Table of Contents

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 March 31, 2010

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	**94063**
(Address of principal executive offices)	**(Zip Code)**

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

(Former name, former address and former fiscal year, if changed since last report)

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☐ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (Do not check if a smaller reporting company)	Smaller reporting company	☐

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 April 29, 2010, there were 34,083,555 shares of the registrant's Common Stock, par value $0.0001 per share, outstanding.

Table of Contents

Codexis, Inc.

Quarterly Report on Form 10-Q
For The Three Months Ended March 31, 2010

INDEX

Codexis, Inc.

Condensed Consolidated Balance Sheets
(Unaudited)
(In Thousands)

	March 31, 2010	December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	$ 29,197	$ 31,785
Marketable securities	10,067	23,778
Accounts receivable, net of allowances of $12 at December 31, 2009 and March 31, 2010, respectively	6,561	7,246
Inventories	2,912	2,915
Prepaid expenses and other current assets	1,919	1,658
Total current assets	50,656	67,382
Restricted cash	731	731
Property and equipment, net	21,251	21,581
Intangible assets, net	744	928
Goodwill	3,241	3,241
Other non-current assets	7,213	5,173
Total assets	$ 83,836	$ 99,036
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 6,730	$ 9,999
Accrued compensation	3,560	6,518
Related party payable	548	1,314
Other accrued liabilities	9,294	10,376
Redeemable convertible preferred stock warrant liability	2,405	2,009
Deferred revenues	819	2,240
Related party deferred revenues	8,622	13,161
Financing obligations	5,455	5,368
Total current liabilities	37,433	50,985
Deferred revenues, net of current portion	1,811	1,856
Related party deferred revenues, net of current portion	6,466	7,487
Financing obligations, net of current portion	1,207	2,574
Other long-term liabilities	1,405	1,307
Commitments and contingencies		
Redeemable convertible preferred stock issuable in series A to F	179,672	179,672
Stockholders' deficit:		
Common stock	—	—
Additional paid-in capital	16,812	15,015
Accumulated other comprehensive income (loss)	7	(252)
Accumulated deficit	(160,977)	(159,608)
Total stockholder's deficit	(144,158)	(144,845)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	$ 83,836	$ 99,036

Codexis, Inc.

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

	Three Months Ended March 31,	
	2010	2009
Revenues:		
Product	$ 6,275	$ 4,571
Related party collaborative research and development	16,042	14,420
Collaborative research and development	661	407
Government grants	2,722	12
Total revenues	25,700	19,410
Costs and operating expenses:		
Cost of product revenues	5,218	3,856
Research and development	12,982	15,134
Selling, general and administrative	8,600	6,063
Total costs and operating expenses	26,800	25,053
Loss from operations	(1,100)	(5,643)
Interest income	28	31
Interest expense and other, net	(358)	(427)
Loss before provision (benefit) for income taxes	(1,430)	(6,039)
Provision (benefit) for income taxes	(61)	54
Net loss	$ (1,369)	$ (6,093)
Net loss per share of common stock, basic and diluted	$ (0.50)	$ (2.35)
Weighted average common shares used in computing net loss per share of common stock, basic and diluted	2,714	2,594

Codexis, Inc.

Condensed Consolidated Statements of Cash Flows
(Unaudited)
(In Thousands)

	Three Months Ended March 31,	
	2010	2009
Operating activities:		
Net loss	$ (1,369)	$ (6,093)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of intangible assets	187	215
Depreciation and amortization of property and equipment	1,651	1,130
Revaluation of redeemable convertible preferred stock warrant liability	396	6
Stock-based compensation	1,655	931
Amortization of debt discount	60	105
Accretion (amortization) of premium/discount on marketable securities	(119)	24
Changes in operating assets and liabilities:		
Accounts receivable	685	1,644
Inventories	3	116
Prepaid expenses and other current assets	(261)	(151)
Other assets	(71)	7
Accounts payable	(2,720)	(2,611)
Accrued compensation	(2,958)	(807)
Related party payable	(766)	3,084
Other accrued liabilities	(1,372)	(4,204)
Deferred revenues	(7,026)	(1,764)
Net cash used in operating activities	(12,025)	(8,368)
Investing activities:		
Decrease in restricted cash	—	220
Purchase of property and equipment	(1,320)	(1,340)
Proceeds from maturities of marketable securities	13,610	5,000
Net cash provided by investing activities	12,290	3,880
Financing activities:		
Principal payments on financing obligations	(1,339)	(1,424)
Payments in preparation for initial public offering	(1,636)	—
Proceeds from issuance of preferred stock	—	30,000
Proceeds from exercises of stock options	140	46
Net cash provided by (used in) financing activities	(2,835)	28,622
Effect of exchange rate changes on cash and cash equivalents	(18)	11
Net increase (decrease) in cash and cash equivalents	(2,588)	24,145
Cash and cash equivalents at the beginning of the period	31,785	21,903
Cash and cash equivalents at the end of the period	$ 29,197	$ 46,048

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements
(UNAUDITED)

1. Description of Business

Codexis, Inc. ("we" or "Codexis") is a developer of proprietary biocatalysts, which are enzymes or microbes that initiate or accelerate chemical reactions. We are currently selling our biocatalysts to customers in the pharmaceutical industry and are engaged in a multi-year research and development collaboration with Equilon Enterprises LLC dba Shell Oil Products US ("Shell") to develop biocatalysts for use in producing advanced biofuels. We are also using our technology platform to pursue biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals. We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc.

2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The accompanying interim condensed consolidated balance sheets as of December 31, 2009 and March 31, 2010, and the interim condensed consolidated statements of operations and cash flows for the three months ended March 31, 2009 and 2010 are unaudited. These interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and the applicable rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information. Accordingly, they do not include all of the information and notes required by GAAP for complete financial statements. These interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in our Prospectus filed with the SEC on April 22, 2010 pursuant to Rule 424(b) under the Securities Act of 1933, as amended. The December 31, 2009 condensed consolidated balance sheet included herein was derived from the audited financial statements as of that date, but does not include all disclosures including notes required by GAAP for complete financial statements.

The unaudited interim 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 March 31, 2010 and results of our operations and cash flows for the three months ended March 31, 2009 and 2010. The interim results for the three months ended March 31, 2010 are not necessarily indicative of the results that may be expected for the year ending December 31, 2010.

The unaudited interim condensed consolidated financial statements include the accounts of Codexis and our wholly-owned subsidiaries. We have subsidiaries in United States, Germany, Singapore, India, Mauritius and Hungary. All significant intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent liabilities at the date of the condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and such differences may be material to the condensed consolidated financial statements.

Foreign Currency Translation

The assets and liabilities of foreign subsidiaries, where the local currency is the functional currency, are translated from their respective functional currencies into U.S. dollars at the exchange rates in effect at the balance sheet date, with resulting foreign currency translation adjustments recorded in accumulated other comprehensive income (loss) in the condensed consolidated balance sheets. Revenue and expense amounts are translated at average rates during the period. For the three months ended March 31, 2009 and 2010, we recorded a translation adjustment loss of $277,000 and $28,000, respectively. Where the U.S. dollar is the functional currency, nonmonetary assets and liabilities originally acquired or assumed in other currencies are recorded in U.S. dollars at the exchange rates in effect at the date they were acquired or assumed. Monetary assets and liabilities denominated in other currencies are translated into U.S. dollars at the exchange rates in effect at the balance sheet date.

Fair Value of Financial Instruments

The carrying amounts of certain of our financial instruments, including cash and cash equivalents, marketable securities, restricted cash, accounts receivable and accounts payable, approximate fair value due to their short maturities. Based on borrowing rates currently available to us for loans with similar terms, the carrying values of our financing obligations approximate their fair values. The fair value of the redeemable convertible preferred stock warrants are remeasured at each balance sheet date by using the Black-Scholes option pricing model.

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

Cash, Cash Equivalents and Marketable Securities

We consider all highly liquid investments with maturity dates of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents consist of cash on deposit with banks and money market accounts. The majority of cash and cash equivalents are maintained with major financial institutions in North America. Deposits with these financial institutions may exceed the amount of insurance provided on such deposits. Marketable securities included in current assets are primarily comprised of corporate debt obligations, U.S. Treasury obligations and government-sponsored enterprise securities. Our investment in common shares of CO_2 Solution Inc. ("CO_2 Solution") is included in other non-current assets. Our investments in debt and equity securities are classified as available-for-sale and are carried at estimated fair value. There were no significant realized gains or losses from sales of marketable securities during the three months ended March 31, 2009 and 2010. At March 31, 2010, we did not have any other-than-temporary declines in the fair value of our marketable securities.

Goodwill

Goodwill represents the excess of the purchase price over the fair value of assets acquired and liabilities assumed. Goodwill is presumed to have an indefinite life and is not subject to annual amortization. We review goodwill for impairment at the company level, which is the sole reporting unit, on at least an annual basis and at any interim date whenever events or changes in circumstances indicate that the carrying value may not be recoverable. We performed the annual impairment test for these assets as of October 1, 2009. This test did not indicate an impairment. There have been no events since October 1, 2009 that would require us to perform an additional assessment of goodwill.

Intangible Assets and Impairment of Long-Lived Assets

Intangible assets are recorded at their fair values at the date of the acquisition. Intangible assets having finite useful lives are amortized using the straight-line method over their estimated useful lives, which range from one to seven years.

Other Non-Current Assets

At December 31, 2009 and March 31, 2010, we deferred costs of $2.8 million and $4.3 million, respectively, related to the initial public offering of our common stock. These deferred costs were included in other non-current assets.

Redeemable Convertible Preferred Stock Warrant Liability

Outstanding warrants to purchase shares of our Series D redeemable convertible preferred stock are freestanding warrants that are exercisable into convertible preferred stock that is subject to redemption and are therefore classified as liabilities on the condensed consolidated balance sheet at fair value. Upon completion of our initial public offering on April 22, 2010, all redeemable convertible preferred stock warrants automatically converted to common stock warrants and the related redeemable convertible preferred stock warrant liability was reclassified to additional paid-in capital.

Revenue Recognition

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

For each source of collaborative research and development revenues, product revenues and grant revenues, we apply the revenue recognition criteria as follows:

- Up-front fees received in connection with collaborative research and development agreements, including license fees, technology access fees, and exclusivity fees, are deferred upon receipt, are not considered a separate unit of accounting and are recognized as revenues over the relevant performance periods.
- Revenues related to FTE services are recognized as research services are performed over the related performance periods for each contract. We are required to perform research and development activities as specified in each respective agreement. The payments received are not refundable and are based on a contractual reimbursement rate per FTE working on the

project. When up-front payments are combined with FTE services in a single unit of accounting, we recognize the up-front payments using the proportionate performance method of revenue recognition based upon the actual amount of research and development labor hours incurred relative to the amount of the total expected labor hours to be incurred by us, up to the amount of cash received. In cases where the planned levels of research services fluctuate substantially over the research term, we are required to make estimates of the total hours required to perform our obligations. Research and development expenses related to FTE services under the collaborative research and development agreements approximate the research funding over the term of the respective agreements.

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

Income Taxes

We use the liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets are recognized for deductible temporary differences, along with net operating loss ("NOL") carryforwards, if it is more likely than not that the tax benefits will be realized. To the extent a deferred tax asset cannot be recognized under the preceding criteria, a valuation allowance is established. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled. We recognize the financial statement effects of an uncertain tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination.

Stock-Based Compensation

We account for stock-based transactions based on the fair value of the stock awards granted. We use the straight-line method to allocate stock-based compensation expense to the appropriate reporting periods. We account for stock options issued to non-employees based on their estimated fair value determined using the Black-Scholes option-pricing model. The fair value of the options granted to non-employees is remeasured as they vest, and the resulting change in value, if any, is recognized as an increase or decrease in stock compensation expense during the period the related services are rendered.

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

Comprehensive Loss

Our comprehensive loss for the three months ended March 31, 2009 and 2010 was $6.4 million and $1.1 million, respectively. Comprehensive loss consists of net loss, unrealized gain (loss) on marketable securities and foreign currency translation adjustments. The following table presents comprehensive loss (in thousands):

	Three Months Ended March 31,	
	2010	2009
Net loss	$ (1,369)	$ (6,093)
Currency translation adjustments	(28)	(277)
Unrealized gain/(loss) on marketable securities	286	(7)
Comprehensive loss	$ (1,111)	$ (6,377)

Net Loss per Share of Common Stock

Basic and diluted net loss per share of common stock is computed by dividing the net loss by the weighted average number of shares of common stock outstanding during the period, less the weighted-average unvested common stock subject to repurchase. Basic and diluted net loss per share of common stock was the same for each period presented, because inclusion of all potential common shares outstanding was anti-dilutive. The following table presents the calculation of basic and diluted net loss per share of common stock (in thousands, except per share amounts):

	Three Months Ended March 31,	
	2010	2009
Numerator:		
Net loss	$ (1,369)	$ (6,093)
Denominator:		
Weighted-average shares of common stock outstanding	2,719	2,610
Less: Weighted-average shares of common stock subject to repurchase	(5)	(16)
Weighted-average shares of common stock used in computing net loss per share of common stock, basic and diluted	2,714	2,594
Net loss per share of common stock, basic and diluted	$ (0.50)	$ (2.35)

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

The following table presents the securities not included in the net loss per share calculations for the three ended March 31, 2009 and 2010 (in thousands):

	Three Months Ended March 31,	
	2010	2009
Redeemable convertible preferred stock	25,307	23,963
Common stock subject to repurchase	4	14
Options to purchase common stock	8,485	6,280
Warrants to purchase redeemable convertible preferred stock	288	288
Warrants to purchase common stock	39	39
Total	34,123	30,584

Recent Accounting Pronouncements

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

3. Collaborative Research and Development Agreements

Shell

In November 2006, we entered into a collaborative research agreement and a license agreement with Shell to develop biocatalysts and associated processes that use such biocatalysts.

In November 2007, we entered into a new and expanded five-year collaborative research agreement and a license agreement with Shell. In connection with the new and expanded collaborative research agreement and license agreement, Shell paid us a $20.0 million up-front exclusivity fee, purchased Series E redeemable convertible preferred stock for gross proceeds of $30.5 million, and agreed to pay us (1) research funding at specified rates per FTE working on the project during the research term, (2) milestone payments upon the achievement of milestones and (3) royalties on future product sales.

In March 2009, we amended our collaborative research agreement and license agreement with Shell. In connection with these amendments Shell purchased Series F redeemable convertible preferred stock for gross proceeds of $30.0 million and agreed to pay us (1) additional research funding at specified rates per FTE working on the project during the research term and (2) additional milestone payments upon the achievement of milestones.

In accordance with our revenue recognition policy, the $20.0 million up-front exclusivity fee and the research funding fees to be received for FTE services are recognized in proportion to the actual research efforts incurred relative to the amount of total expected effort to be incurred by us over the five-year research period commencing November 2007. Milestones to be earned under this agreement have been determined to be at risk at the inception of the arrangement and substantive and are expected to be recognized upon achievement of the milestone and when collectability is reasonably assured. We recorded milestone revenues of $1.4 million during the three months ended March 31, 2010, (none in the three months ended March 31, 2009).

Under the agreements with Shell, we have the right to license technology from third parties that will assist us in meeting objectives under the collaboration. If a third-party technology is identified and mutually agreed upon by both parties, Shell is obligated to reimburse us for the licensing costs of the technology. Payments made by us to the third-party providers were recorded as research and development expenses related to our collaborative research agreement with Shell. None of the acquired licenses are expected to be used in products that will be sold within the next year and the phase of the project has not reached technological feasibility. Shell reimbursed us for licensing costs of $2.0 million and $35,000 for the three months ended March 31, 2009 and 2010, respectively. We record these reimbursements against the costs incurred.

