am in the employ of the Company (collectively referred to as "Inventions"), excepting only any invention (if any) which qualifies fully under the provisions of California Labor Code Section 2870 as provided in Section 3 (f) below. I further acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and which are protectable by copyright are "works made for hire", as that term is defined in the United States Copyright Act.

(c) **Inventions Assigned to the United States.** I agree to assign to the United States government all my right, title, and interest in and to any and all Inventions hereunder, whenever such full title is required to be in the United States by a contract between the Company and the United States or any of its agencies.

(d) **Maintenance of Records.** I agree to keep and maintain adequate and current written records of any and all Inventions hereunder, including any made by me solely or jointly with others during the term of my employment with the Company. The records will be in the form of notes, sketches, drawings, and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times.

(e) **Patent and Copyright Registrations.** I agree to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns and nominees the sole and exclusive rights, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. I further agree that my obligation to execute or cause to be executed, when it is in my power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of my mental or physical incapacity or for any other reason to secure my signature to apply for or to pursue any application for any United States or foreign patents or copyright registrations covering Inventions or original works of authorship assigned to the Company as above, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent or copyright registrations thereon with the same legal force and effect as if executed by me.

(f) **Exception to Assignments.** I understand that the provisions of this Agreement requiring assignment of Inventions to the Company do not apply to any invention which qualifies fully under the provisions of California Labor Code Section 2870 (attached hereto as **Exhibit B**). I will advise the Company promptly in writing of any invention that I believe meet the criteria in California Labor Code Section 2870 and are not disclosed on **Exhibit A**.

4. **Conflicting Employment.** I agree that, during the term of my employment with the Company, I will not engage in any other employment, occupation, consulting or other business activity directly related to the business in which the Company is now involved or becomes involved during the term of my employment, nor will I engage in any other conduct or activities that conflict with my obligations to the Company or is not in the best interests of the Company.

5. **Returning Company Property.** I agree that, prior to or at the time of leaving the employ of the Company, I will deliver to the Company (and will not keep in my possession, recreate or deliver to anyone else) any and all Confidential Information in my possession, as well as all equipment, devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, biological and other tangible materials (including, but not limited, to cell lines, plasmids, vectors and DNA), other documents or tangible property of the Company (or property of third parties that is lawfully in the possession or control of the Company), or reproductions of any aforementioned items including any and all of the aforementioned items developed by me pursuant to my employment with the Company or otherwise property of the Company, its successors or assigns. In the event of the termination of my employment, I agree to sign and deliver the "Termination Certification" attached hereto as **Exhibit C**.

6. **Notification of New Employer.** In the event that I leave the employ of the Company, I hereby grant consent to notification by the Company to my new employer about my rights and obligations under this Agreement.

7. **Solicitation of Employees and Customers.** I acknowledge and agree that for a period of twenty-four (24) months or to the maximum extent permitted by law immediately following the termination of my relationship with the Company for any reason, whether voluntarily or involuntarily, I shall not either directly or indirectly without the prior written consent of the Company:

(a) solicit, induce, recruit or encourage any of the Company's employees to leave their employment, either for myself or for any other person or entity; or

(b) use Confidential Information of the Company to solicit the business of any customer of the Company, where I had contact with such customer during the period of my employment with the Company, and which business is competitive with any significant part of the business conducted by the Company or any subsidiary or affiliate thereof at the time of termination of my employment or as contemplated to be conducted by the Company at such time.

In connection with the foregoing, I acknowledge and agree that the identity, appropriate knowledge of personnel, research and/or product requirements, volume and frequency of orders, and price sensitivity of customers of the Company are not publicly available information and constitute valuable trade secrets of the Company.

8. **Photography Consent, Waiver, And Release.** Upon execution of this Agreement, I agree to sign the Photography Consent, Waiver and Release attached as **Exhibit D** hereto.

9. **Conflict of Interest Guidelines.** I agree to diligently adhere to the Conflict of Interest Guidelines attached as **Exhibit E** hereto.

10. **Representations.** I agree to execute any proper oath or verify any proper document required to carry out the terms of this Agreement. I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any oral or written agreement in conflict herewith.

11. **Equitable Remedies.** I agree that it would be impossible or inadequate to measure and calculate the Company's damages from any breach of the covenants set forth in this Agreement. Accordingly, I agree that if I breach any provision of this Agreement, the Company will have available, in addition to any other right or remedy available, the right to obtain an injunction from a court of competent jurisdiction restraining such breach or threatened breach and to specific performance of any such provision of this Agreement.

12. **Non-Disparagement.** I agree that, during employment with Company and thereafter, I will not make comments, whether oral or in writing, that tend to disparage or injure the Company, its officers, directors, agents, employees, technology, businesses, products or services. Nothing in this Agreement will be construed to preclude me from complying with the terms of a validly issued subpoena.

13. **General Provisions.**

(a) **Governing Law; Consent to Personal Jurisdiction.** This Agreement will be governed by the laws of the State of California exclusively, as such laws apply to contracts between California residents performed entirely within California. I hereby expressly consent to the personal jurisdiction of the state and federal courts located in San Mateo County, California for any lawsuit filed there against me by the Company arising from or relating to this Agreement.

(b) **Entire Agreement.** This Agreement sets forth the entire agreement and understanding between the Company and me relating to the subject matter herein and merges all prior and contemporaneous discussions between us, including any previous confidentiality agreements that I may have entered into with the Company. No modification of or amendment to this Agreement, nor any waiver of any rights under this Agreement, will be effective unless in writing signed by both parties. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement.

(c) **Severability.** If one or more of the provisions in this Agreement are deemed void by law, then the remaining provisions will continue in full force and effect.

(d) **Successors and Assigns.** This Agreement will be binding upon my heirs, executors, administrators and other legal representatives and will be for the benefit of the Company, its successors, and assigns.

(e) **Survival.** The rights and obligations of the parties to this Agreement will survive termination of my employment with Company.

(f) **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument.

[SIGNATURE PAGE FOLLOWS}

I HAVE READ THIS AGREEMENT CAREFULLY AND I UNDERSTAND AND ACCEPT THE OBLIGATIONS WHICH IT IMPOSES UPON ME WITHOUT RESERVATION. NO PROMISES OR REPRESENTATIONS HAVE BEEN MADE TO ME TO INDUCE ME TO SIGN THIS AGREEMENT. I SIGN THIS AGREEMENT VOLUNTARILY AND FREELY, IN DUPLICATE, WITH THE UNDERSTANDING THAT ONE COUNTERPART WILL BE RETAINED BY COMPANY AND THE OTHER COUNTERPART WILL BE RETAINED BY ME.

Date: _____

_____ _____
Signature Printed

CODEXIS, INC.

By: _____

Title: _____

Date: _____

Initial: /kn/__

EXHIBIT A

LIST OF PRIOR INVENTIONS
(INCLUDING ORIGINAL WORKS OF AUTHORSHIP)

Title	Date	Identifying Number Or Brief Description

Initial: /kn/

EXHIBIT B

CALIFORNIA LABOR CODE SECTION 2870
EMPLOYMENT AGREEMENTS; ASSIGNMENT OF RIGHTS

"(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 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.

(2) Result from any work performed by the employee for the employer.

(b) To the extent a provision in the 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."

EXHIBIT C

CODEXIS, INC.
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, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items belonging to Codexis, Inc., its subsidiaries, affiliates, successors or assigns, except where authorized in writing.

I further certify that I have complied with all the terms of the Codexis, Inc. Employee Confidential Information and Inventions Assignment Agreement signed by me, including the reporting of any inventions and original works of authorship (as defined therein), conceived or made by me (solely or jointly with others) covered by that agreement.

I further agree that, in compliance with the Employee Confidential Information and Inventions Assignment Agreement, I will preserve as confidential all trade secrets, confidential knowledge, data or other proprietary information relating to products, processes, know-how, designs, formulas, developmental or experimental work, computer programs, data bases, other original works of authorship, customer lists, business plans, financial information or other subject matter pertaining to any business of Codexis, Inc. or any of its employees, clients, consultants, or licensees.

The Federal **Defend Trade Secrets Act** . 18 U.S.C. § 1833(b) states:

"An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that—(A) is made—(i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal."

Accordingly, I have the right to disclose in confidence trade secrets to Federal, State, and local government officials, or to an attorney, for the sole purpose of reporting or investigating a suspected violation of law. I also have the right to disclose trade secrets in a document filed in a lawsuit or other proceeding, but only if the filing is made under seal and protectable from public disclosure. Nothing in this Certification is intended to conflict with 18 U.S.C. § 1833(b) or create liability for disclosures of trade secrets that are expressly allowed by 18 U.S.C. § 1833(b).

I further agree that in compliance with the Employee Confidential Information and Inventions Assignment Agreement, for twenty-four (24) months from this date: (a) I will not use confidential information to solicit, induce, recruit or encourage any of the Company's employees to leave their employment, either for myself or for any other person or entity; and (b) I will not use confidential information to solicit the business of any customer of the Company, which business is competitive with any significant part of the business conducted by the Company or any subsidiary or affiliate thereof at the time of termination of my employment or as contemplated to be conducted by the Company at such time.

Date: _____

_____
(Employee's Signature)

_____
(Type/Print Employee's Name)

[TO BE SIGNED UPON TERMINATION OF EMPLOYMENT]

Initial: /kn/__

EXHIBIT D

CODEXIS, INC.
PHOTOGRAPHY CONSENT, WAIVER, AND RELEASE

For good and valuable consideration, I hereby consent and give permission to Codexis, Inc. ("Codexis") or its agent, to photograph, image and/or videotape me, my property, and/or myself as included with others (such photographs, images, and/or videotapes, "Photographs"). I understand that any such Photographs, and all rights associated with them, will belong solely and exclusively to Codexis and Codexis shall have the irrevocable and absolute right to copyright, duplicate, reproduce, alter, display, distribute, and/or publish them in any manner, for any purpose, and in any form including, but not limited to, print, electronic, video, and/or Internet without notifying me.

I voluntarily waive any and all rights I may now or hereafter have with respect to any such Photographs, including any compensation, ownership, copyright, and privacy rights and any right to inspect or approve such Photographs and/or copy, print or other materials that may be used in connection with them, whether now or in the future, whether that use is known or unknown to me. I hereby waive any right to inspect or approve of any finished Photographs whether printed or electronic, that may be used now or in the future, whether that use is known or unknown to me, and I forever waive any right to royalties or other compensation arising from or related to the use of the Photographs. I hereby release and discharge, and agree to hold harmless, Codexis, its officers, agents and employees, and all persons acting under its permission or authority, from any claims, losses, damages or liability arising from or related to such Photographs and/or their use under any circumstances.

This consent, waiver, and release will be binding upon the heirs, executors, administrators and other legal representatives of myself, and will be for the benefit of Codexis, its successors and assigns.

I HAVE READ AND FULLY UNDERSTAND THE CONTENTS OF THIS CONSENT, WAIVER, AND RELEASE FORM, AND I SIGN IT FREELY AND VOLUNTARILY.

Name:_____

_____
Signature

Date:

EXHIBIT E

CONFLICT OF INTEREST GUIDELINES

Initial: /kn/__

It is the policy of Codexis, Inc., to conduct its affairs in strict compliance with this letter and spirit of the law and to adhere to the highest principles of business ethics. Accordingly, all officers, employees and independent contractors must avoid activities that are in conflict, or give the appearance of being in conflict, with these principles and with the interests of the company. The following are potentially compromising situations that must be avoided. Any exceptions must be reported to the Chief Executive Officer and written approval for continuation must be obtained.

1. Revealing confidential information to outsiders or misusing confidential information. Unauthorized divulging of information is a violation of this policy whether or not for personal gain and whether or not harm to the company is intended. (The Employee Confidential Information and Inventions Assignment Agreement elaborates on this principle and is a binding agreement.)

2. Accepting or offering substantial gifts, excessive entertainment, favors or payments which may be deemed to constitute undue influence or otherwise be improper or embarrassing to Codexis, Inc.

3. Participating in civic or professional organizations that might involve divulging confidential information of the company.

4. Initiating or approving personnel actions affecting reward or punishment of employees or applicants where there is a family relationship or is or appears to be a personal or social involvement.

5. Initiating or approving any form of harassment of employees based upon their age, sex, race, ethnicity, national origin, or on any other protected basis.

6. Investing or holding outside directorship in suppliers, customers, or competing companies, including financial speculations, where such investment or directorship might influence in any manner a decision or course of action of the company.

7. Borrowing from or lending to employees, customers or suppliers.

8. Acquiring any business opportunity of interest to Codexis, Inc.

9. Improperly using or disclosing to the company any proprietary information or trade secrets of any former or concurrent employer or other person or entity with whom obligations of confidentiality exist.

10. Unlawfully discussing prices, costs, customers, sales or markets with competing companies or their employees.

11. Making any unlawful agreement with distributors with respect to prices.

12. Improperly using or authorizing the use of any inventions that are the subject of patent claims of any other person or entity.

13. Engaging in any conduct that is not in Codexis, Inc.’s best interest.

Each officer, employee and independent contractor must take every necessary action to ensure compliance with these guidelines and to bring problem areas to the attention of higher management for review. Violations of this conflict of interest policy may result in discharge without warning.

Initial: /kn/__

CODEXIS, INC.

CHANGE OF CONTROL SEVERANCE AGREEMENT

This Change of Control Severance Agreement (the "Agreement") is made and entered into by and between Kevin Norrett (the "Executive") and Codexis, Inc., a Delaware corporation (the "Company"), effective as of the latest date set forth by the signatures of the parties hereto below (the "Effective Date").

R E C I T A L S

A. It is expected that the Company from time to time will consider the possibility of an acquisition by another company or other change of control. The Board of Directors of the Company (the "Board") recognizes that such consideration as well as the possibility of an involuntary termination or reduction in responsibility can be a distraction to Executive and can cause Executive to consider alternative employment opportunities. The Board has determined that it is in the best interests of the Company and its stockholders to assure that the Company will have the continued dedication and objectivity of Executive, notwithstanding the possibility, threat or occurrence of such an event.

B. The Board believes that it is in the best interests of the Company and its stockholders to provide Executive with an incentive to continue Executive's employment and to motivate Executive to maximize the value of the Company upon a Change of Control (as defined below) for the benefit of its stockholders.

C. The Board believes that it is imperative to provide Executive with severance benefits upon certain terminations of Executive's service to the Company that provide Executive with enhanced financial security and provides incentive and encouragement to Executive to remain with the Company notwithstanding the possibility of such an event.

D. Certain capitalized terms used in the Agreement are defined in Section 9 below.

The parties hereto agree as follows:

1. Term of Agreement. This Agreement shall become effective as of the Effective Date and terminate upon the date that all obligations of the parties hereto with respect to this Agreement have been satisfied.

2. At-Will Employment. The Company and Executive acknowledge that Executive's employment is and shall continue to be "at-will," as defined under applicable law. If Executive's employment terminates for any reason, Executive shall not be entitled to any payments, benefits, damages, awards or compensation other than as provided by this Agreement.

3. Covered Termination Outside a Change of Control Period. Except as otherwise provided under Section 6, if Executive experiences a Covered Termination other than during a Change of Control Period, and if Executive, within sixty (60) days following the date of the Covered Termination, provides the Company with an executed Release of Claims (as defined below) which is not revoked within the applicable revocation period, if any, then in addition to any accrued but unpaid salary, bonus, vacation and expense reimbursement payable in accordance with applicable law, the Company shall provide Executive with the following:

(a) Severance. Executive shall receive a lump sum cash payment in an amount equal to twelve (12) months of Executive's base salary at the rate in effect immediately prior to Executive's termination of employment (without giving effect to any reduction in base salary that gives rise to a Voluntary Termination for Good Reason), less applicable withholdings. This severance payment shall be made to Executive in substantially equal installments in accordance with

the Company's normal payroll procedures with the first such installment to be made on the first payroll date following the date the Release of Claims becomes effective and irrevocable, provided, that if the Covered Termination occurs after November 1 of any year, the first such installment shall be made on the first payroll date of the subsequent year and, provided further, that, in each case, the first installment shall include any installment payments that would have been made had such installments commenced on the first payroll date after the Covered Termination.

(b) Continued Healthcare. If Executive elects to receive continued healthcare coverage pursuant to the provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall directly pay, or reimburse Executive for, the premium for Executive, Executive's covered dependents and Executive's spouse or domestic partner from the date of Executive's Covered Termination through the earlier of (i) the twelve (12) month anniversary of the date of Executive's Covered Termination and (ii) the date Executive, Executive's covered dependents, if any, and Executive's spouse or domestic partner, if any, become eligible for healthcare coverage under another employer's plan(s), *provided*, *however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the remaining period the Company would otherwise directly pay or reimburse Executive. After the Company ceases to pay 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.

4. Covered Termination Within a Change of Control Period. If Executive experiences a Covered Termination during a Change of Control Period, and if Executive, within sixty (60) days following the date of the Covered Termination, provides the Company with an executed Release of Claims (as defined below) which is not revoked within the applicable revocation period, if any, then in addition to any accrued but unpaid salary, bonus, vacation and expense reimbursement payable in accordance with applicable law, the Company shall provide Executive with the following:

(a) Severance. Executive shall receive a lump sum cash payment in an amount equal to the sum of eighteen (18) months of Executive's base salary at the rate in effect immediately prior to Executive's termination of employment (without giving effect to any reduction in base salary subsequent to a Change of Control that gives rise to a Voluntary Termination for Good Reason), less applicable withholdings. This severance payment shall be made to Executive within sixty (60) days following the date of the Covered Termination.

(b) Equity Awards. Each outstanding equity award, including, without limitation, stock options, restricted stock, and restricted stock units, held by Executive shall automatically become vested and, if applicable, exercisable and any restrictions thereon shall immediately lapse, in each case, with respect to one hundred percent (100%) of the then unvested shares subject to such equity award. Notwithstanding the foregoing, any outstanding performance stock units or performance stock options held by Executive shall automatically become vested with respect to: (i) in the event of a Change of Control that occurs prior to the applicable Measurement Date, such number of shares of Company common stock corresponding to the target performance level for any applicable performance goals; or (ii) in the event of a Change of Control that occurs on or after the Measurement Date, such number of shares of Company common stock corresponding to the Company's actual achievement of any applicable performance goals.

(c) Continued Healthcare. If Executive elects to receive continued healthcare coverage pursuant to the provisions of COBRA, the Company shall directly pay, or reimburse Executive for, the premium for Executive, Executive's covered dependents and Executive's spouse

or domestic partner from the date of Executive's Covered Termination through the earlier of (i) the eighteen (18) month anniversary of the date of Executive's Covered Termination and (ii) the date Executive, Executive's covered dependents, if any, and Executive's spouse or domestic partner, if any, become eligible for healthcare coverage under another employer's plan(s), *provided*, *however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A of the Code, under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the remaining period the Company would otherwise directly pay or reimburse Executive. After the Company ceases to pay 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.

