CODEXIS INC
Form 10-Q
November 12, 2013

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q
(Mark One)

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

For the quarterly period ended September 30, 2013
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 ý 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 ý 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 x
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 ý

As of October 25, 2013, there were 38,105,532 shares of the registrant's Common Stock, par value $0.0001 per share, outstanding.

Codexis, Inc.
Quarterly Report on Form 10-Q
For The Three Months Ended September 30, 2013

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Codexis, Inc.
Condensed Consolidated Balance Sheets
(In Thousands)

	September 30, 2013 (Unaudited)	December 31, 2012 *
Assets		
Current assets:		
Cash and cash equivalents	$26,911	$32,003
Marketable securities	3,009	13,524
Accounts receivable, net of allowances of $478 and $150 at September 30, 2013 and December 31, 2012, respectively	2,688	7,545
Inventories	2,101	1,302
Prepaid expenses and other current assets	1,935	5,395
Total current assets	36,644	59,769
Restricted cash	911	1,511
Non-current marketable securities	1,067	3,623
Property and equipment, net	13,809	16,650
Intangible assets, net	10,403	12,934
Goodwill	3,241	3,241
Other non-current assets	361	2,237
Total assets	$66,436	$99,965
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$1,490	$3,654
Accrued compensation	3,340	3,495
Other accrued liabilities	2,140	6,948
Deferred revenues	2,248	2,186
Total current liabilities	9,218	16,283
Deferred revenues, net of current portion	1,161	1,299
Other long-term liabilities	5,183	3,943
Commitments and contingencies (note 8)		
Stockholders' equity:		
Common stock	4	4
Additional paid-in capital	297,776	294,128
Accumulated other comprehensive income (loss)	139	(136)
Accumulated deficit	(247,045)	(215,556)
Total stockholders' equity	50,874	78,440
Total liabilities and stockholders' equity	$66,436	$99,965

* The Condensed Consolidated Balance Sheet as of December 31, 2012 has been derived from the audited consolidated financial statements as of that date, but does not include all disclosures including notes required by GAAP for complete financial statements.

See accompanying notes to the unaudited condensed consolidated financial statements

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Revenues:				
Product	$1,076	$7,140	$15,161	$29,090
Collaborative research and development	2,867	18,569	7,236	49,049
Government awards	—	632	—	2,247
Total revenues	3,943	26,341	22,397	80,386
Costs and operating expenses:				
Cost of product revenues	494	6,397	9,790	24,868
Research and development	6,831	14,191	22,776	46,190
Selling, general and administrative	5,832	7,909	21,126	24,093
Total costs and operating expenses	13,157	28,497	53,692	95,151
Loss from operations	(9,214)	(2,156)	(31,295)	(14,765)
Interest income	9	61	53	210
Other expenses	(22)	(45)	(288)	(320)
Loss before (benefit) provision for income taxes	(9,227)	(2,140)	(31,530)	(14,875)
(Benefit) provision for income taxes	35	169	(41)	443
Net loss	$(9,262)	$(2,309)	$(31,489)	$(15,318)
Net loss per share, basic and diluted	(0.24)	(0.06)	(0.83)	(0.42)
Weighted average common shares used in computing net loss per share, basic and diluted	38,102	37,116	38,002	36,494

See accompanying notes to the unaudited condensed consolidated financial statements

Codexis, Inc.
Condensed Consolidated Statements of Comprehensive Loss
(Unaudited)
(In Thousands)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Net loss	$(9,262)	$(2,309)	$(31,489)	$(15,318)
Other comprehensive income (loss):				
Foreign currency translation adjustments	—	—	—	165
Unrealized gain (loss) on marketable securities, net of tax of $17 and $172 for the three and nine months ended September 30, 2013, and $58 and $58 for the three and nine months ended September 30, 2012	32	724	275	88
Other comprehensive income	32	724	275	253
Total comprehensive loss	$(9,230)	$(1,585)	$(31,214)	$(15,065)

See accompanying notes to the unaudited condensed consolidated financial statements

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

	Nine Months Ended September 30,	
	2013	2012
Operating activities:		
Net loss	$(31,489)	$(15,318)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of intangible assets	2,531	2,665
Depreciation and amortization of property and equipment	5,307	6,822
Loss on disposal of property and equipment	62	93
Allowance for bad debt	328	—
Stock-based compensation	3,361	4,543
Accretion of asset retirement obligation	—	22
Impairment of marketable securities		753
(Accretion of discount) amortization of premium on marketable securities	(63)	508
Changes in operating assets and liabilities:		
Accounts receivable	833	2,390
Inventories	(614)	1,727
Prepaid expenses and other current assets	4	(2,824)
Other assets	(37)	(1,321)
Accounts payable	(2,164)	(4,077)
Accrued compensation	(155)	(2,077)
Other accrued liabilities	1,080	581
Deferred revenues	1,923	(1,642)
Net cash used in operating activities	(19,093)	(7,155)
Investing activities:		
Decrease in restricted cash	600	—
Purchase of property and equipment	(447)	(2,632)
Purchase of marketable securities	—	(20,638)
Proceeds from sale of marketable securities	—	8,376
Proceeds from maturities of marketable securities	13,410	20,800
Proceeds from disposal of property and equipment	150	—
Net cash provided by investing activities	13,713	5,906
Financing activities:		
Proceeds from exercises of stock options	288	894
Net cash provided by financing activities	288	894
Effect of exchange rate changes on cash and cash equivalents	—	166
Net decrease in cash and cash equivalents	(5,092)	(189)
Cash and cash equivalents at the beginning of the period	32,003	25,762
Cash and cash equivalents at the end of the period	$26,911	$25,573
Long term deposit in other assets transferred to property and equipment	$1,912	$—

See accompanying notes to the unaudited condensed consolidated financial statements

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Notes to Condensed Consolidated Financial Statements
(Unaudited)

1. Description of Business

Codexis, Inc. (the "Company") was incorporated in the state of Delaware in January 2002. The Company engineers enzymes for the pharmaceutical and complex chemistry industries. Its proven technologies enable scale-up and implementation of biocatalytic solutions to meet customer needs for rapid, cost-effective and sustainable process development, from research to manufacturing.

The Company has commercialized its technology and products in the pharmaceuticals market, which is its primary business focus. There are currently over 50 pharmaceutical firms using its technology, products and services in their manufacturing process development, including in the production of some of the world's bestselling and fastest growing drugs.

The Company assists customers in discovering or enhancing enzymes variants by applying its CodeEvolver® directed evolution technology platform, which introduces genetic mutations into microorganisms, giving rise to changes in the enzymes that they produce. Once the Company identifies potentially beneficial mutations, it tests combinations of these mutations until it has created variant enzymes that exhibit marketable performance characteristics superior to competitive products. This process allows the Company to make continuous, efficient improvements to the performance of its enzymes.

In these Notes to Condensed Consolidated Financial Statements, the “Company” refers to Codexis, Inc. and its subsidiaries on a consolidated basis.

2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying 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 the Company's Annual Report on Form 10-K for the year ended December 31, 2012. The condensed consolidated balance sheet at December 31, 2012 has been derived from the audited consolidated financial statements at that date, but does not include all disclosures including notes required by GAAP for complete financial statements.

The 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 its financial position as of September 30, 2013 and results of its operations, comprehensive loss and cash flows for the three and nine months ended September 30, 2013 and 2012.

The interim results are not necessarily indicative of the results for any future interim period or for the entire year.

Certain prior period amounts have been reclassified to conform to current period presentation.

The unaudited interim condensed consolidated financial statements include the amounts of Codexis, Inc. and its wholly-owned subsidiaries in the United States, Brazil, Hungary, India, Mauritius, The Netherlands and Singapore. 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. The Company's management regularly assesses these estimates which primarily affect revenue recognition, the valuation of marketable securities and accounts receivable, intangible assets, goodwill arising out of business acquisitions, inventories, accrued liabilities, common stock, and stock options and the valuation allowances associated with deferred tax assets. Actual results could differ from those estimates and such differences may be

material to the condensed consolidated financial statements.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents, marketable securities, accounts receivable and restricted cash. Cash and cash equivalents, marketable securities and restricted cash are invested through banks and other financial institutions in the United States, as well as in other foreign countries. Such deposits may be in excess of insured limits.

Credit risk with respect to accounts receivable exists to the extent of amounts presented in the condensed consolidated financial statements. The Company estimates an allowance for doubtful accounts through specific identification of potentially uncollectible accounts receivable based on an analysis of its accounts receivable aging. Uncollectible accounts receivable are written off against the allowance for doubtful accounts when all efforts to collect them have been exhausted. Recoveries are recognized when they are received. Actual collection losses may differ from its estimates and could be material to its consolidated financial position, results of operations, and cash flows.

The Company's top five customers accounted for 59% and 81% of the Company's total revenues for the three and nine months ended September 30, 2013. Accounts receivable balances for the top five customers were 89% and 84% of total balances as of September 30, 2013 and December 31, 2012, respectively. Major customers that represent more than 10% of total Company revenue include Customer A at 34% and 47% and Customer B at 21% and 10% for the three and nine months ended September 30, 2013, respectively.

Fair Value of Financial Instruments

The carrying amounts of certain of the Company's financial instruments, including cash and cash equivalents, restricted cash, accounts receivable and accounts payable, approximate fair value due to their short maturities.

Fair value is considered to be the price at which an asset could be exchanged or a liability transferred (an exit price) in an orderly transaction between knowledgeable, willing parties in the principal or most advantageous market for the asset or liability. Where available, fair value is based on or derived from observable market prices or other observable inputs. Where observable prices or inputs are not available, valuation models are applied. These valuation techniques involve some level of management estimation and judgment, the degree of which is dependent on the price transparency for the instruments and the instruments' complexity.

Cash, Cash Equivalents and Marketable Securities

The Company considers all highly liquid investments with maturity dates of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents consist of cash on deposit with banks and money market funds. 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 comprised of corporate bonds, commercial paper, and United States Treasury obligations. Marketable securities included in non-current assets are comprised of corporate bonds and United States Treasury obligations that have a maturity date greater than one year. The Company's investment in common shares of CO_2 Solutions Inc. ("CO_2 Solutions") is included in non-current marketable securities.

The Company performs separate evaluations of impaired debt and equity securities to determine if the unrealized losses as of the balance sheet date are other-than-temporary impairment.

For the Company's investments in equity securities, its evaluation considers a number of factors including, but not limited to, the length of time and extent to which the fair value has been less than cost, the financial condition and near term prospects of the issuer, and its management's ability and intent to hold the securities until fair value recovers. The assessment of the ability and intent to hold these securities to recovery focuses on its current and forecasted liquidity requirements and capital requirements. Based on these evaluation criteria, the Company concluded during the third quarter of 2012 the unrealized losses related to its equity investment in the common shares of CO_2 Solutions were other-than-temporary and as a result, the Company recorded $0.8 million as a selling, general and administrative expense in its condensed consolidated statement of operations (see Note 6). As of September 30, 2013, there were no unrealized losses related to the Company's equity securities.

For the Company's investments in debt securities, management determines whether it intends to sell or if it is more-likely-than-not that the Company will be required to sell impaired securities. This determination considers current and forecasted liquidity requirements and capital requirements. For all impaired debt securities for which there was no intent or expected requirement to sell, the evaluation considers all available evidence to assess whether it is

likely the amortized cost value will be recovered. The Company conducts a regular assessment of its debt securities with unrealized losses to determine whether the securities have other-than-temporary impairment considering, among other factors, the nature of the securities, credit rating or

financial condition of the issuer, the extent and duration of the unrealized loss, expected cash flows of underlying collateral and market conditions. As of September 30, 2013, there were no unrealized losses related to the Company's debt securities.

The Company's investments in debt and equity securities are classified as available-for-sale and are carried at fair value. Unrealized gains and losses are reported on the condensed consolidated statement of comprehensive loss unless considered other-than-temporary. Amortization of purchase premiums and accretion of purchase discounts, realized gains and losses of debt securities and declines in value deemed to be other than temporary, if any, are included in interest income or other expenses. The cost of securities sold is based on the specific-identification method. There were no significant realized gains or losses from sales of marketable securities during the three and nine months ended September 30, 2013 and 2012.