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

Manufacturing Collaboration

Arch

In October 2005, we entered into a technology transfer and supply agreement with Arch Pharmalabs, Ltd. ("Arch"), a company based in India engaged in the manufacturing and sale of active pharmaceutical ingredients, or APIs, and intermediaries to pharmaceutical companies worldwide. We granted to Arch a non-exclusive, royalty free license, with no right to grant sublicense rights, to certain of our patent rights and technology, to solely manufacture an intermediate called ATS-8 for us and on our behalf.

In August 2006, we broadened our relationship with Arch by entering into an enzyme and supply agreement, a supply agreement and a master services agreement, which we call the 2006 Agreements. The 2006 Agreements, among other things, provided biocatalyst supply specifications from us to Arch, intermediate supply from Arch to us, and services to be performed by Arch over the four-year term of the agreements. Under the 2006 Agreements, we agreed to pay Arch up to $1.6 million for certain chemical process and manufacturing method development services as Arch delivers them over the course of the master services agreement. As of March 31, 2010, we had a remaining obligation of $100,000 due to Arch.

In August 2008, we further expanded our relationship with Arch by entering into several enzyme and supply agreements, and product territory agreements ("2008 Agreements"). The 2008 Agreements, among other things, provided biocatalyst supply from us to Arch, intermediate supply from Arch to us, and services to be performed by Arch over the term of the agreements for an expanded product portfolio.

In February 2010, we consolidated certain of the contractual terms in our agreements with Arch by simultaneously terminating all of our existing agreements with Arch, other than the Master Services Agreement with Arch entered into as of August 1, 2006, and entering into new agreements with Arch. The new agreements, among other things, provide for biocatalyst supply from us to Arch and intermediate supply from Arch to us.

The terms of the license prohibit Arch from using the licensed process or biocatalysts for any purpose other than manufacturing various intermediates for sale to our affiliates. We sell the biocatalysts to Arch at cost, and Arch manufactures the intermediates on our behalf. Arch sells the intermediates to us at a formula-based price, which results in a fixed percentage profit share. We then directly market and sell the intermediates to customers in the generic pharmaceutical industry, including Arch. Sales to Arch are recognized net of the manufacturing costs charged by Arch. Total product and collaborative research and development revenues recorded from Arch were $65,000 during the three months ended March 31, 2009, (none in the three months ended March 31, 2010).

4. Joint Development Agreement with CO_2 Solution

On December 15, 2009, we entered into an exclusive joint development agreement with CO_2 Solution, a company based in Quebec City, Quebec, Canada, whose shares are publicly traded in Canada on TSX Venture Exchange. Under the agreement, we agreed to conduct research and development activities jointly with CO_2 Solution with the goal of advancing the development of carbon capture technology. As part of the agreement which expires in January, 2011, we obtained a research license to CO_2 Solution's intellectual property. We also purchased 10,000,000 common shares (approximately 16.6% of total common shares outstanding) of CO_2 Solution in a private placement. In February of 2010, our Chief Executive Officer was appointed to the board of directors of CO_2 Solution.

We concluded that through March 31, 2010, we did not have the ability to exercise significant influence over CO_2 Solution's operating and financial policies. Due to the short resale restriction period, we consider our investment in CO_2 Solution common shares as an investment in a marketable security that is available for sale, and carry it at fair value in other non-current assets, with changes in fair value recognized in other comprehensive income (loss). We estimate the fair value of restricted common shares using the fair value of unrestricted common shares as determined by trading on TSX Venture Exchange, discounted for lack of marketability of the shares. We estimate the value of the discount for lack of marketability using the Black-Scholes option pricing model for put options, as the market risk of an investment in a restricted common share could be hedged with a purchase of a put option to sell such share at the current market price upon the expiration of the restriction period. We used the following assumptions in applying the Black-Scholes option pricing model: exercise price equal to the fair value of the unrestricted share on the date of the estimate, expected term equal to the period through the end of the restriction (April 15, 2010), volatility based on CO_2 Solution common stock volatility (132% and 124% during December 2009 and the three months ended March 31, 2010, respectively), and risk-free interest rate of 0.2-0.3% and 0.2-0.3% during December 2009 and the three months ended March 31, 2010, respectively.

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

At December 31, 2009, the estimated fair value of our investment in CO_2 Solution restricted common stock was $1.2 million and the unrealized loss was $145,000. At March 31, 2010, the estimated fair value of our investment in CO_2 Solution restricted common stock was $1.7 million and the unrealized gain was $361,000 recorded in accumulated other comprehensive income (loss) on the condensed consolidated balance sheet.

5. Balance Sheets and Statements of Operations Details

Cash Equivalents and Marketable Securities

At March 31, 2010, cash equivalents and marketable securities consisted of the following (in thousands):

	March 31, 2010			
	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	$ 22,789	$ —	$ —	$ 22,789
Government-sponsored enterprise securities	10,062	5	—	10,067
Common shares of CO_2 Solution	1,316	361	—	1,677
Total	$ 34,167	$ 366	$ —	$ 34,533

At December 31, 2009, cash equivalents and marketable securities consisted of the following (in thousands):

	December 31, 2009			
	Cost or Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	$ 23,722	$ —	$ —	$ 23,722
U.S. Treasury obligations	1,754	1	—	1,755
Government-sponsored enterprise securities	23,507	20	(2)	23,525
Common shares of CO_2 Solution	1,316	—	(145)	1,171
Total	$ 50,299	$ 21	$ (147)	$ 50,173

Inventories

Inventories consisted of the following (in thousands):

	March 31, 2010	December 31, 2009
Raw materials	$ 1,403	$ 1,210
Work in process	77	198
Finished goods	1,432	1,507
Total inventories	$ 2,912	$ 2,915

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

Property and Equipment, net

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

	March 31, 2010	December 31, 2009
Laboratory equipment	$ 25,619	$ 24,381
Leasehold improvements	10,493	9,221
Computer equipment and software	2,318	2,079
Office equipment and furniture	760	732
Construction in progress (1)	933	2,449
	40,123	38,862
Less: accumulated depreciation and amortization	(18,872)	(17,281)
Property and equipment, net	$ 21,251	$ 21,581

(1) Construction in progress includes equipment received but not yet placed into service pending installation.

Intangible Assets

Intangible assets consisted of the following (in thousands):

	March 31, 2010			December 31, 2009		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships	$ 3,098	$ (2,869)	$ 229	$ 3,098	$ (2,753)	$ 345
Developed and core technology	1,534	(1,029)	505	1,534	(968)	566
Tradename	99	(99)	—	99	(99)	—
Noncompete agreements	90	(80)	10	90	(73)	17
	$ 4,821	$ (4,077)	$ 744	$ 4,821	$ (3,893)	$ 928

Amortization expense for intangible assets totaled $187,000 and $215,000 for three months ended March 31, 2010 and 2009, respectively.

6. Fair Value

Assets and liabilities recorded at fair value in the condensed consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels which are directly related to the amount of subjectivity associated with the inputs to the valuation of these assets or liabilities are as follows:

Level 1 — Inputs that are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2 — Inputs (other than quoted prices included in Level 1) that are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities and which reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

The following table presents our financial instruments that were measured at fair value on a recurring basis at March 31, 2010 by level within the fair value hierarchy (in thousands):

	March 31, 2010			
	Level 1	Level 2	Level 3	Total
Financial Assets				
Money market funds	$22,789	$ —	$ —	$22,789
Government-sponsored enterprise securities	—	10,067	—	10,067
Common shares of CO_2 Solution	—	—	1,677	1,677
Total	$22,789	$10,067	$1,677	$34,533
Financial Liability				
Redeemable convertible preferred stock warrant liability	$ —	$ —	$2,405	$ 2,405

The following table presents our financial instruments that were measured at fair value on a recurring basis at December 31, 2009 by level within the fair value hierarchy (in thousands):

	December 31, 2009			
	Level 1	Level 2	Level 3	Total
Financial Assets				
Money market funds	$23,722	$ —	$ —	$23,722
U.S. Treasury obligations	—	1,755	—	1,755
Government-sponsored enterprise securities	—	23,525	—	23,525
Common shares of CO_2 Solution	—	—	1,171	1,171
Total	$23,722	$25,280	$1,171	$50,173
Financial Liability				
Redeemable convertible preferred stock warrant liability	$ —	$ —	$2,009	$ 2,009

The valuation of the common shares of CO_2 Solution and the redeemable convertible preferred stock warrant liability are discussed in Notes 4 and 10, respectively.

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

The change in the fair value of the common shares of CO_2 Solution is summarized below (in thousands):

	Estimated Fair Value
Fair value at December 31, 2009	$ 1,171
Change in fair value recorded in accumulated other comprehensive income (loss)	506
Fair value at March 31, 2010	$ 1,677

The change in the fair value of the warrant liability is summarized below (in thousands):

	Estimated Fair Value
Fair value at December 31, 2009	$ 2,009
Change in fair value recorded in interest expense and other, net	396
Fair value at March 31, 2010	$ 2,405

7. Related Party Transactions with Maxygen

Maxygen founded Codexis in 2002 and remains one of our stockholders. We are required to pay Maxygen a fee based on a percentage of all consideration we receive from third parties related to the use of certain intellectual property owned or controlled by Maxygen in the specified field of biofuels. We expense all payments owed to Maxygen as they become due as collaborative research and development expenses, which we report as research and development expenses in our condensed consolidated statements of operations. Currently, we pay Maxygen a fee based on our collaborative research and development agreement with Shell (see Note 3). We expensed $3.5 million and $0.5 million during the three months ended March 31, 2009 and 2010, respectively. Amounts payable to Maxygen were $1.3 million and $0.5 million at December 31, 2009 and March 31, 2010, respectively.

8. Financing Obligations

Financing obligations, net of debt discounts and issuance costs, consisted of the following (in thousands):

	March 31, 2010	December 31, 2009
General Electric Capital Corporation and Oxford Finance Corporation (2007 agreement)	$ 6,572	$ 7,789
Oxford Finance Corporation (2005 agreement)	90	153
Total loans payable	6,662	7,942
Less: current portion	(5,455)	(5,368)
Financing obligations, net of current portion	$ 1,207	$ 2,574

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

In September 2007, we entered into a loan and security agreement with General Electric Capital Corporation and Oxford Finance Corporation ("GE Capital Loan") under which we can borrow up to $15.0 million. During the year ended December 31, 2007, we drew down the entire $15.0 million, net of issuance costs. In connection with the execution of the loan and security agreement, we incurred costs of $269,000 and, in addition, we issued the lenders a warrant to purchase 72,727 shares of Series D redeemable convertible preferred stock with an estimated fair value of $297,000, which as of March 31, 2010 was recorded in the condensed consolidated balance sheet as a debt discount that was being amortized to interest expense over the life of the loans (see Note 10). The loan and security agreement provides for six monthly payments of interest only and 36 monthly installments of principal and interest, with an additional 4% payment due upon final maturity of each funding. Interest accrues at 9.4% per annum.

The loan is secured by substantially all of our assets except for intellectual property and contains a number of covenants and restrictions. As of December 31, 2009 and March 31, 2010, we were in compliance with the covenants of the loan and security agreement.

9. Commitments and Contingencies

Litigation

We have been subject to various legal proceedings related to matters that have arisen during the ordinary course of business. Although there can be no assurance as to the ultimate disposition of these matters, we have determined, based upon the information available, that the expected outcome of these matters, individually or in the aggregate, will not have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Indemnifications

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

Other contingencies

In November 2009, one of our foreign subsidiaries sold intellectual property to us. Under the local laws, the sale of intellectual property to a nonresident legal entity is deemed an export and is not subject to value added tax. However, there is uncertainty regarding whether the items sold represented intellectual property or research and development services, which would subject the sale to value added tax. We believe that the uncertainty results in an exposure to pay value added tax that is more than remote but less than likely to occur and, accordingly, have not recorded an accrual for this exposure. Should the sale be deemed a sale of research and development services, we could be obligated to pay an estimated amount of $0.6 million.

10. Warrants

In connection with debt offerings at various times between the years ended December 31, 2004 and 2007, we issued warrants to purchase a total of 574,152 shares of our Series D redeemable convertible preferred stock and warrants to purchase a total of 39,234 shares of our common stock. The warrants are exercisable at any time during their respective terms.

The fair value of the redeemable convertible preferred stock warrants, which are recorded as liabilities in our condensed consolidated balance sheets and are remeasured to fair value at each balance sheet date, were determined using the Black-Scholes option pricing model with the following assumptions:

	Three Months Ended March 31,	
	2010	2009
Expected term in years (equals the remaining contractual term)	3.2 - 7.5	4.2 - 8.5
Expected volatility	75% - 78%	70% - 83%
Range of risk-free interest rates	1.64 - 3.41	1.62 - 2.68
Expected dividend yield	0.00%	0.00%

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

At March 31, 2010, the following warrants were issued and outstanding:

Issue Date	Class of Shares upon Exercise	Shares Subject to warrants	Exercise Price per Share	Expiration
February 12, 2004	Common	30,784	$ 0.60	February 12, 2011
October 25, 2005	Common	6,066	1.05	October 25, 2012
May 25, 2006	Series D	215,711	5.96	May 25, 2013
July 17, 2007	Common	2,384	12.45	February 9, 2016
September 28, 2007	Series D	72,727	8.25	September 28, 2017

Upon completion of our initial public offering on April 22, 2010, all redeemable convertible preferred stock warrants automatically converted to common stock warrants.

11. Stockholders' Deficit

In 2002, we adopted the 2002 Stock Plan (the "2002 Plan"), under which our board of directors may issue incentive stock options, nonstatutory stock options (options that do not qualify as incentive stock options) and restricted stock to our employees, officers, directors or consultants. As of March 31, 2010, we had reserved 10,509,094 shares of common stock for issuance under the 2002 Plan, which will be added to the shares to be reserved under our 2010 Plan (as defined below) upon effectiveness of the 2010 Plan.

The following table summarizes stock options activity for the three months ended March 31, 2010:

		Options Outstanding			
	Shares Available for Grant	Number of Options	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In Thousands)
Outstanding - December 31, 2009	1,553,873	7,886,532	$ 5.25	7.1	$ 41,183
Granted	(883,500)	883,500	11.04		
Exercises	—	(94,659)	1.49		
Forfeited/Cancelled	190,681	(190,681)	6.2		
Oustanding - March 31, 2010	861,054	8,484,692	$ 5.90	7.2	$ 50,889
Vested or expected to vest - March 31, 2010		8,201,309	$ 5.74	7.1	$ 50,244
Options exercisable - March 31, 2010		4,675,985	$ 3.71	6.3	$ 38,153

At March 31, 2010, there was $20.8 million of unrecognized stock-based compensation cost which is expected to be recognized over an average period of 2.9 years.

On March 30, 2010, our board of directors approved an amended and restated certificate of incorporation that increased the authorized common stock to 100,000,000 shares and authorized 5,000,000 shares of preferred stock immediately prior to the completion of the initial public offering of our common stock.

On March 30, 2010, our board of directors approved an amended and restated certificate of incorporation effecting a 2-for-3 reverse stock split of our authorized, issued and outstanding shares of common stock and convertible preferred stock. The par value of the common and convertible preferred stock was not adjusted as a result of the reverse stock split. All authorized, issued and outstanding common stock, convertible preferred stock, warrants for common stock, warrants for preferred stock, options for common stock and per share amounts contained in our financial statements have been retroactively adjusted to reflect this reverse stock split for all periods presented.