5. Death or Disability. If Executive terminates employment with the Company due to death or Disability and such termination constitutes a "separation from service" within the meaning of Section 409A of Code and the Department of Treasury regulations and other guidance promulgated thereunder (a "Separation from Service"), then in addition to any accrued but unpaid salary, bonus, vacation and expense reimbursement payable in accordance with applicable law, the Company shall provide Executive with the following:

(a) Pro-Rata Vesting of Equity Awards. Each outstanding equity award, including, without limitation, stock options, restricted stock and restricted stock units, held by Executive shall automatically become vested and, if applicable, exercisable and any restrictions thereon shall immediately lapse, in each case, with respect to that number of shares of Company common stock that would otherwise vest on the next vesting date for such equity award, assuming Executive's continued service through such date, pro-rated to the date of Executive's termination due to death or Disability. For purposes of determining the number of shares subject to any outstanding performance stock units or performance stock options that would otherwise vest on the next vesting date pursuant to the foregoing sentence, the applicable performance goals shall be deemed achieved: (i) in the event of a termination due to death or Disability that occurs prior to the applicable Measurement Date, at the target performance level; or (ii) in the event of a termination due to death or Disability that occurs on or after the Measurement Date, based on the Company's actual achievement.

(b) Continued Healthcare. If Executive, or any beneficiary of Executive, elects to receive continued healthcare coverage pursuant to the provisions of COBRA, the Company shall directly pay, or reimburse Executive, or such beneficiary, for, the premium for Executive,

Executive's covered dependents and Executive's spouse or domestic partner from the date of Executive's termination due to death or Disability through the earlier of (i) the twelve (12) month anniversary of the date of Executive's termination of employment and (ii) the date Executive, Executive's covered dependents, if any, and Executive's spouse or domestic partner, if any, become eligible for healthcare coverage under another employer's plan(s), *provided*, *however*, that if (1) any plan pursuant to which such benefits are provided is not, or ceases prior to the expiration of the continuation coverage period to be, exempt from the application of Section 409A of the Code, under Treasury Regulation Section 1.409A-1(a)(5), (2) the Company is otherwise unable to continue to cover Executive or Executive's dependents under its group health plans, or (3) the Company cannot provide the benefit without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then, in any such case, an amount equal to each remaining Company subsidy shall thereafter be paid to Executive in substantially equal monthly installments over the remaining period the Company would otherwise directly pay or reimburse Executive. After the Company ceases to pay premiums pursuant to the preceding sentence, Executive, or any beneficiary of Executive, may, if eligible, elect to continue healthcare coverage at his or her expense in accordance with the provisions of COBRA.

6. Termination in Connection with a Change of Control. Notwithstanding anything in this Agreement to the contrary, in the event Executive experiences a Covered Termination and the Involuntary Termination without Cause underlying the Covered Termination, or the event upon which a Voluntary Termination for Good Reason underlying the Covered Termination is based, occurs at the direction of a person or entity that has entered into an agreement with the Company that contemplates a transaction that, if consummated, would constitute a Change of Control, then for all purposes hereunder, including, without limitation, Sections 4 and 7, such Covered Termination shall be deemed to have occurred during a Change of Control Period and, in lieu of the benefits provided under Section 3, Executive shall be entitled to the benefits set forth in Section 4 with such benefits to be paid, or commence being paid, upon the Covered Termination, but otherwise subject to the terms and conditions of Section 4.

7. Termination for Cause; Voluntary Resignation. If Executive's service with the Company is terminated by the Company for Cause or by Executive for any or no reason other than due to death, Disability or as a Covered Termination, then Executive shall only be entitled to any accrued but unpaid salary, bonus, vacation and expense reimbursement in accordance with applicable law.

8. Limitation on Payments. In the event that the severance and other benefits provided for in this Agreement or otherwise payable to Executive (i) constitute "parachute payments" within the meaning of Section 280G of the Code and (ii) but for this Section 8, would be subject to the excise tax imposed by Section 4999 of the Code, then Executive's severance benefits under this Agreement shall be payable either

(a) in full, or

(b) as to such lesser amount which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code, whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999 of the Code, results in the receipt by Executive on an after-tax basis, of the greatest amount of severance benefits under this Agreement, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. The specific benefits that shall be reduced, if any, and the order of such reduction shall be determined by the Executive in his or her sole discretion. Unless the Company and Executive otherwise agree in writing, any determination required under this Section 8 shall be made in writing by the Company's independent public accountants (the "Accountants"), whose determination shall be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by

this Section 8, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and 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. The Company shall bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 8.

9. Definition of Terms. The following terms referred to in this Agreement shall have the following meanings:

(a) Change of Control. "Change of Control" shall mean (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 Securities and Exchange Act of 1934, as amended (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 Board acting in good faith and without regard to whether such transaction is effectuated by a merger, equity financing or otherwise) or the initial public offering of the Company's common stock. Further notwithstanding the foregoing, if a Change of Control would give rise to a payment or settlement event that constitutes "nonqualified deferred compensation," the transaction or event constituting the Change of Control must also constitute a "change in control event" (as defined in Treasury Regulation §1.409A-3(i)(5)) in order to give rise to the payment or settlement event, to the extent required by Section 409A.

(b) Change of Control Period. "Change of Control Period" shall mean the period commencing ninety (90) days prior to a Change of Control and ending on the first anniversary of the Change of Control.

(c) Covered Termination. "Covered Termination" shall mean an Involuntary Termination without Cause or a Voluntary Termination for Good Reason that constitutes the Executive's Separation from Service.

(d) Disability. "Disability" shall mean that Executive has been unable to perform Executive's Company duties as the result of Executive's incapacity due to physical or mental illness, and such inability, at least one hundred eighty (180) days after its commencement, is determined to be total and permanent by a physician selected by the Company or its insurers and acceptable to Executive or Executive's legal representative (such agreement as to acceptability not to be unreasonably withheld). Termination resulting from Disability may only be effected after at least thirty (30) days' written notice by the Company of its intention to terminate Executive's employment. In the event that Executive resumes the performance of substantially all of Executive's

duties hereunder before the termination of Executive's employment becomes effective, the notice of intent to terminate shall automatically be deemed to have been revoked.

(e) Incumbent Board. "Incumbent Board" shall mean 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.

(f) Involuntary Termination without Cause. "Involuntary Termination without Cause" shall mean the termination of Executive's employment by the Company other than a termination following (i) the 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.

(g) Release of Claims. "Release of Claims" shall mean a general release of all claims against the Company and its affiliates in a form reasonably acceptable to the Company.

(h) Voluntary Termination for Good Reason. "Voluntary Termination for Good Reason" shall mean Executive's voluntarily resignation after the occurrence of any of the following without Executive's written consent: (i) a material diminution in Executive's base compensation; (ii) a material diminution in Executive's authority, duties or responsibilities; (iii) a material change of at least thirty-five (35) miles in the geographic location at which Executive must perform Executive's services; or (iv) a material breach of this Agreement by the Company. Notwithstanding the foregoing, a resignation shall not constitute a "Voluntary Termination for Good Reason" unless the condition giving rise to such resignation continues more than thirty (30) days following Executive's written notice of the condition within ninety (90) days of the first occurrence of such condition and Executive's termination occurs within one hundred eighty (180) days following the first occurrence of such condition.

(h) Measurement Date. "Measurement Date," with respect to an award of performance stock units or performance stock options, shall mean the date the Compensation Committee of the Board of Directors determines the achievement of the applicable performance goals for the applicable performance period.

10. Successors.

(a) Company's Successors. Any successor to the Company (whether direct or indirect and whether by purchase, merger, consolidation, liquidation or otherwise) to all or substantially all of the Company's business and/or assets shall assume the obligations under this Agreement and agree expressly to perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. For all purposes under this Agreement, the term "Company" shall include any successor to the Company's business and/or assets which executes and delivers the assumption agreement described in this Section 10(a) or which becomes bound by the terms of this Agreement by operation of law.

(b) Executive's Successors. The terms of this Agreement and all rights of Executive hereunder shall inure to the benefit of, and be enforceable by, Executive's personal or legal representatives, executors, administrators, successors, heirs, distributees, devisees and legatees.

11. Notices. Notices and all other communications contemplated by this Agreement shall be in writing and shall be deemed to have been duly given when personally delivered or one day following mailing via Federal Express or similar overnight courier service. In the case of Executive, mailed notices shall be addressed to Executive at Executive's home address that the Company has on file for Executive. In the case of the Company, mailed notices shall be addressed to its corporate headquarters, and all notices shall be directed to the attention of its Secretary.

12. Confidentiality; Non-Solicitation.

(a) Confidentiality. While Executive is employed by the Company, and thereafter while Executive receives severance benefits hereunder, Executive shall not directly or indirectly disclose or make available to any person, firm, corporation, association or other entity for any reason or purpose whatsoever, any Confidential Information (as defined below). Upon termination of Executive's employment with the Company, all Confidential Information in Executive's possession that is in written or other tangible form (together with all copies or duplicates thereof, including computer files) shall be returned to the Company and shall not be retained by Executive or furnished to any third party, in any form except as provided herein; *provided, however*, that Executive shall not be obligated to treat as confidential, or return to the Company copies of any Confidential Information that (i) was publicly known at the time of disclosure to Executive, (ii) becomes publicly known or available thereafter other than by any means in violation of this Agreement or any other duty owed to the Company by any person or entity, or (iii) is lawfully disclosed to Executive by a third party. For purposes of this Agreement, the term "Confidential Information" shall mean information disclosed to Executive or known by Executive as a consequence of or through his or her relationship with the Company, about the customers, employees, business methods, public relations methods, organization, procedures or finances, including, without limitation, information of or relating to customer lists, of the Company and its affiliates. In addition, Executive shall continue to be subject to the Confidential Information, Secrecy, and Invention Agreement entered into between Executive and the Company (the "Confidential Information Agreement").

(b) Non-Solicitation. In addition to each Executive's obligations under the Confidential Information Agreement, Executive shall not for a period of one (1) year following Executive's termination of employment for any reason, either on Executive's own account or jointly with or as a manager, agent, officer, employee, consultant, partner, joint venturer, owner or stockholder or otherwise on behalf of any other person, firm or corporation, directly or indirectly solicit or attempt to solicit away from the Company any of its officers or employees or offer employment to any person who is an officer or employee of the Company; *provided, however*, that a general advertisement to which an employee of the Company responds shall in no event be deemed to result in a breach of this Section 12(b). Executive also agrees not to harass or disparage the Company or its employees, clients, directors or agents or divert or attempt to divert any actual or potential business of the company.

(c) Survival of Provisions. The provisions of this Section 12 shall survive the termination or expiration of the applicable Executive's employment with the Company and shall be fully enforceable thereafter. If it is determined by a court of competent jurisdiction in any state that any restriction in this Section 12 is excessive in duration or scope or is unreasonable or unenforceable under the laws of that state, it is the intention of the parties that such restriction may be modified or amended by the court to render it enforceable to the maximum extent permitted by the law of that state.

13. Dispute Resolution.

(a) To ensure the timely and economical resolution of disputes that arise in connection with this Agreement, Executive and the Company agree that any and all disputes, claims, or causes of action arising from or relating to the enforcement, breach, performance or interpretation of this Agreement, Executive's employment, or the termination of Executive's employment, shall be resolved to the fullest extent permitted by law by final, binding and confidential arbitration, by a single arbitrator, in San Mateo County, California, conducted by Judicial Arbitration and Mediation Services, Inc. ("JAMS") under the applicable JAMS employment rules. **By agreeing to this arbitration procedure, both Executive and the Company waive the right to resolve any such dispute through a trial by jury or judge or administrative proceeding**. The arbitrator shall: (i) have the authority to compel adequate discovery for the resolution of the dispute and to award such relief as would otherwise be permitted by law; and (ii) issue a written arbitration decision, to include the arbitrator's essential findings and conclusions and a statement of the award. The arbitrator shall be authorized to award any or all remedies that Executive or the Company would be entitled to seek in a court of law. The Company shall pay all JAMS' arbitration fees in excess of the amount of court fees that would be required if the dispute were decided in a court of law. Nothing in this Agreement is intended to prevent either Executive or the Company from obtaining injunctive relief in court to prevent irreparable harm pending the conclusion of any such arbitration. Notwithstanding the foregoing, Executive and the Company each have the right to resolve any issue or dispute over intellectual property rights by Court action instead of arbitration.

14. Miscellaneous Provisions.

(a) Section 409A. Notwithstanding any provision to the contrary in this Agreement, if Executive is deemed by the Company at the time of Executive's Separation from Service to be a "specified employee" for purposes of Section 409A(a)(2)(B)(i) of the Code, to the extent delayed commencement of any portion of the benefits to which Executive is entitled under this Agreement is required in order to avoid a prohibited distribution under Section 409A(a)(2)(B)(i) of the Code, such portion of Executive's benefits shall not be provided to Executive prior to the earlier of (i) the expiration of the six-month period measured from the date of the Executive's Covered Termination or termination of employment due to Disability or (ii) the date of Executive's death. Upon the first business day following the expiration of the applicable Code Section 409A(a)(2)(B)(i) period, all payments deferred pursuant to this Section 14(a) shall be paid in a lump sum to Executive, and any remaining payments due under the Agreement shall be paid as otherwise provided herein.

(b) Waiver. No provision of this Agreement shall be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by Executive and by an authorized officer of the Company (other than Executive). No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(c) Whole Agreement. This Agreement and the Confidential Information Agreement represent the entire understanding of the parties hereto with respect to the subject matter hereof and supersede all prior arrangements and understandings regarding same.

(d) Choice of Law. The validity, interpretation, construction and performance of this Agreement shall be governed by the laws of the State of California.

(e) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement shall not affect the validity or enforceability of any other provision hereof, which shall remain in full force and effect.

(f) Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together will constitute one and the same instrument.[Signature page follows]

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, as of the day and year set forth below.

CODEXIS, INC.

By: /s/Stephen Dilly

Name: Stephen Dilly
Title: President and CEO
Date:

EXECUTIVE

/s/ Kevin Norrett____
Kevin Norrett
Date: 9/12/2022

ENZYME SUPPLY AGREEMENT

THIS ENZYME SUPPLY AGREEMENT, including the exhibits attached hereto (the "**Agreement**"), effective as of October 30, 2021 (the "**Effective Date**"), is made and entered into by and between **Codexis, Inc.**, a Delaware corporation, having a place of business at 200 Penobscot Drive, Redwood City, California 94063, United States of America ("**Codexis**"), and Pfizer Ireland Pharmaceuticals, an Irish corporation, with its principal place of business at Operations Support Group, Ringaskiddy, Cork, Ireland, and its Affiliates ("**Pfizer**"). Codexis and Pfizer each may be referred to herein individually as a "**Party**," or collectively as the "**Parties.**"

WHEREAS, Codexis has proprietary rights in certain enzymes, chemical synthesis and biocatalysis process technology, and possesses certain valuable business and/or technical knowledge, information, and/or expertise, relating to enzymatically catalyzed manufacturing processes;

WHEREAS, Pfizer and its Affiliates are engaged in the business of manufacturing and supplying pharmaceutical ingredients and intermediates thereof and has proprietary rights in certain compounds, including the Intermediate and the Product, methods of manufacturing the Intermediate and the Product and methods of use of the Intermediate and the Product; and

WHEREAS, Codexis desires to supply Codexis Enzyme to Pfizerand its Affiliates, and Pfizer desires to use (whether through itself, its Affiliates or Pfizer Designees) such Codexis Enzyme in the manufacture and supply of Intermediate for use by Pfizer and its Affiliates in the manufacture and supply of Product to customers in the Territory, as more fully set forth in this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and obligations set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. DEFINITIONS

1.1 **"Accounting Standards"** means IFRS or U.S. GAAP, as applicable.

1.2 **"Acquisition Cost"** shall mean Pfizer's or it's Affiliate's [***], payable to Codexis during the Quarter for which the Acquisition Cost is being measured, to acquire a kilogram of Codexis Enzyme from either a Qualified Enzyme Manufacturing Facility (pursuant to Section 4.3(a)) or a Third Party Enzyme Manufacturing Facility (pursuant to Section 4.3 (c)) under a Technology Transfer for use by Pfizer and its Affiliates in the manufacture of Intermediate for use in the manufacture of Product, as such actual average cost is calculated in accordance with the Accounting Standards, consistently applied.

1.3 "**[***]**" [***].

1.4 "**[***] Facility**" means, [***], the Qualified Enzyme Production Facility owned by [***] and located at [***].

1.5 **"Affiliate"** shall mean any entity that is controlled by, controls, or is under common control with a Party on or after the Effective Date, as the case may be. For purposes of this Section 1.5, the term "control" means (a) direct or indirect ownership of more than fifty percent (50%) of the voting interest in the entity in question, or more than fifty percent (50%) interest in the income of the entity in question; provided, however, that, if local law requires a minimum percentage of local ownership of greater than fifty

percent (50%), control will be established by direct or indirect beneficial ownership of one hundred percent (100%) of the maximum ownership percentage that may, under local law, be owned by foreign interests, or (b) possession, directly or indirectly, of the power to direct or cause the direction of management or policies of the entity in question (whether through ownership of securities or other ownership interests, by contract or otherwise).

1.6 "Agency" shall mean any applicable local, national or supranational Government Authority involved in granting approvals for the manufacturing, marketing and/or pricing of Product.

1.7 "Applicable Law" shall mean all international, supranational, national, federal, state, provincial, regional and local laws, statutes, ordinances, codes, rules, regulations, orders, decrees or other pronouncements of any governmental, administrative or judicial authority having the effect of law, including, without limitation, Environmental Laws, and Global Trade Control Laws, in each case to the extent that the same are applicable to the performance by the Parties of their respective obligations under this Agreement.

1.8 "[***]" [***].

1.9 "Calendar Year " shall mean any twelve (12) consecutive month period commencing on January 1 and ending December 31 during the Term. For example, Calendar Year 2022, for purposes of this Agreement, shall mean the period from January 1, 2022 through December 31, 2022.

1.10 "Claims" shall have the meaning set forth in Section 12.1.

1.11 "Codexis Enzyme" shall mean Codexis' proprietary CDX-616 lyophilized enzyme powder.

1.12 "Codexis Enzyme Technology" shall mean (a) the Licensed Patents, and (b) know-how and other information further to the Licensed Patents required to implement the manufacturing process of making Codexis Enzyme [***].

1.13 "Codexis Inventions" shall have the meaning set forth in Section 10.1.

1.14 "Codexis Rolling Forecast" shall have the meaning set forth in Section 2.4.

1.15 "Codexis Technology" shall mean (a) the Licensed Patents, and (b) know-how and other information further to the Licensed Patents required to implement the manufacturing process of making Intermediate from the Codexis Enzyme as described in [***].