Impairment of Long-Lived Assets and Intangible Assets

Long-lived and intangible assets with finite lives are reviewed for impairment whenever events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. Recoverability of these assets is measured by comparison of their carrying amounts to future undiscounted cash flows the assets are expected to generate.

The Company determined that it has a single entity wide asset group (“Asset Group”). The directed evolution technology patent portfolio acquired from Maxygen (“Core IP”) is the most significant component of the Asset Group since it is the base technology for all aspects of the Company's research and development, and represents the basis for all of its identifiable cash flow generating capacity. The Core IP consist of developed core technology, trade names, and the intellectual property (“IP”) rights associated with the acquisition of Maxygen, Inc.'s ("Maxygen") directed evolution technology in 2010.

The Core IP is the only finite-lived intangible asset on the balance sheet as of September 30, 2013 and is considered the primary asset within the Asset Group. The Core IP is being amortized ratably over the six years from the acquisition date. There has been no significant change in the utilization of the Core IP since the Company acquired the technology patent portfolio from Maxygen. Consequently, the Company does not believe that identification of independent cash flows associated with its long-lived assets is currently possible at any lower level than the Asset Group.

The Company evaluates recoverability of its long-lived assets and intangible assets based on the sum of the undiscounted cash flows expected to result from the use, and the eventual disposal of, the Asset Group. The Company makes estimates and judgments about the future undiscounted cash flows over the remaining useful life of the Asset Group. The anticipated future cash flows include the Company's estimates of existing or in process product revenues, production and operating costs, future capital expenditures, working capital needs, and assumptions regarding the ultimate sale of the Asset Group at the end of the life of the primary asset.

As of September 30, 2013, the Company determined that its projected annual operating losses, the potential impact of the Dyadic notice from Dyadic International, Inc. (see Note 8), and the decreasing market price of the Company’s common stock were indicators of impairment. Consequently, the Company tested its long-lived assets and intangible assets for impairment as of September 30, 2013. This approach is consistent with the Company’s impairment analysis performed as of December 31, 2012, as described in the Company's Annual Report on Form 10-K for the year ended December 31, 2012.

The Company performed the recoverability test and calculated estimated cashflows through the remaining period of the estimated useful life of the Core IP. The expected residual value was determined by applying a Gordon Growth Model to normalized net cash flows using a discount rate of 18% (“Estimated Weighted-Average Cost of Capital”), long term growth rate of 2%, and a capitalization factor of 6.25. The 18% discount rate reflects the nature and the risk of the underlying forecast, and includes such financial components as the risk free rate, systemic stock price risk based on an evaluation with peer companies (“beta”), equity risk premium, size premium, and company specific risk. The long term growth rate of 2% reflects projected inflation and general economic conditions. While the methodology for determining recoverability was consistent with that used in the Company's impairment analysis performed as of December 31, 2012, certain assumptions changed in the third quarter based on activity within the quarter, including reduced anticipated future cashflows related to potential CodeXyme® and CodeXol® transactions and reduced future revenue growth to reflect the Company’s most recent outlook. Following this analysis, the Company determined that

its estimated future undiscounted cash flows for the Asset Group are greater than the carrying value of the Asset Group Core IP asset fair value as of September 30, 2013.

The Company supplementally performed an analysis to determine the fair value of the Core IP. In determining the fair value, the Company prepared cash flow forecasts over the remaining economic life of the Core IP primarily related to final patent expiration from the Maxygen patent portfolio. The Company utilized the multi-period Excess Earnings model and obtained key financial inputs from review of market participants, Company specific factors and generally accepted valuation methods. The Company utilized a discount rate of 19% which reflects the nature and the risk of the underlying forecast and includes other financial components.

Based on these estimates, judgments and factors, the Company has determined that the fair value of the Core IP exceeded its carrying value by 38% as of September 30, 2013. No impairment loss was recorded as of September 30, 2013.

Valuation of Goodwill

The Company reviews goodwill impairment annually and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable.

The Company determined that it has only one operating segment and reporting unit under the criteria in ASC 280, Segment Reporting, and accordingly, all of the goodwill is associated with the Company. The Company's review of goodwill impairment indicators is performed at the Company level.

The goodwill impairment test consists of a two-step process. The first step of the goodwill impairment test, used to identify potential impairment, compares the fair value of the reporting unit to its carrying value. If the fair value of the reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired, and the second step of the impairment test is not required.

The Company uses its market capitalization as an indicator of fair value. The Company believes that since its reporting unit is publicly traded, the ability of a controlling shareholder to benefit from synergies and other intangible assets that arise from control might cause the fair value of our reporting unit as a whole to exceed its market capitalization. However, the Company believes that the fair value measurement need not be based solely on the quoted market price of an individual share of our common stock, but also can consider the impact of a control premium in measuring the fair value of its reporting unit.

Should the Company's market capitalization be less than the total stockholder's equity as of the Company's annual test date or as of any interim impairment testing date, the Company would also consider market comparables, recent trends in the Company's stock price over a reasonable period and, if appropriate, use an income approach to determine whether the fair value of its reporting unit is greater than the carrying amount.

The second step, if required, compares the implied fair value of the reporting unit goodwill with the carrying amount of that goodwill. If the carrying amount of the reporting unit's goodwill exceeds its implied fair value, an impairment charge is recognized in an amount equal to that excess. Implied fair value is the excess of the fair value of the reporting unit over the fair value of all identified assets and liabilities.

The Company bases its fair value estimates on assumptions it believes to be reasonable. Actual future results may differ from those estimates. Goodwill was tested for impairment as of October 1, 2012, the date of the Company's annual impairment review. The Company concluded that the fair value of the reporting unit exceeded the carrying value and no impairment existed. No impairment charges were recorded through September 30, 2013.

Restricted Cash

Restricted cash consisted of amounts invested in money market accounts primarily for purposes of securing a standby letter of credit as collateral for the Company's Redwood City, California facility lease agreement and for the purpose of securing a working capital line of credit.

Revenue Recognition

The Company has generally recognized revenue from multiple element arrangements under collaborative research agreements, including license payments, research and development services, milestones, and royalties. Revenue arrangements with multiple deliverables are divided into separate units of accounting if certain criteria are met. Revenues are recognized when the four basic revenue recognition criteria are met: (1) persuasive evidence of an arrangement exists; (2) products have been delivered, transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured.

The Company's primary sources of revenues consist of product revenues, collaborative research and development agreements and government awards. Collaborative research and development agreements typically provide the Company 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 the Company's customers.

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.

Income Taxes

The Company uses 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") carry forwards, 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. The Company recognizes 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.

Net Loss per Share

Basic net loss per share of common stock is computed by dividing the net loss by the weighted average number of shares of common stock outstanding during the period. Diluted net loss per share of common stock is computed by giving effect to all potential common shares, consisting of stock options, warrants and redeemable convertible preferred stock, to the extent dilutive. Basic and diluted net loss per share of common stock was the same for each period presented as the inclusion of all potential common shares outstanding was anti-dilutive.

The following options to purchase common stock, restricted stock units and warrants to purchase common stock were excluded from the computation of diluted net loss per share of common stock for the three and nine months ended September 30, 2013 and 2012 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Options to purchase common stock	4,805	7,228	4,805	7,228
Restricted stock units	1,665	839	1,665	839
Warrants to purchase common stock	75	260	75	260
Total	6,545	8,327	6,545	8,327

Recently Issued and Adopted Accounting Guidance

In February 2013, the Financial Accounting Standard Board ("FASB") issued ASU 2013-02 related to the reporting of amounts reclassified out of accumulated other comprehensive income that requires entities to report, either on their income statement or in a footnote to their financial statements, the effects on earnings from items that are reclassified out of other comprehensive income. The Company adopted this accounting standard on January 1, 2013, and the adoption of this guidance did not have a material impact on the financial statements.

3. Collaborative Research and Development Agreements

Shell and Raízen

In November 2006, the Company 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, the Company entered into a new and expanded five-year collaborative research agreement ("Shell Research Agreement") and a license agreement (the "Shell License Agreement") with Shell. In connection with the Shell Research Agreement, the Company agreed to use its proprietary technology platform to discover and develop enzymes and microorganisms for use in converting cellulosic biomass into biofuels and related products and Shell agreed to pay (i) research funding at specified rates per FTE working on the project during the research term, (ii) payments upon the achievement of milestones, and (iii) royalties on future product sales. The Shell Research Agreement also specified certain minimum levels of FTE services that the Company was required to allocate to the collaboration efforts that increased over the term of the agreement, which was originally set to expire on November 1, 2012.

In September 2012, the Company entered into an agreement with Shell (the "New Shell Agreement") which among other things, terminated the Shell Research Agreement effective August 31, 2012, except for certain provisions of the Shell Research

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Agreement which survived such termination, including provisions regarding intellectual property rights, patent prosecution and maintenance, confidentiality and indemnification. The New Shell Agreement required Shell to pay approximately $7.5 million as full, complete and final satisfaction of amounts that Shell may have owed the Company under the Shell Research Agreement with respect to (i) FTEs assigned to the Shell Research Agreement and (ii) milestones achieved or achievable by the Company under the Shell Research Agreement. The $7.5 million was recognized as revenue during the third quarter of 2012 when all of the Company's obligations were fulfilled under the New Shell Agreement and was collected during the fourth quarter of 2012.

Under the New Shell Agreement, Shell granted the Company royalty-bearing, non-exclusive rights and licenses to develop, manufacture, use and sell biocatalysts and microbes in the field of converting cellulosic biomass into fermentable sugars on a worldwide basis, except for Brazil, where such sugars are converted into liquid fuels, fuel additives or lubricants (the “Field of Use”). Raízen Energia S.A. (“Raízen”) holds the exclusive rights to use the Company's enzymes and microbes for converting cellulosic biomass into fermentable sugars in Brazil, where such sugars are converted into ethanol.

Under the New Shell Agreement, the Company also granted to Shell a non-exclusive, royalty-free license to manufacture, use and import, solely for the use of Shell and its affiliates, (i) enzymes developed by the Company during the ten year period following August 31, 2012 outside of the Shell Research Agreement for use in the Field of Use and (ii) improvements to any microbe developed by the Company during the ten year period following August 31, 2012 outside of the Shell Research Agreement that is derivative of an identified microbe for use in the Field of Use. Shell remained subject to existing royalty obligations to the Company for future sales of products covered by the intellectual property and technology that remained exclusively licensed to Shell under the License Agreement.

The New Shell Agreement has a term that commences on August 31, 2012 and continues until the later of August 31, 2032 or the date of the last to expire patent rights included in the Company's collaboration that claim a biocatalyst or a microbe for use in the Field of Use.

Research and Development Collaboration

On February 1, 2012, the Company entered into a five year Sitagliptin Catalyst Supply Agreement ("Sitagliptin Agreement") whereby Merck Sharp and Dohme Corp. ("Merck") may obtain commercial scale substance for their use in the manufacture of their products. Merck may extend the term of the Sitagliptin Agreement for an additional five years at its sole discretion.

The Sitagliptin Agreement calls for Merck to pay an annual license fee for the rights to the Sitagliptin technology each year for the term of the Sitagliptin Agreement. As of September 30, 2013, the Company has a deferred revenue balance of $1.2 million from Merck related to the license fee. The license fee is being recognized as collaborative research and development revenue ratably over the five year term of the Sitagliptin Agreement. During the three and nine months ended September 30, 2013, the Company recognized $0.5 million and $1.3 million of the license fee as collaborative research and development revenue. Pursuant to the Sitagliptin Agreement, Merck may purchase substance from the Company for a fee based on contractually stated prices. No product revenue was recognized during the three months ended September 30, 2013 under the Sitagliptin Agreement. During the nine months ended September 30, 2013, the Company recognized $0.5 million in product revenue related to the agreement. No revenue was recognized under the Sitagliptin Agreement during the three and nine months ended September 30, 2012.

