

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

**FORM S-8
REGISTRATION STATEMENT**

*UNDER
THE SECURITIES ACT OF 1933*

CODEXIS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

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

**200 Penobscot Drive
Redwood City, CA 94063**
(Address of Principal Executive Offices including Zip Code)

**Codexis, Inc. 2002 Stock Plan
Codexis, Inc. 2010 Equity Incentive Award Plan**
(Full Title of the Plan)

**Douglas T. Sheehy
Senior Vice President, General Counsel and
Secretary
Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063
(650) 421-8100**
(Name and Address, Including Zip Code, and Telephone Number,
Including Area Code, of Agent for Service)

Copy To:

**Patrick A. Pohlen, Esq.
Latham & Watkins LLP
140 Scott Drive
Menlo Park, California 94025
(650) 328-4600**

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

Large Accelerated Filer
Non-Accelerated Filer

Accelerated Filer
Smaller Reporting Company

CALCULATION OF REGISTRATION FEE

Title of Securities To Be Registered	Amount to be Registered(1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.0001 Par Value	8,307,026 (2)	\$5.94 (3)	\$49,343,734.44	\$3,518.21
Common Stock, \$0.0001 Par Value	1,997,855 (4)	\$9.95 (5)	\$19,878,657.25	\$1,417.35

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement shall also cover any additional shares of the Registrant's common stock that become issuable under the Codexis, Inc. 2002 Stock Plan (the "2002 Plan") and the Codexis, Inc. 2010 Equity Incentive Award Plan (the "2010 Plan"), by reason of any stock dividend, stock split, recapitalization or similar transaction effected without the registrant's receipt of consideration which would increase the number of outstanding shares of common stock.
- (2) Represents 8,307,026 shares of common stock subject to outstanding awards under the 2002 Plan as of June 18, 2010. There are no shares reserved for future issuance under the 2002 Plan as of June 18, 2010. Any such shares of common stock that are subject to awards under the 2002 Plan which are forfeited or lapse unexercised and which are not issued under the 2002 Plan will be available for issuance under the 2010 Plan. See footnote 4 below.
- (3) This estimate is made pursuant to Rule 457(h) of the Securities Act solely for purposes of calculating the registration fee. For the 8,307,026 shares of common stock reserved for issuance upon the exercise of outstanding awards granted under the 2002 Plan, the Proposed Maximum Offering Price Per Share is \$5.94, which is the weighted average exercise price of outstanding awards granted under the 2002 Plan.
- (4) Represents 1,997,855 shares of common stock, which is the sum of (a) 200,117 shares of common stock subject to outstanding awards under the 2010 Plan as of June 18, 2010 and (b) 1,797,738 shares of common stock reserved for future issuance under the 2010 Plan as of June 18, 2010. Shares of common stock reserved for issuance under the 2010 Plan consist of (a) 1,100,000 shares of common stock initially available for future grants under the 2010 Plan and (b) 897,855 shares of common stock previously available for issuance under the 2002 Plan that are now available for issuance under the 2010 Plan. To the extent outstanding awards under the 2002 Plan are forfeited or lapse unexercised and which following the effective date of the 2010 Plan are not issued under the 2002 Plan, the shares of common stock subject to such awards will be available for future issuance under the 2010 Plan. See footnote 2 above.
- (5) This estimate is made pursuant to Rule 457(c) and 457(h) of the Securities Act for purposes of calculating the registration fee. The Proposed Maximum Offering Price Per Share is \$9.95, which is the weighted average of (a) the average of the high and low prices for the registrant's common stock as reported on the Nasdaq Global Market on June 18, 2010, or \$9.91, and (b) the exercise price of the grants made to date under the 2010 Plan, or \$10.28.

This registration statement will become effective upon filing in accordance with Rule 462 under the Securities Act.