1.16 "Confidential Information" shall mean any information of a confidential and/or proprietary nature, including without limitation the data, results, inventories, know-how, processes, machines, methods, developments, compositions of matter, inventions, invention disclosures, patent applications, proprietary materials and/or techniques, economic information, business or research strategies, purchase orders (and any information included therein), trade secrets, or other information of any type or kind, and material embodiments thereof, disclosed by a Party, either directly or indirectly to the other Party in written form marked "confidential," or in oral form if designated as

"confidential" at the time of disclosure, or which, under the circumstances of disclosure, is reasonably apparent to be confidential.

1.17 "Conflict Minerals" means (a) cassiterite, columbite-tantalite (coltan), gold, wolframite, and the derivatives tantalum, tin and tungsten, and (b) any other mineral or its derivatives designated (i) by the U.S. Secretary of State as a Conflict Mineral for purposes of Rule 13p-1 under the Securities Exchange Act of 1934, as amended, or (ii) under any other conflict minerals regime to which Pfizer may become subject, in each case irrespective of the location of origin of the mineral or derivative metal.

1.18 "Control" shall mean, with respect to an item, information or intellectual property right, possession of the ability, whether arising by ownership or license, to grant a license or sublicense as provided for herein under such item, information or intellectual property right without violating the terms of a written agreement with any Third Party.

1.19 "Environmental Laws" means all laws or other legal requirements of any kind, whether currently in existence or hereafter promulgated, enacted, adopted or amended, relating to (i) safety (including occupational health and safety); (ii) pollution, conservation, preservation or protection of human health, drinking water, natural resources, biota and the environment; (iii) the introduction of any chemical substances, products or finished articles into the stream of commerce; (vi) the imposition of any discharge levy or other economic instrument to prevent or reduce discharge or Release of pollutants or Hazardous Materials; (v) the conduct of environmental impact assessment in connection with the design, development and operation of any facility or project; (vi) the notification, classification, registrations and labeling of new chemical substances; and/or (vii) the generation, use, storage, handling, treatment, transportation or disposal of Waste including without limitation any matters related to Releases or threatened Releases of Hazardous Materials.

1.20 "Environmental Losses" means any and all fines, penalties, costs, liabilities, damages or losses incurred by Pfizer or an Affiliate of Pfizer, or for which Pfizer or an Affiliate of Pfizer is liable or obligated pursuant to or in connection with any Environmental Law or Release or threatened Release of Hazardous Materials (i) arising out of the operation or ownership of Qualified Enzyme Manufacturing Facilities supplying Codexis Enzyme to Codexis or (ii) relating to, arising from, or in any way connected with testing, manufacture, packaging, generation, processing, storage, transportation, distribution, treatment, disposal or other handling of the Codexis Enzyme or materials used in the manufacture, packaging, handling or storage of the Codexis Enzyme, or associated by-products, raw materials, intermediates, Wastes or returned Codexis Enzyme, by Codexis, Affiliates of Codexis, or subcontractors of Codexis or such subcontractor's Affiliates, or their respective officers, directors, employees, agents or contractors.

1.21 "Enzyme Specification(s)" shall have the meaning set forth in Section 2.6.

1.22 "Excluded List(s)" means the Department of Health and Human Service's List of Excluded Individuals/Entities and the General Services Administration's Lists of Parties Excluded from Federal Procurement and Non-Procurement Programs**.**

1.23 "Existing Order" shall have the meaning set forth in Section 2.5(a).

1.24 "FD&C Act" means the United States Federal Food, Drug and Cosmetic Act and regulations promulgated thereunder, as each may be amended from time to time.

1.25 "Global Trade Control Laws" shall mean applicable economic sanctions, import, and export control laws, regulations, and orders.

1.26 "Government Authority" shall mean any supranational, national, regional, state or local government, court, governmental agency, authority, board, bureau, instrumentality, regulatory body, or other government entity, including without limitation any of the foregoing that is involved in the granting of approvals, licenses, registrations, or authorizations including but not limited to Regulatory Authority.

1.27 "**Government Official**" shall be broadly interpreted and means: (i) any elected or appointed non-U.S. Government official (e.g., a legislator or a member of a non-U.S. Government ministry); (ii) any employee or individual acting for or on behalf of a non-U.S. Government official, non-U.S. Government agency, or enterprise performing a function of, or owned or controlled by, a non-U.S. Government (e.g., a healthcare professional employed by a non-U.S. Government hospital or researcher employed by a non-U.S. Government university); (iii) any non-U.S. political party officer, candidate for non-U.S. public office, or employee or individual acting for or on behalf of a non-U.S. political party or candidate for public office; (iv) any employee or individual acting for or on behalf of a public international organization; (v) any member of a royal family or a member of a non-U.S. military, and (vi) any individual otherwise categorized as a Government Official under applicable Law.

1.28 "Hazardous Materials" means any and all materials (including without limitation substances, chemicals compounds, mixtures, products, byproducts, biologic agents, living or genetically modified materials, wastes, pollutants and contaminants), that (A) (i) are listed, classified, characterized or regulated pursuant to Environmental Laws; (ii) are identified, defined, or classified as "hazardous," "dangerous," "toxic," "pollutant," "contaminant," "waste," "irritant," "corrosive," "flammable," "radioactive," "reactive," "carcinogenic," "mutagenic," "bio-accumulative," or "persistent" in the environment; or (iii) harm, endanger or cause injury to human health, natural resources or the environment; or (B) petroleum products and their derivatives, asbestos-containing material, lead-based paint, polychlorinated biphenyls, urea formaldehyde, or viral, bacterial or fungal material.

1.29 "IFRS" shall mean International Financial Reporting Standards, consistently applied.

1.30 "Initial Term" shall have the meaning set forth in Section 11.1.

1.31 "Intermediate" shall mean methyl (1*R*,2*S*,5*S*) 6,6-dimethyl-3-azabicyclo[3.1.0]hexane-2-carboxylate hydrochloride (CAS # 565456-77-1) (Pfizer Identifier: PF-04349713-01).

1.32 "[***] **Facility**" shall mean the manufacturing facility owned by Pfizer or its Affiliates which has been Qualified to manufacture Codexis Enzyme for Pfizer and its Affiliates under a Technology Transfer and is located [***].

1.33 "[***]" [***].

1.34 "[***] Facility" means the Qualified Enzyme Manufacturing Facility owned by [***] and located at [***].

1.35 "**Latent Defect**" means defects in the Codexis Enzyme which are not readily discoverable based on, as applicable, Pfizer's, Pfizer Affiliates' or Pfizer Designees' normal incoming-goods inspections.

1.36 **"Licensed Patents"** means those patents listed at Exhibit 1.36.

1.37 **"Marketing Authorization"** shall mean, with respect to any country in the Territory, a marketing authorization or similar, registration or certification necessary to market Product in such country.

1.38 **"Minimum Order Quantity"** shall have the meaning set forth in Section 2.5(b).

1.39 **"[***]"** shall mean that certain [***].

1.40 **"New Order"** shall have the meaning set forth in Section 2.5(e).

1.41 **"New Qualified Enzyme Manufacturing Facility"** shall mean any new Qualified Enzyme Manufacturing Facility ([***]) that is Qualified after the Effective Date to manufacture and supply Codexis Enzyme for supply by Codexis to Pfizer and its Affiliates.

1.42 **"Order"** shall mean a binding commitment in writing through issuance of a purchase order, made by Pfizer or its Affiliates, to purchase a specified amount of Codexis Enzyme from Codexis. Orders may be either **Existing Orders** or **New Orders**.

1.43 **"Pfizer Designee'** shall mean a Third Party who is under written contract with either Pfizer or an Affiliate of Pfizer to perform one or more manufacturing activities in respect of manufacture of the Intermediate on behalf of Pfizer or its Affiliates. Pfizer Designee(s) are shown in Exhibit 1.43 which may be updated from time to time upon prior written notification by Pfizer to Codexis, subject to Codexis' approval within thirty days of receipt (such approval not to be unreasonably withheld and approval to be considered as given in absence of any negative response within such thirty days).

1.44 **"Pfizer Rolling Forecast"** shall have the meaning set forth in Section 2.4.

1.45 **"Third Party Enzyme Manufacturing Facility"** shall mean a Third Party manufacturing facility (other than a Qualified Enzyme Manufacturing Facility) which is under written contract with Pfizer or an Affiliate of Pfizer to manufacture and supply Codexis Enzyme to Pfizer and its Affiliates under a Technology Transfer.

1.46 **"Product"** shall mean (1R,2S,5S)-N-{(1S)-1-cyano-2-[(3S)-2-oxopyrrolidin3-yl]ethyl}-6,6-dimethyl-3-[3-methyl-N-(trifluoroacetyl)-L-valyl]-3-azabicyclo[3.1.0]hexane-2-carboxamide ("nirmatrelvir") (CAS # 2628289040-8) (Pfizer Identifier: PF-07321332).

1.47 **"Qualified,"** and the correlative terms "Qualification,", "Qualify" and "Qualifying," shall mean, in relation to a facility seeking to manufacture Codexis Enzyme under this Agreement, a facility meeting the then required standards for quality and quality assurance established by Codexis for the manufacture of Codexis Enzyme, which has produced, at commercially relevant scale, Codexis Enzyme which meets the Enzyme Specification and which Codexis Enzyme has been tested by Pfizer, its Affiliates and/or its Pfizer Designee manufacturing Intermediate for Pfizer and confirmed in writing

(e-mail being acceptable) by Pfizer as acceptable for use in the manufacture of Intermediate.

1.48 "Qualified Enzyme Manufacturing Facility" shall mean a manufacturing facility that has been Qualified to manufacture and supply Codexis Enzyme for supply by Codexis to Pfizer and its Affiliates. Qualified Enzyme Manufacturing Facilities include the [***] Facility and, [***], the [***] Facility and any New Qualified Enzyme Manufacturing Facility.

1.49 "Quarter" shall mean each of the three consecutive calendar months ending March 31, June 30, September 30, and December 31.

1.50 "**Regulatory Authority**" means the FDA with respect to the United States and the corresponding agencies or authorities responsible for regulation of the Product with respect to jurisdictions in the applicable country in the Territory other than the United States where the Product is to be marketed and sold.

1.51 "Release" means the release, spill, emission, leaking, pumping, pouring, emptying, escaping, dumping, injection, deposit, disposal, discharge, dispersal, leaching or migration into the indoor or outdoor environment, including the uncontrolled presence or the movement of Hazardous Materials through the ambient air, soil, subsurface water, groundwater, wetlands, lands or subsurface strata or threat thereof.

1.52 "Renewal Term" shall have the meaning set forth in Section 11.1.

1.53 "Restricted Market(s)" for purposes of this Agreement means the Crimean Peninsula, Cuba, the Donbass Region, Iran, North Korea, and Syria, or any other country or region subject to sanctions by the United States or European Union.

1.54 "Restricted Party(ies)" for purposes of this Agreement means the means an individual or entity on the list of sanctioned entities maintained by the United Nations; the Specially Designated Nationals List and the Sectoral Sanctions Identifications List of the U.S. Treasury Department's Office of Foreign Assets Control; the U.S. Denied Persons List, the U.S. Entity List, and the U.S. Unverified List of the U.S. Department of Commerce; entities subject to restrictive measures and the Consolidated List of Persons, Groups and Entities Subject to E.U. Financial Sanctions, as implemented by the E.U. Common Foreign and Security Policy; the List of Excluded Individuals / Entities published by the U.S. Health and Human Services Office of Inspector General; any lists of prohibited or debarred parties established under the U.S. Federal Food Drug and Cosmetic Act; the list of parties suspended or debarred from contracting with the U.S. government; and similar lists of restricted parties maintained by the governmental entities of the countries that have jurisdiction over the activities conducted under this Agreement.

1.55 "**Retest Date**" means for each lot of the Codexis Enzyme the required retest date as specified on the CoA of such lot, and "**Retest Period**" shall mean the period from delivery of the Enzyme until the first Retest Date and subsequent to the first Retest Date the period between Retest Dates.

1.56 "Section 4.3 Replacement Quantities" means those quantities of Codexis Enzyme (i) which are purchased by or for Pfizer or its Affiliates directly from a Qualified Enzyme Manufacturing Facility (pursuant to Section 4.3(a)), (ii) self-manufactured by Pfizer (or Pfizer Inc.) at the [***] Facility (pursuant to Section 4.3(b)), or (iii) sourced by Pfizer or its Affiliates from a Third Party Enzyme Manufacturing Facility (pursuant to Section 4.3(c)).

1.57 **"Section 4.6(a) Use Fee"** shall have the meaning set forth in Section 4.6(a).

1.58 **"Section 4.6(b) Use Fee"** shall have the meaning set forth in Section 4.6(b).

1.59 **"Services"** means the manufacturing, testing, and packaging of Codexis Enzyme to the applicable Enzyme Specification.

1.60 **"Technology Transfer"** shall mean a technology transfer (pursuant to Section 4.5 or Section 5.4) by Codexis of technology and know-how reasonably necessary for the manufacture of the Codexis Enzyme at the [***] Facility or at a Third Party Enzyme Manufacturing Facility.

1.61 **"Term"** shall have the meaning set forth in Section 11.1.

1.62 **"Territory"** shall mean all of the countries of the world.

1.63 **"Third Party"** (and with its correlative meaning, "**Third Parties**") shall mean any party other than Codexis, Pfizer, or an Affiliate of either Codexis or Pfizer.

1.64 **"Trigger Event"** means (a) any failure by Codexis to supply the quantities of Codexis Enzyme which are the subject of an Existing Order or an accepted New Order [***] or (b) the good faith belief by Codexis that it will not be capable of supplying the quantities of Codexis Enzyme which are the subject of an Existing Order on or before the delivery date(s) set forth in the Existing Order [***] or (c) the good faith belief by Codexis that it is not capable during any [***] period of supplying to Pfizer or its Affiliates a cumulative quantity of Codexis Enzyme equivalent to [***].

1.65 **"U.S."** means the 50 States of the United States of America, the District of Columbia, and U.S. territories.

1.66 **"U.S. GAAP"** means United States generally accepted accounting principles, consistently applied.

1.67 **"Waste"** means all wastes which arise from the manufacture, handling or storage by Codexis, Affiliates of Codexis, or subcontractors of Codexis or such subcontractor's Affiliates, or their respective officers, directors, employees, agents or contractors, of the Codexis Enzyme hereunder, or which is otherwise produced through the operations of Codexis, Affiliates of Codexis, or subcontractors of Codexis or such subcontractor's Affiliates, or their respective officers, directors, employees, agents or contractors. or such through implementation of this Agreement including Hazardous Materials.

2. ENZYME SUPPLY

2.1 **Codexis Enzyme Supply.** Subject to the terms and conditions of this Agreement, Codexis shall supply Codexis Enzyme to Pfizer, its Affiliates and the Pfizer Designees in accordance with Orders placed by Pfizer or its Affiliates, and Pfizer shall purchase from Codexis, and cause Pfizer's Affiliates to purchase from Codexis, all of Pfizer's, its Affiliates' and the Pfizer Designees' requirements for Codexis Enzyme, for use in the manufacture of Intermediate by or for Pfizer, its Affiliates or the Pfizer

Designees for use in the manufacture and sale of Product in the Territory during the Term.

2.2 Terms and Conditions. All supply of Codexis Enzyme by Codexis to Pfizer, its Affiliates and, under Orders placed by Pfizer or its Affiliates, the Pfizer Designees, shall be subject to the terms and conditions of this Agreement. Any terms of any Order or acknowledgement given or received which are inconsistent with this Agreement given by either Party shall have no effect, and such terms are hereby excluded and rejected.

2.3 Restricted Rights. Codexis Enzyme transferred to Pfizer, its Affiliates and the Pfizer Designees (under Orders placed by Pfizer or its Affiliates) under this Agreement is intended to be used solely for the manufacture of Intermediate by or on behalf of Pfizer, its Affiliates and the Pfizer Designees for use in the manufacture and sale of Product in the Territory in accordance with the terms and conditions of this Agreement. Codexis Enzyme transferred to Pfizer, its Affiliates and the Pfizer Designees under this Agreement is not intended for use as a biocatalyst for other chemical reactions. [***]. Any other distribution, use, or other exploitation of Codexis Enzyme not in accordance with this Agreement shall be considered to be unlicensed and are hereby prohibited. Pfizer, its Affiliates and the Pfizer Designees shall not transfer any Codexis Enzyme to any Third Party (except to a Pfizer Designee, in which event Pfizer shall ensure that such Pfizer Designee complies with Pfizer's obligations under this Section 2.3, Section 2.8, Section 2.9, Section 2.14, Section 10.1 and Article 8). Pfizer, its Affiliates and the Pfizer Designees shall not manufacture Codexis Enzyme or acquire Codexis Enzyme from any Third Party, except as otherwise provided in the Agreement.

2.4 Forecasts. [***]. Therefore, [***], Pfizer agrees to provide to Codexis [***] a written (e-mail is acceptable), good faith, non-binding, rolling forecast of Pfizer's, its Affiliates' and the Pfizer Designees' anticipated demand for quantities (in kg) of Codexis Enzyme ("**Pfizer Rolling Forecast**") for the upcoming [***] and Codexis agrees to provide to Pfizer [***] a written (e-mail is acceptable), good faith, non-binding, rolling forecast of Codexis' anticipated production capacity (in kg) for Codexis Enzyme which is available to Pfizer ("**Codexis Rolling Forecast**") for the upcoming [***]. The Pfizer Rolling Forecast and the Codexis Rolling Forecast will be delivered to the other Party not later than [***] after the start of the first Quarter of the [***] forecast period and shall be updated as significant changes occur. See also Exhibit 3.1 for requirements for a separate annual forecast for pricing purposes.

2.5 Orders.

(a) Existing Orders. As of May 18, 2022, Pfizer or its Affiliates have placed with Codexis firm, binding, and non-cancelable written purchase orders for Codexis Enzyme as shown in Exhibit 2.5(a) ("**Existing Orders**"). The Existing Orders have been accepted by Codexis and at the time of acceptance constituted firm, binding and non-cancelable purchase and sale obligations on the part of Codexis and Pfizer or its Affiliates.

(b) Existing Non-Cancelable Orders. As of the Effective Date, the Existing Orders listed in Exhibit 2.5(b) ("**Existing Non-Cancelable Orders**") continue to constitute firm, binding, and non-cancelable purchase and sale obligations on the part of Codexis and Pfizer or its Affiliates. The Existing Non-Cancelable Orders may not be changed or canceled.

(c) Existing Canceled Orders. As of the Effective Date, and subject to the provisions of Section 2.5(d), the Existing Orders listed in Exhibit 2.5(c) ("**Existing Canceled Orders**") are, by mutual agreement of Codexis and Pfizer or its Affiliates, canceled and no longer constitute firm, binding, and non-cancelable purchase obligations on the party of Codexis and Pfizer or its Affiliates.

