

CODEXIS INC

Form 10-Q

August 09, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2016

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 (I.R.S. Employer
incorporation or organization) Identification No.)

200 Penobscot Drive, Redwood City 94063
(Address of principal executive offices) (Zip Code)
(650) 421-8100
(Registrant's telephone number, including area code)
(Former name, former address and former fiscal year, if changed since last report)

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

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

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

As of August 1, 2016, there were 41,181,099 shares of the registrant's Common Stock, par value \$0.0001 per share, outstanding.

Codexis, Inc.
 Quarterly Report on Form 10-Q

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

Codexis, Inc.

Condensed Consolidated Balance Sheets

(Unaudited)

(In Thousands, Except Per Share Amounts)

	June 30, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	\$22,352	\$ 23,273
Accounts receivable, net of allowances of \$421 at June 30, 2016 and December 31, 2015	3,340	7,329
Inventories	1,155	992
Prepaid expenses and other current assets	1,055	1,245
Total current assets	27,902	32,839
Restricted cash	787	787
Marketable securities	1,115	1,549
Property and equipment, net	2,403	3,109
Intangible assets, net	1,125	2,812
Goodwill	3,241	3,241
Other non-current assets	283	310
Total assets	\$36,856	\$ 44,647
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$2,651	\$ 3,399
Accrued compensation	2,844	3,331
Other accrued liabilities	2,829	2,013
Deferred revenue	4,118	6,098
Total current liabilities	12,442	14,841
Deferred revenue, net of current portion	1,354	3,120
Lease incentive obligation, net of current portion	1,098	1,310
Other long-term liabilities	2,282	2,497
Total liabilities	17,176	21,768
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Preferred stock, \$0.0001 par value per share; 5,000 shares authorized; none issued and outstanding	—	—
Common stock, \$0.0001 par value per share; 100,000 shares authorized; 41,171 shares and 40,343 shares issued and outstanding at June 30, 2016 and December 31, 2015, respectively	4	4
Additional paid-in capital	307,951	305,981
Accumulated other comprehensive income (loss)	(29)	405
Accumulated deficit	(288,246)	(283,511)
Total stockholders' equity	19,680	22,879
Total liabilities and stockholders' equity	\$36,856	\$ 44,647
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 June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Revenues:				
Biocatalyst product sales	\$3,280	\$2,020	\$7,020	\$5,097
Biocatalyst research and development	12,064	2,533	15,598	4,729
Revenue sharing arrangement	658	1,465	1,380	2,990
Total revenues	16,002	6,018	23,998	12,816
Costs and operating expenses:				
Cost of biocatalyst product sales	2,221	1,250	4,710	2,706
Research and development	5,112	5,170	10,798	10,463
Selling, general and administrative	6,420	5,296	13,222	10,874
Total costs and operating expenses	13,753	11,716	28,730	24,043
Income (loss) from operations	2,249	(5,698)	(4,732)	(11,227)
Interest income	13	4	28	8
Other expenses, net	(49)	(96)	(46)	(121)
Income (loss) before income taxes	2,213	(5,790)	(4,750)	(11,340)
Benefit from income taxes	(26)	(430)	(15)	(418)
Net income (loss)	\$2,239	\$(5,360)	\$(4,735)	\$(10,922)
Net income (loss) per share, basic	\$0.06	\$(0.14)	\$(0.12)	\$(0.28)
Net income (loss) per share, diluted	\$0.05	\$(0.14)	\$(0.12)	\$(0.28)
Weighted average common stock shares used in computing net income (loss) per share, basic	40,495	39,301	40,283	39,066
Weighted average common stock shares used in computing net income (loss) per share, diluted	41,568	39,301	40,283	39,066

See accompanying notes to the unaudited condensed consolidated financial statements

Codexis, Inc.

Condensed Consolidated Statements of Comprehensive Income (Loss)

(Unaudited)

(In Thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Net income (loss)	\$2,239	\$(5,360)	\$(4,735)	\$(10,922)
Other comprehensive income (loss)				
Unrealized gain (loss) on marketable securities, net of tax benefit of zero for the three months and six months ended June 30, 2016, and \$454 and \$463 for the three months and six months ended June 30, 2015, respectively	(344) 776	(434) 792
Other comprehensive income (loss)	(344) 776	(434) 792
Total comprehensive income (loss)	\$1,895	\$(4,584)	\$(5,169)	\$(10,130)

See accompanying notes to the unaudited condensed consolidated financial statements