On March 30, 2010, our board of directors approved the 2010 Equity Incentive Award Plan (the "2010 Plan") which became effective upon the completion of the initial public offering of our common stock. A total of 1,100,000 shares of common stock were initially reserved for future issuance under the 2010 Plan and any shares of common stock reserved for future grant or issuance under our 2002 Plan but which remain unissued were added to the shares to reserved under our 2010 Plan upon effectiveness of the 2010 Plan.

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

Stock-Based Compensation Expense

We estimate the fair value of stock-based awards granted to employees and directors using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of highly subjective and complex assumptions to determine the fair value of stock-based awards, including the expected life of the option and expected volatility of the underlying stock over the expected life of the related grants. As we were a private entity until April 2010, company specific historical volatility data are not available. As a result, we estimate the expected volatility based on the historical volatility of a group of unrelated public companies within our industry. We will continue to consistently apply this process until a sufficient amount of historical information regarding the volatility of our own share price becomes available. Due to our limited history of grant activity, the expected life of options granted to employees is calculated using the "simplified method" permitted by the SEC as the average of the total contractual term of the option and its vesting period. The risk-free rate assumption was based on U.S. Treasury instruments whose terms were consistent with the terms of our stock options. The expected dividend assumption was based on our history and expectation of dividend payouts.

The following assumptions were used to estimate the fair value of our employee option grants for the three months ended March 31, 2010 (no options were granted to employees for the three months ended March 31, 2009):

	Three Months Ended March 31, 2010
Expected life (years)	6.1 - 7.5
Volatility	74 -78%
Risk-free interest rate	2.77 - 3.27%
Expected dividend yield	0.0%

For options granted to non-employees, the Black-Scholes option-pricing model was applied using the following assumptions during the three months ended March 31, 2009 and 2010:

	Three Months Ended March 31,	
	2010	2009
Remaining contractual option life (years)	6.80 - 9.70	6.50 - 8.80
Volatility	75% - 87%	76% - 83%
Risk-free interest rate	3.31 - 3.86	2.30 - 2.68
Expected dividend yield	0.00%	0.00%

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

	Three Months Ended March 31,	
	2010	2009
Cost of product revenues	$ 84	$ 81
Research and development	625	421
Sales, general and administrative	946	429
	$ 1,655	$ 931

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

Shares Reserved

Common stock reserved for future issuance is as follows (in thousands):

	March 31, 2010	December 31, 2009
Conversion of redeemable convertible preferred stock	25,307	25,307
Warrants to purchase redeemable convertible preferred and common stock	328	328
Stock options:		
Outstanding	8,485	7,887
Reserved for future grants	861	1,554
Total common stock reserved for future issuance	34,981	35,076

12. Restructuring Charges

In 2009, the board of directors approved and committed to plans to reduce our cost structure, which included a relocation of our operation in Germany to facilities in the United States and in Singapore, a rationalization of the our product offerings and closure of the facility in Germany, and employee terminations in Germany and the United States. Total costs of the plans were $1.4 million, including $0.5 million in inventory write downs, $0.4 million in lease termination costs, and $0.4 million in employee severance and benefits. The inventory write downs of $0.5 million were included in cost of product revenue and the remaining $0.9 million were included in selling, general and administrative expenses in the condensed consolidated statements of operations. As of December 31, 2009, $1.2 million related to these expenses had been paid or charged off and the remaining $0.2 million was recorded in other accrued liabilities on the condensed consolidated balance sheet. As of March 31, 2010, all remaining expenses associated with this restructuring were paid.

In 2008, the board of directors approved and committed to plans to reduce our cost structure. The restructuring plan applied to employees and facilities worldwide. During the year ended December 31, 2009, $0.8 million was paid, and $0.3 million was reversed as reduction of selling, general and administrative expense due to a change in estimated costs of restructuring when the facility was subleased. The amounts included in other accrued liabilities on the condensed consolidated balance sheet as of December 31, 2009 under this restructuring plan were $0.5 million. During the three months ended March 31, 2010, $0.1 million was paid. The amounts included in other accrued liabilities on the condensed consolidated balance sheet as of March 31, 2010 under this restructuring plan were $0.3 million.

13. Segment Reporting

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision making group, in deciding how to allocate resources and in assessing performance. Our chief operating decision maker is our Chief Executive Officer and our board of directors. The Chief Executive Officer and our board of directors reviews financial information presented on a consolidated basis, accompanied by information about revenues by geographic region, for purposes of allocating resources and evaluating financial performance. We have one business activity and there are no segment managers who are held accountable for operations, operating results beyond revenue goals or gross margins, or plans for levels or components below the consolidated unit level. Accordingly, we have a single reporting segment.

Operations outside of the United States consist principally of research and development and sales activities. Geographic revenues are identified by the location of the customer and consist of the following (in thousands):

	Three Months Ended March 31,	
	2010	2009
Revenues		
Americas(1)	$16,531	$15,537
Europe	3,046	1,808
Asia	6,123	2,065
	$25,700	$19,410

(1) Primarily United States

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

Geographic presentation of identifiable long-lived assets below shows those assets that can be directly associated with a particular geographic area and consist of the following (in thousands):

	March 31, 2010	December 31, 2009
Long-lived assets		
Americas(1)	$21,396	$ 19,439
Europe	3,841	3,911
Asia	3,971	4,332
	$29,208	$ 27,682

(1) Primarily United States

14. Subsequent Event

On April 27, 2010, we closed our initial public offering of common stock ("IPO") of 6,000,000 shares of common stock at an offering price of $13.00 per share, resulting in net proceeds to us of approximately $68.0 million, after deducting underwriting discounts, commissions and offering expenses paid by us. Upon the closing of the IPO, our outstanding shares of redeemable convertible preferred stock were automatically converted into 25,307,446 shares of common stock, the Company's outstanding preferred stock warrants were automatically converted into common warrants to purchase a total of 288,438 shares of common stock and the related redeemable convertible preferred stock warrant liability was reclassified to additional paid-in capital. The condensed consolidated financial statements, including share and per share amounts, do not include the effects of the IPO because the IPO was completed after March 31, 2010.

Costs directly associated with the IPO were capitalized and recorded as deferred offering costs prior to the closing of the IPO. We filed our initial Form S-1 with the SEC on December 28, 2009 and closed our IPO on April 27, 2010. These costs have been recorded as a reduction of the proceeds received in determining the amount to be recorded in additional paid-in capital. Deferred offering costs were approximately $2.8 million and $4.5 million as of December 31, 2009 and March 31, 2010, respectively.

The table below shows, on a pro forma basis, the impact of our IPO on certain condensed consolidated balance sheet items. The pro forma condensed consolidated balance sheet data below gives effect to (i) conversion of all of our outstanding shares of redeemable convertible preferred stock into 25,307,446 shares of common stock, and (ii) conversion of all of our warrants for redeemable convertible preferred stock into warrants to purchase a total of 288,438 shares of common stock and the related reclassification of redeemable convertible preferred stock warrant liability to stockholders' equity upon the completion of this offering.

The pro forma condensed consolidated balance sheet data below also gives effect to the sale of 6,000,000 shares of common stock from the IPO at an offering price of $13.00 per share after deducting the underwriting discounts and commissions and offering expenses paid by us.

Codexis, Inc.

Notes to Condensed Consolidated Financial Statements—(Continued)
(UNAUDITED)

	March 31, 2010	Pro Forma as of March 31, 2010
Condensed Consolidated Balance Sheet Data:		
Cash, cash equivalents and marketable securities	$ 39,264	$ 111,804
Total current assets	50,656	123,196
Total assets	$ 83,836	$ 151,876
Total current liabilities	$ 37,433	$ 35,028
Total non-current liabilities	10,889	10,889
Redeemable convertible preferred stock issuable in series A to F	179,672	—
Stockholders' equity (deficit):		
Common stock	—	3
Additional paid-in capital	16,812	266,926
Accumulated other comprehensive income	7	7
Accumulated deficit	(160,977)	(160,977)
Total stockholder's equity (deficit)	(144,158)	105,959
Total liabilities, redeemable convertible preferred stock and stockholders' equity (deficit)	$ 83,836	$ 151,876

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with 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, 2009 included in our final prospectus dated April 22, 2010 and filed with the Securities and Exchange Commission, or SEC. 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, or the Exchange Act. These statements are often identified by the use of words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "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 the section titled "Risk Factors," set forth in Part II, Item 1A 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.

Overview

Our proprietary technology platform enables the creation of optimized biocatalysts that make existing industrial processes faster, cleaner and more efficient than current methods and has the potential to make new industrial processes possible on a commercial scale. We have focused our biocatalyst development efforts on large and rapidly growing markets, including pharmaceuticals and advanced biofuels. We have commercialized our biocatalysts in the pharmaceutical industry and are developing biocatalysts for use in producing advanced biofuels under a multi-year research and development collaboration with Shell. We have enabled biocatalyst-based drug manufacturing processes at commercial scale and have delivered biocatalysts and drug products to some of the world's leading pharmaceutical companies. In our research and development collaboration with Shell, we are developing biocatalysts for use in producing advanced biofuels from renewable sources of non-food plant materials, known as cellulosic biomass. We are also using our technology platform to pursue biocatalyst-enabled solutions in other bioindustrial markets, including carbon management, water treatment and chemicals. We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc.

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

To date, we have generated revenues primarily from collaborative research and development funding, pharmaceutical product sales and government grants. Our revenues have increased in each of the last three fiscal years, growing from $25.3 million in 2007, to $50.5 million in 2008 and to $82.9 million in 2009. Our revenues increased from $19.4 million for the three months ended March 31, 2009 to $25.7 million for the three months ended March 31, 2010. As of March 31, 2010, we had an accumulated deficit of $161.0 million. We incurred net losses of $39.0 million, $45.1 million and $20.3 million in the years ended December 31, 2007, 2008 and 2009, respectively and a net loss of $1.4 million for the three months ended March 31, 2010.

Most of our revenues since inception have been derived from collaborative research and development arrangements, which accounted for 52%, 66% and 78% of our revenues in 2007, 2008 and 2009, respectively. Collaborative research and development arrangements accounted for 76% and 65% of our revenues for the three months ended March 31, 2009 and 2010, respectively. Related party collaborative research and development received from Shell accounted for 33%, 60% and 76% of our revenues in 2007, 2008 and 2009, respectively. Related party collaborative research and development received from Shell accounted for the 74% and 62% of our revenues for the three months ended March 31, 2009 and 2010, respectively. Our product sales have increased in each of the last three fiscal years, from $11.4 million in 2007, to $16.9 million in 2008 and to $18.6 million in 2009. Our product sales increased from $4.6 million for the three months ended March 31, 2009 to $6.3 million for the three months ended March 31, 2010. Notwithstanding our revenue growth, we have continued to experience significant losses as we have invested heavily in research and development and administrative infrastructure in connection with the growth in our business. In light of the growth in market acceptance of our products and services to date, we currently intend to increase our investment in research and development, such that we do not expect to achieve profitability prior to at least 2011.

Our revenue stream is diversified across various industries, which should mitigate our exposure to cyclical downturns or fluctuations in any one market. Revenues during the periods presented in 2009 and 2010 were derived from the pharmaceuticals and biofuels markets, and consisted of collaborative research and development revenues, product sales and government grants, which are separately identified in our condensed consolidated statements of operations. Based on our existing arrangements, we believe that revenues from both our pharmaceutical and biofuels customers should be predictable over the near term. The revenues that we expect to recognize from our collaborative research agreement with Shell should provide a high degree of visibility into our aggregate revenues for the foreseeable future.

Revenues and Operating Expenses

Revenues

Our revenues are comprised of collaborative research and development revenues, product revenues and government grants. Collaborative research and development revenues include license, technology access and exclusivity fees, FTE payments, milestones, royalties, and optimization and screening fees. We report our collaborative research and development revenues under two categories consisting of revenues (i) from related parties and (ii) from all other collaborators. Related party collaborative research and development revenues consist of revenues from Shell. Product revenues consist of sales of biocatalysts, intermediates and Codex Biocatalyst Panels. Government grants consist of payments from government entities. The terms of these grants generally provide us with cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Historically, we have received government grants from Germany and the United States. We expect to receive additional grants from the United States and other governments in the future. During the three months ended March 31, 2010, we received $2.7 million from the Singapore Economic Development Board (“EDB”) as part of a development grant.

Cost of Product Revenues

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

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects as well as partner funded collaborative research and development activities. These costs include license and royalty fees payable to Maxygen for consideration that we receive in connection with our biofuels collaboration, our direct and research-related overhead expenses, which include salaries and other personnel-related expenses, facility costs, supplies, depreciation of facilities, and laboratory equipment, as well as research consultants and the cost of funding research at universities and other research institutions, and are expensed as incurred. License and royalty fees payable to Maxygen may fluctuate depending on the timing and type of consideration received from Shell in connection with our biofuels research and development collaboration. Costs to acquire technologies that are utilized in research and development and that have no alternative future use are expensed when incurred.

Selling, General and Administrative Expenses

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

Critical Accounting Policies and Estimates

The interim condensed consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States and include our accounts and the accounts of our wholly-owned subsidiaries. The preparation of our condensed consolidated financial statements requires our management to make estimates, assumptions, and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the applicable periods. Management bases its estimates, assumptions and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our condensed consolidated financial statements, which, in turn, could change the results from those reported. Our management evaluates its estimates, assumptions and judgments on an ongoing basis.

Financial Operations Overview

The following table shows the amounts from our condensed consolidated statements of operations for the periods presented (in thousands).

	Three Months Ended March 31,		% of Total Revenues	
	2010	2009	2010	2009
Revenues:				
Product	$ 6,275	$ 4,571	24%	24%
Related party collaborative R&D	16,042	14,420	62%	74%
Collaborative R&D	661	407	3%	2%
Government grants	2,722	12	11%	0%
Total Revenues	25,700	19,410	100%	100%
Costs and operating expenses:				
Cost of product revenues	5,218	3,856	20%	20%
Research and development	12,982	15,134	51%	78%
Selling, general and administrative	8,600	6,063	33%	31%
Total costs and operating expenses	26,800	25,053	104%	129%
Loss from operations	(1,100)	(5,643)	nm	nm
Interest income	28	31	0%	0%
Interest expense and other, net	(358)	(427)	nm	nm
Loss before provision (benefit) for income taxes	(1,430)	(6,039)	nm	nm
Provision (benefit) for income taxes	(61)	54	0%	0%
Net loss	$ (1,369)	$ (6,093)	nm	nm

Revenues

(In Thousands)	Three Months Ended March 31, 2010	2009	$ Change	% Change
Product	$ 6,275	$ 4,571	$ 1,704	37%
Related party collaborative research and development	16,042	14,420	1,622	11%
Collaborative research and development	661	407	254	62%
Government grants	2,722	12	2,710	nm
Total revenues	$25,700	$19,410	$ 6,290	32%

Revenues increased during the three months ended March 31, 2010 compared to the three months ended March 31, 2009 primarily due to increases from government grants, product sales and related party collaborative research and development projects.

Product revenues increased during the three months ended March 31, 2010 compared to the three months ended March 31, 2009 primarily due to an increase in product sales to certain pharmaceutical customers during 2010.

Related party collaborative research and development revenues increased during the three months ended March 31, 2010 compared to the three months ended March 31, 2009 due to a milestone payment of $1.4 million and an increase in the number of FTEs engaged in our expanded research and development collaboration with Shell. The expansion of this collaboration resulted in an increase in the number of contractual FTEs during the period from an average of 121 for the three months ended March 31, 2009 to an average of 128 for the three months ended March 31, 2010.

Collaborative research and development revenues increased during the three months ended March 31, 2010 compared to the three months ended March 31, 2009 primarily due to the December 1, 2009 research agreement with Teva Pharmaceutical Industries, Ltd.

Government grant revenues increased due to the recognition of a grant from the EDB for $2.7 million in the quarter ended March 31, 2010.