Manufacturing Collaboration

In November 2012, the Company entered into a commercial arrangement with Arch Pharmalabs Limited ("Arch") by simultaneously terminating all of the Company's existing supply agreements with Arch and entering into the New Arch Enzyme Supply Agreement pursuant to which Arch agreed to exclusively purchase enzymes from the Company for use in the manufacture of certain of Arch's products and the Company agreed to exclusively supply, with limited exceptions, certain of the Company's enzymes to Arch at an agreed upon price for use in such manufacture. Under the New Arch Enzyme Supply Agreement, Arch will no longer produce atorva-family active pharmaceutical ingredients (“APIs”) and intermediates for the Company. Arch will instead market these products directly to end customers, and as a result Arch will no longer pay the Company royalties on their sale of such APIs and intermediates to customers and the Company will no longer have exclusive rights to market such APIs and intermediates in certain markets. No revenue was recognized under the New Arch Enzyme Supply Agreement during the three months ended September 30, 2013. For the nine months ended September 30, 2013, the Company recognized $2.1 million in product

revenue for the sale of enzyme inventory to Arch pursuant to the agreement. Royalty revenues earned from Arch under the prior agreements were $0.05 million and $0.1 million for the three and nine months ended September 30, 2012 and are reflected in collaborative research and development revenue on the condensed consolidated statement of operations.

4. Balance Sheets Details

Inventory, net

Inventory, net consisted of the following (in thousands):

	September 30, 2013	December 31, 2012
Raw materials	$802	$588
Work in process	235	52
Finished goods	1,064	662
Inventory, net	$2,101	$1,302

Property and Equipment, net

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

	September 30, 2013	December 31, 2012
Laboratory equipment	$35,311	$33,776
Leasehold improvements	11,108	11,099
Computer equipment	3,419	4,388
Office furniture and equipment	1,503	1,531
	51,341	50,794
Less: accumulated depreciation	(37,780)	(34,172)
	13,561	16,622
Construction in progress	248	28
Property and equipment, net	$13,809	$16,650

Accumulated Other Comprehensive Income (Loss)

The changes in accumulated other comprehensive income (loss) by component and related tax effects were as follows (in thousands):

Balance as of December 31, 2012	$(136)
Unrealized gains (losses) on available-for-sale securities	447
Tax effects	(172)
Balance as of September 30, 2013	$139

5. Cash Equivalents and Marketable Securities

At September 30, 2013, cash equivalents and marketable securities consisted of the following (in thousands):

	September 30, 2013				
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Average Contractual Maturities (in days)
Money market funds	$21,079	$—	$—	$21,079	n/a
Corporate bonds (unamortized cost)	1,004	3	—	1,007	151
U.S. Treasury obligations (unamortized cost)	2,000	2	—	2,002	232
Common shares of CO2 Solutions	563	$504	$—	1,067	n/a
Total	$24,646	$509	$—	$25,155	

The total cash and cash equivalents balance of $26.9 million as of September 30, 2013 was comprised of money market funds of $21.1 million, and $5.8 million held as cash, primarily with major financial institutions in North America. At September 30, 2013, we had no marketable securities in an unrealized loss position.

At December 31, 2012, cash equivalents and marketable securities consisted of the following (in thousands):

	December 31, 2012				
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Average Contractual Maturities (in days)
Money market funds	$24,789	$—	$—	$24,789	n/a
Commercial paper	1,499	1	—	1,500	70
Corporate bonds (unamortized cost)	9,512	10	—	9,522	156
U.S. Treasury obligations (unamortized cost)	5,510	5	—	5,515	262
Common shares of CO2 Solutions	563	47	—	610	n/a
Total	$41,873	$63	$—	$41,936	

The total cash and cash equivalents balance of $32.0 million as of December 31, 2012, was comprised of money market funds of $24.8 million and $7.2 million held as cash, primarily with major financial institutions in North America. At December 31, 2012, we had no marketable securities in an unrealized loss position.

6. Fair Value Measurements

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.

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.

For Level 2 financial instruments, the Company's investment adviser provides monthly account statements documenting the value of corporate bonds and U.S. Treasury obligations based on prices received from an independent third-party valuation service provider. This third party evaluates the types of securities in the Company's investment portfolio and calculates a fair value using a multi-dimensional pricing model that includes a variety of inputs, including quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, interest rates and yield curves observable at commonly quoted intervals, volatilities, prepayment speeds, loss severities, credit risks and default rates that are observable at commonly quoted intervals. As the Company is ultimately responsible for the determination of the fair value of these instruments, it performs quarterly analyses using prices obtained from another independent provider of financial instrument valuations, to validate that the prices the Company has used are reasonable estimates of fair value.

The following table presents the financial instruments that were measured at fair value on a recurring basis at September 30, 2013 by level within the fair value hierarchy (in thousands):

	September 30, 2013			
	Level 1	Level 2	Level 3	Total
Money market funds	$21,079	$—	$—	$21,079
Corporate bonds	—	1,007	—	1,007
U.S. Treasury obligations	—	2,002	—	2,002
Common shares of CO2 Solutions	—	1,067	—	1,067
Total	$21,079	$4,076	$—	$25,155

The following table presents the financial instruments that were measured at fair value on a recurring basis at December 31, 2012 by level within the fair value hierarchy (in thousands):

	December 31, 2012			
	Level 1	Level 2	Level 3	Total
Money market funds	$24,789	$—	$—	$24,789
Commercial paper	—	1,500	—	1,500
Corporate bonds	—	9,522	—	9,522
U.S. Treasury obligations	—	5,515	—	5,515
Common shares of CO2 Solutions	610	—	—	610
Total	$25,399	$16,537	$—	$41,936

Cash balances at financial institutions of $5.8 million and $7.2 million as of September 30, 2013 and December 31, 2012, respectively, are not included in the above tables as they are not considered financial instruments. The Company estimated the fair value of its investment in 10,000,000 common shares of CO_2 Solutions using the market value of common shares as determined based upon quoted prices on the TSX Venture Exchange. There were no other-than-temporary impairments noted as of September 30, 2013.

7. Related Party Transactions

Shell and Raízen

In June 2011, Shell completed the transfer of all of its equity interests in the Company, together with the associated right to appoint one member to the Company's board of directors, to Raízen, Shell's joint venture with Cosan S.A. Indústria e Comércio, (“Cosan”) in Brazil. As a result, Shell is no longer considered a related party. Notwithstanding the above, Shell did not transfer the Shell Research Agreement to Raízen. Additionally in September 2011, the Company entered into a joint development agreement directly with Raízen. The work under this joint development agreement has been completed and we do not expect this project to continue.

As of September 30, 2013, Raízen owns 5.6 million shares of the Company's common stock. During the three and nine months ended September 30, 2013, there was no material financial activity with Raízen.

Raízen has exclusive rights to market and use CodeXyme® in Brazil. The Company is engaged in discussions with Raízen about obtaining rights to market CodeXyme® to all ethanol producers in Brazil.

Exela PharmaSci, Inc.

The Company signed a license agreement with Exela PharmaSci, Inc. (“Exela”) in 2007. A member of the Company's board of directors is also on the board of directors of Exela. Under the terms of the agreement, Exela would pay the Company a royalty based on their achievement of certain commercial goals. During the nine months ended September 30, 2013 and 2012, the Company recognized $2.3 million and $0.2 million of revenue, respectively, related to this arrangement, in the condensed consolidated statements of operations as collaborative research and development revenue.

8. Commitments and Contingencies

Operating Leases

The Company's headquarters are located in Redwood City, California where it occupies approximately 107,000 square feet of office and laboratory space in four buildings. On March 16, 2011, the Company entered into a lease with Metropolitan Life Insurance Company (“MetLife”) with respect to the Company's offices located at 200 and 220 Penobscot Drive, Redwood City, California, (the “Penobscot Space”), 400 Penobscot Drive, Redwood City, California (the “Building 2 Space”), and 101 Saginaw Drive, Redwood City, California (the “Saginaw Space”). Under the terms of the agreement, the leases for the Penobscot Space, the Building 2 Space and the Saginaw Space expire on January 31, 2020, and the Company has options to extend for two additional five-year periods.

The Company also leases space with MetLife at 501 Chesapeake Drive, Redwood City, California (the “501 Chesapeake Space”). In September 2012, the Company extended the term of the lease, which would have otherwise expired on January 31, 2013, to January 31, 2017. Pursuant to this extension, the Company has two consecutive options to extend the term of the lease for the 501 Chesapeake Space for an additional five-year period per option.

As part of the Q3 2012 Restructuring Plan, the Company has vacated the Saginaw Space and the Company has begun marketing the facility for sublease (see Note 12).

Rent expense is recognized on a straight-line basis over the term of the lease. In accordance with the terms of the amended lease agreement, the Company exercised the Company's right to deliver letters of credit in lieu of a security deposit. The letters of credit in the amount of $0.7 million as of September 30, 2013 were collateralized by deposit balances held by the Company's bank. These deposits are recorded as restricted cash on the condensed consolidated balance sheets.

As of September 30, 2013, the Company had estimated asset retirement obligations of approximately $0.1 million from operating leases, requiring the Company to restore the facilities that the Company is renting to their original form. The Company expenses the asset retirement obligation over the terms of the respective leases. The Company reviews the estimated obligation each period and makes adjustments for any changes in estimates.

Future minimum payments under noncancellable operating leases are as follows at September 30, 2013 (in thousands):

	Lease payments
3 months ending December 31,	
2013	$719
Years ending December 31,	
2014	2,947
2015	3,031
2016	3,047
2017	2,677
2018 and beyond	5,790
Total	$18,211

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Litigation

The Company has 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, the Company has 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 the condensed consolidated financial position, results of operations or cash flows.

Indemnifications

The Company is required to recognize a liability for the fair value of any obligations the Company assumes upon the issuance of a guarantee. The Company has certain agreements with licensors, licensees and collaborators that contain indemnification provisions. In such provisions, the Company typically agrees to indemnify the licensor, licensee and collaborator against certain types of third party claims. The maximum amount of the indemnifications is not limited. The Company accrues 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

On July 30, 2013, the Company received notice (the “Dyadic notice”) from Dyadic International, Inc. (“Dyadic”) alleging that the Company is in breach under the License Agreement, dated as of November 14, 2008, by and among the Company, Dyadic International (USA), Inc. and Dyadic (the “Dyadic License Agreement”), and that Dyadic intended to terminate the contract in 60 days if the breach was not cured to Dyadic’s satisfaction. On September 10, 2013, the Company reached agreement with Dyadic to extend the Company's time for response to the allegations until November 15, 2013 as part of ongoing negotiations between the Company and Dyadic to resolve the matter. Pursuant to the Dyadic License Agreement, the Company obtained a non-exclusive license relating to Dyadic's C1-based proprietary fungal expression technology for the production of enzymes.The Dyadic notice does not seek damages or allege any underpayment of fees or royalties. The Company has concluded that the extension of the Dyadic negotiation period does not result in any impact to the financial statement as of September 30, 2013.

In November 2009, one of the Company's foreign subsidiaries sold intellectual property to the Company's U.S. entity. 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. The Company believes 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, has not recorded an accrual for this exposure. If the sale is deemed a sale of research and development services, the Company could be obligated to pay an estimated amount of $0.6 million.

9. Warrants

The Company's outstanding warrants are exercisable for common stock at any time during their respective terms. As of September 30, 2013, the following warrants remain outstanding:

September 30, 2013

Issue Date	Shares Subject to warrants	Exercise Price per Share	Expiration
July 17, 2007	2,384	$12.45	February 9, 2016
September 28, 2007	72,727	$8.25	September 28, 2017

10. Stock-Based Compensation

In 2002, the Company adopted the 2002 Stock Plan (the “2002 Plan”), pursuant to which the Company's board of directors issued incentive stock options, non-statutory stock options (options that do not qualify as incentive stock options) and restricted stock to our employees, officers, directors or consultants. In March 2010, the board of directors and stockholders approved the 2010 Equity Incentive Award Plan (the “2010 Plan”), which became effective upon the completion of the Company's IPO in April 2010. 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 the Company's 2002 Plan that remained unissued at the time of completion of the IPO became available for future grant or issuance under the 2010 Plan. In addition, the shares reserved for issuance pursuant to the exercise of any

outstanding awards under the 2002 Plan that expire unexercised will also

become available for future issuance under the 2010 Plan. The 2010 Plan also provides for automatic annual increases in the number of shares reserved for future issuance.