(d) Retainer Fee.

(i) In consideration for cancelation of the Existing Canceled Orders, Pfizer shall pay to Codexis the following mutually agreed, non-refundable, non-creditable (except as provided in Section 2.5(d)(ii) and Section 2.5(d)(iii)) retainer fee (not as a penalty):

Retainer Fee for [***] ("**Retainer Fee")**	**US$25,880,000.00**

Codexis shall invoice Pfizer for the Retainer Fee within [***] of the Effective Date. Pfizer shall ensure the Retainer Fee payment is received by Codexis full by [***].

(ii) A total of 90% of the Retainer Fee paid by Pfizer to Codexis as provided in Section 2.5(d)(i) (i.e., US$23,292,000.00) ("**Creditable Amount**") is creditable against:

(a) [***] of the Adjusted Enzyme Price of any New Order(s) (as defined in Section 2.5(e)) placed by Pfizer or its Affiliates with and accepted by Codexis with a scheduled ship date (as reflected on the New Order) prior to December 31, 2023; and

(b) [***] of any fees invoiced by Codexis to Pfizer during the period January 1, 2022 through December 31, 2023 under mutually acceptable, executed, written definitive collaborative development(s)/licensing agreement(s) (not including this Agreement) executed by Codexis and Pfizer from the Effective Date through December 31, 2022. For clarity, such agreements may include standalone purchase orders.

(i) A total of 50% of any portion of the Retainer Fee which has not been credited after the issuance of credits pursuant to Section 2.5(d)(ii) is creditable against the Adjusted Enzyme Price of any New Order(s) (as defined in Section 2.5(e)) placed by Pfizer or its Affiliates with and accepted by Codexis with a scheduled ship date (as reflected on the New Order) between January 1, 2024 and December 31, 2024.

(ii) Any portion of the Retainer Fee which had not been credited in the manner specified in Section 2.5(d)(ii) or Section 2.5(d)(iii) is non-creditable and non-refundable and will be retained by Codexis.

(e) New Orders. At any time during the Term, Pfizer or its Affiliates may place with Codexis a new written purchase order for Codexis Enzyme ("**New Order**"). Pfizer and its Affiliates are under no obligation to place New Orders. Unless otherwise agreed in writing (e-mail is acceptable), all New Orders shall be for a minimum of [***] of Codexis Enzyme and shall be in full lot quantities packaged in [***] ("**Minimum Order Quantity**").

(f) New Orders Acceptance. For New Orders which are for delivery of a quantity of Codexis Enzyme [***] and which [***], Codexis shall be deemed to have accepted the New Order. For New Orders which do not (i) [***] or which (ii) when the quantity of Codexis Enzyme which is the subject of the New Order is [***] and then existing New Orders then in place [***], Codexis shall have the right [***] to reject the New Order [***], in which case Codexis and Pfizer and its Affiliates shall work together in good faith to establish alternative delivery date(s) and/or alternative order quantities which can be accepted by Codexis. Once accepted by Codexis, each New Order shall

become a firm, binding and non-cancelable purchase and sale obligation on the part of Codexis and Pfizer and its Affiliates and may not be changed or canceled except by mutual written consent. Each New Order shall specify the following:

1. [***];
2. [***];
3. [***]; and
4. [***].

(g) Form of Order. All New Orders shall be governed by the terms and conditions of this Agreement and any term or condition set forth in a New Order or acknowledgement that would materially amend or supplement the terms and conditions of this Agreement is rejected and without effect. All of Pfizer's and its Affiliates' orders for Codexis Enzyme shall be made pursuant to such written New Order form and shall provide for shipment in compliance with Section 2.8.

2.1 Enzyme Specification. Codexis shall manufacture and supply Codexis Enzyme in accordance with the Enzyme Specification (the "**Enzyme Specification(s)**") attached under **Exhibit 2.6**. The Parties may amend the Enzyme Specification(s) from time to time [***]. Codexis Enzyme shall be manufactured in accordance with appropriate quality controls, as may be mutually agreed upon by the Parties in a separate written Quality Agreement. Upon mutual execution of any Quality Agreement, such Quality Agreement shall be incorporated as an addendum to this Agreement. [***].

2.2 Retest Period. Except with the prior written consent of Pfizer, Codexis shall not make any delivery of Codexis Enzyme (i) [***] prior to the delivery date of the Codexis Enzyme to Pfizer, its Affiliates or Pfizer Designees, and (ii) for which the Retest Date is less than [***] after the delivery date of the Codexis Enzyme to Pfizer, its Affiliates or Pfizer Designees. Pfizer, its Affiliates and the Pfizer Designees shall have the right to refuse delivery of any Codexis Enzyme which does not meet the requirements of this Section 2.7. With Pfizer's consent, which will not be unreasonably withheld or delayed, Codexis will have the right to [***].

2.3 Delivery and Storage of Codexis Enzyme. Subject to Section 2.5, Codexis shall deliver to Pfizer, the Pfizer Affiliates or the Pfizer Designees the amount of Codexis Enzyme specified in each New Order no later than the date(s) specified therein. All Codexis Enzyme shall be shipped by Codexis [***]. Codexis shall provide any documentation required for shipment of Codexis Enzyme ([***]). Pfizer, its Affiliates and the Pfizer Designees shall store, handle and maintain the Codexis Enzyme in accordance with storage instructions as determined by Codexis (currently [***]), which storage instructions may be amended from time to time by Codexis in advance in writing. Pfizer, its Affiliates and the Pfizer Designees shall bear any and all costs from failure to comply with such storage instructions, including without limitation any payments required for additional quantities of Codexis Enzyme purchased by Pfizer or its Affiliates due to such failure.

2.4 Inspection. Prior to shipment of any Codexis Enzyme, Codexis and/or any Third Party referenced in Section 2.15 shall test and inspect such shipment to ensure compliance with the applicable Enzyme Specification. Upon receipt of shipment of Codexis Enzyme, Pfizer, Pfizer Affiliate(s) or Pfizer Designee(s) shall inspect such Codexis Enzyme for compliance with the applicable Enzyme Specification for such Codexis Enzyme corresponding to such shipment. Pfizer or Pfizer Affiliate shall inform Codexis of the result of the inspection, including any claim with respect to all or part of a shipment, in writing within [***] after the receipt of such shipment of Codexis Enzyme.

In the event that Codexis receives a written notice of claim from Pfizer or Pfizer Affiliate, which notice must include sufficient detail identifying the basis for claim, the Parties shall determine if such claim is proper pursuant to the dispute resolution mechanism set forth in Section 2.13 and shall enter into good faith discussions regarding supply of replacement quantities of Codexis Enzyme during the dispute resolution process. If Pfizer or Pfizer Affiliate fails to notify Codexis in writing of a claim (other than for Latent Defects in the Codexis Enzyme) within such [***] period, Pfizer's or Pfizer Affiliates' right to submit a claim for the shipment for any basis that would have been discoverable through an inspection will be deemed to have been waived. Where any failure of Codexis Enzyme to conform to applicable Enzyme Specification(s) is not readily discoverable based on Pfizer's, it's Affiliates', or Pfizer Designee(s)' normal incoming-goods inspections but is a Latent Defect, Pfizer or Pfizer Affiliate(s) shall have the right to submit a claim with respect to all or part of a shipment within [***], but in no event later than the last day of the then current Retest Period for such shipment of Codexis Enzyme.

2.5 Refund, Replacement of Non-conforming Codexis Enzyme

Pfizer, Pfizer Affiliates or Pfizer Designee(s) may return to Codexis at Codexis' expense any Codexis Enzyme rejected pursuant to Section 2.9 and which is not subject to a disputed claim under Section 2.13. [***], Codexis shall, [***]: (i) replace any Codexis Enzyme rejected by Pfizer or Pfizer Affiliates, at no additional cost to Pfizer or its Affiliates, as soon as reasonably practicable [***]; or (ii) provide a credit or refund to Pfizer or its Affiliates for the full amount invoiced to Pfizer for such Codexis Enzyme, which shall be credited or refunded (as the case may be) to Pfizer or its Affiliates within [***].

2.6 Root Cause Analysis. Upon notice by Pfizer or its Affiliates to Codexis that the Codexis Enzyme does not conform to the Enzyme Specifications or has Latent Defects, Codexis shall use commercially reasonable efforts to promptly and diligently: (i) investigate and attempt to determine the root cause of such non-conformance or defect; (ii) undertake corrective action; and (iii) at all times keep Pfizer or its Affiliates promptly information of such investigation and the progress of such corrective action. If a root cause is determined, then Codexis shall promptly notify and report the results to Pfizer or its Affiliates, and Codexis and Pfizer or its Affiliates will cooperate in good faith on a corrective action plan.

2.7 Change Control. [***].

2.8 Disputes. If Codexis disputes Pfizer's or Pfizer Affiliates conclusion to submit a claim with respect to all or part of any shipment of any Codexis Enzyme as set forth in Section 2.10, Codexis shall notify Pfizer or Pfizer Affiliates within [***] after receipt of Pfizer's or Pfizer Affiliates written notice of such rejection. Such dispute shall be resolved by a Third Party within [***] of such notice by Codexis. Such Third Party shall have expertise in the [***], the identity of whom shall be mutually agreed upon by the Parties, and the appointment of whom shall not be unreasonably delayed or conditioned by either Party. The determination of such Third Party with respect to all or part of any shipment of any Codexis Enzyme shall be final and binding upon the Parties and shall be strictly limited to the determination of the financial liability set forth in this Section 2.13. If such Third Party determines that Pfizer's or Pfizer Affiliates claim with respect to the shipment or part thereof was: (x) proper, then [***], Codexis shall replace such shipment or reimburse or credit to Pfizer or Pfizer Affiliates, Pfizer's or Pfizer Affiliates direct costs and expenses associated with the nonconforming Codexis Enzyme; or (y) not proper, then no refund or credit shall be due to Pfizer or Pfizer Affiliates. The fees and expenses of such Third Party shall be paid by [***]. [***].

2.9 Use of Codexis Enzymes.

(h) Except as expressly set forth in this Agreement, and only insofar as it relates to Codexis Enzymes in their actual possession, custody or control, Pfizer and its Affiliates will not, and will cause Pfizer Designees to not, without the prior written consent of Codexis, (i) extract information from, reverse engineer, deconstruct, disassemble, sequence or in any way determine, or attempt to extract information from, reverse engineer, deconstruct, disassemble, sequence or in any way determine, the biological, chemical or physical structure or composition of any of the Codexis Enzyme or its components; (ii) copy, alter, immobilize, stabilize, add to, alter, modify or otherwise design or create any derivative of Codexis Enzyme or its components; or (iii) transfer any Codexis Enzyme or its respective components, or sequence information pertaining thereto, to a Third Party (except as expressly provided for under Section 2.3) or otherwise sublicense or subcontract any of its rights or obligations under this Agreement to any Third Party in a manner not permitted hereunder.

(i) [***].

2.6 Third Party Contractors. Codexis may, with the prior written consent of Pfizer, which consent will not be unreasonably withheld or delayed, satisfy its supply obligations to Pfizer and its Affiliates under this Agreement either in whole or in part through arrangements with Third Parties engaged to perform services or supply facilities or goods in connection with the manufacture, testing, and/or packaging of Codexis Enzyme; provided, that Codexis shall remain responsible for the actions of such Third Parties and for compliance with its obligations under this Agreement. Pfizer and its Affiliates recognize that the [***] Facility is currently Codexis' Qualified Enzyme Manufacturing Facility for the Codexis Enzyme and, subject to the terms and conditions set forth herein, including without limitation this Section 2.15, Pfizer and its Affiliates accept the use of the [***] Facility as a Qualified Enzyme Manufacturing Facility. Codexis shall, and shall cause all Third Party contractors, including without limitation [***], to perform Services: (a) in a professional and good scientific manner, meeting the standards of diligence, safety, and skill customary in the field; (b) in compliance with all Applicable Laws; and (c) in compliance with this Agreement and any Quality Agreement between the Parties. Without limiting the foregoing, Codexis shall use its commercially reasonable efforts to complete the objectives and activities agreed upon between the Parties, and to achieve the milestones and meet the timelines and schedules agreed upon between the Parties. [***].

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3. PAYMENT; TAXES

3.1 Pricing. Pfizer and its Affiliates shall pay Codexis for Codexis Enzyme delivered hereunder as established in accordance with **Exhibit 3.1** of this Agreement. All deliveries are [***]. [***].

3.2 Invoicing. All invoices shall be sent to the address designated in the applicable purchase order, and shall include the following information: the applicable purchase order number and billing address; and shall also include, where applicable, the type, description, part number and quantity of the Codexis Enzyme shipped; the actual date of shipment; the prices; any applicable taxes, transportation charges or other charges provided for in the applicable purchase order; and the ship-to destination.

3.3 Payment. Codexis shall invoice Pfizer or the applicable Pfizer Affiliate upon [***]. Pfizer or the Pfizer Affiliate shall pay all undisputed amounts due within [***] from the date of receipt of the invoice by Pfizer or the Pfizer Affiliate. All payments made under this Agreement shall be made by direct wire transfer of United States Dollars in immediately available funds in the requisite amount to:

Bank Name: [***]
Bank Address: [***]
[***]
ABA#: [***]
Beneficiary: Codexis, Inc.
Account No.: [***]
SWIFT Code: [***]

or such other bank account as Codexis may from time to time designate in writing. If Pfizer or the Pfizer Affiliate disputes all or any portion of an invoice, Pfizer or its Affiliate shall notify Codexis promptly in writing of the amount and nature of the dispute and the Parties shall attempt to resolve the dispute in good faith. In the event of any unresolved dispute regarding an invoice, the Parties shall resolve the dispute in accordance with Section 13.4. Payment by Pfizer or its Affiliate shall not result in a waiver of any of its rights under this Agreement. [***].

3.4 Taxes.

(a) Each Party shall be responsible for its own taxes, duties, levies, imposts, assessments, deductions, fees, withholdings or similar charges imposed on or measured by net income or overall gross income (including branch profits), gross receipts, capital, ability or right to do business, payroll, property and franchise or similar taxes pursuant to applicable law.

(b) Pfizer and its Affiliates shall be entitled to withhold or deduct from any payment due to Codexis any taxes, fees, duties, charges, or similar payments as required by applicable laws, such payment shall decrease by an equivalent amount, and such withheld amount shall be treated as paid to Codexis. Pfizer and its Affiliates will provide to Codexis reasonable documentation that evidences Pfizer's payment of any tax on behalf of Codexis. The Parties agree, upon request, to use all reasonable efforts to obtain or provide any valid certificate, form, or other document or information from any governmental entity or any other person as may be necessary to lawfully withhold, report, mitigate, reduce or eliminate any tax that could be imposed on the payments contemplated by this Agreement. Codexis shall indemnify and hold harmless Pfizer for any withholding agent liability for withholding taxes, including interest and penalties thereon.

(c) Except as otherwise agreed to in writing by the Parties, all costs and prices are exclusive of any value added tax, ad valorem, goods and services or similar tax chargeable on the supply or deemed supply of goods or services, sales taxes, transaction taxes, consumption taxes and other similar taxes required by applicable law to be imposed on the sale of the Codexis Enzyme and borne by Pfizer or its Affiliates, including any interest, penalties or other additions to tax thereon required under applicable Law ("**VAT**"). If any VAT is so required, Pfizer or its Affiliates shall pay such VAT at the applicable rate in respect of any such payments following the receipt of a valid VAT invoice in the appropriate form issued by the payee in respect of those payments, such VAT to be payable on the later of the due date of the payment to which such VAT relates and [***] after the receipt by Pfizer or its Affiliates of the applicable

valid invoice relating to that VAT payment. If Codexis requires any Pfizer or its Affiliates location information in order to assess any VAT requirements, Codexis shall reasonably request such information from Pfizer or its Affiliates in advance of issuing such relevant valid invoices. Codexis hereby agrees to segregate and allocate VAT on each of its invoices, including between costs subject to VAT and amounts not subject to VAT. Pfizer and its Affiliates shall not be responsible for any penalties and interest resulting from the failure by the Codexis to collect (if not included on a timely and valid VAT invoice), report or remit any such VAT. Codexis shall provide notice to Pfizer or its Affiliates of the VAT it determines is required to be included on invoices, and the legal basis therefore, at least [***] prior to the first valid VAT invoice issued to Pfizer which include such determined VAT, or any changes to such determination, to provide Pfizer or its Affiliates a reasonable opportunity to furnish certificates, documentation or other information that would eliminate or minimize such VAT under applicable law. The Parties will reasonably cooperate to issue valid VAT invoices for all amounts due under this Agreement consistent with VAT requirements and to report, eliminate or minimize the amount of any such VAT imposed on the transactions contemplated in this Agreement, including the use of valid and sufficient certificates, documentation and other information under applicable law.

(d) Pfizer and its Affiliates shall be responsible for import VAT if Pfizer or its Affiliates are the importer of record of the Codexis Enzyme into the destination country.

3.
4. SECURITY OF SUPPLY

4.1 Efforts by Codexis. Codexis shall use all commercially reasonable efforts to supply Codexis Enzyme in accordance with Article 2. If Codexis encounters any issues in respect of supply or delivery, including but not limited to feasibility issues or scale-up issues, Codexis shall promptly notify Pfizer and its Affiliates, and the Parties shall work together in good faith to establish a timeline for supply and delivery of Codexis Enzyme by initiating supply from any Qualified Enzyme Manufacturing Facility.

4.2 Occurrence of a Trigger Event. Upon the occurrence of a Trigger Event, Codexis shall promptly notify Pfizer and its Affiliates in writing (e-mail is acceptable) of the details related to the Trigger Event and the failure or potential failure of Codexis to supply Codexis Enzyme under Order(s) which are the subject of a Trigger Event and Codexis' estimated timeline to correct the Trigger Event. In the event of a Trigger Event, Codexis shall use its best efforts to prioritize delivery to Pfizer and its Affiliates of quantities of Codexis Enzyme to be delivered under an Order. These efforts shall [***]:

(e) [***];

(f) [***];

(g) [***];

(h) [***].

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4.5 Alternate Sourcing. Codexis shall promptly notify Pfizer or its Affiliates in writing (e-mail is acceptable) of Codexis' efforts to resolve the Trigger Event and provide updates as soon as available. If, despite Codexis' efforts, Codexis is unable to resolve the Trigger Event to Pfizer's reasonable satisfaction within [***], Pfizer and its Affiliates shall have the right, exercisable during the duration and within the scope of the Trigger Event (but not beyond) to source a quantity of Codexis Enzyme up to [***] the quantities of Codexis Enzyme that Codexis is unable to deliver under Order(s) which are the subject of the Trigger Event, from:

(i) first, directly from existing Qualified Enzyme Manufacturing Facilities;

(j) second, to the extent that Pfizer and its Affiliates are unable to source sufficient quantities of Codexis Enzyme directly from Qualified Enzyme Manufacturing Facilities under Section 4.3(a), request from Codexis a Technology Transfer, in order to utilize the [***] Facility as a manufacturing facility Qualified to self-manufacture such quantity of Codexis Enzyme, which quantities of Codexis Enzyme self-manufactured by Pfizer or its Affiliates may be used only by Pfizer and its Affiliates for the manufacture of Intermediate for use in the manufacture of Product for sale and distribution by Pfizer and its Affiliates.