Proposed sale to take place as soon after the effective date of the registration statement as awards under the plans are exercised and/or vest.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information called for in Part I of Form S-8 is not being filed with or included in this Form S-8 (by incorporation by reference or otherwise) in accordance with the rules and regulations of the Securities and Exchange Commission (the "SEC").

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

In this registration statement, Codexis, Inc. is sometimes referred to as "Registrant," "we," "us" or "our."

Item 3. Incorporation of Documents by Reference.

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this registration statement, and later information filed with the SEC will update and supersede this information. We hereby incorporate by reference into this registration statement the following documents previously filed with the SEC:

- (a) The prospectus filed by the Registrant with the SEC pursuant to Rule 424(b) under the Securities Act, on April 22, 2010, relating to the registration statement on Form S-1, as amended (Registration No. 333-164044), which contains the Registrant's audited financial statements for the latest fiscal year for which such statements have been filed;
- (b) The Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed by the Registrant with the SEC on May 28, 2010; and
- (c) The description of the Registrant's common stock contained in the Registrant's registration statement on Form 8-A (Registration No. 001-34705), filed by the Registrant with the SEC under Section 12(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), on April 19, 2010, including any amendments or reports filed for the purpose of updating such description.

All documents that the Registrant subsequently files pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act prior to the filing of a post-effective amendment to the registration statement which indicates that all of the shares of common stock offered have been sold or which deregisters all of such shares then remaining unsold, shall be deemed to be incorporated by reference in this registration statement and to be a part hereof from the date of the filing of such documents; except as to any portion of any future annual or quarterly report to stockholders or document or current report furnished under current Items 2.02 or 7.01 of Form 8-K that is not deemed filed under such provisions. For the purposes of this registration statement, any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this registration statement.

Under no circumstances will any information filed under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 4. Description of Securities.

Not Applicable.

Item 5. Interests of Named Experts and Counsel.

Latham & Watkins LLP, counsel to the Registrant, and certain attorneys and investment funds affiliated with the firm collectively own an aggregate of less than 1% of the Registrant's common stock.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify its directors and officers from certain expenses in connection with legal proceedings and permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by this section.

The Registrant's amended and restated certificate of incorporation provides for the indemnification of directors to the fullest extent permissible under Delaware law.

The Registrant's amended and restated bylaws provide for the indemnification of officers, directors and third parties acting on the Registrant's behalf if such persons act in good faith and in a manner reasonably believed to be in and not opposed to the Registrant's best interest, and, with respect to any criminal action or proceeding, such indemnified party had no reason to believe his or her conduct was unlawful.

The Registrant has entered into indemnification agreements with each of its directors and executive officers, in addition to the indemnification provisions provided for in its charter documents. The Registrant intends to enter into indemnification agreements with any new directors and executive officers in the future.

The Registrant has purchased and will maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in that capacity, subject to certain exclusions and limits of the amount of coverage.

Item 7. Exemption from Registration Claimed.

Not Applicable.

Item 8. Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
4.1	Amended and Restated Certificate of Incorporation of Codexis, Inc. (incorporated by reference from Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on May 28, 2010 (File No. 001-34705)).
4.2	Amended and Restated Bylaws of Codexis, Inc. (incorporated by reference from Exhibit 3.2 to the Registrant's Quarterly Report on Form 10-Q, filed with the SEC on May 28, 2010 (File No. 001-34705)).
4.3	Form of Codexis, Inc.'s Common Stock Certificate (incorporated by reference from Exhibit 4.1 to the Registrant's Registration Statement on Form S-1/A, filed with the SEC on March 31, 2010 (File No. 333-164044)).
4.4	Codexis, Inc. 2002 Stock Plan, as amended, and Form of Stock Option Agreement (incorporated by reference from Exhibit 10.10 to the Registrant's Registration Statement on Form S-1, filed with the SEC on December 28, 2009 (File No. 333-164044)).
4.5	Codexis, Inc. 2010 Equity Incentive Award Plan and related documents (incorporated by reference from Exhibit 10.11 to the Registrant's Registration Statement on Form S-1/A, filed with the SEC on March 31, 2010 (File No. 333-164044)).
5.1	Opinion of Latham & Watkins LLP.
23.1	Consent of Latham & Watkins LLP (included in Exhibit 5.1 hereto).
23.2	Consent of Independent Registered Public Accounting Firm.
24.1	Power of Attorney (included in the signature page to this registration statement).