The following table presents the shares available for grant as of September 30, 2013 (in thousands):

	Shares available for grant
December 31, 2012	3,767
Annual increase in shares available for grant	1,507
Option grants	(922)
Restricted stock unit award grants	(1,367)
Restricted stock unit award shares withheld for taxes	132
Options forfeited	1,968
Restricted stock unit awards forfeited	335
September 30, 2013	5,420

Stock-Based Compensation Expense

The Company recognizes compensation expense related to share-based transactions, including the awarding of employee stock options, based on the estimated fair value of the awards granted. All awards granted, modified or settled after January 1, 2006 have been accounted for based on the fair value of the awards granted. The Company generally uses the straight-line method to allocate stock-based compensation expense to the appropriate reporting periods. Some awards are accounted for using the accelerated method as appropriate for the terms of the awards.

The following table presents total stock-based compensation expense by functional areas included in the condensed consolidated statements of operations for the three and nine months ended September 30, 2013 and 2012 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Research and development	$97	$682	$989	$2,183
Selling, general and administrative	529	784	2,372	2,360
Total	$626	$1,466	$3,361	$4,543

The following table presents total stock-based compensation expense by security types included in the condensed consolidated statements of operations for the three and nine months ended September 30, 2013 and 2012 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Stock options	$397	$900	$1,538	$3,255
Restricted stock units	527	566	1,823	1,288
Performance stock units	(298)	—	—	—
Total	$626	$1,466	$3,361	$4,543

Stock Options

The fair value of the options granted is estimated on the date of grant 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-based compensation expense during the period the related services are rendered. The stock options are generally scheduled to vest over four years and all options expire no later than ten years from the date of grant.

Restricted Stock Units

The Company awarded 843,698 restricted stock units (“RSUs”) under the 2010 Plan during the nine months ended September 30, 2013. The fair value of the RSU awards was calculated based on the NASDAQ quoted stock price on the date of the grant with the expense recognized over the vesting period. The RSUs are generally scheduled to vest over four years.

Performance Stock Units

The Company awarded 523,048 performance stock units ("PSU") under the 2010 Plan during the nine months ended September 30, 2013. The number of shares of common stock to be issued for each vested performance stock unit ("PSU") will range between zero and two, depending on the level of performance against the criteria set by the Company's board of directors with respect to the Company's annual cash burn for the year ending December 31, 2013. A 100% achievement of the performance goal would result in one common share issued for each vested PSU. The PSU awards vest in equal installments on March 5, 2014 and March 5, 2015. The fair value of the PSU awards was calculated based on the NASDAQ quoted stock price on the date of the grant with the expense recognized on a straight-line basis over the vesting period. In the third quarter of 2013, the Company revised its estimate of forecasted performance criteria and concluded that the performance target would not likely be achieved in 2013. As a result of the revised estimate of the performance goal, the PSU-related compensation expense of $0.3 million recorded on a year to date basis was fully reversed at September 30, 2013.

Stockholder Rights Plan

In August 2012, the Company's board of directors adopted a stockholder rights plan and declared a dividend of one preferred share purchase right for each share of the Company's common stock held by stockholders of record as of September 18, 2012. Each right entitled stockholders, after the rights become exercisable, to purchase one one-thousandth of a share of the Company's Series A Junior Participating Preferred Stock, par value $0.0001, at a purchase price of $11.35 per one thousandth of a share of Series A Junior Participating Preferred Stock. In general, the rights become exercisable when a person or group acquires 15% or more of the Company's common stock or a tender offer for 15% or more of the Company's common stock is announced or commenced. The rights expired in accordance with the terms of the stockholder rights plan on September 2, 2013. Therefore, the shares of the Company's common stock are no longer accompanied by the rights, and the plan is of no further force or effect. As a result of the expiration, the Company recorded a related expense of $0.3 million in the third quarter of 2013.

11. 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. The Company's chief operating decision makers are its Chief Executive Officer and the board of directors. The Chief Executive Officer and board of directors review financial information presented on a consolidated basis, accompanied by information about revenues by geographic region, for purposes of allocating resources and evaluating financial performance. The Company has one business activity and there are no segment managers who are held accountable for operations, operating results beyond revenue goals or plans for levels or components below the consolidated unit level. As such, the Company has determined that it operates in one segment because operating results are reported only on an aggregate basis to the Company's chief operating decision makers. Operations outside of the United States consist principally of research and development and sales activities.

The following table represents revenues that are identified in the corresponding geographic regions based on the customer's ship to locations (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2013	2012	2013	2012
Revenues				
Americas (1)	$2,764	$18,324	$7,065	$50,867
Europe	757	1,056	5,139	8,986
Asia				

India	213	5,800	2,721	15,761
Singapore	—	631	6,721	3,884
Others	209	530	751	888
	$3,943	$26,341	$22,397	$80,386

(1) Primarily United States

The following table represents identifiable long-lived assets in the corresponding regions (in thousands):

	September 30, 2013	December 31, 2012
Long-lived assets		
Americas (1)	$19,863	$25,953
Europe (2)	4,391	5,157
Asia	319	711
	$24,573	$31,821

(1) Primarily United States
(2) Primarily Hungary

12. Restructuring

Q3 2012 Restructuring Plan

As a result of the termination of the Shell Research Agreement, the Company initiated a series of cost reduction measures. During the third quarter of 2012, the Company's board of directors approved and committed to a restructuring plan ("the Q3 2012 Restructuring Plan") to reduce the Company's cost structure which included approximately 173 employee terminations in the United States and Singapore and the closing of the Company's Singapore facility. Approximately 150 of the total 173 employee terminations impacted the research and development functions with the remaining 23 employees impacting the selling, general and administrative functions. The cost of the Q3 2012 Restructuring Plan was $2.4 million, comprised of $1.1 million of leasehold improvements write down, $0.7 million for employee severance and other termination benefits, $0.3 million for facility lease termination costs, and $0.3 million for equipment disposal charges.

The remaining balance of $0.05 million related to facility closing costs under the Q3 2012 Restructuring Plan was paid in full in the third quarter of 2013.

The table below summarizes the changes in the restructuring accrual for the Q3 2012 Restructuring Plan as of September 30, 2013 (in thousands):

	Severance, benefits and related personnel costs	Facility closing costs	Total
Balance at December 31, 2012	$100	$320	$420
Cash payments	(74)	(320)	(394)
Adjustments to restructuring charges	(26)	—	(26)
Balance at September 30, 2013	$—	$—	$—

Q1 2012 Restructuring Plan

During the first quarter of 2012, the Company's board of directors approved and committed to a restructuring plan ("Q1 2012 Restructuring Plan") to reduce the Company's cost structure which included approximately 13 employees terminations in Hungary and the United States. The total cost of the Q1 2012 Restructuring Plan was $0.6 million comprised of employee severance and other termination benefits. During the nine months ended September 30, 2012, we made cash payments of $0.5 million related to these expenses. All remaining costs under the Q1 2012 Restructuring Plan were paid by December 31, 2012.

13. Subsequent Events

On November 12, 2013, the Company announced that it will begin immediately to wind down its CodeXyme® cellulase enzymes program. As a result, the Company has committed to a restructuring plan to reduce the cost structure to align with the Company's projected future revenues from its pharmaceutical business. The restructuring plan includes a reduction of approximately 16 employees in the United States. The Company expects to record a charge of approximately $0.7 million in

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the fourth quarter of 2013, consisting primarily of employee severance and related benefits. Cash payments for restructuring related costs are expected to be completed by the end of the first quarter of 2014.

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, 2012 included in our Annual Report on Form 10-K filed with the SEC on April 2, 2013. This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, (the Exchange Act). These statements are often identified by the use of words such as may, will, expect, believe, anticipate, intend, could, should, estimate, or continue, and similar expressions or variations. Such forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in 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

We engineer enzymes for pharmaceutical, chemical production and supply enzyme-related products. Our proven technologies enable scale-up and implementation of biocatalytic solutions to meet customer needs for rapid, cost-effective and sustainable process development, from research to manufacturing.

Our primary business focus is the pharmaceuticals market, where we have commercialized our technology and products. There are currently over 50 pharmaceutical firms using our technology, products and services in their manufacturing process development, including in the production of some of the world's bestselling and fastest growing drugs. In addition, we have formed a number of partnerships with key customers to assist with future commercialization efforts and explore new market opportunities served by our biocatalyst processes.

We engineer new enzymes by applying our CodeEvolver directed evolution technology platform, which introduces genetic mutations into microorganisms, giving rise to changes in the enzymes that they produce. Once we identify potentially beneficial mutations, we test combinations of these mutations until we have created variant enzymes that exhibit marketable performance characteristics superior to standard commercially available enzymes. This process allows us to make continuous, efficient improvements to the performance of our enzymes and achieve results customized for our customers' specific requests.

On November 12, 2013, we announced that we will begin immediately to wind down our CodeXyme® cellulase enzymes program and that we had already stopped further development of our CodeXol® detergent alcohols program in the third quarter of 2013. As a result, we have committed to a restructuring plan to reduce our cost structure to align with our projected future revenues from our pharmaceutical business. The restructuring plan includes a reduction of approximately 16 employees in the United States. We expect to record a charge of approximately $0.7 million in the fourth quarter of 2013, consisting primarily of employee severance and related benefits. Cash payments for restructuring related costs are expected to be completed by the end of the first quarter of 2014.

However, we may continue to explore possible strategic transactions for both our CodeXyme® cellulase enzymes and CodeXol® detergent alcohols programs.

Results of Operations Overview

For the third quarter of 2013, revenues totaled $3.9 million, compared to $26.3 million for the third quarter of 2012. Revenues from collaborative research and development decreased to $2.9 million from $18.6 million in the prior year as a result of the termination of the Shell Research Agreement in August 2012. Product revenues decreased to $1.1 million from

$7.1 million in the prior year as a result of reduced shipments primarily due to the decrease in sales of our statin-family of products for our off-patent applications. While we expect pharmaceutical product sales to increase in future periods, the timing of orders and delivery of product will continue to fluctuate from quarter-to-quarter, and may not be comparable on a sequential or year over year basis.

Costs and operating expenses for the third quarter of 2013 totaled $13.2 million, compared to $28.5 million for the third quarter of 2012. Cost of product revenues decreased to $0.5 million from $6.4 million in the prior year as a result of reduced shipments to Arch of lower margin statin-family products under the prior manufacturing agreement with Arch. Research and development expense decreased to $6.8 million from $14.2 million as a result of reduced headcount-related costs following our restructuring efforts undertaken as a result of the termination of the Shell Research Agreement in the third quarter of 2012.

Net loss for the third quarter of 2013 totaled $9.3 million compared to $2.3 million net loss for the third quarter of 2012. The increased loss is primarily related to lower product revenues, partially offset by reduced research spending and reduced product costs.

Cash, cash equivalents and marketable securities balances declined to $31.0 million as of September 30, 2013 compared to $49.2 million as of December 31, 2012. We are actively partnering with new and existing pharmaceutical customers and we believe that we can utilize our products and services, and develop new products and services that will increase our revenue and gross margins in future periods.

Termination of Shell Collaboration

The Shell Research Agreement terminated effective August 31, 2012 and as a result, we no longer receive collaborative research and development revenues from Shell subsequent to August 31, 2012. This has significantly decreased our revenues as compared to prior periods. We received no revenues from Shell for the nine months ended September 30, 2013. Collaborative research and development revenue received from Shell accounted for $13.9 million and $45.3 million for the three and nine months ended September 30, 2012, respectively.