(k) third, to the extent that Pfizer or its Affiliates are unable to source sufficient quantities of Codexis Enzyme directly from Qualified Enzyme Manufacturing Facilities under Section 4.3(a) or from self-manufacture of Codexis Enzyme at the [***] under Section 4.3(b), request from Codexis a Technology Transfer, in order to qualify and utilize a Third Party Enzyme Manufacturing Facility in order to have a Third Party manufacture for Pfizer and its Affiliates such quantity of Codexis Enzyme, which quantities of Codexis Enzyme manufactured by the Third Party for Pfizer or its Affiliates may be used only by Pfizer and its Affiliates for the manufacture of Intermediate for use in the manufacture of Product for sale and distribution by Pfizer and its Affiliates. [***].

4.1 Limitations. For clarity, any right of Pfizer and its Affiliates to source quantities of Codexis Enzyme directly from Qualified Enzyme Manufacturing Facilities pursuant to Section 4.3(a), any right of Pfizer or its Affiliates to manufacture quantities of Codexis Enzyme under a Technology Transfer pursuant to Section 4.3(b), and any right of Pfizer and its Affiliates to source Codexis Enzyme from a Third Party Enzyme Manufacturing Facility under a Technology Transfer pursuant to Section 4.3(c) shall be effective only during that period of time in which Codexis is unable to supply the quantities of Codexis Enzyme which are the subject of an Order affected by a Trigger Event and shall only be effective for those quantities of Codexis Enzyme that Codexis is unable to supply to Pfizer or its Affiliates under Orders that are the subject of the Trigger Event. Pfizer and its Affiliates shall continue to purchase from Codexis, under the terms of this Agreement, all quantities of Codexis Enzyme that Codexis makes available to Pfizer and its Affiliates for purchase in lieu of any quantities of Codexis Enzyme that Pfizer or its Affiliates would or could purchase directly from an existing Qualified Enzyme Manufacturing Facility (under Section 4.3(a)) or manufacture (under Section 4.3(b)) under a Technology Transfer utilizing the license granted to Pfizer or its Affiliates under Section 4.5, or have manufactured (under Section 4.3(c)) under a Technology Transfer utilizing the license granted to Pfizer or its Affiliates under Section 4.5.

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4.10 Technology Transfer. Effective upon a Technology Transfer under Section 4.3(b) or under Section 4.3(c), and only during the time period(s) and to the extent specifically provided in Section 4.3(b) or Section 4.3(c), Codexis grants to Pfizer ([***]) a non-exclusive, fee-bearing, non-transferrable, non-sublicensable ([***]) right and license under Codexis Enzyme Technology to manufacture the Codexis Enzyme for Pfizer and Pfizer Affiliates as permitted by Section 4.3(b) or Section 4.3(c) above for use of such Codexis Enzyme in Pfizer's, Pfizer Affiliates' and Pfizer Designee's manufacture of the Intermediate for use in the manufacturing of Product by or for Pfizer and its Affiliates. For clarity, neither Pfizer nor its Affiliates shall have any right to sell, have sold, market, distribute or transfer any Codexis Enzyme or any Intermediate manufactured under a Technology Transfer to any Third Party (including, without limitation, the Pfizer Designees) other than for use in manufacturing the Intermediate for Pfizer or its Affiliates for use in the manufacturing of Product by or for Pfizer and its Affiliates.

4.11 Article 4 Use Fees.

(a) With respect to Section 4.3 Replacement Quantities used by or for Pfizer or its Affiliates to replace quantities of Codexis Enzyme covered by Existing Non-Cancelable Orders in the manufacture of Intermediate, Pfizer shall pay to Codexis (or cause its Affiliate(s) to pay to Codexis) a use fee ("**Section 4.6(a) Use Fee**"). The Section 4.6(a) Use Fee shall be equal to [***] of the then current ([***]) Codexis Enzyme price as established pursuant to **Exhibit 3.1** ([***]) ("**Section 4.6(a) Codexis Enzyme Price**"). [***]. The Section 4.6(a) Use Fee shall be paid by Pfizer or its Affiliates to Codexis on a Quarterly basis. Pfizer shall provide to Codexis a written report (with documentation supporting Pfizer's calculations in accordance with Accounting Standards) within [***] establishing the volume of Codexis Enzyme sourced or produced by Pfizer and its Affiliates (pursuant to Sections 4.3(a), 4.3(b) and/or 4.3(c)) during such Quarter that is actually used by or for Pfizer or its Affiliates in the manufacture of Intermediate ("**Quarterly Section 4.6(a) Use Fee Report**") and, to the extent applicable, shall pay to Codexis the aggregate Section 4.6(a) Use Fee for all such Codexis Enzyme produced and used in the manufacture of Intermediate during such Quarter within [***]. [***]. Any disputes arising out of, relating to or in connection with the calculation or payment of the Section 4.6(a) Use Fee under this Section 4.6(a) shall be governed by arbitration as provided for under Section 13.3 of this Agreement. Any information disclosed to Codexis hereunder shall be deemed Pfizer Confidential Information and may not be disclosed by Codexis to any third parties without Pfizer's prior written consent.

(b) With respect to Section 4.3 Replacement Quantities used by or for Pfizer or its Affiliates to replace quantities of Codexis Enzyme covered by New Orders in the manufacture of Intermediate, Pfizer shall pay to Codexis (or cause its Affiliate(s) to pay to Codexis) a use fee ("**Section 4.6(b) Use Fee**"). The Section 4.6(b) Use Fee shall be [***]. The Section 4.6(b) Use Fee shall be paid by Pfizer or its Affiliates to Codexis on a Quarterly basis. Pfizer shall provide to Codexis a written report (with documentation supporting Pfizer's calculations in accordance with Accounting Standards) within [***] establishing the volume of Codexis Enzyme sourced or produced by Pfizer and its Affiliates (pursuant to Sections 4.3(a), 4.3(b) and/or 4.3(c)) during such Quarter that is actually used by or for Pfizer or its Affiliates in the manufacture of Intermediate ("**Quarterly Section 4.6(b) Use Fee Report**") and, to the extent applicable, shall pay to Codexis the aggregate Section 4.6(b) Use Fee for all such Codexis Enzyme produced and used in the manufacture of Intermediate during such Quarter within [***]. [***]. Any

disputes arising out of, relating to or in connection with the calculation or payment of the Section 4.6(b) Use Fee under this Section 4.6(b) shall be governed by arbitration as provided for under Section 13.3 of this Agreement. Any information disclosed to Codexis hereunder shall be deemed Pfizer Confidential Information and may not be disclosed by Codexis to any third parties without Pfizer's prior written consent.

4.2 Risks and Costs. Pfizer and its Affiliates shall be solely responsible for arranging supply of Codexis Enzyme and all costs and expenses of acquiring or manufacturing Codexis Enzyme under Section 4.3. Except as provided in Section 4.5, Codexis shall have no obligations with respect to any Codexis Enzyme acquired by Pfizer or its Affiliates under Section 4.3 and makes no warranty, representation or guarantee with respect to Codexis Enzyme sourced by Pfizer or its Affiliates under Section 4.3, including without limitation no warranty of conformance to specifications, merchantability, or fitness for any particular purpose, or for any Intermediate and/or Product manufactured therefrom. Pfizer and its Affiliates assume all risks associated with the acquisition and use of the Codexis Enzyme produced by or for Pfizer and its Affiliates under the provisions of Section 4.3.

4.3 Reserve Inventory. Starting [***] following the Effective Date, the parties may mutually agree for Codexis to maintain in inventory an amount of Codexis Enzyme, which shall be no more than an amount sufficient to fulfill [***] of estimated Pfizer and Pfizer Affiliate demand for Codexis Enzyme based on the forecast provided pursuant to Section 2.4. Codexis reserves the right to deliver such reserve inventory of Codexis Enzyme to Pfizer and its Affiliates on a first-in, first-out basis. No later than [***] before the effective date of termination or expiration of this Agreement, the parties will mutually cooperate to reduce the quantities of Codexis Enzyme in reserve inventory to zero by the effective date of termination or expiration. Within [***] of any termination or expiration of this Agreement, Pfizer or its Affiliates shall be required to purchase all quantities of Codexis Enzyme that remain in the reserve inventory as of the effective date of termination or expiration at the price which was in effect as of the effective date of termination or expiration.

5. [***]

5.1 [***].

5.2 [***].

5.3 [***].

5.4 [***].

5.5 [***].

5.6 Risks and Costs. Pfizer and its Affiliates shall be solely responsible for arranging supply of Codexis Enzyme and all costs and expenses of acquiring or manufacturing Codexis Enzyme under Section 5.3. Except as provided in Section 5.4, Codexis shall have no obligations with respect to any Codexis Enzyme acquired by Pfizer or its Affiliates under Section 5.3 and makes no warranty, representation or guarantee with respect to Codexis Enzyme sourced by Pfizer or its Affiliates under Section 5.3, including without limitation no warranty of conformance to specifications, merchantability, or fitness for any particular purpose, or for any Intermediate and/or Product manufactured therefrom. Pfizer and its Affiliates assume all risks associated with the acquisition and use of the Codexis Enzyme produced by or for Pfizer and its Affiliates under the provisions of Section 5.3.

6. RELATIONSHIP; RECORDS; REGULATORY OBLIGATIONS; REGULATORY NOTIFICATIONS; AUDIT

6.1 Relationship. As between the Parties, Pfizer and the Pfizer Affiliates shall be solely responsible for the production of Intermediate using Codexis Enzyme and for the manufacture of Product using Intermediate.

6.2 Records. Codexis shall maintain complete, true, and accurate books, records, test and laboratory data, reports, and all other information relating to Services, including the technical records pertaining to the methods, facilities, and equipment used for processing, in accordance with Applicable Laws and as is reasonably necessary to support regulatory filings by Pfizer with respect to Product. Codexis shall store all such records and information for a period of at least [***] or longer if required under Applicable Laws.

6.3 Regulatory Obligations. Pfizer and Pfizer Affiliates shall be solely responsible for preparation and submission of applications to Regulatory Authorities regarding Product. Pfizer and Pfizer's Affiliates will advise Codexis of document requirements in support of such applications by Pfizer or its Affiliates. Codexis will use commercially reasonable efforts to provide documents and additional information needed for such applications, and to cooperate with and assist Pfizer and its Affiliates in preparation and submission of such applications to the FDA (and other Regulatory Authorities, as appropriate). All such applications to Regulatory Authorities and related filings by Pfizer and its Affiliates shall be the sole and exclusive property of Pfizer and its Affiliates. Pfizer and its Affiliates shall be solely responsible for all contacts and communications with any Regulatory Authority with respect to all matters relating to Product and services provided under this Agreement. At the request of Pfizer or its Affiliates, Codexis shall make appropriate personnel reasonably available for meetings with Regulatory Authorities related to manufacturing of Codexis Enzyme and the related processing of Product.

6.4 Regulatory Notifications. Codexis shall notify Pfizer immediately, and in no event later than [***], after receiving any contact or communication from any governmental, administrative or Regulatory Authority that in any way relates to the Codexis Enzyme, Intermediate or the Product. Codexis shall advise Pfizer no later than the next day that is not a Saturday, Sunday, or federal or state holiday if an authorized agent of any governmental, administrative or Regulatory Authority or any other regulatory body plans to visit the Facility solely in relation to the Codexis Enzyme, Intermediate or Product for Pfizer, and/or makes an inquiry regarding manufacturing of Codexis Enzyme for use in manufacturing Intermediate for Pfizer or regarding any part of the Facility that is used in manufacturing of Codexis Enzyme for use in manufacturing of Intermediate for Pfizer. Pfizer and Pfizer Affiliates shall have the right to be present at any visit relating to Codexis Enzyme, Intermediate and Product and to review in advance and comment on any response to the communication or investigation submitted by Codexis (and Codexis shall endeavor in good faith to satisfactorily address and incorporate all Pfizer comments prior to submission). Codexis shall cooperate fully with such Regulatory Authority and with Pfizer and its Affiliates in providing the information needed for any such communication. Codexis shall provide to Pfizer copies of any document delivered by such Regulatory Authority or regulatory body as a result of such visit. If an authorized agent of any Regulatory Authority or any other regulatory body visits the Facility in connection with another product or another part of the Facility and such visit results in a finding or other action that could materially and adversely affect Codexis' performance of the Services under this Agreement, then Codexis shall notify

Pfizer as soon as practicable and, within [***], shall provide Pfizer with information concerning Codexis' response to such finding or action.

6.5 Audits. During the Term and during any period thereafter during which Pfizer retains the license under Section 7.2(a), Pfizer or its authorized representatives, including its external auditors, at Pfizer's cost and expense, for the purposes of audit may visit the facilities of Codexis or its Third Party contractors where the Services are being performed, during normal business hours to ensure Codexis' compliance with the terms of this Agreement and Applicable Laws, including quality, business continuity, social responsibility (including labor and ethics), and/or environment, health, safety and sustainability requirements, which may be conducted together or separately. The detailed scope of audit shall be communicated to Codexis at least [***] prior to the requested date of audit and the Parties shall work in good faith to schedule a mutually agreeable date for such audit. Any such audit shall be conducted in accordance with Codexis' then-current policies (made available in writing to Pfizer prior to the anticipated audit date) and without material disruption to Codexis' or Codexis' Third Party contractor activities. Pfizer shall be entitled to conduct an audit hereunder once in any [***] during the Term of this Agreement, upon reasonable notice during regular business hours for a period not to exceed [***]; provided, however, that Pfizer shall be entitled to conduct audits following issuance of reports delivered by Regulatory Authorities to Codexis pertaining to manufacturing of Codexis Enzyme for use in manufacturing Intermediate for Pfizer or the occurrence of other events which are likely to adversely affect Pfizer's manufacturing of Intermediate or Product as frequently as requested by Pfizer at reasonable times and for reasonable duration (which may exceed [***]) until Codexis has corrected such deficiencies. Upon request, Pfizer may conduct additional audits, provided that Pfizer shall reimburse Codexis for reasonable time and expenses incurred by Codexis in connection with such audits.

7. GOVERNMENTAL LAW AND REGULATIONS

7.1 Applicable Law. Codexis' and Pfizer's and its Affiliates' obligations hereunder shall be subject to all Applicable Law. Codexis shall secure such permits and licenses necessary, at its sole expense, for the manufacture, supply and sale of Codexis Enzyme hereunder, unless otherwise agreed by the Parties in writing.

7.2 Regulatory Filings. As between the Parties, Pfizer and its Affiliates will be responsible for filing any regulatory approval application in connection with Intermediate and Product, at their own cost.

8. CONFIDENTIALITY

8.1 In General. In connection with this Agreement each Party may provide to the other Party, Confidential Information. Codexis Technology shall constitute the Confidential Information of Codexis.

8.2 Non-Disclosure and Non-Use. The receiving Party shall maintain the Confidential Information of the disclosing Party in confidence, shall not disclose such Confidential Information to any Third Party, and shall not use such Confidential Information for any purpose except as expressly permitted under the terms and conditions of this Agreement. Notwithstanding the previous sentence, the receiving Party may disclose the Confidential Information of the disclosing Party solely on a "need to know basis" to its Affiliates and its officers, directors, employees, advisors, legal counsel, contractors and agents, and independent legal counsel, and Pfizer Designee(s), each of whom prior to disclosure must be bound by obligations of nondisclosure and non-use no

less restrictive than the obligations set forth in this Article 8; provided, however, that, in each of the above situations, the receiving Party shall remain responsible for any failure by any person or entity who receives Confidential Information pursuant to this Section 8.2 to treat such Confidential Information as required under this Article 8. The receiving Party shall take the same degree of care that the receiving Party uses to protect its own confidential and proprietary information of a similar nature and importance, but in no event shall such care be less than reasonable care.

8.3 Exceptions. The obligations of non-disclosure and non-use under Section 8.2 will not apply as to particular Confidential Information of a disclosing Party to the extent that such Confidential Information: (a) is at the time of receipt, or thereafter becomes, through no fault of the receiving Party or its Affiliates, published or publicly known or available; (b) is known by the receiving Party or its Affiliates without any obligation of confidence to a Third Party at the time of receiving such information, as evidenced by competent records; (c) is hereafter furnished to the receiving Party or its Affiliates by a Third Party without breach of a duty to the disclosing Party; or (d) is independently discovered or developed by or for the receiving Party or its Affiliates without use of, application of, access to, or reference to Confidential Information of the disclosing Party, as evidenced by competent records.

8.4 Disclosure Required by Law. Disclosure of Confidential Information shall not be precluded if such disclosure (a) is in response to a valid order, or required under the regulations, of a court or other governmental body; or (b) is required by Applicable Law; provided, however, that the receiving Party, to the extent practicable, first has given reasonable prior notice to the disclosing Party and at the disclosing Party's request, the receiving Party cooperates with the disclosing Party's efforts, as applicable, to obtain a protective order limiting the extent of such disclosure and requiring that the Confidential Information so disclosed be used only for the purposes for which such order was issued or as required by such Applicable Law. Any disclosure made pursuant to this Section 8.4 shall not affect the confidential nature of the disclosed Confidential Information (except to the extent the disclosure was made publicly available, such as but not limited to filings with the United States Securities and Exchange Commission, in which case such disclosed Confidential Information shall no longer be deemed confidential).

8.5 Remedies. The receiving Party agrees that its obligations under this Article 8 are necessary and reasonable to protect the disclosing Party's business interests and that the unauthorized disclosure or use of Confidential Information of the disclosing Party may cause irreparable harm and significant injury, the degree of which may be difficult to ascertain. The receiving Party further acknowledges and agrees that in the event of any actual or threatened breach of this Article 8, the disclosing Party may have no adequate remedy at law and, accordingly, that the disclosing Party will have the right to seek an immediate injunction, without an obligation to post a bond or any similar security, enjoining any breach or threatened breach of this Article 8, as well as the right to pursue any and all other rights and remedies available at law or in equity for such breach or threatened breach.