Our top five customers accounted for 93% and 87% of our total revenues for the three months ended March, 31, 2009 and 2010, respectively. Shell accounted for 74% and 62% of our total revenues for the three months ended March, 31, 2009 and 2010, respectively.

Cost of Product Revenues

(In Thousands)	Three Months Ended March 31, 2010	2009	$ Change	% Change
Cost of revenues:				
Product	$5,218	$3,856	$ 1,362	35%
Gross profit:				
Product	$1,057	$ 715	$ 342	48%
Product gross margin %	17%	16%		

The increase in cost of product revenues during the three months ended March 31, 2010 compared to the three months ended March 31, 2009 was primarily attributable to an increase in product sales. Gross margins increased from 16% to 17% in the three month periods ended March 31, 2009 and 2010, respectively, due to a change in sales mix towards higher margin product sales during 2010 offset against an increase in inventory write downs of approximately $0.2 million during the three month period ended March 31, 2010.

Operating Expenses

(In Thousands)	Three Months Ended March 31, 2010	2009	$ Change	% Change
Research and development	$12,982	$15,134	$(2,152)	-14%
Selling, general and administrative	8,600	6,063	2,537	42%
Total operating expenses	$21,582	$21,197	$ 385	2%

Research and Development. Research and development expenses decreased during the three months ended March 31, 2010 compared to the three months ended March 31, 2009 primarily due to a $3.0 million reduction in royalty fees paid to Maxygen. The three month period ended March 31, 2009 included $3.2 million paid to Maxygen as a royalty related to Shell's increased equity investment in our company in 2009. This was partially offset by increases in depreciation and amortization expense of $0.5 million due to leasehold improvements and capital equipment acquisitions and $0.4 million lab supply costs. Research and development expenses included stock-based compensation expense of $0.5 million and $0.7 million during the periods ended March 31, 2009 and 2010, respectively.

Selling, General and Administrative. Selling, general and administrative expenses increased during the three months ended March 31, 2010 compared to the three months ended March 31, 2009 primarily due to a $1.4 million increase in headcount and stock-based compensation. We also increased spending on consultants, contractors and outside advisory services by $1.0 million. Selling, general and administrative expenses included stock-based compensation expense of $0.4 million and $1.0 million during the three months ended March 31, 2009 and 2010, respectively.

Other Income (Expense), net

(In Thousands)	Three Months Ended March 31, 2010	2009	$ Change	% Change
Interest income	$ 28	$ 31	$ (3)	-10%
Interest expense and other, net	(358)	(427)	69	-16%
	$ (330)	$ (396)	$ 66	-17%

Interest Income. Interest income decreased due to lower average cash, cash equivalents and marketable securities balances on hand during the period ended March 31, 2010 compared to the period ended March 31, 2009.

Interest Expense and Other, Net. Interest expense and other, net, decreased during the three months ended March 31, 2010 compared to the three months ended March 31, 2009 due to the recognition of $0.4 million in other income due to contractual arrangements with Arch. Interest expense decreased $0.1 million due to the reduced debt obligation on the GE Capital Loan. These decreases were partially offset by an increase in the fair value of our redeemable convertible preferred stock warrant liability of $0.4 million.

Provision (benefit) for Income Taxes. The tax provision (benefit) for the three months ended March 31, 2009 and 2010 primarily consisted of income taxes attributable to foreign operations.

Restructuring Charges. In 2009, we reduced our cost structure by relocating our operations in Germany to facilities in the United States and in Singapore, rationalizing our product offerings, closing of our facility in Germany and terminating certain employees in Germany and the United States. We expensed approximately $0.4 million in employee severance and benefits, $0.4 million in lease termination costs and $0.5 million related to inventory write downs, for a total of $1.4 million. The inventory write downs of $0.5 million were included in cost of product revenues and the remaining $0.9 million was included in selling, general and administrative expenses in the condensed consolidated statements of operations. As of December 31, 2009, $1.2 million related to these expenses had been paid or charged off and the remaining $0.2 million was recorded in other accrued liabilities on the condensed consolidated balance sheet. As of March 31, 2010, all remaining expenses associated with this restructuring were paid.

Liquidity and Capital Resources

(In Thousands)	March 31, 2010	December 31, 2009
Cash and cash equivalents	$29,197	$ 31,785
Marketable securities	10,067	23,778
Accounts receivable, net	6,561	7,246
Accounts payable, accrued compensation and accrued liabilities	20,132	28,207
Working capital (1)	13,223	16,397

(1) Working capital consists of total current assets less total current liabilities.

(In Thousands)	Three Months Ended March 31, 2010	2009
Net cash used in operating activities	$(12,025)	$ (8,368)
Net cash provided by investing activities	12,290	3,880
Net cash provided by (used in) financing activities	(2,835)	28,622
Effect of foreign exchange rates on cash and cash equivalents	(18)	11
Net increase (decrease) in cash and cash equivalents	$ (2,588)	$24,145

On April 27, 2010, we closed our IPO of 6,000,000 shares of common stock at an offering price of $13.00 per share, resulting in proceeds of approximately $78.0 million.

Cash Flows from Operating Activities

Operating activities used $12.0 million of net cash during the three months ended March 31, 2010. We incurred a net loss of $1.4 million in the three months ended March 31, 2010, which included non-cash share-based compensation expense of $1.7 million and depreciation and amortization of $1.8 million. Changes in operating asset and liability accounts used $14.5 million of net cash during the three months ended March 31, 2010.

Operating activities used $8.4 million of net cash during the three months ended March 31, 2009. We incurred a net loss of $6.1 million in the three months ended March 31, 2009, which included non-cash share-based compensation expense of $0.9 million and depreciation and amortization of $1.3 million. Changes in operating asset and liability accounts used $4.7 million of net cash during the three months ended March 31, 2009.

Cash Flows from Investing Activities

Cash flows from investing activities primarily relate to capital expenditures to support our growth.

Cash provided by investing activities totaled $12.3 million during the three months ended March 31, 2010 and consisted of capital expenditures of $1.3 million primarily related to the purchase of manufacturing and lab equipment and a decrease of marketable securities of $13.6 million.

Cash provided by investing activities totaled $3.9 million during the three months ended March 31, 2009 and consisted of capital expenditures of $1.3 million primarily related to the purchase of manufacturing and lab equipment and a decrease of marketable securities of $5.0 million.

Cash Flows from Financing Activities

Cash flows used in financing activities totaled $2.8 million during the three months ended March 31, 2010 and included payments on financing obligations of $1.3 million and payments in preparation for our IPO of $1.6 million.

Cash provided by our financing activities totaled $28.6 million in cash during the three months ended March 31, 2009, primarily from the issuance and sale of 2.4 million shares of Series F preferred stock for gross proceeds of $30.0 million, partially offset by $1.4 million in principal payments on our financing obligations.

Contractual Obligations and Commitments

Our contractual obligations relate primarily to borrowings under long-term debt obligations and operating leases. Our commitments for operating leases primarily relate to our leased facilities in Redwood City, California. The following table summarizes the future commitments arising from our contractual obligations at March 31, 2010 (in thousands):

	Loans payable (1)	Operating leases (2)
Nine Months Ending December 31, 2010	$ 4,440	$ 2,179
Years Ending December 31,		
2011	2,711	1,559
2012	—	1,228
2013	—	349
Total	$ 7,151	$ 5,315

(1) Amounts include interest on financing obligations.
(2) Amounts net of noncancellable subleases.

Off-Balance Sheet Arrangements

As of March 31, 2010, we had no off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K as promulgated by the SEC.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk Management

Our cash flow and earnings are subject to fluctuations due to changes in foreign currency exchange rates, interest rates and other factors. There were no significant changes in our market risk exposures during the three months ended March 31, 2010. This is discussed in further detail in the prospectus filed with the SEC on April 22, 2010.

Equity Price Risk

As described in Note 4 to the condensed consolidated financial statements, we have an investment in common shares of CO_2 Solution Inc., a company based in Quebec City, Canada, or CO_2 Solution, whose shares are publicly traded in Canada on TSX Venture Exchange. This investment is exposed to fluctuations in both the market price of CO_2 Solution's common shares and changes in the exchange rates between the U.S. dollar and the Canadian dollar. The effect of a 10% adverse change in the market price of CO_2 Solution's common shares as of March 31, 2010 would have been an unrealized loss of approximately $168,000, recognized as a component of other comprehensive income (loss) in stockholders' deficit. The effect of a 10% adverse change in the exchange rates between the U.S. dollar and the Canadian dollar as of March 31, 2010 would have been an unrealized loss of approximately $168,000, recognized as a component of other comprehensive income (loss) in stockholders' deficit.

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 Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures and internal controls, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable, and not absolute, assurance of achieving the desired control objectives. In reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost benefit relationship of possible controls and procedures and internal controls.

Management, including our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as required by Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended. Based on this review, our Chief Executive Officer and Chief Financial Officer concluded that these disclosure controls and procedures were effective as of March 31, 2009 at the reasonable assurance level.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

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

Item 1A. Risk Factors

You should carefully consider the risks described below together with the other information set forth in this Quarterly Report on Form 10-Q and in our final prospectus dated April 22, 2010 and filed with the Securities and Exchange Commission, which could materially affect our business, financial condition or future results. The risks described below are not the only risks facing our company. Risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results.

Risks Relating to Our Business and Strategy

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

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

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

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

- our ability to achieve or maintain profitability;
- actions that could cause us to lose any of our rights under our license from Maxygen;
- our relationships with and dependence on collaborators in our principal markets;
- our dependence on Shell for the development and commercialization of biofuels;
- the feasibility of producing and commercializing biofuels derived from cellulose;
- our dependence on a limited number of customers;

- our dependence on a limited number of contract manufacturers of our biocatalysts and suppliers for our pharmaceutical intermediates and APIs;
- our ability to manage our growth;
- our pharmaceutical customers' abilities to incorporate our biocatalysts into their manufacturing processes;
- the outcomes of clinical trials conducted by our innovator customers;
- our ability to develop and successfully commercialize new products for the pharmaceuticals market;
- the effect of consolidation in the pharmaceutical industry on demand for our products;
- our ability to commercialize our technology in other bioindustrial markets;
- our ability to maintain license rights for commercial scale expression systems for cellulases;
- fluctuations in the price of and demand for petroleum-based fuels;
- the availability of non-food renewable cellulosic biomass sources;
- reductions or changes to existing fuel regulations and policies;
- the existence of government subsidies or regulation with respect to carbon dioxide emissions;
- our potential need for additional licenses from Maxygen to pursue certain future business opportunities in the chemical market;
- our ability to obtain and maintain governmental grants;
- risks associated with the international aspects of our business;
- our ability to integrate any businesses we may acquire with our business;
- potential issues related to our ability to accurately report our financial results in a timely manner;
- our dependence on, and the need to attract and retain, key management and other personnel;
- our ability to obtain, protect and enforce our intellectual property rights;
- our ability to prevent the theft or misappropriation of our biocatalysts, the genes that code for our biocatalysts, know-how or technologies;
- potential advantages that our competitors and potential competitors may have in securing funding or developing products;
- our ability to obtain additional capital that may be necessary to expand our business;
- business interruptions such as earthquakes and other natural disasters;
- public concerns about the ethical, legal and social ramifications of genetically engineered products and processes;
- our ability to comply with laws and regulations;
- our ability to properly handle and dispose of hazardous materials used in our business;
- potential product liability claims; and
- our ability to use our net operating loss carryforwards to offset future taxable income.

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

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

We have incurred net losses since our inception, including losses of $39.0 million, $45.1 million and $20.3 million in 2007, 2008 and 2009, respectively, and a net loss of $1.4 million for the three months ended March 31, 2010. As of March 31, 2010, we had an accumulated deficit of $161.0 million. We expect to incur losses and negative cash flow from operating activities for the foreseeable future. To date, we have derived a substantial portion of our revenues from research and development agreements with our collaborators and expect to derive a substantial portion of our revenues from these sources for the foreseeable future. If we are unable to extend our existing agreements or enter into new agreements upon the expiration or termination of our existing agreements, our revenues could be adversely affected. In addition, some of our collaboration agreements provide for milestone payments and future royalty payments, the payment of which are uncertain as they are dependent on our and our collaborators' abilities and willingness to successfully develop and commercialize products. We expect to spend significant amounts to fund the development of additional

pharmaceutical and potential bioindustrial products, including biofuels. As a result, we expect that our expenses will exceed revenues for the foreseeable future and we do not expect to achieve profitability during this period, if ever. If we fail to achieve profitability, or if the time required to achieve profitability is longer than we anticipate, we may not be able to continue our business. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

If we fail to remediate deficiencies in our control environment or are unable to implement and maintain effective internal control over financial reporting in the future, the accuracy and timeliness of our financial reporting may be adversely affected.

In connection with the audit of our consolidated financial statements for 2009, we and our independent registered public accounting firm determined that the previously identified significant deficiency which related to an ineffective contract compliance process continued to exist as of December 31, 2009. Although we began to implement policies and processes to address this deficiency following the audit of our consolidated financial statements for 2008, we had not completed this implementation as of December 31, 2009. We have not performed an evaluation of our internal control over financial reporting, such as required by Section 404 of the Sarbanes-Oxley Act, nor have we engaged our independent registered public accounting firm to perform an audit of our internal control over financial reporting as of any balance sheet date or for any period reported in our financial statements. Had we performed such an evaluation or had our independent registered public accounting firm performed an audit of our internal control over financial reporting, control deficiencies, including material weaknesses and significant deficiencies, in addition to those discussed above, may have been identified.

We have taken numerous steps to address the underlying causes of the control deficiencies described above, primarily through the development and implementation of policies, improved processes and documented procedures, the retention of third-party experts and contractors, and the hiring of additional accounting and finance personnel with technical accounting, inventory accounting and financial reporting experience. If we fail to remediate deficiencies in our control environment or are unable to implement and maintain effective internal control over financial reporting to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act, we may be unable to accurately report our financial results, or report them within the timeframes required by law or exchange regulations. In addition, while we currently use a third-party contractor to assist us in the preparation of our financial statements, we intend for our internal accounting and finance groups to handle our financial reporting obligations upon becoming a reporting company. We may encounter difficulties as we reduce our use of this contractor, which could impact our ability to timely and accurately prepare our financial statements. We cannot assure you that we will be able to remediate our existing significant deficiency in a timely manner, if at all, or that in the future additional material weaknesses or significant deficiencies will not exist or otherwise be discovered, a risk that is significantly increased in light of the complexity of our business and multinational operations. If our efforts to remediate the significant deficiency are not successful or if other deficiencies occur, our ability to accurately and timely report our financial position, results of operations or cash flows could be impaired, which could result in late filings of our annual and quarterly reports under the Securities Exchange Act of 1934, as amended, restatements of our consolidated financial statements, a decline in our stock price, suspension or delisting of our common stock by The NASDAQ Global Market, or other material adverse effects on our business, reputation, results of operations, financial condition or liquidity.

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

We have licensed core enabling intellectual property rights and technology from Maxygen, Inc., or Maxygen, under our March 2002 license agreement with Maxygen, which was subsequently amended in September 2002, October 2002 and August 2006. Under the terms of the license agreement, we are obligated, among other things, to pay Maxygen a significant percentage of certain types of consideration we receive in connection with our biofuels research and development collaboration with Shell. As a result of consideration received in connection with this collaboration, we were obligated to pay Maxygen $7.9 million, $0.9 million and $5.5 million for 2007, 2008 and 2009, respectively.