As a result of the termination of the Shell Research Agreement, we initiated a series of cost reduction measures and refocused our business on the pharmaceuticals market. We terminated approximately 173 employees worldwide in the fourth quarter of 2012, consisting of 150 research and development staff and 23 general and administrative staff. We also closed our Singapore research and development facility in December 2012. We incurred $2.4 million in restructuring expenses related to these cost reduction measures, including severance for terminated employees, and other exit-related costs arising from contractual obligations associated with closed facilities under lease and equipment disposals. During the first nine months of 2013, we made cash payments of $0.4 million and recorded $0.03 million in adjustments to previously recorded accruals for changes in estimated liabilities. As of September 30, 2013, we have paid out substantially all of the costs estimated under the Q3 2012 Restructuring Plan.

Arch Collaboration

Since 2006, Arch Pharma Labs of Mumbai, India has manufactured substantially all of our commercialized intermediates and APIs for sale to generic and innovator pharmaceutical manufacturers. Prior to November 2012, Arch produced atorva-family API's and intermediates for us and we sold these directly to end customers primarily in India. In November 2012, we entered into a new commercial arrangement with Arch (the "New Arch Enzyme Supply Agreement") whereby we will supply Arch with enzymes for use in the manufacture of certain of Arch's products and Arch will market these products directly to end customers. For the nine months ended September 30, 2013, we recognized $2.1 million in product revenue for the sale of enzyme inventory to Arch pursuant to the New Arch Enzyme Supply Agreement.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make judgments, estimates and assumptions in the preparation of our consolidated financial statements and accompanying notes. Actual results could differ from those estimates. We believe there have been no significant changes in our critical accounting policies as discussed in our Annual Report on Form 10-K for the year

ended December 31, 2012.

Financial Operations Overview

Revenues

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

- Product revenues consist of sales of biocatalysts, intermediates, APIs and Codex Biocatalyst Panels and Kits.
- Collaborative research and development revenues include license, technology access and exclusivity fees, FTE payments, milestones, royalties, and optimization and screening fees.
- Government awards consist of payments from government entities. The terms of these awards 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 awards from Germany, Singapore and the United States.

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(In Thousands)	2013	2012	$	%	2013	2012	$	%
Product	$1,076	$7,140	$(6,064)	(85)%	$15,161	$29,090	$(13,929)	(48)%
Collaborative research and development	2,867	18,569	(15,702)	(85)%	7,236	49,049	(41,813)	(85)%
Government awards	—	632	(632)	(100)%	—	2,247	(2,247)	(100)%
Total revenues	$3,943	$26,341	$(22,398)	(85)%	$22,397	$80,386	$(57,989)	(72)%

Revenues decreased $22.4 million and $58.0 million during the three and nine months ended September 30, 2013, as compared to the three and nine months ended September 30, 2012, due to decreased sales from product sales, collaborative research and development projects, and government awards.

Product revenues decreased $6.1 million and $13.9 million during the three and nine months ended September 30, 2013, as compared to the three and nine months ended September 30, 2012 as a result of reduced shipments primarily due to the decrease in sales of our statin-family of products of $5.5 million and $20.2 million. The decrease in sales of our statin-family products in the nine months ended September 30, 2012 was offset by increases in other product sales. As a result of the New Arch Enzyme Supply Agreement signed in November 2012, we expect the sales of statin-family of products will be lower in all future periods when compared to 2012 and prior periods. Under the new agreement, we supply enzymes to Arch, and they sell to end customers. During the last 12 months, sales of statin-family products by Arch have declined as a result of significant competitive pricing pressures from other off-patent manufacturers in the region.

While we expect pharmaceutical product sales to increase in future periods, the timing of orders and delivery of product will continue to fluctuate from quarter-to-quarter, and may not be comparable on a sequential or year over year basis.

Collaborative research and development revenues decreased $15.7 million and $41.8 million during the three and nine months ended September 30, 2013, as compared to the three and nine months ended September 30, 2012 primarily from a $17.5 million and $45.3 million reduction, respectively, due to the termination of the Shell Research Agreement in 2012.

Government award revenues decreased $0.6 million and $2.2 million during the three and nine months ended September 30, 2013, as compared to the three and nine months ended September 30, 2012 as our award from the DOE under the ARPA-E Recovery Act program expired on June 30, 2012, and our award revenue from the Singapore Economic Development Board was terminated in 2012. As of September 30, 2013, we do not have any government awards from which we expect to receive revenues in future periods.

Our top five customers accounted for 59% and 81% of our total revenues for the three and nine months ended September 30, 2013. Accounts receivable balances for the top five customers were 89% and 84% of total balances as of September 30, 2013 and December 31, 2012, respectively.

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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.

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(In Thousands)	2013	2012	$	%	2013	2012	$	%
Product revenues	$1,076	$7,140	$(6,064)	(85)%	$15,161	$29,090	$(13,929)	(48)%
Cost of product revenues	494	6,397	(5,903)	(92)%	9,790	24,868	(15,078)	(61)%
Product gross profit	$582	$743	$(161)	(22)%	$5,371	$4,222	$1,149	27%
Product gross margin %	54%	10%			35%	15%		

Our cost of product revenues decreased $5.9 million and $15.1 million during the three and nine months ended September 30, 2013, as compared to the three and nine months ended September 30, 2012 primarily due to the decrease of contract manufacturing costs related to reduced statin-family product sales to Arch. Our product gross margins improved from 10% for the three months ended September 30, 2012 to 54% during the three months ended September 30, 2013, and from 15% for the nine months ended September 30, 2012 to 35% during the nine months ended September 30, 2013. Gross margins in the three months ended September 30, 2013 increased due to a more favorable sales mix from higher margin on-patent products offset by a decrease in product sales of lower margin statin-family of APIs and intermediates in the same period of 2012. As a result of the New Arch Enzyme Supply Agreement signed in November 2012, we expect our gross margins to be higher as a percentage of revenues in future periods when compared to 2012 and prior periods due to the decrease of direct sales of lower margin statin-family of products as supplied to us under the prior Arch agreement.

Operating Expenses

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 our direct and research-related overhead expenses, which include salaries and other personnel-related expenses (including stock-based compensation), occupancy-related costs, supplies, depreciation of facilities and laboratory equipment and amortization of acquired technologies, as well as research consultants, and are expensed as incurred. Costs to acquire technologies that are utilized in research and development and that have no alternative future use are expensed when incurred.

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(In Thousands)	2013	2012	$	%	2013	2012	$	%
Research and development	$6,831	$14,191	$(7,360)	(52)%	22,776	46,190	$(23,414)	(51)%
Selling, general and administrative	5,832	7,909	(2,077)	(26)%	21,126	24,093	(2,967)	(12)%
Total operating expenses	$12,663	$22,100	$(9,437)	(43)%	$43,902	$70,283	$(26,381)	(38)%

Research and development expenses decreased $7.4 million and $23.4 million during the three and nine months ended September 30, 2013, as compared to the three and nine months ended September 30, 2012. The lower expense levels were primarily due to the restructuring the Company initiated in the third quarter of 2012 subsequent to the termination of the Shell Research Agreement. Our research and development headcount decreased by 162 employees from 244 employees at September 30, 2012 to 82 employees at September 30, 2013. As a result of the restructuring program, we reduced compensation and related costs by $4.5 million and $14.1 million, lab supply costs by $0.4 million and $2.3 million, and outside services costs by $0.4 million and $1.2 million, respectively, for the three and nine months ended September 30, 2013, as compared to the three and nine months ended September 30, 2012. Depreciation cost decreased $0.6 million and $2.0 million as a result of excess equipment disposed as part of the

restructuring efforts. We reduced facility costs by $1.2 million as a result of closing our Singapore research facility for the nine months ended September 30, 2013, as compared to the same period of 2012. Research and development expenses included stock-based compensation expense of $0.1 million as compared

to $0.7 million and $1.0 million as compared to $2.2 million during the three and nine months ended September 30, 2013 and 2012, respectively.

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.

Selling, general and administrative expenses decreased $2.1 million and $3.0 million during the three and nine months ended September 30, 2013, respectively, as compared to the three and nine months ended September 30, 2012. Expense levels decreased for the three and nine months ended September 30, 2013 compared to the three and nine months ended September 30, 2012 primarily due to the restructuring the Company initiated in the third quarter of 2012 subsequent to the termination of the Shell Research Agreement. Our selling, general and administrative headcount decreased by 18 employees from 76 employees at September 30, 2012 to 58 employees at September 30, 2013. The decrease in expense is primarily due to reduced compensation expense of $0.4 million and $1.6 million for the three and nine months ended September 30, 2013, a loss of $0.8 million recorded on equity investments for the three and nine months ended September 30, 2012, and reduced stock-based compensation expense of $0.3 million and $0.0 million for the three and nine months ended September 30, 2013. The reduction in stock-based compensation expense of $0.3 million was a result of the revised estimate of the forecasted PSU performance target.

Restructuring Charges

During the third quarter of 2012, our board of directors approved and committed to the Q3 2012 Restructuring Plan to reduce our cost structure following the termination of the Shell agreement. We terminated 173 employees in the United States and Singapore and closed our Singapore facility. Approximately 150 of the total 173 employee terminations were in research and development while the remaining 23 employees were selling, general and administrative employees.

Our cost for the Q3 2012 Restructuring Plan was $2.4 million, comprised of $1.1 million of leasehold improvements write down, $0.7 million for employee severance and other termination benefits, $0.3 million for facility lease termination costs and $0.3 million for equipment disposal charges. Substantially all costs under the Q3 2012 Restructuring Plan were paid by September 30, 2013.

The table below summarizes the changes in our restructuring accrual for the Q3 2012 Restructuring Plan during the nine months ended September 30, 2013 (in thousands):

	Severance, benefits and related personnel costs	Facility costs	Total
Balance at December 31, 2012	$100	$320	$420
Cash payments	(74)	(320)	(394)
Adjustments to restructuring charges	(26)	—	(26)
Balance at September 30, 2013	$—	$—	$—

Interest income and other expenses

	Three Months Ended September 30,		Change		Nine Months Ended September 30,		Change	
(In Thousands)	2013	2012	$	%	2013	2012	$	%
Interest income	$9	$61	$(52)	(85)%	$53	$210	$(157)	(75)%
Other expenses	(22)	(45)	23	(51)%	(288)	(320)	32	(10)%
Total other income (expense)	$(13)	$16	$(29)	(181)%	$(235)	$(110)	$(125)	114 %

Interest income decreased during the three and nine months ended September 30, 2013, as compared to the same periods of last year, due to decreased investment balances.

Other expenses decreased during the three months ended September 30, 2013, as compared to the same period of last year, primarily related to foreign currency fluctuations during the three months ended September 30, 2013. Other expenses remained consistent during the nine months ended September 30, 2013, as compared to the same period of last year.

Provision (benefit) for income taxes

We have recorded tax benefit of $0.03 million and $0.04 million for the three and nine months ended September 30, 2013 with the annual effective tax rate of 13%. The tax benefit for the three and nine months ended September 30, 2013 primarily consisted of income taxes attributable to foreign operations offset by the tax effect of the unrealized gain from our investment in CO2 Solutions. The tax provision for the three and nine months ended September 30, 2012 primarily consisted of income taxes attributable to foreign operations.

Liquidity and Capital Resources

(In Thousands)	September 30, 2013	December 31, 2012
Cash and cash equivalents	$26,911	$32,003
Marketable securities (1)	3,009	13,524
Accounts receivable, net	2,688	7,545
Accounts payable, accrued compensation and accrued liabilities	6,970	14,097
Working capital	$27,426	$43,486

(1) Includes only the current portion of our marketable securities

	Nine months ended September 30,	
(In Thousands)	2013	2012
Net cash used in operating activities	$(19,093)	$(7,155)
Net cash provided by investing activities	13,713	5,906
Net cash provided by financing activities	288	894
Effect of foreign exchange rates on cash and cash equivalents	—	166
Net decrease in cash and cash equivalents	$(5,092)	$(189)

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

Cash, cash equivalents and marketable securities balances totaled $31.0 million as of September 30, 2013 compared to $49.2 million as of December 31, 2012.

We are actively partnering with new and existing pharmaceutical customers and we believe that we can utilize our current products and services, and develop new products and services, that will increase our revenue and gross margins in future periods.