8.6 Agreement Terms. The terms and conditions of this Agreement shall be Confidential Information of each of the Parties, and subject to the terms of this Article 8; provided, however, that (a) each Party may disclose this Agreement, in confidence, (i) to legal, tax and financial advisors (including auditors and lenders) and governmental tax authorities and (ii) in connection with any proposed or actual transactions involving the disclosing Party in the form of mergers, offerings, acquisitions, collaborations, fundings and investments, provided that such disclosure to advisors and other parties would be limited to a strict "need to know" basis, would be on basis that such advisors and other

parties receiving access to the terms and conditions of this Agreement would agree to hold the Confidential Information on terms of confidentiality equivalent to those in this Agreement and the disclosing Party would be responsible for any breach by any such advisor or other party to whom disclosure is made; and (b) each Party may disclose this Agreement, in its entirety or with portions redacted, as may be required by Applicable Law. The Parties recognize that either or both Parties may be required by Applicable Law (including the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, or the rules of a securities exchange or the Securities and Exchange Commission or the securities regulations of any state or other jurisdiction) to disclose (a) the existence of this Agreement, (b) the terms hereof, (c) financial information related to this Agreement (including, without limitation, sales and revenues earned hereunder) and (d) this Agreement (in its entirety or with portions redacted). Any such disclosure that is required by Applicable Law may be made by Codexis or Pfizer; provided that any such required disclosure will, to the extent consistent with Applicable Law, not contain any Confidential Information of, respectively, Pfizer or Codexis and, if disclosure of such information is required by Applicable Law or such rules or regulations, the Parties will use reasonable efforts to minimize such disclosure and obtain confidential treatment for any such information that is disclosed pursuant to Applicable Law, including the identities of the Parties or the other Party, as applicable.

8.7 Survival. All obligations of non-disclosure and non-use imposed pursuant to the terms and conditions of this Article 8 shall survive expiration or termination of this Agreement and continue in full force and effect for a period of [***] after the effective date of such expiration or such termination. In the case of a Technology Transfer, the obligations of non-disclosure and non-use imposed pursuant to the terms of this Article 8 shall survive expiration or termination of this Agreement and continue in full force and effect for a period of [***] after the effective date of such expiration or such termination, and with respect to any Confidential Information identified as a trade secret by a Party, for so long as the applicable Confidential Information retains its status as a trade secret under Applicable Law.

9. REPRESENTATIONS AND WARRANTIES

9.1 Representations and Warranties

(a) By Each Party. Each Party represents and warrants that as of the Effective Date: (i) it is duly organized and validly existing under the laws of the jurisdiction of its incorporation and has full corporate power and authority to enter into this Agreement; (ii) it has taken all corporate actions necessary to authorize the execution and delivery of this Agreement and the performance of its obligations under this Agreement; (iii) the performance of its obligations under this Agreement do not conflict with, or constitute a default under, its charter documents, any contractual obligation of such Party or any court order and (iv) this Agreement has been duly executed and delivered on behalf of such Party and constitutes a legal, valid and binding obligation of such Party and is enforceable against it in accordance with its terms, subject to the effects of bankruptcy, insolvency or other similar laws of general application affecting the enforcement of creditor rights and judicial principles affecting the availability of specific performance and general principles of equity, whether enforceability is considered in a proceeding at law or equity. Pfizer Inc. is an equal opportunity employer and federal contractor. Consequently, the Parties agree that, as applicable, they will abide by the requirements of Executive Order 11246, 41 CFR 60-1.4(a); the Vietnam Era Veterans' Readjustment Assistance Act, 41 CFR 60-300.5(a); and Section 503 of the Rehabilitation Act of 1973, 41 CFR 60-741.5(a), and that these laws are incorporated herein by reference. These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit

discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin. These regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability. The parties also agree that, as applicable, they will abide by the requirements of Executive Order 13496 (29 CFR Part 471, Appendix A to Subpart A), relating to the notice of employee rights under federal labor laws.

(b) By Codexis. Codexis represents and warrants to Pfizer and its Affiliates that:

(i) at the time of delivery of Codexis Enzyme and during the Retest Period such Codexis Enzyme shall meet the requirements therefor set forth in the applicable Enzyme Specification;

(ii) title to Codexis Enzyme will pass to Pfizer and its Affiliates free and clear of any security interest, lien or other encumbrance;

(iii) [***]; and

(iv) such Codexis Enzyme will have been manufactured in accordance with Applicable Law, this Agreement, and any Quality Agreement between the Parties and in facilities that are in compliance with Applicable Law at the time of such manufacture.

(c) Debarment; Exclusion List. Codexis represents, warrants and covenants to Pfizer and its Affiliates that:

(i) neither Codexis nor any of its Affiliates nor any of its contractors performing Services hereunder has been debarred or is subject to debarment pursuant to Section 306 of the FD&C Act or listed on any Excluded List, and

(ii) neither Codexis nor any of its Affiliates nor any of its contractors performing Services hereunder will use in any capacity, in connection with this Agreement, any person or entity who has been debarred pursuant to Section 306 of the FD&C Act, or who is the subject of a conviction described in such Section, or listed on any Excluded List.

Codexis shall inform Pfizer in writing immediately if it, its Affiliates or any person or entity who is involved in the manufacture of the Codexis Enzyme or otherwise performing services hereunder is debarred or is the subject of a conviction described in Section 306 of the FD&C Act or listed on any Excluded List, or if any claim or action is pending or is threatened, relating to the debarment or conviction Section 306 of the FD&C Act, or listing on any Excluded List, of Codexis or any person or entity who is involved in the manufacture of the Codexis Enzyme or otherwise performing services hereunder.

(d) Government Enforcement Action. Codexis represents and warrants that as of the Effective Date of this Agreement there is no pending or likely governmental enforcement action or private claim against Codexis or its Affiliates or, to Codexis' knowledge, [***], or any environmental conditions, events or circumstances that are reasonably likely to limit, impede or otherwise jeopardize Codexis' ability to meet its obligations under this Agreement.

(e) Anti-Bribery; Anti-Corruption. Codexis represents, warrants and covenants that Codexis has not and will not directly or indirectly offer or pay, or authorize such offer or payment of, any money or anything of value to improperly or corruptly seek to influence any Government Official or any other person in order to gain an improper business advantage, and has not accepted, and will not accept in the future, such a payment. Codexis will comply with Pfizer's Anti-Bribery and Anti-Corruption Principles set forth in **Exhibit 9.1(e)**.

(f) Environment, Health and Safety-General. Codexis represents, warrants and covenants that:

(v) Codexis shall perform all of its obligations herein in compliance with all Environmental Laws and all necessary environmental or other licenses, registrations, notifications, certificates, approvals, authorizations or permits required under Environmental Laws and any private permissions;

(vi) Codexis shall abate any condition or practice, regardless of whether such condition or practice constitutes non-compliance with Environmental Laws, which poses a significant threat to human health, safety, or the environment, or would be reasonably likely to limit, impede, or otherwise jeopardize Codexis' ability to fulfill its obligations to Pfizer;

(vii) Codexis shall be solely responsible for all Environmental Losses incurred during the performance of this Agreement;

(viii) Codexis shall be solely responsible for the generation, collection, storage, handling, transportation, movement and disposal of all Hazardous Materials and Waste, as applicable, in compliance with Environmental Laws;

(ix) Codexis agrees to release Pfizer and its Affiliates and Pfizer Designees from any liability and waive any claim, pursuant to statute, code, or common law, that Codexis is liable to it or to any Third Party, for any Environmental Loss arising out of the management of Codexis' Waste;

(x) Codexis shall provide to Pfizer all information available to Codexis related to the safety, safe handling, environmental impact, and disposal of the Codexis Enzyme including, without limitation, material safety data sheets;

(xi) Throughout the term of this Agreement, Codexis shall promptly deliver to Pfizer, as it becomes available to Codexis, any updates or amendments to the information provided pursuant to this Section and any new information relating to the safety, safe handling, environmental impact, or disposal of the Codexis Enzyme;

(xii) Codexis shall provide prompt notification to Pfizer in the event of any significant condition or incident, which shall include any event, occurrence, or circumstance, including any governmental or private action, which could materially impact Codexis' ability to fulfill its obligations under this Agreement. These include, but are not limited to: (A) material revocation or modification of any licenses, registrations, notifications, certificates, approvals, authorizations or permits required by any applicable Law, (B) any action by governmental authorities that may reasonably lead to the material revocation or modification of Codexis' required permits, licenses, or authorizations, (C) above, any third party claim against the management or ownership of the facility that could reasonably impact Codexis' obligations under this Agreement, (D) any fire, explosion, significant accident, or catastrophic Release of Hazardous Substances, or significant "near miss" incident, (E) any significant non-compliance with Environmental

Laws, and (F) any environmental condition or operating practice that may reasonably be believed to present a significant threat to human health, safety or the environment;

(xiii) Codexis shall ensure that, to the extent applicable to the Codexis Enzyme, the Codexis Enzyme is in compliance with California Safe Drinking Water and Toxic Enforcement Act of 1986 (also known as Proposition 65), the European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals (also known as REACH), and any other chemical registration laws, that may regulate, limit, or ban chemicals in the Codexis Enzyme. Codexis shall immediately disclose to Pfizer if it knows of or becomes aware of any detectible amount or possible generation of a material or chemical listed under Applicable Laws in the Codexis Enzyme including (a) upon customary use of the Codexis Enzyme, (b) that are naturally occurring, and/or (c) that are unavoidable constituents or contaminants of a raw material or ingredient of the Codexis Enzyme. For the avoidance of doubt, this disclosure is in addition to any Safety Data Sheets that may be provided to Pfizer. Codexis's failure to promptly disclose the foregoing to Pfizer shall constitute a material breach of the Agreement. Codexis agrees to consider, and implement if directed by Pfizer, Codexis Enzyme formulation alternatives. Codexis shall monitor Applicable Laws for updates and timely advise Pfizer of new information that may impact the Codexis Enzyme.

(g) Responsible Supply Chain. Codexis represents, warrants, and covenants that it does not, as of the Effective Date, and shall not, during the Term of this Agreement:

(i) use involuntary, bonded or underage labor (defined in accordance with Laws and to the extent applicable Laws) at the Facility(ies); or

(ii) engage in human trafficking; or

(iii) maintain unsafe or unhealthy conditions in any dormitories or lodging that it provides for its employees.

In addition, Codexis agrees and covenants that during the Term of this Agreement:

(i) it shall promptly correct unsafe or unhealthy conditions in any dormitories or lodging that it provides for its employees;

(ii) disclose to Pfizer any use, whether intentional or unintentional, of involuntary, bonded or underage labor or instances of human trafficking, and shall correct unsafe or unhealthy conditions in any lodging that it provides for its employees;

(iii) use reasonable efforts to include similar prohibition and disclosure requirements in agreements with its own suppliers;

(iv) cooperate and provide such information and/or certifications as are reasonably necessary if Pfizer or its Affiliates are obligated to provide or post disclosures regarding labor practices, including, without limitation, disclosures under the California Transparency In Supply Chains Act of 2010, California Civil Code § 1714.43, and similar Applicable Laws; and

(v) perform its obligations under this Agreement in a manner consistent with the Pharmaceutical Industry Principles for Responsible Supply Chain Management, as codified as of the date of this Agreement at https:/pscinitiative.org/principles and Pfizer's Supplier Conduct Principles.

(a) Conflict Minerals. Codexis agrees and covenants to, to the extent applicable:

(vi) adopt and maintain policies and procedures for the responsible sourcing and traceability of Conflict Minerals. Such policies and procedures shall include management systems and supplier outreach and due diligence processes that are at least as stringent as those contemplated by the Organization for Economic Co-operation and Development Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas;

(vii) follow any Conflict Minerals policy that may be adopted by Pfizer from time to time,

(viii) provide to Pfizer such information as Pfizer may from time to time request, including information concerning the origin of any Conflict Minerals in products, components or raw materials supplied to Pfizer and Codexis' related compliance procedures, and

(ix) adopt such procedures relating to the responsible sourcing and traceability of Conflict Minerals as may be requested by Pfizer from time to time. If Codexis determines that Conflict Minerals contained in any of the products, components or raw materials supplied to Pfizer are from sources that are believed to support conflict, Codexis shall immediately notify Pfizer at cmcompliance@pfizer.com, which notice shall contain reasonable supporting detail to enable Pfizer to assess such determination. Codexis shall not seek to embargo the sourcing of Conflict Minerals from any country or region without the prior approval of Pfizer.

(a) Environment, Health, Safety, and Sustainability Policies. **Environment, Health, Safety, and Sustainability Policies**. All Codexis Enzyme to be supplied hereunder will be manufactured at Qualified Enzyme Manufacturing Facilities. For the [***] Facility and any New Qualified Enzyme Manufacturing Facility, Codexis shall, at Pfizer's written request, work in good faith with the operators of Qualified Enzyme Manufacturing Facilities to implement mutually acceptable environment, health, safety and sustainability policies which address, among other things, an ongoing commitment to sustainability, including understanding and mitigating environmental impact, elimination of workplace injuries and illnesses, and the protection of local communities from potential impacts of the Qualified Enzyme Manufacturing Facility's operations. As and when they become available, Codexis shall identify and bring to Pfizer's attention Codexis Enzyme options that have a reduced environment, health and/or safety impact. In the event Codexis receives a New Order for Codexis Enzyme for which Codexis has an option with a reduced environmental footprint or a more favorable health and safety profile, Codexis shall promptly notify Pfizer of such option(s). Codexis shall discuss with Pfizer the feasibility, efficacy, regulatory and cost implications of any of the foregoing alternate Codexis Enzyme options and shall provide such options if and as directed by Pfizer.

(h) Global Trade Controls Laws. Codexis represents, warrants, and covenants that:

(i) activities under this Agreement will not take place in a Restricted Market; will not involve companies, organizations, or governmental entities from a Restricted Market; and will not involve that are individuals ordinarily resident in a Restricted Market;

(ii) Codexis is not a Restricted Party and is not owned or controlled by a Restricted Party;

(iii) with respect to activities performed under this Agreement, Codexis confirms that no Restricted Parties will be engaged or delegated any activities under this Agreement;

(iv) in the event that any of these representations change, Codexis will immediately inform Pfizer in writing and suspend all affected activities, including but not limited to making any related payments, under this Agreement, until Pfizer agrees to move forward and end the suspension of the affected activities; and

(v) Codexis will not knowingly transfer any goods, software, technology, or services to Pfizer that are (A) controlled under the U.S. International Traffic in Arms Regulations or at a level other than EAR99 under the U.S. Export Administration Regulations; or (B) specifically identified as an E.U. Dual Use Item or on an applicable export control list of another country.

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9.3 Disclaimer of Warranties. EXCEPT AS SPECIFICALLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY, ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, OR ANY OTHER SIMILAR STATUTORY WARRANTY. EACH PARTY EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES.

10. INTELLECTUAL PROPERTY

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10.1 Ownership by Codexis. As between the Parties, subject only to the license set forth in Section 10.2, Codexis shall retain and own all right, title and interest in, to and under the Codexis Technology, and Codexis shall have the right, but not the obligation, to file applications for, and to control the prosecution and maintenance of, the Codexis Technology and to enforce all rights therein. Pfizer and its Affiliates hereby assign to Codexis all its right, title and interest in, to and under any and all discovery, invention, contribution, method, finding or improvement, whether or not patentable, and all related intellectual property, including without limitation patents, trade secrets, and/or know-how, that is conceived, reduced to practice, or otherwise developed by Pfizer and/or its Affiliates, either solely or jointly with Codexis and/or a Third Party, during the Term that claim the Codexis Enzyme (collectively, the "**Codexis Inventions**"). Pfizer

and its Affiliates agree to cooperate with Codexis, at Codexis' reasonable request and expense, in the preparation of any patent application claiming any subject matter within such Codexis Inventions.

10.2 License to Codexis Technology.

(a) Subject to the terms and conditions of this Agreement, Codexis hereby grants to Pfizer a non-exclusive, non-transferrable (except to a permitted assignee of this Agreement by Pfizer pursuant to Section 13.7), non-sublicensable (except to Affiliates of Pfizer and Pfizer Designees manufacturing Intermediate for Pfizer and its Affiliates for use in the manufacture and sale of Product), worldwide, royalty-free, fully-paid, perpetual, irrevocable (subject to Section 11.7(a)), license under the Codexis Technology to use and import (but not to make, have made, improve, have improved, sell, or have sold) Codexis Enzyme in order to make, have made, use, import, offer for sale, sell or have sold Intermediate solely for the manufacture and sale of Product by or for Pfizer and its Affiliates in the Territory. For clarity, no license is granted under the Codexis Technology to offer for sale, sell or have sold Intermediate to Third Parties. For clarity, no license is granted under the Codexis Technology to use or import enzymes other than Codexis Enzyme in order to make, have made, use, import, offer for sale, sell or have sold Intermediate solely for the manufacture and sale of Product by or for Pfizer and its Affiliates in the Territory.

(b) Codexis hereby represents and warrants as follows:

(i) Codexis has the right to grant the licenses granted herein;

(ii) Codexis has not granted and will not grant any rights to any Third Parties which would conflict with the rights granted to Pfizer herein;

(iii) Codexis [***] Controls the Codexis Technology, and, as of the Effective Date, the patents set forth in **Exhibit 1.36** are a complete and correct listing of all patent rights in the Codexis Technology in the Territory;

(iv) [***];

(v) to Codexis' actual knowledge, [***];

(vi) to Codexis' actual knowledge, [***]; and

(vii) to Codexis' actual knowledge, [***].

(c) Enforcement of Codexis Technology

(i) Notice. Each Party shall provide to the other Party prompt written notice of any actual or threatened infringement of any Codexis Technology for use of the Codexis Enzyme to manufacture the Intermediate in the Territory (the "**Intermediate Infringement**") as such Party becomes aware.

(d) Invalidity or Unenforceability Actions.

(viii) Notice. Codexis shall promptly notify Pfizer in writing of any actual, alleged or threatened assertion of invalidity or unenforceability, including any

inter partes review, post-grant review, reexamination, opposition or any other similar action before a patent office or a court, by a Third Party of any of the Codexis Technology or the Codexis Enzyme.

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10.4 No Other Rights. Except for the rights expressly granted in this Agreement, no right, title or interest of any nature whatsoever is or shall be granted whether as a result of sale or transfer, by implication, estoppels, reliance or otherwise, with respect to the Codexis Technology. All rights with respect to Codexis Technology that are not specifically granted in this Agreement are reserved to Codexis.

11. TERM AND TERMINATION

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11.1 Term. The term of this Agreement shall commence on the Effective Date and shall continue until the longer of ten (10) years and the last expiration date of the licensed patents under the Codexis Technology unless earlier terminated in accordance with Sections 11.2, 11.3, 11.4, 11.5 or 11.6 (the " **Initial Term**"). If Pfizer desires to extend this Agreement for one or more three (3) year periods beyond the Initial Term (each three (3) year period being a "**Renewal Term**"), it shall so notify Codexis in writing not later than [***] prior to the end of the Initial Term (or any subsequent Renewal Term). Upon any such request, the Parties shall use their good faith, commercially reasonable efforts to reach agreement on any Renewal Term (and the terms and conditions associated with such Renewal Term) not later than [***] prior to the end of the Initial Term or any Renewal Term. The Initial Term and any agreed Renewal Term(s) are collectively, referred to as the "**Term**".