We rely heavily on the technology licensed to us by Maxygen and third parties under the Maxygen license. This technology includes advanced biotechnology methods, bioinformatics and years of accumulated know-how to develop the biocatalysts that are central to our business. Certain technologies sublicensed to us from Maxygen are owned by third parties, and our use of these technologies may be restricted by Maxygen's agreements with those third parties. Maxygen has the right to terminate our rights under the license with respect to fuels, but not with respect to chemicals or pharmaceuticals, if we breach our royalty obligations to Maxygen and do not cure such breach within 60 days after we receive notice of the breach. In addition, as part of the license we received from Maxygen, Maxygen assigned or sublicensed to us several license agreements between Maxygen and third parties, including an agreement with one of our competitors, Novozymes A/S, or Novozymes. These third party agreements may restrict our use of the licensed technology. If we breach one of these third party agreements and fail to cure such breach within the time period specified in such third party agreement, Maxygen has the right to terminate our license with respect to the subject matter covered by the applicable third party agreement. Maxygen also has the right to terminate our license with respect to any family of related patent applications if we fail to pay our share of costs for obtaining and maintaining a patent licensed to us by Maxygen more than three times within any three-year period. In addition, Maxygen has the first right to control prosecution, maintenance and enforcement of certain licensed intellectual property rights. If Maxygen is acquired by a third party or transfers to a third party some or all of the intellectual property rights that

we have licensed, the acquirer may choose not to enforce the intellectual property rights on which our business relies, or may seek to enforce those rights ineffectively and have them invalidated, and our ability to develop and expand our business may be adversely impacted. Any termination of our license agreement with Maxygen or any of the rights licensed to us by third parties through Maxygen, or any loss of our intellectual property rights as a result of ineffective enforcement of such rights, would have a material adverse impact on our financial condition, results of operations and growth prospects and could prevent us from continuing our business.

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

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

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

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

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

- we do not achieve our research and development objectives under our collaboration agreements in a timely manner or at all;
- we develop products and processes or enter into additional collaborations that conflict with the business objectives of our other collaborators;
- we disagree with our collaborators as to rights to intellectual property we develop, or their research programs or commercialization activities;
- we are unable to manage multiple simultaneous collaborations;
- our collaborators become competitors of ours or enter into agreements with our competitors;

- our collaborators become unable or less willing to expend their resources on research and development or commercialization efforts due to general market conditions, their financial condition or other circumstances beyond our control; or
- consolidation in our target markets limits the number of potential collaborators. Additionally, our business could be negatively impacted if any of our collaborators or suppliers undergoes a change of control or were to otherwise assign the rights or obligations under any of our agreements. For example, under our license agreement with Shell, Shell may assign the agreement without our consent to controlled affiliates or in connection with a change of control. If Shell or any of our other collaborators were to assign these agreements to a competitor of ours or to a third party who is not willing to work with us on the same terms or commit the same resources as the current collaborator, our business and prospects could be harmed.

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

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

We cannot control the financial resources Shell devotes to our programs under the collaborative research agreement. Currently, we receive bi-monthly payments from Shell that are based on the number of full-time employee equivalents, or FTEs, that work on our research collaboration with Shell. The number of FTEs that work on the program, and the payments from Shell for these FTEs, are specified in our collaborative research agreement. Until November 1, 2010, Shell has the right to reduce the number of funded FTEs under the collaborative research agreement by up to 12 FTEs following 60 days' advance written notice. After November 1, 2010, Shell has the right to further reduce the number of funded FTEs, with any one reduction not to exceed 98 funded FTEs, following advance written notice. The required notice period ranges from 30 to 270 days, so the earliest an FTE reduction could take place would be December 2, 2010. Following any such reduction, Shell is subject to a standstill period of between 90 and 360 days during which period Shell cannot provide notice of any further FTE reductions. The notice and standstill periods are dependent on the number of funded FTEs reduced, with the length of notice and standstill periods increasing commensurate with the number of FTEs reduced. Any such reduction would have a material adverse impact on our revenues and business plan for biofuels. Moreover, disputes may arise between us and Shell, which could delay the programs on which we are working or could prevent the commercialization of products developed under our research and development collaboration. If that were to occur, we may have to use funds, personnel, equipment, facilities and other resources that we have not budgeted to undertake certain activities on our own. Disagreements with Shell could also result in expensive arbitration or litigation, which may not be resolved in our favor. Performance issues, program delay or termination or unbudgeted use of our resources may have a material adverse effect on our business and financial condition. Even if we successfully develop commercially viable technologies, our ability to derive revenues from those technologies will be dependent upon Shell's willingness and ability to commercialize them. Shell has the right, but not the obligation, to commercialize these technologies. If Shell decides to commercialize our technology, we would need to rely on Shell, or other parties selected by Shell, to design, finance and construct commercial scale biofuel facilities, and operate commercial scale facilities at costs that are competitive with traditional petroleum-based fuels and other alternative fuel technologies that may be developed. Shell could merge with or be acquired by another company or experience financial or other setbacks unrelated to our research collaboration agreement that could adversely affect us.

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

We cannot guarantee that our relationship with Shell will continue. After November 1, 2010, Shell can terminate its collaborative research agreement with us for any or no reason by providing us with nine months' notice. Each party also has the right to terminate the license agreement and the collaborative research agreement in the case of an uncured breach by the other party, and to terminate the collaborative research agreement if that party believes the other party has assigned the collaborative research agreement to a direct competitor of the terminating party. If our collaboration with Shell were to fail, we would likely need to find another collaborator to

provide the financial assistance and infrastructure necessary for us to develop and commercialize our products and execute our strategy with respect to biofuels. Failure to maintain this relationship would have a material adverse effect on our business, financial condition and prospects.

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

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

We do not yet know what impact, if any, the proposed joint venture recently announced by Shell and Cosan will have on our business.

In February 2010, Shell International Petroleum Company Limited, or Shell International, an affiliate of Shell, announced that it had signed a non-binding memorandum of understanding with Cosan S.A. with the intention of forming a joint venture in Brazil for the production of ethanol, sugar and power, and the supply, distribution and retail of transportation fuels. According to the announcement, Shell International would contribute to the joint venture, among other assets, Shell's equity interest in us. The consummation of the joint venture is subject to the negotiation and execution of final transaction documentation, the satisfactory completion of due diligence and the receipt of regulatory approvals, among other conditions. As a result, there can be no certainty when or if the joint venture will be consummated. If the joint venture is formed, we do not know whether we will receive any benefits from it. Moreover, the joint venture may impact Shell's willingness to continue to fund our collaborative research program and to commercialize any advanced biofuels that may be produced utilizing our technology, and on the timing of any such commercialization. Any of these events, or other decisions made by Shell with respect to the proposed joint venture, could have a material adverse effect on our business.

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

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

As of the date of this prospectus, we believe that there are no commercial scale cellulosic biofuel production plants in operation. There can be no assurance that anyone will be able or willing to develop and operate biofuel production plants at commercial scale or that any biofuel facilities can be profitable. Additionally, different biocatalysts may need to be developed for use in different geographic locations to convert the cellulosic biomass available in each locale into sugars that can be used in the production of these biofuels. This will make the development of biofuels derived from cellulose more challenging and expensive. Moreover, substantial development of infrastructure will be required for the ethanol market to grow. Areas requiring expansion include, but are not limited to, additional rail capacity, additional storage facilities for ethanol, increases in truck fleets capable of transporting ethanol within localized markets, expansion of refining and blending facilities to handle ethanol, and growth in the fleet of end user vehicles capable of using ethanol blends. Substantial investments required for infrastructure changes and expansions may not be made on a timely basis or at all. Any delay or failure in making the changes to or expansion of infrastructure could harm demand or prices for ethanol and impose additional costs that would hinder its commercialization. Finally, if existing tax credits, subsidies and other incentives in the United States and foreign markets are phased out or reduced, the overall cost of commercialization of cellulosic biofuels will increase.

We are dependent on a limited number of customers.

Our current revenues are derived from a limited number of key customers. For the year ended December 31, 2008, our top five customers accounted for 79% of our total revenues, with Shell alone accounting for 60% of our total revenues. For the year ended December 31, 2009, our top five customers accounted for 90% of our total revenues, with Shell accounting for 76% of our total revenues. Our top five customers accounted for 87% of our total revenues for the three months ended March 31, 2010. Shell accounted for 62% of our total revenues for the three months ended March, 31, 2010. We expect a limited number of customers to continue to account for a significant portion of our revenues for the foreseeable future. This customer concentration increases the risk of quarterly fluctuations in our revenues and operating results. The loss or reduction of business from one or a combination of our significant customers could materially adversely affect our revenues, financial condition and results of operations.

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

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

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

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

We are working to establish long-term supply contracts with contract manufacturers and are evaluating whether to invest in our own manufacturing capabilities. However, we cannot guarantee that we will be able to enter into long-term supply contracts on commercially reasonable terms, or at all, or to acquire, develop or contract for internal manufacturing capabilities. Any resources we expend on acquiring or building internal manufacturing capabilities could be at the expense of other potentially more profitable opportunities.

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

Using our biocatalysts, Arch manufactures certain specified APIs, and intermediates used in the manufacture of APIs, that we then purchase and have the right to sell to innovator pharmaceutical companies worldwide, generic pharmaceutical companies in the United States, Canada, Europe and Israel, and certain pharmaceutical companies in India. Arch has the exclusive right to manufacture, market and sell such APIs and intermediaries to generic pharmaceutical companies in countries other than the United States, Canada, Europe and Israel, and certain other pharmaceutical companies in India. We must therefore rely on Arch for their financial resources and their marketing expertise for the commercialization of such APIs and intermediates in these regions. We cannot control Arch's level of activity or expenditure relating to the marketing of such products relative to the rest of their products or marketing efforts. Arch may fail to effectively market our products in these regions. Conflicting priorities, competing demands or other factors that we cannot control, and of which we may not be aware, may cause Arch to deemphasize such products. If we are unable to effectively leverage Arch's marketing capabilities or Arch does not successfully promote such products in the designated territories as our sole marketing partner, this could harm our business, our revenues and operating results, and our ability to bring such products to the marketplace.

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

Our business has grown rapidly and we expect this growth to continue. Overall, we have grown from approximately 40 employees at the end of 2002 to approximately 290 employees as of December 31, 2009 and approximately 303 employees as of March 31, 2010. Currently, we are working simultaneously on multiple projects targeting several markets. Furthermore, we are conducting our business across several countries, including activities in the United States, India, Japan, Singapore, Austria, France, Germany, Hungary and Italy. These diversified, global operations place increased demands on our limited resources and require us to substantially expand the capabilities of our administrative and operational resources and to attract, train, manage and retain qualified management, technicians, scientists and other personnel. As our operations expand domestically and internationally, we will need to continue to manage multiple locations and additional relationships with various customers, collaborators, suppliers and other third parties. Our ability to manage our operations, growth, and various projects effectively will require us to make additional investments in our infrastructure to continue to improve our operational, financial and management controls and our reporting systems and procedures and to attract and retain sufficient numbers of talented employees, which we may be unable to do effectively. As a result, we may be unable to manage our expenses in the future, which may negatively impact our gross margins or operating margins in any particular quarter. In addition, we may not be able to successfully improve our management information and control systems, including our internal control over financial reporting, to a level necessary to manage our growth and to remediate the existing significant deficiency in our internal control over financial reporting that was identified in our last audit, and we may discover additional deficiencies in existing systems and controls that we may not be able to remediate in an efficient or timely manner.

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

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

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

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

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

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

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

- we may be unable to successfully develop the biocatalysts or manufacturing processes for our intermediates and APIs in a timely and cost-effective manner, if at all;

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

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

Consolidation in the pharmaceutical industry could adversely impact our business.

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

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

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

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

We entered into a license agreement with Dyadic International, Inc. and its affiliate, or Dyadic, in November 2008 to obtain access to an expression system that is capable of producing the necessary biocatalysts for the commercialization of cellulosic biofuels. Under the license agreement with Dyadic, we obtained a non-exclusive license under intellectual property rights of Dyadic relating to Dyadic's proprietary fungal expression technology for the production of enzymes. We also obtained access to specified materials of

Dyadic relating to such Dyadic technology. Our license is sublicenseable to Shell in the field of biofuels. Dyadic has the right to terminate our licenses under the license agreement if we challenge the validity of any of the patents licensed under the license agreement and for various other reasons. Our licenses, and access to such materials of Dyadic, under the license agreement will terminate as a result of any termination of the license agreement other than due to Dyadic's material breach. If we are unable to maintain these rights on commercially reasonable terms or if the license agreement is terminated for any reason, we will need to buy or license this type of expression system from another party or develop this type of expression system ourselves, which may be difficult, costly and time consuming, in part because of the broad, existing intellectual property rights owned by Danisco A/S, Novozymes and others. If any of these events occur, our business may be materially adversely affected.

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

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

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

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

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

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

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

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

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

Our strategy with respect to carbon management, although still in the research phase, would likely require an expansion of the market for the management of carbon dioxide emissions prior to us being able to recognize significant revenues from our research and continuing expenditures of resources. The development of a significant market will likely depend on the adoption of government subsidies or other government regulation requiring companies to limit their carbon emissions. In the absence of such additional government subsidies or regulation, this market may not expand and we would not be able to generate significant revenues from our carbon management operations.

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

Under our license agreement with Maxygen, we obtained exclusive rights to manufacture certain types of chemicals for specified purposes within particular fields. Should we desire to work on any chemicals that are outside the scope of these license rights, we may

need to seek additional rights from Maxygen. Maxygen has no obligation to grant such rights to us and may choose not to license such rights to us on favorable terms, if at all. If we are unable to obtain rights to those additional areas, we may not be able to develop products or services or pursue collaborations in those areas, which could limit our ability to expand into the chemicals market.

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

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

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

We face risks associated with our international business.

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

- changes in or interpretations of foreign regulations that may adversely affect our ability to sell our products or repatriate profits to the United States;
- the imposition of tariffs;
- the imposition of limitations on, or increase of, withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;
- the imposition of limitations on genetically-engineered products or processes and the production or sale of those products or processes in foreign countries;
- currency exchange rate fluctuations;
- uncertainties relating to foreign laws and legal proceedings including tax and exchange control laws;
- the availability of government subsidies or other incentives that benefit competitors in their local markets that are not available to us;
- economic or political instability in foreign countries;
- difficulties in staffing and managing foreign operations; and
- the need to comply with a variety of U.S. laws applicable to the conduct of overseas operations, including export control laws and the Foreign Corrupt Practices Act.

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

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

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

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

Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs and other liabilities, diversion of management’s attention from our core businesses, adverse effects on existing business

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

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

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

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

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

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

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

Our success depends in part on our ability to obtain patents and maintain adequate protection of our intellectual property for our technologies and products and potential products in the United States and other countries. We have adopted a strategy of seeking patent protection in the United States and in foreign countries with respect to certain of the technologies used in or relating to our products and processes. As such, as of December 31, 2009, we owned or had licensed rights to approximately 235 issued patents and approximately 280 pending patent applications in the United States and in various foreign jurisdictions. Of the licensed patents and patent applications, most are owned by Maxygen and exclusively licensed to us for use with respect to certain products for specified purposes within certain fields. However, some of these patents will expire as early as 2014. As of December 31, 2009, we owned approximately 35 issued patents and approximately 115 pending patent applications in the United States and in various foreign jurisdictions. These patents and patent applications are directed to our enabling technologies and to our methods and products which support our business in the pharmaceuticals and bioindustrials markets. We intend to continue to apply for patents relating to our technologies, methods and products as we deem appropriate.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

We face intense competition in the pharmaceuticals market. There are a number of companies who compete with us throughout the various stages of a pharmaceutical product's lifecycle. Many large pharmaceutical companies have internal capabilities to develop and manufacture intermediates and APIs. These companies include many of our large innovator and generic pharmaceutical customers,

such as Merck, Pfizer and Teva Pharmaceutical Industries Ltd. There are also many large, well-established fine chemical manufacturing companies, such as DSM, BASF Corporation and Lonza Group Ltd, that compete to supply pharmaceutical intermediates and APIs to our customers. We also face increasing competition from generic pharmaceutical manufacturers in low cost centers such as India and China.