We believe that, based on our current level of operations, 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. However, 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, our spending required to develop and commercialize new and existing products, the effect of any

acquisitions of other businesses, technologies or

facilities that we may make or develop in the future, our spending on new market opportunities, including bio-based chemicals, and the potential costs for filing, prosecution, enforcement and defense of patent claims, if necessary.

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

Cash Flows from Operating Activities

Cash used in operating activities was $19.1 million during the nine months ended September 30, 2013, which resulted from net loss of $31.5 million for the nine months ended September 30, 2013, adjusted for non-cash depreciation and amortization of $7.8 million, share-based compensation expense of $3.4 million, and changes in working capital components of approximately $0.9 million.

Cash used in operating activities was $7.2 million during the nine months ended September 30, 2012, which resulted from net loss of $15.3 million adjusted for non-cash depreciation and amortization of $9.5 million, share-based compensation expense of $4.5 million, and changes in working capital components of $7.2 million. The changes in working capital were primarily due to a combined decrease in accounts payable and accrued compensation of $6.2 million and an increase in prepaid expenses of $2.8 million partially offset by a decrease in accounts receivable of $2.4 million.

Cash Flows from Investing Activities

Cash flows from investing activities primarily relate to our investments in marketable securities and purchases of property and equipment.

Cash provided by investing activities was $13.7 million during the nine months ended September 30, 2013, which mainly resulted from the proceeds from our marketable securities of $13.4 million and the decrease of our restricted cash of $0.6 million due to the reduction of the available credit under the Company's working capital line, offset by capital expenditures of $0.4 million.

Cash provided by investing activities was $5.9 million during the nine months ended September 30, 2012, which resulted from the proceeds from sale of our marketable securities investments of $8.4 million, which represents net amounts transferred out of our cash and cash equivalents, offset by capital expenditures of $2.6 million primarily related to the costs of facility improvements and purchases of lab equipment.

Cash Flows from Financing Activities

Cash provided by financing activities was $0.3 million and $0.9 million during the nine months ended September 30, 2013 and 2012, which was the result of proceeds from exercises of employee stock options.

Contractual Obligations

Our contractual obligations relate primarily to 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 as of September 30, 2013 (in thousands):

	Total	Remainder of 2013	2014	2015	2016	2017	2018 and beyond
Operating leases	$18,211	$719	$2,947	$3,031	$3,047	$2,677	$5,790

We have excluded from the above table $1.5 million in contractual obligations related to uncertain tax positions as we cannot make a reasonably reliable estimate of the period of cash settlement.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk Management

Our cash flows and earnings are subject to fluctuations due to changes in foreign currency exchange rates, interest rates and other factors. There were no significant changes in our market risk exposures during the three months ended September 30, 2013. This is discussed in further detail in our Annual Report in Form 10-K filed with the SEC on April 2, 2013.

Equity Price Risk

As described in Note 5 to the condensed consolidated financial statements, we have an investment in common shares of CO2 Solutions, whose shares are publicly traded in Canada on the TSX Venture Exchange. As of September 30, 2013, the fair value of our investment in CO2 Solutions' common stock was $1.1 million and our carrying cost for the investment was $0.6 million. We evaluated our investment in the common shares of CO2 Solutions. As a result of our analysis, we concluded no impairment existed and no adjustment was recorded during the three and nine months ended September 30, 2013.

This investment is exposed to fluctuations in both the market price of CO2 Solutions' common shares and changes in the exchange rates between the U.S. dollar and the Canadian dollar. As of September 30, 2013 the fair value of our investment in CO2 Solutions' common stock was $1.1 million. The effect of a 10% adverse change in the market price of CO2 Solution's common shares as of September 30, 2013 would have been an unrealized loss of approximately $0.1 million, recognized as a component of our condensed consolidated statement of comprehensive income. The effect of a 10% adverse change in the exchange rates between the U.S. dollar and the Canadian dollar as of September 30, 2013 would have been an unrealized loss of approximately $0.1 million, recognized as a component of our condensed consolidated statements of comprehensive income.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, under the supervision of our Chief Executive Officer and Chief Financial Officer and with the participation of our disclosure committee, evaluated the effectiveness of the design and operation of our disclosure controls and procedures as of September 30, 2013. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act 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. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were not effective as of September 30, 2013 at the reasonable assurance level due to a material weakness that we identified as of December 31, 2012 that has not been fully remediated. The material weakness we identified relates to the lack of a sufficient number of qualified personnel to timely and appropriately account for complex, non-routine transactions in accordance with United States generally accepted accounting principles. Examples of these significant non-routine transactions include, but are not limited to, complicated revenue recognition transactions and complex contractual arrangements. The material weakness resulted in the recording of audit adjustments for the period ended December 31, 2012. Notwithstanding the existence of the material weakness, management has concluded that the consolidated financial statements included in this report present fairly, in all material respects, our consolidated financial position, results of operations and cash flows for the periods presented in conformity with United States generally accepted accounting principles.

Management's Remediation Activities

With the oversight of senior management and our audit committee, we have implemented certain key steps intended to address the underlying causes of the material weakness, primarily the recruitment of full time qualified accounting and finance personnel with technical accounting and financial reporting experience, and the implementation and validation of improved accounting and financial reporting procedures.

As of September 30, 2013, we have not yet been able to remediate this material weakness. We expect the remediation of the control deficiencies underlying the material weakness will not be completed before the end of 2013. In addition, we may need to incur incremental costs associated with this remediation, including the hiring of additional finance and accounting personnel, utilizing outside consultants, and the implementation and validation of improved accounting and financial reporting procedures. As we continue to evaluate and work to improve our internal control over financial reporting, we may need to take additional measures to address the material weakness.

Changes in Internal Control over Financial Reporting

Other than the actions taken as described above under “Management's Remediation Activities,” there were no changes in our internal control over financial reporting identified in connection with the evaluation required by paragraph (d) of Exchange Act Rules 13a-15 or 15d-15 that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

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

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

We are not currently a party to any material 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, 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 and have recently experienced significant changes to our business, which may make it difficult to evaluate our current business and predict our future performance.

Our company has been in existence since January 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. Additionally, from 2006 to August 2012, a major portion of our business revolved around our research and development collaboration with Shell with respect to advanced biofuels, and the collaboration accounted for 62%, 51% and 51%, of our revenues in 2010, 2011 and 2012 respectively. Upon the termination of the Shell collaboration in August 2012, we undertook a significant restructuring of our operations as a result and refocused our business on the pharmaceuticals market. On November 12, 2013, we announced that we had immediately begun to wind down our CodeXyme® cellulase enzymes program, and that we had stopped further development of our CodeXol® detergent alcohols program in the third quarter of 2013. As a result of these changes in our business and any changes to our business focus that we may make as we move forward, our operating history in past periods may not provide much of a basis to evaluate our current business or 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 or if we had not experienced significant changes to our business. We have encountered and will continue to encounter risks and difficulties frequently experienced by young companies in rapidly changing industries. If we do not address these risks successfully, our business will be harmed.

Our quarterly or annual 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 report and in our annual report on Form 10-K:

- our ability to achieve or maintain profitability;
- our ability to obtain substantial additional capital that may be necessary to expand our business;
- our dependence on a limited number of customers;
- our ability to develop and successfully commercialize new products for the pharmaceuticals market;
- our ability to effect a strategic transaction involving our CodeXyme® cellulase enzymes and CodeXol® detergent alcohols programs;
- our exposure to potential third party claims resulting from Dyadic's proper termination of our license rights for Dyadic's commercial scale expression systems for cellulases;
- our ability to maintain internal control over financial reporting;
- charges to earnings as a result of any impairment of goodwill, intangible assets or other long-lived assets;
- our ability to realize the expected benefits from the reduction in force we undertook at the end of August 2012 and the corporate restructuring we undertook in November 2013;
- our customers' ability to timely pay amounts owed to us;

- our dependence on a limited number of products in our pharmaceutical business;
- our reliance on one contract manufacturer for commercial scale production of substantially all of our enzymes;

- our relationships with, and dependence on, collaborators in our principal markets;
- our ability to deploy our technology platform in new adjacent market spaces;
- our dependence on, and the need to attract and retain key management and other personnel;
- any adverse effects our recent restructuring plan may have on our ability to react to business developments and manage our business;
- the success of our customers' pharmaceutical products in the market and the ability of such customers to obtain regulatory approvals for products and processes;
- our ability to control and to improve pharmaceutical product gross margins;
- the ability of Arch to effectively market pharmaceutical products manufactured using our enzymes;
- risks associated with the international aspects of our business;
- our ability to integrate any businesses we may acquire with our business;
- our ability to accurately report our financial results in a timely manner;
- 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;
- 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;
- the existence of government subsidies or regulation with respect to carbon dioxide emissions; 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 $8.5 million, $16.6 million, and $30.9 million in 2010, 2011 and 2012, respectively. As of September 30, 2013, we had an accumulated deficit of $247.0 million. Until September 2012, we derived a substantial portion of our revenues from research and development agreements with our collaborators, particularly Shell, who accounted for 62%, 51%, and 51% of our revenues in 2010, 2011, and 2012, respectively. Our research and development collaboration with Shell terminated effective as of August 31, 2012, and we do not expect to receive further collaboration revenue from Shell. On November 12, 2013, we announced that we had immediately begun to wind down our CodeXyme® cellulase enzymes program, and that we had stopped further development of our CodeXol® detergent alcohols program in the third quarter of 2013. If we are unable to expand our pharmaceuticals business, through new or expanded collaborations, development of new products or services, or increased sales of existing products and services, our net losses may increase and we may never achieve profitability. In addition, some of our collaboration agreements provide for milestone payments and future royalty payments, which we will only receive if we and our collaborators develop and commercialize products. We also may fund development of additional pharmaceutical and complex chemical products. There can be no assurance that any of these products will become commercially viable or that we will ever achieve profitability on a quarterly or annual basis. 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.

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. Although we believe that, based on our current level of operations, 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, our

spending to develop and commercialize new and existing products, the effect of any acquisitions of other businesses, technologies or facilities that we may make or develop in the future, our spending on new market opportunities, including bio-based chemicals, and the filing, prosecution, enforcement and defense 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 raise 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 fail to generate sufficient revenues to achieve planned gross margins and to control operating costs, our ability to fund our operations, take advantage of strategic opportunities, develop products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate research or development programs or the commercialization of products resulting from our technologies, curtail or cease operations or obtain funds through collaborative and licensing arrangements that may require us to relinquish commercial rights, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we will not be able to successfully execute our business plan or continue our business.

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, 2011, our top five customers accounted for 77% of our total revenues, with Shell accounting for 51% of our total revenues. For the year ended December 31, 2012, our top five customers accounted for 81% of our total revenues, with Shell accounting for 51% of our total revenues. For the nine months ended September 30, 2013, our top five customers accounted for 81% of our total revenues. Our research collaboration with Shell terminated effective as of August 31, 2012, which means that we will not receive any additional collaboration funding from Shell. 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 of business from Shell has, and the loss or reduction from one or a combination of our other significant customers could, materially adversely affect our revenues, financial condition and results of operations.

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

We plan to launch new products for the pharmaceutical market. These efforts are subject to numerous risks, including the following:

- pharmaceutical companies may be reluctant to adopt new manufacturing processes that use our enzymes;
- we may be unable to successfully develop the enzymes or manufacturing processes for our products in a timely and cost-effective manner, if at all;
- we may face difficulties in transferring the developed technologies to our customers and the contract manufacturers that we may use for commercial scale production of intermediates and enzymes;
- the 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;
- customers may not be willing to purchase these products for the pharmaceutical market from us on favorable terms, if at all;
- we may face product liability litigation, unexpected safety or efficacy concerns and pharmaceutical 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;
- our customers' pharmaceutical products may experience adverse events or face competition from new products, which would reduce demand for our 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.

We may not be able to enter into a strategic transaction on favorable terms, or at all, for our CodeXyme® cellulase enzymes and CodeXol® detergent alcohols programs.