11.2 Termination for Convenience. Pfizer may terminate this Agreement at any time without cause and in its sole discretion upon not less than [***] prior written notice to Codexis.

11.3 Termination for Cause. Either Party may terminate this Agreement upon [***] written notice to the other Party if the other Party materially breaches any obligation set forth herein, which breach has not been cured within [***] after receipt of written notice of such breach from the non-breaching Party, or within such additional cure period as the non-breaching Party may so authorize in writing.

11.4 Termination for Insolvency. To the extent permitted under Applicable Law, a Party may terminate this Agreement upon [***] written notice to the other Party if the other Party becomes insolvent, makes a general assignment for the benefit of creditors, files a voluntary petition in bankruptcy, suffers or permits the appointment of a receiver for its business or assets, becomes subject to any proceeding under any bankruptcy or any insolvency law, whether domestic or foreign, or has wound up or liquidated its business voluntarily or otherwise. All rights and licenses granted under or pursuant to this Agreement by Codexis are and shall otherwise be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction, licenses of right to "intellectual property" as defined under Section 101 of the U.S. Bankruptcy Code. The Parties agree that Pfizer, as licensee

of such rights under this Agreement, shall retain and may fully exercise all of their rights and elections under the U.S. Bankruptcy Code or any analogous provisions in any other country or jurisdiction.

11.5 Termination for Breach of Anti-bribery/Anti-Corruption Representation. Pfizer may terminate this Agreement and/or any or all New Orders effective immediately upon notice to Codexis, if: (i) Codexis breaches any of the representations and warranties set forth in Section 9.1(e), or (ii) Pfizer learns (a) that improper payments are being or have been made or offered to Government Officials or any other person by Codexis or those acting on behalf of Codexis with respect to this Agreement, or (b) that Codexis or those acting on behalf of Codexis with respect to this Agreement has accepted any payment, item, or benefit, regardless of value, as an improper inducement to award, obtain or retain business or otherwise gain or grant an improper business advantage from or to any other person or entity. Further, in the event of such termination, Codexis shall not be entitled to any further payment, regardless of any activities undertaken or agreements with additional Third Parties entered into by Codexis prior to such termination.

11.6 Termination for Change of Control of Codexis. Pfizer may in its absolute discretion terminate this Agreement immediately by notice in writing to Codexis in the event of a change in Control of Codexis. Codexis undertakes and agrees to notify Pfizer in writing as soon as it becomes aware of any proposed or actual change of Control of Codexis. For the purposes of this Section 11.6, "Control" means, with respect to any person, the power to direct or cause the direction of the management and policies of such person, whether directly or indirectly and whether through the ownership of voting securities, by contract or otherwise.

11.7 Consequences of Expiration or Termination.

(a) Licenses.

(i) Upon termination of this Agreement by Codexis pursuant to Section 11.3 or Section 11.4, the licenses granted to Pfizer under Section 10.1, and, to the extent applicable, Sections 1 and 5.4, shall immediately terminate and Pfizer and its Affiliates shall cease use of any and all Codexis Technology and the Codexis Enzyme Technology;

(ii) Upon termination of this Agreement by Pfizer pursuant to Section 11.2, or upon expiration of this Agreement pursuant to Section 11.1, the license granted under Section 10.2 shall remain in effect for a period of up to [***] after the effective date of termination or expiration for the purpose of allowing Pfizer, Pfizer Affiliates and Pfizer Designees to manufacturing Intermediate using Codexis Enzyme that was in their possession, custody or control as of the effective date of termination or expiration. Thereafter, such license shall terminate and Pfizer, the Pfizer Affiliates and the Pfizer Designees shall cease use of any and all Codexis Technology;

(iii) Upon termination of this Agreement by Pfizer pursuant to Section 11.3, 11.4 or 11.5, the license granted under Section 10.2 shall remain in effect for a period of [***] after the effective date of termination for the purpose of allowing Pfizer, Pfizer Affiliates and Pfizer Designees to manufacture Intermediate using Codexis Enzyme that was in their possession, custody or control as of the effective date of termination. Thereafter, such license shall terminate and Pfizer, the Pfizer Affiliates and the Pfizer Designees shall cease use of any and all Codexis Technology;

(b) Return of Materials. Subject to what may be required by Pfizer under Section 11.7(a), upon expiration or termination of this Agreement by either Party for any reason, each Party shall promptly return, or destroy, any and all Confidential Information of the other Party in such first Party's possession or control at the time of such expiration or termination except to the extent provided for in any Technology Transfer.

(c) Accrued Liability. Expiration or termination of this Agreement for any reason shall not release either Party hereto from any liability which at the time of such termination has already accrued to the other Party prior to such time. Such expiration or termination will not relieve a Party from accrued payment obligations or from obligations which are expressly indicated in this Agreement to survive expiration or termination of this Agreement.

11.8 Survival. In addition to any sections of this Agreement which by their terms survive expiration or termination of this Agreement, the following Articles and Sections of this Agreement shall survive its expiration or termination: Articles 1, 3, 8 (for the period set forth in Section 8.7) and 13, and Sections 2.3, 2.13, 2.14, 4.8 (last sentence only), 6.1, 6.2, 6.4, 6.5, 8.7, 9.2, 1, 10.2(a), 10.3, 11.7, 11.8, 12.1, 12.2, 12.3 and 12.4. All obligations to make payments to Codexis shall survive expiration or termination of this Agreement.

12. INDEMNIFICATION

12.1 Indemnification by Codexis. Codexis shall indemnify, defend, and hold Pfizer, its directors, officers, employees, agents, advisors, contractors, Affiliates and Pfizer Designees harmless from and against all Third Party claims, demands, damages, liabilities, losses, costs, and expenses, including without limitation attorney's fees (collectively, "**Claims**") in connection with or arising from (a) a breach by Codexis of any of its representations, warranties or obligations under this Agreement, (b) any negligence, gross negligence, fraud or willful misconduct of Codexis or its subcontractors or agents in the performance of its obligations under this Agreement; (c) the manufacture, supply, or delivery of Codexis Enzyme; (d) Codexis' supply of Codexis Enzyme which is defective or does not conform to Enzyme Specification; (e) claims made by employees or representatives of Codexis or its subcontractors based on employment contract, or any Applicable Laws prohibiting discrimination in employment, or under worker's compensation or similar Applicable Laws; (f) failure of Codexis or its employees or subcontractors to comply with any Applicable Law, including but not limited to Environmental Laws, failure to pay taxes, duties, or fees, or to comply with employee safety regulations; (g) [***]; or (h) [***]; provided, however, that Codexis' indemnification obligations under this Section 12.1 shall not apply to the extent such Claims are solely the responsibility of Pfizer under Section 12.2.

12.2 Indemnification by Pfizer. Pfizer shall indemnify, defend, and hold Codexis, its directors, officers, employees, agents, and Affiliates harmless from and against all Claims to the extent arising from (a) a material breach by Pfizer of their representations, warranties or obligations under this Agreement, or (b) any negligence, gross negligence, fraud or willful misconduct by Pfizer or is Affiliates or their subcontractors or agents in the performance of its obligations under this Agreement, (c) product liability related to the use of the Intermediate or any Product (except to the extent caused by the Codexis Enzyme or the Codexis Technology) or (d) infringement or improper appropriation or use by Pfizer, its Affiliates or their subcontractors or agents of a Third Party's intellectual property rights in the manufacture of Codexis Enzyme, Intermediate or Product, where the infringement is caused solely by acts outside the use of Codexis Enzyme, Codexis Technology or Technology transferred by Codexis hereunder as Technology Transfer; provided, however, that Pfizer's indemnification

obligations under this Section 12.2 shall not apply to the extent such Claims are solely the responsibility of Codexis under Section 12.1.

12.3 Indemnification Procedures. The indemnified Party claiming an indemnity hereunder shall: (a) promptly notify the indemnifying Party of any such Claim; (b) permit the indemnifying Party to direct the defense or settlement of such Claim, except that it may not settle any such suit or claim or consent to the entry of any judgment without the indemnified Party's prior written approval where such settlement involves more than financial compensation or where there is an adverse consequence to the operation of this Agreement, such approval not to be unreasonably withheld; (c) not take any action to prejudice the indemnifying Party's defense or settlement of such Claim; and (d) upon request by the indemnifying Party, provide reasonable cooperation, information, and assistance (at the indemnifying Party's expense) in connection with the indemnifying Party's defense or settlement of any Claim.

12.4 Infringement, Misappropriation, Misuse. Without limiting any other of Codexis's obligations or Pfizer's rights under this Agreement, if the Codexis Enzyme, Codexis Technology, or any part thereof, becomes or, in Codexis' reasonable opinion, is likely to become the subject of an infringement, misappropriation or misuse claim, suit or cause of action, Codexis, at its expense, promptly shall either (a) procure for Pfizer the right to continue using such Codexis Enzyme and Codexis Technology free of any liability for infringement, misappropriation or misuse; or (b) replace or modify such Codexis Enzyme or Codexis Technology with a non-infringing substitute of equivalent or better functionality that is reasonably satisfactory to Pfizer, provided that it does not have any regulatory consequences for Pfizer's Intermediate or Product.

12.5 Insurance by Pfizer. Pfizer shall at all times maintain all necessary insurance coverage with sound and reputable independent insurers at commercially reasonable levels of coverage or shall be self-insured, having regard to the nature, type, scope and size of the business it conducts and all its respective activities and obligations under this Agreement.

12.6 Insurance by Codexis

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(a) **Maintenance of Coverage**. During the Term of this Agreement, Codexis shall provide and maintain such insurance coverage, in minimum types and amounts as described below in this Section, as will protect it and Pfizer, to the extent Pfizer is included as an additional insured, (including Pfizer's Affiliates, its and their employees, directors, officers and agents) from all claims which may arise out of or result from Codexis's performance under this Agreement, whether such operations are conducted by Codexis itself or by its Personnel or by or by anyone directly or indirectly employed by any of them, or by anyone for whose acts or omissions they may be liable. Codexis will permit no subcontractor to commence or continue the performance of any services, obligations or other activities hereunder unless such subcontractor is and remains insured as outlined in this Section. Any and all deductibles for such insurance policies shall be assumed by, for the account of, and at Codexis's sole risk.

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(b) **Waiver of Subrogation**. Such commercial general liability and automobile liability insurance policies shall be primary and non-contributing with respect to any other similar insurance policies available to Pfizer or its Affiliates. Except for Workers Compensation/Employers' Liability and Errors & Omissions/Professional Liability, all such policies shall include Pfizer and its Affiliates and any other such entities as Pfizer may reasonably request, as additional insureds. All such polices shall provide a waiver of subrogation in favor of Pfizer and its Affiliates.

(c) **Insurance Certificate**. Codexis shall furnish to Pfizer original certificates and additional insurance endorsements (blanket endorsements acceptable) evidencing the specified insurance coverage, upon execution of this Agreement and at contract renewal or expiration of any one coverage, whichever occurs first. Such certificates shall provide that notice of cancelation shall be given to Pfizer in accordance with the cancelation provisions of each required policy. The Certificate(s) of Insurance shall be signed by a person authorized by the insurer(s) to evidence coverage on its (their) behalf. Codexis shall provide, pay for, and maintain in effect the policies with minimum "A-" A.M. Best rated insurance carriers, or insurance companies otherwise satisfactory to Pfizer.

(d) **Limits**. The insurance required under this Section 12.6 shall be written for not less than any limits of liability specified herein or as required by applicable Law, whichever is greater. Codexis shall have the right to provide the total limits required by any combination of primary and Umbrella/Excess coverage; said insurance to include, without limitation, the following:

(iv) Insurance for liability under the Workers' Compensation or occupational disease laws of any state or other jurisdiction in which services are performed (or be a qualified self-insurer in those states and jurisdictions) or otherwise applicable with respect to persons performing the services, and Employer's Liability insurance covering all claims by or in respect to the employees of Codexis, providing:

1. Coverage for the statutory limits of all claims under the applicable State Workers' Compensation Act or Acts. If the scope of work will result in exposures under the U.S. Longshoreman's Act and its amendments (work dockside or on water), the Jones Act (involving seaman, masters and crew of vessels) or the Federal Employer's Liability Act (railroad exposure), coverage shall be extended to include insurance coverages mandated thereby;

2. Employer's Liability Insurance with a limit of not less than $[***];

3. Voluntary Compensation insurance covering all employees not subject to the applicable state Workers' Compensation Act or Acts.

(ii) Commercial General Liability insurance with the following limits and forms/endorsements:

Each Occurrence $[***]

Products and Completed Operations Aggregate $[***]

(a) Occurrence form including premises and operations coverage, products and completed operations, broad form property damage, , personal injury coverage, blanket contractual liability, and watercraft liability coverage if services are performed on or near a body of water.

(b) Products and completed operations coverage shall be maintained for a period of not less than [***] following the date of the last delivery of Product to Pfizer hereunder.

(c) including Pfizer and its Affiliates as additional insureds with respect to any legal liability of Pfizer or its Affiliates, arising out of Codexis' performance.

(v) Automobile Liability Insurance: $[***] combined single limit for bodily injury and property damage arising out of all owned, non-owned and hired vehicles, including coverage for all automobiles used in the performance of this Agreement and including the loading and unloading of same.

(vi) Umbrella (Excess) Liability Coverage (follow form) in an amount not less than $[***] per occurrence and in the aggregate

(vii) Care, Custody and Control. If Codexis has care, custody or control of Pfizer property or inventory, Codexis shall be responsible for any loss or damage to it, and provide all risk Property Coverage at full replacement cost for same.

(viii) Acceptance of Certificate. Acceptance of any insurance certificate by Pfizer shall not constitute acceptance of the adequacy of coverage, compliance with the requirements of this Agreement, or serve as an amendment to this Agreement.

13. MISCELLANEOUS

13.1 Further Assurances. From time to time on and after the Effective Date, each Party shall at the reasonable request of the other Party: (a) deliver to the other Party such records, data, or other documents; (b) execute, and deliver or cause to be delivered, all assignments, consents, documents or further instruments of transfer or license; and (c) take or cause to be taken all other actions as such other Party may reasonably deem necessary or desirable in order for such Party to obtain the full benefits of this Agreement and the transactions contemplated hereby; each to the extent as required under the provisions of this Agreement.

13.2 Limitation of Liability. EXCEPT FOR BREACHES OF ARTICLE 8 (CONFIDENTIALITY), SECTION 2.14 OR INDEMNIFICATION PURSUANT TO ARTICLE 12, IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, EXEMPLARY, OR SPECIAL DAMAGES OF THE OTHER PARTY ARISING OUT OF OR RELATED TO THIS AGREEMENT, HOWEVER CAUSED, UNDER ANY THEORY OF LIABILITY, WHETHER FORESEEABLE OR NOT. FURTHERMORE, EXCEPT FOR BREACHES OF ARTICLE 8, SECTION 2.14 OR INDEMNIFICATION PURSUANT TO ARTICLE 12, IN NO EVENT SHALL EITHER PARTY BE LIABLE TO THE OTHER PARTY FOR ANY CLAIM FOR DAMAGES SUCH PARTY SUFFERS UNDER THIS AGREEMENT IN AN AMOUNT EXCEEDING THE LESSER OF

TWICE THE AGGREGATE AMOUNT OF THE PAYMENTS MADE BY PFIZER TO CODEXIS RELATED TO SUCH CLAIM OR US$[***], PROVIDED THAT NO LIMITATION OF LIABILITY HEREIN SHALL BE APPLICABLE TO ACTS OF GROSS NEGLIGENCE OR WILLFUL MISCONDUCT.

13.3 Governing Law. This Agreement shall be governed by, and construed and interpreted in accordance with, the internal laws of the State of New York, without giving effect to any choice of law rule that would cause the application of the laws of any jurisdiction other than the internal laws of New York to the rights and duties of the Parties. The Parties agree that the United Nations Convention on Contracts for the International Sale of Goods shall not apply to this Agreement.

13.4 Dispute Resolution.

(a) Any dispute, controversy, or claim arising out of, relating to, or in connection with this Agreement, including with respect to the formation, applicability, breach, termination, validity or enforceability thereof, which cannot be amicably resolved, shall be finally resolved by arbitration.

(b) The arbitration shall be conducted by three arbitrators, in accordance with the Commercial Arbitration Rules of the American Arbitration Association ("AAA"). The claimant shall nominate an arbitrator in its request for arbitration. The respondent shall nominate an arbitrator within [***] of the receipt of the request for arbitration. The two arbitrators nominated by the Parties shall nominate a third arbitrator within [***] after the nomination of the later-nominated arbitrator. The third arbitrator shall act as chair of the tribunal. If any of the three arbitrators are not nominated within the time prescribed above, then the AAA shall appoint the arbitrator(s).

(c) The seat of the arbitration shall be New York, and it shall be conducted in the English language. The costs of the arbitration, including the Parties' reasonable legal fees, shall be borne by the unsuccessful Party or Parties. However, the arbitral tribunal may apportion such costs between the Parties if it determines that apportionment is reasonable, taking into account the circumstances of the case.

(d) The arbitration award shall be final and binding on the Parties, and the parties undertake to carry out any award without delay. Judgment upon the award may be entered by any court having jurisdiction of the award or having jurisdiction over the relevant party or its assets.

(e) The parties agree that the IBA Rules on the Taking of Evidence in International Arbitration shall apply to the arbitration. The Parties agree not to bring any 28 USC § 1782 application before the U.S. courts in aid of any arbitration commenced or anticipated under this provision, and undertake not to use in the arbitration proceedings any documents obtained pursuant to such an application. The Parties agree that the arbitration shall be kept confidential.

(f) The existence of the arbitration, any non-public information provided in the arbitration, and any submissions, orders or awards made in the arbitration (together, the "Confidential Information") shall not be disclosed to any non-party except the tribunal, the AAA, the Parties, their counsel, experts, witnesses, accountants and auditors, insurers and reinsurers, and any other person necessary to the conduct of the arbitration. Notwithstanding the foregoing, a Party may disclose Confidential Information to the extent that disclosure may be required to fulfil a legal duty, protect or pursue a legal right, or enforce or challenge an award in bona fide legal proceedings. This

confidentiality provision survives termination of the Agreement and of any arbitration brought pursuant to the Agreement.

(g) Nothing in this Agreement shall be deemed as preventing a Party from seeking injunctive relief (or any other provisional remedy) from any court having jurisdiction over the Parties and the subject matter of the dispute as necessary to protect that Party's name, Confidential Information, trade secrets, know-how, or any other proprietary rights.