Item 9. Undertakings.

(a) The Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the registration statement is on Form S-8 and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Redwood City, State of California, on this 24th day of June, 2010.

CODEXIS, INC.

By: /s/ Alan Shaw

Alan Shaw

President and Chief Executive Officer

POWER OF ATTORNEY

Each person whose individual signature appears below hereby authorizes and appoints Alan Shaw and Robert J. Lawson, and each of them, with full power of substitution and resubstitution and full power to act without the other, as his or her true and lawful attorney-in-fact and agent to act in his or her name, place and stead and to execute in the name and on behalf of each person, individually and in each capacity stated below, and to file any and all amendments to this Registration Statement, including any and all post-effective amendments and amendments thereto, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing, ratifying and confirming all that said attorneys-in-fact and agents or any of them or their or his substitute or substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated below.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Alan Shaw</u> Alan Shaw	President and Chief Executive Officer, Director (Principal Executive Officer)	June 24, 2010
<u>/s/ Robert J. Lawson</u> Robert J. Lawson	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	June 24, 2010
<u>/s/ Thomas R. Baruch</u> Thomas R. Baruch	Chairman of the Board of Directors	June 24, 2010
<u>/s/ Alexander A. Karsner</u> Alexander A. Karsner	Director	June 24, 2010
<u>/s/ Bernard J. Kelley</u> Bernard J. Kelley	Director	June 24, 2010
<u>/s/ Bruce Pasternack</u> Bruce Pasternack	Director	June 24, 2010
<u>Chris Streng</u>	Director	
<u>/s/ Dennis P. Wolf</u> Dennis P. Wolf	Director	June 24, 2010

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LATHAM & WATKINS LLP

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Milan	

June 24, 2010

Codexis, Inc.
200 Penobscot Drive
Redwood City, CA 94063

Re: Registration Statement on Form S-8: 10,304,881 shares of Common Stock, par value \$0.0001 per share

Ladies and Gentlemen:

We have acted as special counsel to Codexis, Inc., a Delaware corporation (the "Company"), in connection with the registration by the Company of 10,304,881 shares of common stock of the Company, par value \$0.0001 per share (the "Shares"), issuable under the Company's 2010 Equity Incentive Award Plan (the "2010 Plan") and 2002 Stock Plan (together with the 2010 Plan, the "Plans"). The Shares are included in a registration statement on Form S-8 under the Securities Act of 1933, as amended (the "Securities Act"), filed with the Securities and Exchange Commission (the "Commission") on June 24, 2010 (the "Registration Statement"). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or the prospectus forming a part thereof, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware, and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the purchasers, and have been issued by the Company against payment therefor in the circumstances contemplated by and pursuant to the Plans, and assuming in each case that the individual issuances, grants or awards under the Plans are duly authorized by all necessary corporate action of the Company and duly issued, granted or awarded and exercised in accordance with the requirements of law and the Plans (and the agreements and awards duly adopted thereunder and in accordance therewith), the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and non-assessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares in the General Corporation Law of the State of Delaware.

June 24, 2010

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LATHAM & WATKINS^{LLP}

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Securities Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the Codexis, Inc. 2002 Stock Plan, as amended, and Codexis, Inc. 2010 Equity Incentive Award Plan of Codexis, Inc., of our report dated February 26, 2010, except for Note 18, as to which the date is March 31, 2010, with respect to the consolidated financial statements of Codexis, Inc. as of and for the year ended December 31, 2009 included in its Registration Statement (Form S-1 No. 333-164044) filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP
Palo Alto, California
June 24, 2010