On November 12, 2013, we announced that we had immediately begun to wind down our CodeXyme® cellulase enzymes program, and that we had already stopped further development of our CodeXol® detergent alcohols program in the third quarter of 2013. While we may continue to explore possible strategic transactions for both of these

programs, we may not be able to identify and effect such a strategic transaction on favorable terms, or at all.

We may be exposed to third party legal claims if Dyadic properly terminates our license rights to Dyadic’s commercial scale expression system for the production of enzymes.

We entered into the Dyadic license agreement in November 2008 to obtain a non-exclusive license to Dyadic's C-1 based proprietary fungal expression technology for the production of enzymes. We are licensed to use these enzymes to make

products in the fields of biofuels, certain pharmaceuticals, chemicals, air treatment, water treatment and the conversion of cellulosic biomass into fermentable sugars for use in non-fuel products. We also obtained access to specified materials of Dyadic relating to such Dyadic technology. We used the licensed technology in connection with our CodeXyme® cellulase enzyme program which we announced on November 12, 2013 we were immediately beginning to wind down. Our license is sublicenseable to Shell and to affiliates of Shell in the field of biofuels, and sublicenseable to third parties in the non-biofuels fields of certain pharmaceuticals, chemicals, air treatment, water treatment and the conversion of cellulosic biomass into fermentable sugars for non-fuel products. 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 Dyadic license agreement and for various other reasons, including by reason of an uncured material breach by Codexis. Our licenses and access to such materials of Dyadic under the Dyadic license agreement will terminate as a result of any proper termination of the Dyadic license agreement other than due to Dyadic's material breach. Our sublicense to Shell under the Dyadic license agreement will also terminate if the Dyadic license agreement is properly terminated other than due to Dyadic's material breach. Any termination of our licenses under the Dyadic license agreement may result in potential litigation with third parties that we have sublicensed these license rights to. Any such termination could also adversely affect our ability to enter into a strategic transaction involving our CodeXyme® cellulase enzymes program.

On July 30, 2013, Dyadic delivered notice to us alleging that we are in breach under the Dyadic license agreement and stating that Dyadic intended to terminate the Dyadic license agreement in 60 days if the alleged breach was not cured to Dyadic's satisfaction. On September 10, 2013, we reached agreement with Dyadic to extend our time for response to the allegations until November 15, 2013 as part of ongoing negotiations between the parties to resolve the matter. Although we do not believe that we are in breach of the Dyadic license agreement and we are considering all available remedies to protect our interests under the Dyadic license agreement, we can make no assurances regarding our ability to resolve the dispute with Dyadic on commercially reasonable terms or our ability to dispute with success, through legal action or otherwise, Dyadic's allegation that we have breached the Dyadic license agreement.

We have determined that we had a material weakness in internal control over financial reporting as of December 31, 2012 that has not been fully remediated, which could, if not remediated, adversely impact the reliability of our financial reports, cause us to submit our financial reports in an untimely fashion, result in material misstatements in our financial statements and cause current and potential stockholders to lose confidence in our financial reporting, which in turn could adversely affect the trading price of our common stock.

Section 404 of the Sarbanes-Oxley Act of 2002 requires companies to conduct a comprehensive evaluation of their disclosure controls and procedures over financial reporting. At the end of each fiscal year, we must perform an evaluation of our disclosure controls and procedures over financial reporting, include in our annual report the results of the evaluation, and have our external auditors publicly attest to such evaluation.

In connection with the integrated audit of our consolidated financial statements and internal control over financial reporting and management's assessment of our internal controls over financial reporting at December 31, 2012, a material weakness in our internal control over financial reporting was identified. The material weakness we identified relates to the lack of a sufficient number of qualified personnel to timely and appropriately account for complex, non-routine transactions in accordance with United States generally accepted accounting principles. Examples of these significant non-routine transactions include, but are not limited to, complicated revenue recognition transactions and complex contractual arrangements.

As a result of the restructuring activities following the termination of the Shell collaboration in August 2012, we experienced significant turnover in our finance and accounting management. Notwithstanding the use of contract personnel and external consultants, our inability to attract, train, manage and retain qualified finance and accounting personnel negatively impacted our ability to appropriately address complex, non-routine transactions.

A material weakness is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of annual or interim consolidated financial statements will not be prevented or detected on a timely basis. As a result of the material weakness described above, we have concluded our internal control over financial reporting was not effective at December 31, 2012 based on the guidelines established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We have not yet been able to remediate this material weakness. We do not know the specific timeframe needed to remediate all of the control deficiencies underlying this material weakness. In addition, we may need to incur incremental costs associated with this remediation, primarily due to the hiring of finance and accounting personnel, and the implementation and validation of improved accounting and financial reporting procedures. If we are not successful in remediating the material weakness, or if we determine in future fiscal periods that we have additional material weaknesses in our internal control over

financial reporting, the reliability of our financial reports may be adversely impacted, we may be unable to submit our reports in a timely fashion and we could be required to restate our financial results. This could cause current and potential stockholders to lose confidence in our financial reporting, which could adversely affect the trading price of our common stock.

If goodwill or our intangible or other long-lived assets become impaired we may be required to record a significant charge to earnings.

Our total assets reflect substantial goodwill, intangible assets and other long-lived assets. Under accounting principles generally accepted in the United States, or GAAP, we review goodwill for impairment 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 review our long lived and intangible assets with finite lives for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Events or changes in circumstances (i.e., information that indicates an impairment might exist), could include: a significant decrease in the market price of the Company's common stock; current period cash flow losses or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the assets; slower growth rates in our industry; significant adverse changes in the business climate or legal factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the assets; loss of significant customers or partners; or the current expectation that the assets will more likely than not be sold or disposed of significantly before the end of their estimated useful life. For example, as described in Note 2 to the condensed consolidated financial statements to this Quarterly Report on Form 10-Q, we determined that our projected annual operating losses, the potential impact of the Dyadic notice, and the decreasing market price of our common stock were indicators of impairment of our long-lived and intangible assets as of September 30, 2013. We therefore performed a recoverability test and determined that the estimated undiscounted cash flows for the asset group were greater than the carrying value of the primary intangible assets. We also performed supplemental analysis to determine the fair value of the Company's primary intangible assets to determine recoverability of those assets. Based on these analyses, we determined that the fair value of the assets exceeded their carrying value and that no impairment was necessary as of September 30, 2013. Nevertheless, we may experience additional events or changes in circumstances in the future that we determine to be indicators of impairment, and that may in turn require us to undertake a similar set of analyses in future periods. Depending on the circumstances and judgments made at such future time, the outcome of the analysis may require us to recognize impairment.

We may be required to record a significant charge to earnings in our financial statements during the period in which any impairment of our goodwill, intangible assets or other long-lived assets is determined, resulting in an adverse impact on our financial position and results of operations.

We implemented cost saving measures in the third and fourth quarters of 2012 and recently announced a new workforce reduction, and we may implement additional cost saving measures in the future. These measures may interfere with the operation of our business and if we are unable to realize the anticipated benefits of these measures, our operating results and financial condition could be adversely affected.

In the third and fourth quarters of 2012, we implemented a reduction in our global workforce and implemented other cost savings measures to reduce our cash expenditures. These measures included the termination of approximately 55% of our global workforce and the closing of our Singapore facility. We also vacated one of our facilities in Redwood City, California and are attempting to sublease it. On November 12, 2013, we announced a restructuring plan that includes a reduction of approximately 16 employees in the United States.

If we are unable to realize the expected operational efficiencies and financial benefits from these workforce reductions and restructuring activities, or if we are unable to sublease the vacated facility, our operating results and financial condition would be adversely affected. Restructuring costs include expenses related to exit-related costs arising from contractual and other obligations. We continue to review our cost structure and may implement further cost saving initiatives in the future. These cost reduction efforts may interfere with our ability to achieve our business objectives, may be difficult to manage, may cause concerns from current and potential customers, suppliers and other third parties with whom we do business and may increase the likelihood of turnover of other key employees, all of which may have an adverse impact on our business.

Our revenues, financial condition and results of operations may also be adversely affected if one or more of our customers is delayed in paying, or becomes unable to pay, for our delivered products on a timely basis.

Certain of our customers are, or in the future may become, subject to significant economic and other challenges that affect their cash flow, and many customers outside of the United States are generally accustomed to vendor financing in the form of extended payment terms which may exceed contractual payment terms. For instance, Arch is currently experiencing financial difficulty and has been unable to pay us for enzymes that we have previously supplied them. As a result of their economic distress, we have ceased shipping enzymes to Arch until we are confident in their ability to timely pay for such shipments. To

remain competitive in markets outside of the United States, we may offer selected customers payment flexibility. We consider arrangements with extended payment terms not to be fixed or determinable, and accordingly, we defer revenue until payment is received. The costs associated with such revenue deferral are also deferred and classified as other current assets in the financial statements. If these customers fail to pay us on a timely basis it may cause our financial results to fluctuate and we may decide to grant concessions to such customers to increase the probability of payment. Such concessions, or failure by such customers to pay at all, would adversely impact our financial condition and results of operations.

We are dependent on a limited number of products in our pharmaceutical business.

Our current product revenues are derived from a limited number of pharmaceutical products. For the year ended December 31, 2012, we derived 78% of our product revenue from two pharmaceutical product families: statins and hepatitis C therapies. We expect a limited number of pharmaceutical products to continue to account for a significant portion of our pharmaceutical product revenues for the foreseeable future. This product concentration increases the risk of quarterly fluctuations in our revenues and operating results. The loss or reduction of business of one or a combination of our significant pharmaceutical products could materially adversely affect our revenues, financial condition and results of operations.

We are dependent on contract manufacturers for commercial scale production of substantially all of our enzymes.

We have limited internal capacity to manufacture enzymes. As a result, we are dependent upon the performance and capacity of third party manufacturers for the commercial scale manufacturing of the enzymes used in our pharmaceutical and cellulase businesses.

We rely on one contract manufacturer, Lactosan, for our pharmaceutical business to manufacture substantially all of the commercial enzymes used in our pharmaceutical business. Our pharmaceutical business, therefore, faces risks of difficulties with, and interruptions in, performance by Lactosan, 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 enzymes for our pharmaceutical business, but currently have limited reliance on them for our supply requirements. The failure of any contract manufacturers that we may use to supply manufactured enzymes on a timely basis or at all, or to manufacture our enzymes 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. 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 have any supply agreements in place with any enzyme contract manufacturers, other than Lactosan. In the absence of a supply agreement, a contract manufacturer will be under no obligation to manufacture our enzymes 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 our suppliers. If we choose to build our own additional manufacturing facility, it could take two years or longer before our facility is able to produce commercial volumes of our enzymes. Any resources we expend on acquiring or building internal manufacturing capabilities could be at the expense of other potentially more profitable opportunities. 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 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, and could lead to disagreements with our current or former collaborators.

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 its obligations. 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 lead to litigation and 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, and we may be involved in litigation. 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 that are developed during the collaboration, 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
- our collaborators experience business difficulties, which could eliminate or impair their ability to effectively perform under our agreements.

Additionally, despite the termination of the research term of our three-way research collaboration with Shell and Iogen, many elements of our collaborative research and license agreement with Shell and Iogen will continue. For example, the collaborative research and license agreement provides for certain rights, licenses and obligations of each party with respect to intellectual property and program materials that will continue after the research activities have ended. Disagreements or conflicts between and among the parties could develop even though the research program has ended. These disagreements or conflicts could result in expensive arbitration or litigation, which may not be resolved in our favor.

Finally, our business could be negatively affected if any of our collaborators or suppliers undergo a change of control or were to otherwise assign the rights or obligations under any of our agreements.

Our efforts to deploy our technology platform in adjacent market spaces, such as fine chemicals and therapeutic enzymes, may fail.

We are exploring whether to use our CodeEvolver® directed evolution technology platform to develop new products in several new adjacent market spaces, including fine chemicals and therapeutic enzymes. We do not know if we can successfully compete in these new markets. Each of these new markets is well established and consists of numerous large, well-funded entrenched market participants who have long and established track records and customer relationships. If we develop new products to introduce into one or more of these new markets, we may not succeed in displacing current products. If we succeed in commercializing new products for these markets, we may not generate significant revenue and cash flows from these activities. The failure to successfully deploy products in these new market spaces may limit our growth and have a material adverse effect on our financial condition, operating results and business prospects.