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

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

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

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

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

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

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

Our future capital requirements may be substantial, particularly as we continue to develop our business and expand our biocatalyst discovery and development process. Although we believe that, based on our current level of operations and anticipated growth, our existing cash, cash equivalents and marketable securities will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements for at least the next 12 months, we may need additional capital if our current plans and assumptions change. Our need for additional capital will depend on many factors, including the financial success of our pharmaceutical business, whether we are successful in obtaining payments from customers, whether we can enter into additional collaborations, the progress and scope of our collaborative and independent research and development projects performed by us and

our collaborators, the effect of any acquisitions of other businesses or technologies that we may make in the future, whether we decide to develop an internal manufacturing capability, and the filing, prosecution and enforcement of patent claims.

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

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

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

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

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

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

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

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

The biocatalysts that we develop have significantly enhanced characteristics compared to those found in naturally occurring enzymes or microbes. While we produce our biocatalysts only for use in a controlled industrial environment, the release of such biocatalysts

into uncontrolled environments could have unintended consequences. Any adverse effect resulting from such a release could have a material adverse effect on our business and financial condition, and we may have exposure to liability for any resulting harm.

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

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

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

Our research and development processes involve the use of hazardous materials, including chemical, radioactive, and biological materials. Our operations also produce hazardous waste. We cannot eliminate entirely the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state, and local laws and regulations govern the use, manufacture, storage, handling and disposal of, and human exposure to, these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. Although we believe that our activities conform in all material respects with environmental laws, there can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present, or future laws could result in the imposition of fines, third party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production, or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws could become more stringent over time imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business.

We may be sued for product liability.

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

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

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

Risks Related to Owning our Common Stock

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

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

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

Based on the number of shares outstanding as of March 31, 2010, our officers, directors and existing stockholders who hold at least 5% of our stock together beneficially own approximately 67% of our outstanding common stock. As of March 31, 2010, Maxygen, Shell and Biomedical Sciences Investment Fund Pte Ltd beneficially owned approximately 21.3%, 19.9% and 12.0% of our common stock, respectively. If these officers, directors, and principal stockholders or a group of our principal stockholders act together, they will be able to exert a significant degree of influence over our management and affairs and control matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. The interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. For instance, officers, directors, and principal stockholders, acting together, could cause us to enter into transactions or agreements that we would not otherwise consider. Similarly, this concentration of ownership may have the effect of delaying or preventing a change in control of our company otherwise favored by our other stockholders. This concentration of ownership could depress our stock price.

Our share price may be volatile which may cause the value of our common stock to decline and subject us to securities class action litigation.

The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- the position of our cash, cash equivalents and marketable securities;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate;
- announcements of technological innovations by us, our collaborators or our competitors;
- announcements by us, our collaborators or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- any changes in Shell's biofuels strategy or timelines, or in our relationship with Shell, including any decision by Shell to terminate our collaboration or reduce the number of FTEs funded by Shell under our collaborative research agreement;
- any announcements or developments with respect to the proposed Shell-Cosan joint venture;
- any changes in our relationship with Maxygen, or any events that impact, or are perceived to impact, the rights we have licensed from Maxygen;
- announcements or developments regarding pharmaceutical products manufactured using our biocatalysts, intermediates and APIs;
- the entry into, modification or termination of collaborative arrangements;
- additions or losses of customers;

- additions or departures of key management or scientific personnel;
- competition from existing products or new products that may emerge;
- issuance of new or updated research reports by securities or industry analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- changes in existing laws, regulations and policies applicable to our business and products, including the National Renewable Fuel Standard program, and the adoption or failure to adopt carbon emissions regulation;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- general market conditions in our industry; and
- general economic and market conditions, including the recent financial crisis.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

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

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

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

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

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

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

(a) Sales of Unregistered Securities

None.

(b) Use of Proceeds from Public Offering of Common Stock

On April 27, 2010, we closed our IPO, in which we sold 6,000,000 shares of common stock at a price to the public of $13.00 per share. The aggregate offering price for shares sold in the offering was $78.0 million. The offer and sale of all of the shares in the IPO were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-164044), which was declared effective by the SEC on April 21, 2010. The offering commenced as of April 21, 2010 and did not terminate before all of the securities registered in the registration statement were sold. Credit Suisse Securities (USA) LLC, Piper Jaffray, RBC Capital Markets Corporation and Pacific Crest Securities LLC, acted as the underwriters. We raised approximately $68.0 million in net proceeds after deducting underwriting discounts and commissions of $5.5 million and other offering expenses of $4.5 million. No payments were made by us to directors, officers or persons owning ten percent or more of our common stock or to their associates, or to our affiliates, other than payments in the ordinary course of business to officers for salaries and to non-employee directors as compensation for board or board committee service, or as a result of sales of shares of common stock by selling stockholders in the offering. There has been no material change in the planned use of proceeds from our IPO as described in our final prospectus filed with the SEC on April 22, 2010 pursuant to Rule 424(b). We invested the funds received in registered money market funds.

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.
3.2	Amended and Restated Bylaws of Codexis, Inc. effective as of April 27, 2010.
4.1	Specimen Stock Certificate (incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1/A No. 333-164044, filed on March 31, 2010).
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.

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: May 27, 2010

By: /s/ ALAN SHAW

Alan Shaw
President and Chief Executive Officer
(Principal Executive Officer)

Date: May 27, 2010

By: /s/ ROBERT LAWSON

Robert Lawson
Senior Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT INDEX

Listed and indexed below are all Exhibits filed as part of this report.

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NINTH AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION

OF

CODEXIS, INC.

Alan Shaw, Ph.D. and Douglas Sheehy, hereby certify that:

ONE: The original name of this corporation is Codexis, Inc. and the date of filing the original Certificate of Incorporation of this corporation with the Secretary of State of the State of Delaware was January 31, 2002.

TWO: They are the President and Chief Executive Officer and the Secretary, respectively, of Codexis, Inc., a Delaware corporation.

THREE: This Ninth Amended and Restated Certificate of Incorporation has been duly adopted in accordance with the provisions of Sections 242, 245 and 228 of the Delaware General Corporation Law, and prompt written notice will be duly given pursuant to Section 228 of the Delaware General Corporation Law.

FOUR: This Ninth Amended and Restated Certificate of Incorporation amends and restates the Eighth Amended and Restated Certificate of Incorporation of this corporation to read as follows:

ARTICLE I

The name of the corporation is Codexis, Inc. (the "Corporation").

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is 2711 Centerville Road, Suite 400, City of Wilmington, County of New Castle, 19808. The name of its registered agent at such address is Corporation Service Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the Delaware General Corporation Law.

ARTICLE IV

A. This Corporation is authorized to issue two classes of stock to be designated, respectively, "Common Stock" and "Preferred Stock." The total number of shares that the Corporation is authorized to issue is one hundred five million (105,000,000) shares, one hundred million (100,000,000) shares of which shall be Common Stock and five million (5,000,000) shares of which shall be Preferred Stock. The Common Stock shall have a par value of one-hundredth of one cent ($0.0001) per share and the Preferred Stock shall have a par value of one-hundredth of one cent ($0.0001) per share.

B. The Preferred Stock may be issued from time to time in one or more series. The Board of Directors of the Corporation (the "Board of Directors") is hereby authorized, by filing a certificate (a "Certificate of Designation") pursuant to the Delaware General Corporation Law, to fix or alter from time to time the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions of any wholly unissued series of Preferred Stock, and to establish from time to time the number of shares constituting any such series or any of them; and to increase or decrease the number of shares of any series subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. In case the number of shares of any series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

ARTICLE V

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation, of its directors and of its stockholders or any class thereof, as the case may be, it is further provided that:

A. (1) The management of the business and the conduct of the affairs of the Corporation shall be vested in the Board of Directors. The number of directors which shall constitute the whole Board of Directors shall be fixed exclusively by one or more resolutions adopted from time to time by the Board of Directors.

(2) The directors shall be divided into three classes, designated as Class I, Class II and Class III, as nearly equal in number as possible. Directors shall be assigned to each class in accordance with a resolution or resolutions adopted by the Board of Directors. At the first annual meeting of stockholders following the effectiveness of this Ninth Amended and Restated Certificate of Incorporation (the "Qualifying Record Date"), the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders, following the Qualifying Record Date, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the Qualifying Record Date, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting.

Notwithstanding the foregoing provisions of this Article V(A), each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(3) The Board of Directors or any individual director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all the then outstanding shares of voting stock of the Corporation, entitled to vote at an election of directors (the "Voting Stock") or (ii) without cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3 %) of the voting power of all the then-outstanding shares of the Voting Stock.

(4) Any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by the stockholders, except as otherwise provided by law, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, and not by the stockholders. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified.

B. (1) Subject to Article IX of the Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter or repeal Bylaws of the Corporation. Notwithstanding the foregoing, the Bylaws of the Corporation may be rescinded, altered, amended or repealed in any respect by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3 %) of the voting power of all the then-outstanding shares of the Voting Stock.

(2) The directors of the Corporation need not be elected by written ballot unless the Bylaws so provide.

(3) No action shall be taken by the stockholders of the Corporation except at an annual or special meeting of stockholders called in accordance with the Bylaws, and no action shall be taken by the stockholders by written consent.

(4) Special meetings of the stockholders of the Corporation may be called, for any purpose or purposes, by the Board of Directors, chairperson of the Board of Directors, chief executive officer or president (in the absence of a chief executive officer), but such special meetings may not be called by any other person or persons.

(5) Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws of the Corporation.

ARTICLE VI

A. To the maximum extent permitted by the Delaware General Corporation Law, as the same exists or as may hereafter be amended, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the Delaware General Corporation Law is amended after approval by the stockholders of this Article VI to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law as so amended.

B. The Corporation may indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that he, his testator or intestate is or was a director, officer, employee or agent of the Corporation or any predecessor of the Corporation, or serves or served at any other enterprise as a director, officer, employee or agent at the request of the Corporation or any predecessor to the Corporation.

C. Neither any amendment nor repeal of this Article VI, nor the adoption of any provision of the Corporation's certificate of incorporation inconsistent with this Article VI, shall eliminate or reduce the effect of this Article VI in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this Article VI, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

ARTICLE VII

Notwithstanding any other provisions of this Ninth Amended and Restated Certificate of Incorporation or any provision of law which might otherwise permit a lesser vote or no vote, but in addition to any affirmative vote of the holders of any particular class or series of the Voting Stock required by law, this Ninth Amended and Restated Certificate of Incorporation or any Certificate of Designation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66-2/3%) of the voting power of all of the then-outstanding shares of the Voting Stock, voting together as a single class, shall be required to alter, amend or repeal Articles V, VI, and VII.

ARTICLE VIII

This Ninth Amended and Restated Certificate of Incorporation shall be effective as of 10:30 a.m. Eastern Daylight Time on April 27, 2010.

*** * * ***

IN WITNESS WHEREOF, the undersigned have executed this Ninth Amended and Restated Certificate of Incorporation on this April 27, 2010.

By: /s/ Alan Shaw
Alan Shaw, Ph.D.
President and Chief Executive Officer

By: /s/ Douglas Sheehy
Douglas Sheehy
Secretary

[Signature Page to Ninth Amended and Restated Certificate of Incorporation]

Exhibit 3.2

AMENDED AND RESTATED BYLAWS OF

CODEXIS, INC.

(a Delaware corporation)

TABLE OF CONTENTS

TABLE OF CONTENTS
(continued)

AMENDED AND RESTATED
BYLAWS OF CODEXIS, INC.

ARTICLE I - CORPORATE OFFICES

1.1 REGISTERED OFFICE.

The registered office of Codexis, Inc. (the "Corporation") shall be fixed in the Corporation's certificate of incorporation, as the same may be amended from time to time.

1.2 OTHER OFFICES.

The Corporation's board of directors (the "Board") may at any time establish other offices at any place or places where the Corporation is qualified to do business.

ARTICLE II - MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS.

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the Board. The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the "DGCL"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Corporation's principal executive office.

2.2 ANNUAL MEETING.

The annual meeting of stockholders shall be held each year. The Board shall designate the date and time of the annual meeting. At the annual meeting, directors shall be elected and other proper business properly brought before the meeting in accordance with Section 2.4 of this Article II may be transacted.

2.3 SPECIAL MEETING.

A special meeting of the stockholders may be called at any time by the Board, chairperson of the Board, chief executive officer or president (in the absence of a chief executive officer), but such special meetings may not be called by any other person or persons.

No business may be transacted at such special meeting other than the business specified in such notice to stockholders. Nothing contained in this paragraph of this Section 2.3 shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

2.4 ADVANCE NOTICE PROCEDURES FOR BUSINESS BROUGHT BEFORE A MEETING.

(i) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be (a) brought before the meeting by the Corporation and specified in the notice of meeting given by or at the direction of the Board, (b) brought before the meeting by or at the direction of the Board, or (c) otherwise properly brought before the meeting by a stockholder who (A) was a stockholder of record of the Corporation (and, with respect to any beneficial owner, if different, on whose behalf such business is proposed, only if such beneficial owner was the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 2.4 and at the time of the meeting, (B) is entitled to vote at the meeting, and (C) has complied with all of the notice procedures set forth in this Section 2.4 as to such business. Except for proposals made in accordance with Rule 14a-8 under the Securities Exchange Act of 1934, as amended (including such rules and regulations promulgated thereunder, the "Exchange Act"), and included in the notice of meeting given by or at the direction of the Board, the foregoing clause (c) shall be the exclusive means for a stockholder to propose business to be brought before an annual meeting of the stockholders. Stockholders shall not be permitted to propose business to be brought before a special meeting of the stockholders, and the only matters that may be brought before a special meeting are the matters specified in the notice of meeting given by or at the direction of the person calling the meeting pursuant to Article II, Section 2.3 of these Bylaws. Stockholders seeking to nominate persons for election to the Board must comply with the notice procedures set forth in Article II, Section 2.5 of these Bylaws, and this Section 2.4 shall not be applicable to nominations except as expressly provided in Article II, Section 2.5 of these Bylaws.

(ii) Without qualification, for business to be properly brought before an annual meeting by a stockholder, the stockholder must (a) provide Timely Notice (as defined below) thereof in writing and in proper form to the Secretary of the Corporation and (b) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.4. To be timely, a stockholder's notice must be delivered to or mailed and received at the principal executive offices of the Corporation not less than ninety (90) days nor more than one hundred twenty (120) days prior to the first anniversary of the preceding year's annual meeting; *provided*, *however*, that in the event that the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after such anniversary date, notice by the stockholder to be timely must be so delivered, or mailed and received, not earlier than the one hundred twentieth (120) day prior to such annual meeting and not later than the ninetieth (90th) day prior to such annual meeting or, if later, the tenth (10th) day following the day on which public disclosure of the date of such annual meeting was first made (such notice within such time periods, "Timely Notice"). In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of Timely Notice as described above.