13.5 Force Majeure. Codexis shall establish a written business continuity plan and Business Continuity Management system that aims to assure supply of Codexis Enzyme to Pfizer and its Affiliates in the event of a business interruption, including any disruption resulting from a force majeure event, to the extent commercially reasonable. Except for the payment of money, neither Party shall be held responsible for any delay or failure in performance hereunder caused by strikes, embargoes, unexpected government requirements, civil or military authorities, acts of God, flood, earthquake, or by the public enemy or other causes reasonably beyond such Party's control and without such Party's fault or negligence; provided, that the affected Party notifies the unaffected Party as soon as reasonably possible and resumes performance hereunder as soon as reasonably possible following cessation of such force majeure event; provided, further, that no such delay or failure in performance shall continue for more than three (3) months. In the event that a delay or failure in performance by a Party under this Section 13.5 continues longer than three (3) months, the other Party may terminate this Agreement in accordance with the terms and conditions of Section 11.3.

13.6 Independent Contractors. The Parties are independent contractors. Nothing in this Agreement is intended or will be deemed to constitute a partnership, agency or employer-employee relationship between the Parties. Neither Party will incur any debts or make any commitments for the other Party.

13.7 Assignment. Except as expressly provided herein, neither this Agreement nor any interest hereunder will be assignable, nor any other obligation delegable, by a Party without the prior written consent of the other Party, which consent will not be unreasonably withheld or delayed. This Agreement shall be binding upon successors and permitted assigns of the Parties. Any assignment not in accordance with this Section 13.7 shall be null and void. Any permitted assignment or transfer of this Agreement shall not release the assigning or transferring Party from its obligations under this Agreement.

13.8 Notices. Any notice, report, communication, or consent required or permitted by this Agreement shall be in writing and shall be sent (a) by prepaid registered or certified mail, return receipt requested; (b) by overnight express delivery service by a nationally recognized courier; (c) via confirmed facsimile, followed within five (5) days by a copy delivered in accordance with this Section 13.8; or (d) via e-mail or pdf, with delivery receipt and read receipt requested, addressed to the other Party at the address shown below or at such other address as such Party gives notice hereunder. Such notice will be deemed to have been given when delivered or, if delivery is not accomplished by some fault of the addressee, when tendered.

If to Pfizer:

Pfizer Ireland Pharmaceuticals
Operations Support Group
Ringaskiddy Co Cork
Ireland
Attn: Company Secretary

and, with a copy (which shall not constitute notice) to:

Pfizer Inc.
235 East 42nd Street
New York, NY 10017
Attn: General Counsel
LegalNotice@Pfizer.com

If to Codexis:

Codexis, Inc.

Codexis, Inc.

200 Penobscot Drive

Redwood City, California 94063

USA

Attn: President

ceo@codexis.com

With a copy to:

Codexis, Inc.

Codexis, Inc.

200 Penobscot Drive

Redwood City, California 94063

USA

Attn: General Counsel

gc@codexis.com

13.9 Severability. If any provision of this Agreement is found by a court to be void, invalid, or unenforceable, such provision shall be reformed to comply with Applicable Law or stricken if not so conformable, so as not to affect the validity or enforceability of this Agreement; provided, that no such reformation or striking shall be effective if the result materially changes the economic benefit of this Agreement to either Party. If any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be void, invalid, or unenforceable, and reformation or striking of such provision would materially change the economic benefit of this Agreement to either Party, the Parties shall modify such provision in accordance with Section 13.10 to obtain a legal, valid, and enforceable provision and provide an economic benefit to the Parties that most nearly effects the Parties' intent on entering into this Agreement.

13.10 Press Release. Upon execution of this Agreement, the Parties shall issue the mutually agreed upon joint press release set forth in **Exhibit 13.10**. Any disclosure that is required by Applicable Law (including the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended), or the rules of a securities exchange or the Securities and Exchange Commission or the securities regulations of any state or other jurisdiction, may be made by Codexis or Pfizer; *provided* that any such required disclosure will not contain any confidential information of, respectively, Pfizer or Codexis and, if disclosure of such information is required by Applicable Law or such

rules or regulations, the Parties will comply with Section 8.4, and will use reasonable efforts to minimize such disclosure and obtain confidential treatment for any such information that is disclosed to a governmental agency, including the identities of the parties or the other party, as applicable. Codexis may publicly disclose any information that has previously been disclosed in accordance with this Section 13.10 without any requirement to receive Pfizer's approval thereof or to provide Pfizer with an opportunity to review such disclosure.

13.11 Modifications; Waivers. This Agreement may not be altered, amended, supplemented, or modified in any way except by a writing signed by each Party. The failure of a Party to enforce any rights or provisions of this Agreement shall not be construed to be a waiver of such rights or provisions, or a waiver by such Party to thereafter enforce such rights or provisions or any other rights or provisions hereunder.

13.12 No Third Party Beneficiaries. This Agreement is neither expressly nor impliedly made for the benefit of any party other than those executing it, save as expressly stated herein in regard to Pfizer Affiliates and Pfizer Designees.

13.13 Interpretation.

(h) Captions and Headings. The captions and headings of clauses contained in this Agreement preceding the text of the articles, sections, subsections, and paragraphs hereof are inserted solely for convenience and ease of reference only and shall not constitute any part of this Agreement, or have any effect on its interpretation or construction.

(i) Singular and Plural. All references in this Agreement to the singular shall include the plural where applicable, and all references to gender shall include both genders and the neuter.

(j) Articles, Sections, and Subsections. Unless otherwise specified, references in this Agreement to any article shall include all sections, subsections, and paragraphs in such article; references in this Agreement to any section shall include all subsections and paragraphs in such section; and references in this Agreement to any subsection shall include all paragraphs in such subsection.

(k) Days. All references to days in this Agreement shall mean calendar days, unless otherwise specified.

(l) Ambiguities. The Parties jointly drafted this Agreement. Ambiguities and uncertainties in this Agreement, if any, shall not be interpreted against either Party, irrespective of which Party may be deemed to have caused the ambiguity or uncertainty to exist.

13.1 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 and the same instrument. Counterparts may be delivered, electronic mail (including pdf or any electronic signature complying with the U.S. Federal ESIGN Act of 2000, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

13.2 Entire Agreement. The Parties acknowledge that this Agreement, including, for clarity, the preamble, recitals and exhibits attached hereto, sets forth the

entire agreement and understanding of the Parties as to the subject matter hereof, and supersedes all prior and contemporaneous discussions, agreements, and writings with respect hereto with respect to the subject matter hereof. No trade customs, courses of dealing or courses of performance by the Parties shall be relevant to modify, supplement, or explain any term(s) used in this Agreement. Each Party agrees and acknowledges that it has not relied on any information, data, or forecasts provided by the other Party, or discussions with the other Party, in the negotiation and execution of this Agreement.

[*Signature page follows*]

IN WITNESS WHEREOF, Pfizer and Codexis have executed this Agreement by their respective duly authorized representatives on the dates identified below but the Agreement shall become effective on the Effective Date.

PFIZER IRELAND PHARMACEUTICALS	**CODEXIS, INC.**
By: /s/Paul Duffy	By: /s/John Nicols
Name: Paul Duffy	Name: John Nicols
Title: Director	Title: President & CEO
Date: July 13, 2022	Date: July 13, 2022

CONFIDENTIAL
Certain information is this document, marked by brackets, has been omitted because it is both (i) not material and (ii) is the type that the registrant treats as private or confidential.

Exhibit 1.36

Licensed Patents

Intentionally omitted pursuant to Regulation S-K, Item 601(a)(5)

Exhibit 1.43

Pfizer Designees

Intentionally omitted pursuant to Regulation S-K, Item 601(a)(5)

CONFIDENTIAL
Certain information is this document, marked by brackets, has been omitted because it is both (i) not material and (ii) is the type that the registrant treats as private or confidential.

Exhibit 2.5(a)

Existing Orders

Intentionally omitted pursuant to Regulation S-K, Item 601(a)(5)

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Certain information is this document, marked by brackets, has been omitted because it is both (i) not material and (ii) is the type that the registrant treats as private or confidential.

Exhibit 2.5(b)

Existing Non-Cancelable Orders

Intentionally omitted pursuant to Regulation S-K, Item 601(a)(5)

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Certain information is this document, marked by brackets, has been omitted because it is both (i) not material and (ii) is the type that the registrant treats as private or confidential.

Exhibit 2.5(c)

Existing Cancelable Orders

Intentionally omitted pursuant to Regulation S-K, Item 601(a)(5)

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Exhibit 2.6

Specifications

Intentionally omitted pursuant to Regulation S-K, Item 601(a)(5)

CONFIDENTIAL
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Exhibit 3.1

Pricing for Codexis Enzyme

Intentionally omitted pursuant to Regulation S-K, Item 601(a)(5)

Exhibit 9.1(e)

Pfizer International Anti-Bribery and Anti-Corruption Principles

Pfizer has a longstanding corporate policy that prohibits colleagues or anyone else acting on our behalf from providing any payment or benefit to any person or entity in order to improperly influence a government official or to gain an unfair business advantage. Pfizer is committed to performing with integrity and acting ethically and legally in accordance with all applicable laws and regulations, including, but not limited to, anti-bribery and anti-corruption laws. We expect the same commitment from the consultants, agents and representatives or other companies and individuals acting on our behalf ("Business Associates"), as well as those acting on behalf of Business Associates, in connection with work for Pfizer.

Bribery of Government Officials

Most countries have laws that forbid making, offering or promising any payment or anything of value (directly or indirectly) to a government official when the payment is intended to influence an official act or decision to award or retain business. Under Pfizer's policies, "government official" is broadly interpreted and includes: (i) any elected or appointed government official (e.g., a member of a ministry of health); (ii) any employee or person acting for or on behalf of a government official, agency, or enterprise performing a governmental function; (iii) any political party, candidate for public office, officer, employee, or person acting for or on behalf of a political party or candidate for public office; or (iv) an employee or person acting for or on behalf of a public international organization (e.g. the United Nations). "Government" is meant to include all levels and subdivisions of government (i.e. local, regional, or national and administrative, legislative, or executive). Because this definition of "government official" is so broad, it is likely that Business Associates will interact with a government official in the ordinary course of their business on behalf of Pfizer. For example, doctors employed by government-owned hospitals would be considered "government officials" under Pfizer's policies.

The U.S. Foreign Corrupt Practices Act of 1977 (the "FCPA") prohibits making, promising, or authorizing the making of a payment or providing anything of value to a non-U.S. government official to improperly or corruptly induce that official to make any governmental act or decision to assist a company in obtaining or retaining business, or to otherwise obtain an improper advantage. The FCPA also prohibits a company or person from using another company or individual to engage in any of the foregoing activities. As a U.S. company, Pfizer must comply with the FCPA and could be held liable as a result of acts committed anywhere in the world by a Business Associate.

Anti-Bribery and Anti-Corruption Principles Governing Interactions with Governments and Government Officials

Business Associates must communicate and abide by the following principles with regard to their interactions with governments and government officials:

- Business Associates, and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly make, promise, or authorize the making of a corrupt payment or provide anything of value to any government official to induce that government official to make any governmental act or decision to help Pfizer obtain or retain business. Business Associates, and those acting on their behalf in connection with work for Pfizer, may never make a payment to or offer

a government official any items or benefit, regardless of value, as an improper inducement for such government official to approve, reimburse, prescribe, or purchase a Pfizer product, to influence the outcome of a clinical trial, or otherwise improperly to benefit Pfizer's business activities

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- Business Associates, and those acting on their behalf in connection with work for Pfizer, need to understand whether local laws, regulations, or operating procedures (including requirements imposed by government entities such as government-owned hospitals or research institutions) impose any limits, restrictions, or disclosure requirements on compensation, financial support, donations, or gifts that may be provided to government officials. Business Associates and those acting on their behalf in connection with work for Pfizer, must take into account and comply with any applicable restrictions in conducting their Pfizer-related activities. If a Business Associate is uncertain as to the meaning or applicability of any identified limits, restrictions, or disclosure requirements with respect to interactions with government officials, that Business Associate should consult with his or her primary Pfizer contact before undertaking their activities.

- Business Associates and those acting on their behalf in connection with work for Pfizer are not permitted to offer facilitation payments. A "facilitation payment" is a nominal, unofficial payment to a government official for the purpose of securing or expediting the performance of a routine, non-discretionary governmental action. Examples of facilitation payments include payments to expedite the processing of licences, permits or visas for which all paperwork is in order. In the event that a Business Associate, or someone acting on their behalf in connection with work for Pfizer, receives or becomes aware of a request or demand for a facilitation payment or bribe in connection with work for Pfizer, the Business Associate shall report such request or demand promptly to his or her primary Pfizer contact before taking any further action.

Commercial Bribery

Bribery and corruption can also occur in non-government, business to business relationships. Most countries have laws which prohibit offering, promising, giving, requesting, receiving, accepting, or agreeing to accept money or anything of value in exchange for an improper business advantage. Examples of prohibited conduct could include, but are not limited to, the provision of inappropriate gifts or hospitality, kickbacks, or investment opportunities offered to improperly induce the purchase of goods or services. Pfizer colleagues are not permitted to offer, give, solicit or accept bribes, and we accept our Business Associates, and those acting on their behalf in connection with work for Pfizer, to abide by the same principles.

Anti-Bribery and Anti-Corruption Principles Governing Interactions with Private Parties and Pfizer Colleagues

Business Associates must communicate and abide by the following principles with regard to their interactions with private parties and Pfizer colleagues:

- Business Associates, and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly make, promise, or authorize the making of a corrupt payment or provide anything of value to any person to induce that person to provide an unlawful business advantage for Pfizer.
- Business Associates and those acting on their behalf in connection with work for Pfizer, may not directly or indirectly, solicit, agree to accept or receive a payment or anything of value as an improper inducement in connection with their business activities performed for Pfizer.
- Pfizer colleagues are not permitted to receive gifts, services, perks, entertainment or other items of more than token or nominal value from Business Associates, and those acting on their behalf in connection with work for Pfizer. Moreover, gifts of nominal value are only permitted if they are received in an infrequent basis and only at the appropriate occasions.

Reporting Suspected or Actual Violations

Business Associates, and those acting on their behalf in connection with work for Pfizer, are expected to raise concerns related to potential violations of these International Anti-Bribery and Anti-Corruption Principles or the law. Such reports can be made to a Business Associate's primary point of contact at Pfizer, or if an Associate prefers, to Pfizer's Compliance Group by e-mail at [***] or by phone at [***].

CONFIDENTIAL
Certain information is this document, marked by brackets, has been omitted because it is both (i) not material and (ii) is the type that the registrant treats as private or confidential.

Exhibit 13.10

Press Release

CODEXIS®

Codexis Announces Agreement with Pfizer to Supply Enzyme

for the Manufacture of PAXLOVID™ (nirmatrelvir tablets; ritonavir tablets)

REDWOOD CITY, Calif., July [XX], 202– Codexis, Inc. (NASDAQ: CDXS), a leading enzyme engineering company enabling the promise of synthetic biology, today announced that the Company has entered into an agreement with Pfizer for the supply of a proprietary high-performance enzyme used to manufacture a critical intermediate for nirmatrelvir, an active pharmaceutical ingredient (API) in PAXLOVID™, Pfizer's antiviral therapeutic, which is currently authorized for emergency use by the U.S. Food and Drug Administration ("FDA") for the treatment of mild-to-moderate COVID-19 in people at high risk of progression to severe illness and authorized or approved by other regulatory authorities across the globe.

"Pfizer has played a critical role in the response to the global COVID-19 pandemic, including through their rapid development of PAXLOVID™, and I am incredibly proud that Codexis' engineered enzyme is enabling a sustainable manufacturing route for their nirmatrelvir API." said John Nicols, President and CEO of Codexis. "This agreement demonstrates the agility of Codexis' commercial supply chain and manufacturing capabilities to very rapidly generate unprecedented enzyme quantities. We look forward to our continued support of Pfizer's manufacturing of PAXLOVID™ for COVID-19 patients."

"Codexis has been an extremely valuable partner throughout the scale-up of the nirmatrelvir process, and we are pleased to extend our partnership through this multi-year agreement." said Pamela Siwik, Vice President, Launch Excellence, Pfizer Global Supply. "Their unique enzyme is an important element in the manufacture of PAXLOVID and plays a role in supporting our efforts to ensure rapid availability of this COVID-19 oral treatment to people around the world."

For important information related to the terms of the enzyme supply agreement and its impact on Codexis' outlook, see Codexis' Current Report on Form 8-K filed with the SEC on July [XX], 2022.

About Codexis

Codexis is a leading enzyme engineering company leveraging its proprietary CodeEvolver® platform to discover and develop novel, high performance enzymes and novel biotherapeutics. Codexis enzymes have applications in the sustainable manufacturing of pharmaceuticals, food, and industrial products; in the creation of the next generation of life science tools; and as gene therapy and biologic therapeutics. The Company's unique performance enzymes drive improvements such as: reduced energy usage, waste generation and capital requirements; higher yields; higher fidelity diagnostics; and more efficacious therapeutics. Codexis enzymes enable the promise of synthetic biology to improve the health of people and the planet. For more information, visit www.codexis.com.

Forward-Looking Statements

To the extent that statements contained in this press release are not descriptions of historical facts regarding Codexis, they are forward-looking statements reflecting the current beliefs and expectations of management made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including Codexis' expectations regarding the supply of

its proprietary high performance enzyme to Pfizer and Codexis' ability to continue to support the manufacture of Pfizer's treatment for COVID-19 patients. You should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties and other factors that are, in some cases, beyond Codexis' control and that could materially affect actual results. Additional information about factors that could materially affect actual results can be found in Codexis' Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 28, 2022 and in Codexis' Quarterly Report on Form 10-Q filed with the SEC on May 9, 2022, including under the caption "Risk Factors," and in Codexis' other periodic reports filed with the SEC. Codexis expressly disclaims any intent or obligation to update these forward-looking statements, except as required by law.

Investor Relations Contact:
Argot Partners
Brendan Strong/Carrie McKim
(212) 600-1902
Codexis@argotpartners.com

Exhibit 31.1

CERTIFICATION

I, Stephen Dilly, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Codexis, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 4, 2022

/s/ Stephen Dilly

Stephen Dilly

President and Chief Executive Officer
(principal executive officer)

Exhibit 31.2

CERTIFICATION

I, Ross Taylor, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Codexis, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 4, 2022

/s/ Ross Taylor

Ross Taylor
Senior Vice President and Chief Financial Officer
(principal financial and accounting officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Codexis, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended September 30, 2022, as filed with the Securities and Exchange Commission (the "Report"), Stephen Dilly, President and Chief Executive Officer of the Company and Ross Taylor, Senior Vice President and Chief Financial Officer of the Company, respectively, do each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 4, 2022

/s/ Stephen Dilly

Stephen Dilly
President and Chief Executive Officer
(principal executive officer)

/s/ Ross Taylor

Ross Taylor
Senior Vice President and Chief Financial Officer
(principal financial and accounting officer)