If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel as needed in the future, it could disrupt the operation of our business, 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 team 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 October 2013, the head of our pharmaceuticals group resigned from the Company. Although, we are not currently expecting to replace him, rather our President and Chief Executive Officer, John Nicols, will now lead this group, the departure may negatively affect the functioning of our pharmaceuticals group.

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 or due to the availability of personnel with the qualifications or experience necessary for our business. Additionally, potential future government awards may require us to maintain a minimum level of

staffing. 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 and engineers. 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 mean 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.
In August and September 2012, we implemented a corporate restructuring plan that included a reduction in work force of approximately 55% of our total workforce and the closure of our Singapore facility. We also announced a new workforce reduction on November 12, 2013, which includes the termination of approximately 12% of our total workforce. Our restructuring activities and the workforce reductions have had and may continue to have a negative effect on employee morale, and we may have difficulty in attracting and retaining qualified personnel.
Our business could be adversely affected if our customers' pharmaceutical products are not received well in the market, if their pharmaceutical products, or the processes used by our customers to manufacture their final pharmaceutical products, fail to be approved, or if our customers discontinue their drug development activities for any reason.
Our enzymes 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 branded drug customers. Our business could be adversely affected if these final pharmaceutical products do not perform in the market as well as expected, or if our customers encounter competition from new entrants into the market with competing, and possibly superior, pharmaceutical products. Additionally, these pharmaceutical products must be approved by the FDA in the United States and similar regulatory bodies in other markets prior to commercialization. If our customers who sell branded-drugs, which we refer to as innovators, fail to receive regulatory approval for the drugs, fail to receive regulatory approval for new manufacturing processes for previously approved drugs, or decide for business or other reasons to discontinue their drug development activities, our revenues and prospects will be negatively impacted. 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 enzymes does not receive approval by the appropriate regulatory body or if customers decide not to pursue approval, our business could be adversely affected.
Our pharmaceutical product gross margins are variable and may decline from quarter to quarter.
Our pharmaceutical product gross margins 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, including product mix, pricing pressure from our pharmaceutical customers and competition from other products or technologies. This variability may have a material adverse impact on our operating results and financial condition and cause our stock price to decline.
Our generic pharmaceutical business is partially dependent on Arch's ability to effectively market and sell certain pharmaceutical products.
Under the New Arch Enzyme Supply Agreement, we sell enzymes to Arch that it uses to manufacture APIs and intermediates that it sells to pharmaceutical companies worldwide. A portion of our pharmaceuticals product revenues are dependent on Arch's ability to manufacture, market and sell APIs and intermediates that are made by Arch using our enzymes. We cannot control Arch's level of activity or expenditures relating to the marketing of such pharmaceutical products relative to the rest of their products or marketing efforts. Arch may fail to effectively market these pharmaceutical products. 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 pharmaceutical products. If Arch does not successfully promote these pharmaceutical products in the marketplace or fails to resolve its current economic difficulties, our pharmaceutical business and our revenues and operating results could be adversely impacted.
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, repatriate profits to the United States or operate our foreign-located facilities;
- 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, regulations and legal proceedings including tax, import/export, anti-corruption 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;
- increased demands on our limited resources created by our diversified, global operations may require us to expand the capabilities of our administrative and operational resources and to attract, train, manage and retain qualified management, technicians, scientists and other personnel which we may be unable to do effectively;
- economic or political instability in foreign countries;
- difficulties associated with staffing and managing foreign operations; and
- the need to comply with a variety of United States and foreign laws applicable to the conduct of international business, including import and export control laws and anti-corruption laws.

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. For example, in October 2010, we acquired substantially all of the patents and other intellectual property rights associated with Maxygen's directed evolution technology. 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;
- use our cash to fund the acquisitions; or
- assume significant liabilities including litigation risk.

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's 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 suppliers and certain contract manufacturers 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.

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.

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 September 30, 2013, we owned or controlled approximately 357 issued patents and approximately 345 pending patent applications in the United States and in various foreign jurisdictions. Some of our gene shuffling patents will expire as early as 2014. We also have license rights to a number of issued patents and pending patent applications in the United States and in various foreign jurisdictions. Our owned and licensed patents and patent applications are directed to our enabling technologies and to the methods and products that support our business in the pharmaceuticals manufacturing and complex chemistry 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, the United States Leahy-Smith America Invents Act, enacted in September 2011, brings significant changes to the United States patent system, which include a change to a “first to file” system from a “first to invent” system and changes to the procedures for challenging issued patents and disputing patent applications during the examination process, among other things. The effects of these changes on our patent portfolio and business are currently uncertain as the United Stated Patent and Trademark Office has just implemented regulations related to these changes and the courts have yet to address many of these provisions in the context of a dispute. We have not assessed the applicability of the act and new regulations on our patent portfolio. These changes could increase the costs and uncertainties surrounding the prosecution of our patent applications and the enforcement or defense of our patent rights. Additional uncertainty may result from legal precedent handed down by the United States Federal Circuit Court 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 invent the inventions covered by each of our pending applications, (ii) we were the first to file patent applications for these inventions, or (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. 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. 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.

Third parties may claim that we are infringing their intellectual property rights or other proprietary rights, which may subject us to costly and time consuming litigation and prevent us from developing or commercializing our products.

Our commercial success also depends in part on our ability to operate without infringing patents and proprietary rights of third parties, and without 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 industries in which we operate and the biotechnology industry in particular, are characterized by frequent and extensive litigation regarding patents and other intellectual property rights. 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 our management's 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 or using our products or technologies that use the subject intellectual property;

- pay monetary damages or substantial royalties;
- grant cross-licenses to third parties relating to our patents or proprietary rights;
- 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, could be technically infeasible or could prevent us from selling some of our products in the United States or other jurisdictions.

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 before the United States Patent and Trademark Office 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 where we do business 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, particularly those relating to biotechnology and/or bioindustrial technologies. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Additionally, 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.

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 or in countries in which we do not have patents covering the misappropriated biocatalysts.

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 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. In addition, as we enter new markets, we will face new competition and will need to adapt to competitive factors that may be different from what we face today.

We are aware that other companies, including Royal DSM N.V., or DSM, DuPont, Novozymes, and Vercipia Biofuels, an affiliate of BP P.L.C., 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 and contract manufacturers in low cost centers such as India and China.

Our ability to compete successfully in any of these markets 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. They also started developing products earlier than we did, which may allow them to establish blocking intellectual property positions or bring products to market before we can. 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. We cannot be certain that any products we develop in the future will compare favorably to products offered by our competitors or that our existing or future products will compare favorably to any new products that are developed by 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.

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.

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.

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 bioindustrial products.

Our bioindustrial products, including those used in the bio-based chemicals markets, will need to meet a significant number of regulations and standards, including regulations imposed by the United States Department of Transportation, the United States Environmental Protection Agency, various state agencies and others. In addition, our bioindustrial products will be subject to foreign regulations if we attempt to produce or sell our products outside the United States. For example, we expect that our products and technologies will be subject to import and export controls when they are shipped internationally. 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 bioindustrial products 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 and commercial 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, local and foreign 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 comply 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. In addition, we may have to indemnify some of our customers or suppliers for losses related to our failure to comply with environmental laws, which could expose us to significant liabilities.

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. For example, we may be named directly in product liability suits relating to drugs that are produced using our enzymes or that incorporate our intermediates and APIs. The biocatalysts, pharmaceutical intermediates and APIs that we produce or are produced for us by our manufacturing partners could be subject to quality control or contamination issues of which we are not aware. 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 enzymes, pharmaceutical intermediates and APIs,

such as Lactosan and/or 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 any contract manufacturer that we have used in the past or shall use in the future has or 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 in our financial statements, 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 officer or president may call a special meeting of the stockholders. In addition, our amended and restated certificate of incorporation allows our board of directors, without further action by our stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. 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 September 30, 2013, our officers, directors and stockholders who hold at least 5% of our stock together beneficially own approximately 36% of our outstanding common stock. 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. As of September 30, 2013, Raízen, Biomedical Sciences Investment Fund Pte Ltd. and CMEA Ventures beneficially

owned approximately 14.9%, 8.5% and 8.1% of our common stock, respectively.

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 or dispositions, strategic partnerships, joint ventures or capital commitments;
- additions or losses of one or more significant pharmaceutical products;
- 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 patent litigation and our ability to obtain patent protection for our technologies;
- contractual disputes or litigation with our partners, customers or suppliers;
- 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 incur significant costs as a result of operating as a public company, and our management is required to devote substantial time to compliance initiatives.

As a public company, we incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as related rules implemented by the Securities and Exchange Commission and The NASDAQ Stock Market, impose various requirements on public companies that require our management and other personnel to devote a

substantial amount of time to compliance initiatives.

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, 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 requires that we incur substantial accounting expense and expend significant management time on compliance-related issues. Moreover, if we are not able to maintain compliance with the requirements of

Section 404, 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) Unregistered Sales of Equity Securities

Not applicable.

(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 of 1933, as amended, pursuant to a registration statement on Form S-1 (File No. 333-164044), which was declared effective by the SEC on April 21, 2010.

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 fund and other marketable securities.

ITEM 3. Defaults Upon Senior Securities

Not applicable.

ITEM 4. Mine Safety Disclosures

Not applicable.

ITEM 5. Other Information

(a)

The following disclosure is included in this Quarterly Report on Form 10-Q in lieu of filing a Current Report on Form 8-K with respect to disclosure required under Item 2.05 thereof:

On November 12, 2013, the Company announced that we will immediately begin to wind down our CodeXyme® cellulase enzymes program. As a result, the Company has committed to a restructuring plan to reduce our cost structure to align with our projected future revenues from our pharmaceutical business. The restructuring plan includes a reduction of approximately 16 employees in the United States. We expect to record a charge of approximately $0.7 million in the fourth quarter of 2013, consisting primarily of employee severance and related benefits, all of which will result in future cash expenditures. We expect this restructuring to be completed by the end of the first quarter of 2014.

The following disclosure is included in this Quarterly Report on Form 10-Q in lieu of filing a Current Report on Form 8-K with respect to disclosure required under Item 5.02(b) thereof:

Matt Tobin, the Company's Senior Vice President, Research and Development, will be departing the Company on November 15, 2013.

(b)

Not applicable.

ITEM 6. Exhibits

3.1	Amended and Restated Certificate of Incorporation of Codexis, Inc. filed with the Secretary of the State of the State of Delaware on April 27, 2010 and effective as of April 27, 2010 (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed on May 28, 2010).
3.2	Amended and Restated Bylaws of Codexis, Inc. effective as of April 27, 2010 (incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed on May 28, 2010).
4.1	Specimen Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report for the quarter ended June 30, 2012, filed on August 9, 2012).
10.1	Transition and Separation Agreement by and between the Company and David L. Anton dated as of July 24, 2013 (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, filed on August 9, 2013.
10.2†	Amendment to Sitagliptin Catalyst Supply Agreement by and between the Company and Merck Sharp and Dohme dated as of October 1, 2013.
31.1	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1	Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350.
101*	The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2013, formatted in Extensible Business Reporting Language (XBRL) includes: (i) Condensed Consolidated Balance Sheets at September 30, 2013 and December 31, 2012, (ii) Condensed Consolidated Statements of Income for the Three and Nine Months Ended September 30, 2013 and 2012, (iii) Condensed Consolidated Statements of Comprehensive Income for the Three and Nine Months Ended September 30, 2013 and 2012, (iv) Condensed Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2013 and 2012, and iv) Notes to Condensed Consolidated Financial Statements.

† Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the Securities and Exchange Commission.

* XBRL information is furnished and not filed or a part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Exchange Act of 1933, as amended, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, as amended, and otherwise is not subject to liability under these sections.

SIGNATURES

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

Codexis, Inc.

Date: November 12, 2013

By: /s/ John Nicols
John Nicols
President and Chief Executive Officer
(principal executive officer)

Date: November 12, 2013

By: /s/ David O'Toole
David O'Toole
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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