(iii) To be in proper form for purposes of this Section 2.4, a stockholder's notice to the Secretary pursuant to this Section 2.4 shall be required to set forth:

(a) As to each Proposing Person (as defined below), (A) the name and address of such Proposing Person (including, if applicable, the name and address that appear on the Corporation's books and records) and (B) the class or series and number of shares of the Corporation that are, directly or indirectly, owned of record or beneficially owned (within the meaning of Rule 13d-3 under the Exchange Act) by such Proposing Person, except that such Proposing Person shall in all events be deemed to beneficially own any shares of any class or series of the Corporation as to which such Proposing Person has a right to acquire beneficial ownership at any time in the future (the disclosures to be made pursuant to the foregoing clauses (A) and (B) are referred to as "Stockholder Information");

(b) As to each Proposing Person, (A) any derivative, swap or other transaction or series of transactions engaged in, directly or indirectly, by such Proposing Person, the purpose or effect of which is to give such Proposing Person economic risk similar to ownership of shares of any class or series of the Corporation, including due to the fact that the value of such derivative, swap or other transactions are determined by reference to the price, value or volatility of any shares of any class or series of the Corporation, or which derivative, swap or other transactions provide, directly or indirectly, the opportunity to profit from any increase in the price or value of shares of any class or series of the Corporation ("Synthetic Equity Interests"), which Synthetic Equity Interests shall be disclosed without regard to whether (x) the derivative, swap or other transactions convey any voting rights in such shares to such Proposing Person, (y) the derivative, swap or other transactions are required to be, or are capable of being, settled through delivery of such shares or (z) such Proposing Person may have entered into other transactions that hedge or mitigate the economic effect of such derivative, swap or other transactions, (B) any proxy (other than a revocable proxy or consent given in response to a solicitation made pursuant to, and in accordance with, Section 14(a) of the Exchange Act by way of a solicitation statement filed on Schedule 14A), agreement, arrangement, understanding or relationship pursuant to which such Proposing Person has or shares a right to vote any shares of any class or series of the Corporation, (C) any agreement, arrangement, understanding or relationship, including any repurchase or similar so-called "stock borrowing" agreement or arrangement, engaged in, directly or indirectly, by such Proposing Person, the purpose or effect of which is to mitigate loss to, reduce the economic risk (of ownership or otherwise) of shares of any class or series of the Corporation by, manage the risk of share price changes for, or increase or decrease the voting power of, such Proposing Person with respect to the shares of any class or series of the Corporation, or which provides, directly or indirectly, the opportunity to profit from any decrease in the price or value of the shares of any class or series of the Corporation ("Short Interests"), (D) any rights to dividends on the shares of any class or series of the Corporation owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, (E) any performance related fees (other than an asset based fee) that such Proposing Person is entitled to based on any increase or decrease in the price or value of shares of any class or series of the Corporation, or any Synthetic Equity Interests or Short Interests, if any, (F)(x) if such Proposing Person is not a natural person, the identity of the natural person or persons associated with such Proposing Person responsible for the formulation of and decision to propose the business to be brought before the meeting (such person or persons, the "Responsible Person"), the manner in which such Responsible Person was selected, any fiduciary duties owed by such Responsible Person to the equity holders or other beneficiaries of such Proposing Person, the qualifications and background of such Responsible Person and any material interests or relationships of such Responsible Person that are not shared generally by any other record or beneficial holder of the shares of any class or series of the Corporation and that reasonably could have influenced the decision of such Proposing Person to propose such business to be brought before the meeting, and (y) if such Proposing Person is a natural person, the qualifications and background of such natural person and any material interests or relationships of such natural person that are not shared generally by any other record or beneficial holder of the shares of any class or series of the Corporation and that reasonably could have influenced the decision of such Proposing Person to propose such business to be brought before the meeting, (G) any significant equity interests or any Synthetic Equity Interests or Short Interests in any principal competitor of the Corporation held by such Proposing Persons, (H) any direct or indirect interest of such Proposing Person in any contract with the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation (including, in any such case, any employment agreement, collective bargaining agreement or consulting agreement), (I) any pending or threatened litigation in which such Proposing Person is a party or material participant involving the Corporation or any of its officers or directors, or any affiliate of the Corporation, (J) any material transaction occurring during the prior twelve months between such Proposing Person, on the one hand, and the Corporation, any affiliate of the Corporation or any principal competitor of the Corporation, on the other hand, (K) a summary of any material discussions regarding the business proposed to be brought before the meeting (x) between or among any of the Proposing Persons or (y) between or among any Proposing Person and any other record or beneficial holder of the shares of any class or series of the Corporation (including their names) and (L) any other information relating to such Proposing Person that would be required to be disclosed in a proxy statement or other filing required to be made in connection with solicitations of proxies or consents by such Proposing Person in support of the business proposed to be brought before the meeting pursuant to Section 14(a) of the Exchange Act (the disclosures to be made pursuant to the foregoing clauses (A) through (L) are referred to as "Disclosable Interests"); provided, however, that Disclosable Interests shall not include any such disclosures with respect to the ordinary course business activities of any broker, dealer, commercial bank, trust company or other nominee who is a Proposing Person solely as a result of being the stockholder directed to prepare and submit the notice required by these bylaws on behalf of a beneficial owner; and

(c) As to each item of business that the stockholder proposes to bring before the annual meeting, (A) a reasonably brief description of the business desired to be brought before the annual meeting, the reasons for conducting such business at the annual meeting and any material interest in such business of each Proposing Person, (B) the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the bylaws of the Corporation, the language of the proposed amendment) and (C) a reasonably detailed description of all agreements, arrangements and understandings between or among any of the Proposing Persons or between or among any Proposing Person and any other person or entity (including their names) in connection with the proposal of such business by such stockholder.

(iv) For purposes of this Section 2.4, the term "Proposing Person" shall mean (i) the stockholder providing the notice of business proposed to be brought before an annual meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the business proposed to be brought before the annual meeting is made, (iii) any affiliate or associate (each within the meaning of Rule 12b-2 under the Exchange Act for the purposes of these bylaws) of such stockholder or beneficial owner and (iv) any other person with whom such stockholder or beneficial owner (or any of their respective affiliates or associates) is Acting in Concert (as defined below).

(v) A person shall be deemed to be "Acting in Concert" with another person for purposes of these bylaws if such person knowingly acts (whether or not pursuant to an express agreement, arrangement or understanding) in concert with, or towards a common goal relating to the management, governance or control of the Corporation in parallel with, such other person where (A) each person is conscious of the other person's conduct or intent and this awareness is an element in their decision-making processes and (B) at least one additional factor suggests that such persons intend to act in concert or in parallel, which such additional factors may include, without limitation, exchanging information (whether publicly or privately), attending meetings, conducting discussions, or making or soliciting invitations to act in concert or in parallel; *provided*, that a person shall not be deemed to be Acting in Concert with any other person solely as a result of the solicitation or receipt of revocable proxies or consents from such other person in response to a solicitation made pursuant to, and in accordance with, the Section 14(a) of the Exchange Act by way of a proxy or consent solicitation statement filed on Schedule 14A. A person Acting in Concert with another person shall be deemed to be Acting in Concert with any third party who is also Acting in Concert with such other person.

(vi) A stockholder providing notice of business proposed to be brought before an annual meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.4 shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for the meeting (in the case of the update and supplement required to be made as of the record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(vii) Notwithstanding anything in these bylaws to the contrary, no business shall be conducted at an annual meeting except in accordance with this Section 2.4. The presiding officer of an annual meeting shall, if the facts warrant, determine that the business was not properly brought before the meeting in accordance with this Section 2.4, and if he or she should so determine, he or she shall so declare to the meeting and any such business not properly brought before the meeting shall not be transacted.

(viii) This Section 2.4 is expressly intended to apply to any business proposed to be brought before an annual meeting of stockholders, regardless of whether or not such proposal made pursuant to Rule 14a-8 under the Exchange Act. In addition to the requirements of this Section 2.4 with respect to any business proposed to be brought before an annual meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such business. Nothing in this Section 2.4 shall be deemed to affect the rights of stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 under the Exchange Act.

(ix) For purposes of these bylaws, "public disclosure" shall mean disclosure in a press release reported by a national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Sections 13, 14 or 15(d) of the Exchange Act.

2.5 ADVANCE NOTICE PROCEDURES FOR NOMINATIONS OF DIRECTORS.

(i) Nominations of any person for election to the Board at an annual meeting or at a special meeting (but only if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting) may be made at such meeting only (a) by or at the direction of the Board, including by any committee or persons appointed by the Board, or (b) by a stockholder who (A) was a stockholder of record of the Corporation (and, with respect to any beneficial owner, if different, on whose behalf such nomination is proposed to be made, only if such beneficial owner was the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 2.5 and at the time of the meeting, (B) is entitled to vote at the meeting and (C) has complied with this Section 2.5 as to such nomination. The foregoing clause (b) shall be the exclusive means for a stockholder to make any nomination of a person or persons for election to the Board to be considered by the stockholders at an annual meeting or special meeting.

(ii) Without qualification, for a stockholder to make any nomination of a person or persons for election to the Board at an annual meeting, the stockholder must (a) provide Timely Notice (as defined in Section 2.4(ii) of these bylaws) thereof in writing and in proper form to the Secretary of the Corporation and (b) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.5. Without qualification, if the election of directors is a matter specified in the notice of meeting given by or at the direction of the person calling such special meeting, then for a stockholder to make any nomination of a person or persons for election to the Board at a special meeting, the stockholder must (a) provide timely notice thereof in writing and in proper form to the Secretary of the Corporation at the principal executive offices of the Corporation and (b) provide any updates or supplements to such notice at the times and in the forms required by this Section 2.5. To be timely, a stockholder's notice for nominations to be made at a special meeting must be delivered to, or mailed and received at, the principal executive offices of the Corporation not earlier than the one hundred twentieth (120th) day prior to such special meeting and not later than the ninetieth (90th) day prior to such special meeting or, if later, the tenth (10th) day following the day on which public disclosure (as defined in Section 2.4(ix) of these bylaws) of the date of such special meeting was first made. In no event shall any adjournment or postponement of an annual meeting or special meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described above.

(iii) To be in proper form for purposes of this Section 2.5, a stockholder's notice to the Secretary shall set forth:

(a) As to each Nominating Person (as defined below), the Stockholder Information (as defined in Section 2.4(iii)(a) of these bylaws) except that for purposes of this Section 2.5, the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.4(iii)(a);

(b) As to each Nominating Person, any Disclosable Interests (as defined in Section 2.4(iii)(b), except that for purposes of this Section 2.5 the term "Nominating Person" shall be substituted for the term "Proposing Person" in all places it appears in Section 2.4(iii)(b) and the disclosure in clause (L) of Section 2.4(iii)(b) shall be made with respect to the election of directors at the meeting);

(c) As to each person whom a Nominating Person proposes to nominate for election as a director, (A) all information with respect to such proposed nominee that would be required to be set forth in a stockholder's notice pursuant to this Section 2.5 if such proposed nominee were a Nominating Person, (B) all information relating to such proposed nominee that is required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors in a contested election pursuant to Section 14(a) under the Exchange Act (including such proposed nominee's written consent to being named in the proxy statement as a nominee and to serving as a director if elected), (C) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three (3) years, and any other material relationships, between or among any Nominating Person, on the one hand, and each proposed nominee, his or her respective affiliates and associates and any other persons with whom such proposed nominee (or any of his or her respective affiliates and associates) is Acting in Concert (as defined in Section 2.4(v) of these bylaws), on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 under Regulation S-K if such Nominating Person were the "registrant" for purposes of such rule and the proposed nominee were a director or executive officer of such registrant (the disclosures to be made pursuant to the foregoing clauses (A) through (C) are referred to as "Nominee Information"), and (D) a completed and signed questionnaire, representation and agreement as provided in Section 2.5(vii); and

(d) The Corporation may require any proposed nominee to furnish such other information (A) as may reasonably be required by the Corporation to determine the eligibility of such proposed nominee to serve as an independent director of the Corporation in accordance with the Corporation's Corporate Governance Guidelines or (B) that could be material to a reasonable stockholder's understanding of the independence or lack of independence of such proposed nominee.

(iv) For purposes of this Section 2.5, the term "Nominating Person" shall mean (i) the stockholder providing the notice of the nomination proposed to be made at the meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the nomination proposed to be made at the meeting is made, (iii) any affiliate or associate of such stockholder or beneficial owner and (iv) any other person with whom such stockholder or such beneficial owner (or any of their respective affiliates or associates) is Acting in Concert.

(v) A stockholder providing notice of any nomination proposed to be made at a meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 2.5 shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to the meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for the meeting (in the case of the update and supplement required to be made as of the record date), and not later than eight (8) business days prior to the date for the meeting or, if practicable, any adjournment or postponement thereof (and, if not practicable, on the first practicable date prior to the date to which the meeting has been adjourned or postponed) (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting or any adjournment or postponement thereof).

(vi) Notwithstanding anything in these bylaws to the contrary, no person shall be eligible for election as a director of the Corporation unless nominated in accordance with this Section 2.5. The presiding officer at the meeting shall, if the facts warrant, determine that a nomination was not properly made in accordance with this Section 2.5, and if he or she should so determine, he or she shall so declare such determination to the meeting and the defective nomination shall be disregarded.

(vii) To be eligible to be a nominee for election as a director of the Corporation, the proposed nominee must deliver (in accordance with the time periods prescribed for delivery of notice under this Section 2.5) to the Secretary at the principal executive offices of the Corporation a written questionnaire with respect to the background and qualification of such proposed nominee (which questionnaire shall be provided by the Secretary upon written request) and a written representation and agreement (in form provided by the Secretary upon written request) that such proposed nominee (A) is not and will not become a party to (x) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such proposed nominee, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or (y) any Voting Commitment that could limit or interfere with such proposed nominee's ability to comply, if elected as a director of the Corporation, with such proposed nominee's fiduciary duties under applicable law, (B) is not, and will not become a party to, any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director that has not been disclosed to the Corporation and (C) in such proposed nominee's individual capacity and on behalf of the stockholder (or the beneficial owner, if different) on whose behalf the nomination is made, would be in compliance, if elected as a director of the Corporation, and will comply with applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the Corporation.

(viii) In addition to the requirements of this Section 2.5 with respect to any nomination proposed to be made at a meeting, each Proposing Person shall comply with all applicable requirements of the Exchange Act with respect to any such nominations.

2.6 NOTICE OF STOCKHOLDERS' MEETINGS.

Unless otherwise provided by law, the certificate of incorporation or these bylaws, the notice of any meeting of stockholders shall be sent or otherwise given in accordance with either Section 2.7 or Section 8.1 of these bylaws not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

2.7 MANNER OF GIVING NOTICE; AFFIDAVIT OF NOTICE.

Notice of any meeting of stockholders shall be deemed given:

(i) if mailed, when deposited in the United States mail, postage prepaid, directed to the stockholder at his or her address as it appears on the Corporation's records; or

(ii) if electronically transmitted as provided in Section 8.1 of these bylaws.

An affidavit of the secretary or an assistant secretary of the Corporation or of the transfer agent or any other agent of the Corporation that the notice has been given by mail or by a form of electronic transmission, as applicable, shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

2.8 QUORUM.

Unless otherwise provided by law, the certificate of incorporation or these bylaws, the holders of a majority in voting power of the stock issued and outstanding and entitled to vote, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting or (ii) a majority in voting power of the stockholders entitled to vote at the meeting, present in person or represented by proxy, shall have power to adjourn the meeting from time to time in the manner provided in Section 2.9 of these bylaws until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

2.9 ADJOURNED MEETING; NOTICE.

When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

2.10 CONDUCT OF BUSINESS.

The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

2.11 VOTING.

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.13 of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation or these bylaws, each stockholder shall be entitled to one (1) vote for each share of capital stock held by such stockholder.

At all meetings of stockholders for the election of directors at which a quorum is present a plurality of the votes cast shall be sufficient to elect a director. All other elections and questions presented to the stockholders at a meeting at which a quorum is present shall, unless otherwise provided by the certificate of incorporation, these bylaws, the rules or regulations of any stock exchange applicable to the Corporation, or applicable law or pursuant to any regulation applicable to the Corporation or its securities, be decided by the affirmative vote of the holders of a majority in voting power of the shares of stock of the Corporation which are present in person or by proxy and entitled to vote thereon.

2.12 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Subject to the rights of the holders of the shares of any series of Preferred Stock or any other class of stock or series thereof having a preference over the Common Stock as to dividends or upon liquidation, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

2.13 RECORD DATE FOR STOCKHOLDER NOTICE; VOTING; GIVING CONSENTS.

In order that the Corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix, in advance, a record date, which record date shall not precede the date on which the resolution fixing the record date is adopted and which shall not be more than sixty (60) nor less than ten (10) days before the date of such meeting, nor more than sixty (60) days prior to any other such action.

If the Board does not so fix a record date:

(i) The record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

(ii) The record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided*, *however*, that the Board may fix a new record date for the adjourned meeting.

2.14 PROXIES.

Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three (3) years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL. A proxy may be in the form of a telegram, cablegram or other means of electronic transmission which sets forth or is submitted with information from which it can be determined that the telegram, cablegram or other means of electronic transmission was authorized by the stockholder.

2.15 LIST OF STOCKHOLDERS ENTITLED TO VOTE.

The officer who has charge of the stock ledger of the Corporation shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The Corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten (10) days prior to the meeting: (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the Corporation's principal executive office. In the event that the Corporation determines to make the list available on an electronic network, the Corporation may take reasonable steps to ensure that such information is available only to stockholders of the Corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

2.16 INSPECTORS OF ELECTION.

Before any meeting of stockholders, the Board shall appoint an inspector or inspectors of election to act at the meeting or its adjournment and make a written report thereof. The number of inspectors shall be either one (1) or three (3). If any person appointed as inspector fails to appear or fails or refuses to act, then the chairperson of the meeting may, and upon the request of any stockholder or a stockholder's proxy shall, appoint a person to fill that vacancy.

Such inspectors shall:

(i) determine the number of shares outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, and the authenticity, validity, and effect of proxies;

(ii) receive votes or ballots;

(iii) hear and determine all challenges and questions in any way arising in connection with the right to vote;

(iv) count and tabulate all votes;

(v) determine when the polls shall close;

(vi) determine the result; and

(vii) do any other acts that may be proper to conduct the election or vote with fairness to all stockholders.

The inspectors of election shall perform their duties impartially, in good faith, to the best of their ability and as expeditiously as is practical. If there are three (3) inspectors of election, the decision, act or certificate of a majority is effective in all respects as the decision, act or certificate of all. Any report or certificate made by the inspectors of election is prima facie evidence of the facts stated therein.

ARTICLE III - DIRECTORS

3.1 POWERS

Subject to the provisions of the DGCL and any limitations in the certificate of incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the Corporation shall be managed and all corporate powers shall be exercised by or under the direction of the Board.

3.2 NUMBER OF DIRECTORS.

The authorized number of directors shall be determined from time to time by resolution of the Board, provided the Board shall consist of at least one (1) member. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS.

Except as provided in Section 3.4 of these bylaws, each director, including a director elected to fill a vacancy, shall hold office until the expiration of the term for which elected and until such director's successor is elected and qualified or until such director's earlier death, resignation or removal. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors.

If so provided in the certificate of incorporation, the directors of the Corporation shall be divided into three (3) classes.

3.4 RESIGNATION AND VACANCIES.

Any director may resign at any time upon notice given in writing or by electronic transmission to the Corporation. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the certificate of incorporation or these bylaws, vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director and each director so chosen shall hold office until the next annual meeting and until his or her successor is duly elected and qualified. If the directors are divided into classes, a person so elected by the directors then in office to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall have been duly elected and qualified.

If at any time, by reason of death or resignation or other cause, the Corporation should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the DGCL.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least ten percent (10%) of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE.

The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting pursuant to this bylaw shall constitute presence in person at the meeting.

3.6 REGULAR MEETINGS.

Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

3.7 SPECIAL MEETINGS; NOTICE.

Special meetings of the Board for any purpose or purposes may be called at any time by the chairperson of the Board, the chief executive officer, the president, the secretary or a majority of the authorized number of directors.

Notice of the time and place of special meetings shall be:

(i) delivered personally by hand, by courier or by telephone;

(ii) sent by United States first-class mail, postage prepaid;

(iii) sent by facsimile; or

(iv) sent by electronic mail,

directed to each director at that director’s address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the Corporation’s records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least twenty-four (24) hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four (4) days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Corporation’s principal executive office) nor the purpose of the meeting.

3.8 QUORUM.

At all meetings of the Board, a majority of the authorized number of directors shall constitute a quorum for the transaction of business. The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

3.9 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING.

Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.10 FEES AND COMPENSATION OF DIRECTORS.

Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

3.11 REMOVAL OF DIRECTORS.

Except as otherwise provided by the DGCL, the Board of Directors or any individual director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all the then outstanding shares of voting stock of the Corporation entitled to vote at an election of directors (the "Voting Stock") or (ii) without cause by the affirmative vote of the holders of at least sixty six and two thirds percent (66-2/3%) of the voting power of all the then outstanding shares of the Voting Stock.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE IV - COMMITTEES

4.1 COMMITTEES OF DIRECTORS.

The Board may designate one (1) or more committees, each committee to consist of one (1) or more of the directors of the Corporation. The Board may designate one (1) or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the Corporation.

4.2 COMMITTEE MINUTES.

Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

4.3 MEETINGS AND ACTION OF COMMITTEES.

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(i) Section 3.5 (place of meetings and meetings by telephone);

(ii) Section 3.6 (regular meetings);

(iii) Section 3.7 (special meetings and notice);

(iv) Section 3.8 (quorum);

(v) Section 7.12 (waiver of notice); and

(vi) Section 3.9 (action without a meeting),

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. *However*:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

ARTICLE V - OFFICERS

5.1 OFFICERS.

The officers of the Corporation shall be a president and a secretary. The Corporation may also have, at the discretion of the Board, a chairperson of the Board, a vice chairperson of the Board, a chief executive officer, a chief financial officer or treasurer, one (1) or more vice presidents, one (1) or more assistant vice presidents, one (1) or more assistant treasurers, one (1) or more assistant secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

5.2 APPOINTMENT OF OFFICERS.

The Board shall appoint the officers of the Corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws, subject to the rights, if any, of an officer under any contract of employment.

5.3 SUBORDINATE OFFICERS.

The Board may appoint, or empower the chief executive officer or, in the absence of a chief executive officer, the president, to appoint, such other officers and agents as the business of the Corporation may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS.

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Corporation. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Corporation under any contract to which the officer is a party.

5.5 VACANCIES IN OFFICES.

Any vacancy occurring in any office of the Corporation shall be filled by the Board or as provided in Section 5.2.

5.6 REPRESENTATION OF SHARES OF OTHER CORPORATIONS.

The chairperson of the Board, the president, any vice president, the treasurer, the secretary or assistant secretary of this Corporation, or any other person authorized by the Board or the president or a vice president, is authorized to vote, represent and exercise on behalf of this Corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this Corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

5.7 AUTHORITY AND DUTIES OF OFFICERS.

All officers of the Corporation shall respectively have such authority and perform such duties in the management of the business of the Corporation as may be designated from time to time by the Board or the stockholders and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board.

ARTICLE VI - RECORDS AND REPORTS

6.1 MAINTENANCE AND INSPECTION OF RECORDS.

The Corporation shall, either at its principal executive office or at such place or places as designated by the Board, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the Corporation’s stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person’s interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent so to act on behalf of the stockholder. The demand under oath shall be directed to the Corporation at its registered office in Delaware or at its principal executive office.

6.2 INSPECTION BY DIRECTORS.

Any director shall have the right to examine the Corporation’s stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the Corporation to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

ARTICLE VII - - GENERAL MATTERS

7.1 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS.

The Board, except as otherwise provided in these bylaws, may authorize any officer or officers, or agent or agents, to enter into any contract or execute any instrument in the name of and on behalf of the Corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the Board or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

7.2 STOCK CERTIFICATES; PARTLY PAID SHARES.

The shares of the Corporation shall be represented by certificates, provided that the Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution by the Board, every holder of stock represented by certificates shall be entitled to have a certificate signed by, or in the name of the Corporation by the chairperson or vice-chairperson of the Board, or the president or vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the Corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The Corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the Corporation in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Corporation shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

7.3 SPECIAL DESIGNATION ON CERTIFICATES.

If the Corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock; *provided*, *however*, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate that the Corporation shall issue to represent such class or series of stock a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, the designations, the preferences and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

7.4 LOST CERTIFICATES.

Except as provided in this Section 7.4, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Corporation and cancelled at the same time. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner’s legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

7.5 CONSTRUCTION; DEFINITIONS.

Unless the context requires otherwise, the general provisions, rules of construction and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term “person” includes both a corporation and a natural person.

7.6 DIVIDENDS.

The Board, subject to any restrictions contained in either (i) the DGCL or (ii) the certificate of incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property or in shares of the Corporation’s capital stock.

The Board may set apart out of any of the funds of the Corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Corporation, and meeting contingencies.

7.7 FISCAL YEAR.

The fiscal year of the Corporation shall be fixed by resolution of the Board and may be changed by the Board.

7.8 SEAL.

The Corporation may adopt a corporate seal, which shall be adopted and which may be altered by the Board. The Corporation may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

7.9 TRANSFER OF STOCK.

Shares of the Corporation shall be transferable in the manner prescribed by law and in these bylaws. Shares of stock of the Corporation shall be transferred on the books of the Corporation only by the holder of record thereof or by such holder’s attorney duly authorized in writing, upon surrender to the Corporation of the certificate or certificates representing such shares endorsed by the appropriate person or persons (or by delivery of duly executed instructions with respect to uncertificated shares), with such evidence of the authenticity of such endorsement or execution, transfer, authorization and other matters as the Corporation may reasonably require, and accompanied by all necessary stock transfer stamps. No transfer of stock shall be valid as against the Corporation for any purpose until it shall have been entered in the stock records of the Corporation by an entry showing the names of the persons from and to whom it was transferred.

7.10 STOCK TRANSFER AGREEMENTS.

The Corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Corporation to restrict the transfer of shares of stock of the Corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

7.11 REGISTERED STOCKHOLDERS.

The Corporation:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

7.12 WAIVER OF NOTICE.

Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII - NOTICE BY ELECTRONIC TRANSMISSION

8.1 NOTICE BY ELECTRONIC TRANSMISSION.

Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the Corporation under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Corporation. Any such consent shall be deemed revoked if:

(i) the Corporation is unable to deliver by electronic transmission two (2) consecutive notices given by the Corporation in accordance with such consent; and

(ii) such inability becomes known to the secretary or an assistant secretary of the Corporation or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the Corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be prima facie evidence of the facts stated therein.

8.2 DEFINITION OF ELECTRONIC TRANSMISSION.

An "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

ARTICLE IX - INDEMNIFICATION

9.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Corporation shall indemnify and hold harmless, to the fullest extent permitted by the DGCL as it presently exists or may hereafter be amended, any director or officer of the Corporation who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person in connection with any such Proceeding. Notwithstanding the preceding sentence, except as otherwise provided in Section 9.4, the Corporation shall be required to indemnify a person in connection with a Proceeding initiated by such person only if the Proceeding was authorized in the specific case by the Board.

9.2 INDEMNIFICATION OF OTHERS.

The Corporation shall have the power to indemnify and hold harmless, to the extent permitted by applicable law as it presently exists or may hereafter be amended, any employee or agent of the Corporation who was or is made or is threatened to be made a party or is otherwise involved in any Proceeding by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was an employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses reasonably incurred by such person in connection with any such Proceeding.

9.3 PREPAYMENT OF EXPENSES.

The Corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by any officer or director of the Corporation, and may pay the expenses incurred by any employee or agent of the Corporation, in defending any Proceeding in advance of its final disposition; *provided, however*, that, to the extent required by law, such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the person to repay all amounts advanced if it should be ultimately determined that the person is not entitled to be indemnified under this Article IX or otherwise.

9.4 DETERMINATION; CLAIM.

If a claim for indemnification (following the final disposition of such Proceeding) or advancement of expenses under this Article IX is not paid in full within sixty (60) days after a written claim therefor has been received by the Corporation the claimant may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim to the fullest extent permitted by law. In any such action the Corporation shall have the burden of proving that the claimant was not entitled to the requested indemnification or payment of expenses under applicable law.

9.5 NON-EXCLUSIVITY OF RIGHTS.

The rights conferred on any person by this Article IX shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the certificate of incorporation, these bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

9.6 INSURANCE.

The Corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust enterprise or non-profit entity against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Corporation would have the power to indemnify him or her against such liability under the provisions of the DGCL.

9.7 OTHER INDEMNIFICATION.

The Corporation's obligation, if any, to indemnify or advance expenses to any person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or non-profit entity shall be reduced by any amount such person may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

9.8 CONTINUATION OF INDEMNIFICATION.

The rights to indemnification and to prepayment of expenses provided by, or granted pursuant to, this Article IX shall continue notwithstanding that the person has ceased to be a director or officer of the Corporation and shall inure to the benefit of the estate, heirs, executors, administrators, legatees and distributees of such person.

9.9 AMENDMENT OR REPEAL.

The provisions of this Article IX shall constitute a contract between the Corporation, on the one hand, and, on the other hand, each individual who serves or has served as a director or officer of the Corporation (whether before or after the adoption of these bylaws), in consideration of such person's performance of such services, and pursuant to this Article IX the Corporation intends to be legally bound to each such current or former director or officer of the Corporation. With respect to current and former directors and officers of the Corporation, the rights conferred under this Article IX are present contractual rights and such rights are fully vested, and shall be deemed to have vested fully, immediately upon adoption of theses bylaws. With respect to any directors or officers of the Corporation who commence service following adoption of these bylaws, the rights conferred under this provision shall be present contractual rights and such rights shall fully vest, and be deemed to have vested fully, immediately upon such director or officer commencing service as a director or officer of the Corporation. Any repeal or modification of the foregoing provisions of this Article IX shall not adversely affect any right or protection (i) hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification or (ii) under any agreement providing for indemnification or advancement of expenses to an officer or director of the Corporation in effect prior to the time of such repeal or modification.

ARTICLE X - AMENDMENTS

These bylaws may be adopted, amended or repealed by the stockholders entitled to vote. However, the Corporation may, in its certificate of incorporation, confer the power to adopt, amend or repeal these bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal these bylaws.

CODEXIS, INC.

CERTIFICATE OF AMENDMENT AND RESTATEMENT OF BYLAWS

The undersigned hereby certifies that he or she is the duly elected, qualified, and acting Secretary of Codexis, Inc., a Delaware corporation, and that the foregoing bylaws, comprising 23 pages, were amended and restated on April 27, 2010 by the Corporation's board of directors.

IN WITNESS WHEREOF, the undersigned has hereunto set his or her hand this 27th day of April, 2010.

/s/ Douglas Sheehy
Secretary

Exhibit 31.1

CERTIFICATION

I, Alan Shaw, 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)) 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) 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
    (c) 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: May 27, 2010

/s/ Alan Shaw
Alan Shaw
President and Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Robert Lawson, 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)) 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) 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
    (c) 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: May 27, 2010

/s/ Robert Lawson
Robert Lawson
Senior Vice President and Chief Financial 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 March 31, 2010, as filed with the Securities and Exchange Commission (the "Report"), Alan Shaw, President and Chief Executive Officer of the Company and Robert Lawson, 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: May 27, 2010

/s/ Alan Shaw
Alan Shaw
President and Chief Executive Officer

/s/ Robert Lawson
Robert Lawson
Senior Vice President and Chief Financial Officer