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

	Six Months Ended June 30,	
	2016	2015
Operating activities:		
Net loss	\$(4,735)	\$(10,922)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Amortization of intangible assets	1,687	1,687
Depreciation and amortization of property and equipment	924	1,080
Gain on disposal of property and equipment	(27)	(5)
Income tax benefit related to marketable securities	—	(463)
Stock-based compensation	2,631	2,536
Changes in operating assets and liabilities:		
Accounts receivable, net	3,989	1,076
Inventories, net	(163)	427
Prepaid expenses and other current assets	190	221
Other assets	27	19
Accounts payable	(492)	(3,021)
Accrued compensation	(488)	(331)
Other accrued liabilities	601	(772)
Long term lease incentive	(212)	(212)
Deferred revenue	(3,745)	660
Net cash provided by (used in) operating activities	187	(8,020)
Investing activities:		
Purchase of property and equipment	(474)	(183)
Proceeds from sale of property and equipment	27	5
Increase in restricted cash	—	(75)
Net cash used in investing activities	(447)	(253)
Financing activities:		
Proceeds from exercises of options to purchase common stock	837	195
Taxes paid related to net share settlement of equity awards	(1,498)	(1,811)
Net cash used in financing activities	(661)	(1,616)
Net decrease in cash and cash equivalents	(921)	(9,889)
Cash and cash equivalents at the beginning of the period	23,273	26,487
Cash and cash equivalents at the end of the period	\$22,352	\$16,598

See accompanying notes to the unaudited condensed consolidated financial statements

Notes to Condensed Consolidated Financial Statements
(Unaudited)

Note 1. Description of Business

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

We develop biocatalysts for the pharmaceutical and fine chemicals markets. 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.

Biocatalysts are enzymes that initiate and/or accelerate chemical reactions. Manufacturers have historically used naturally occurring biocatalysts to produce many goods used in everyday life. However, inherent limitations in naturally occurring biocatalysts have restricted their commercial use. Our proprietary CodeEvolver[®] protein engineering technology platform, which introduces genetic mutations into microorganisms in order to give rise to changes in enzymes that they produce, is able to overcome many of these limitations, allowing us to evolve and optimize biocatalysts to perform specific and desired chemical reactions at commercial scale.

Once potentially beneficial mutations are identified through this proprietary process, combinations of these mutations can then be tested until variant enzymes have been created that exhibit marketable performance characteristics superior to competitive products. This process allows for continuous, efficient improvements to the performance of enzymes. In the past, we implemented the CodeEvolver[®] protein engineering technology platform through paid collaborations with our customers. In July 2014, we entered into our first license agreement pursuant to which we granted a license to GlaxoSmithKline ("GSK"), a global pharmaceutical company, to use the CodeEvolver[®] protein engineering technology platform for its internal development purposes. In August 2015, we entered into a second license agreement involving the CodeEvolver[®] protein engineering technology platform with Merck Sharp and Dohme Corp., known as MSD outside the United States and Canada ("Merck"), a global pharmaceutical company, and we continue to pursue licensing opportunities with additional customers.

We have commercialized our technology and products in the pharmaceuticals market, which is our primary business focus. Our customers, which include several large global pharmaceutical companies, use our technology, products and services in their manufacturing processes and process development.

We also use our technology to develop biocatalysts for use in the fine chemicals market. The fine chemicals market consists of several large market verticals, including food, animal feed, flavors, fragrances, and agricultural chemicals.

We are also using our technology to develop an early stage, novel enzyme therapeutic product candidate for the potential treatment of phenylketonuria ("PKU") in humans. PKU is an inherited metabolic disorder in which the enzyme that converts the essential amino acid phenylalanine into tyrosine is deficient.

We are actively collaborating with new and existing customers in the pharmaceutical and other markets.

Note 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 our Annual Report on Form 10-K for the year ended December 31, 2015. The condensed consolidated balance sheet at December 31, 2015 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 our financial position as of June 30, 2016 and results of our operations and comprehensive income (loss) for the three and six months ended June 30, 2016 and 2015, and cash

flows for the six months

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ended June 30, 2016 and 2015. 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 Codexis, Inc. and its wholly owned subsidiaries in the United States, India, Mauritius and the Netherlands. 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 revenue and expenses during the reporting period. We regularly assess these estimates which primarily affect revenue recognition, accounts receivable, inventories, the valuation of investment securities and marketable securities, intangible assets, goodwill arising out of business acquisitions, accrued liabilities, stock awards and the valuation allowances associated with deferred tax assets. Actual results could differ from those estimates and such differences may be material to the condensed consolidated financial statements.

Segment Reporting

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

Revenue Recognition

We recognize revenues from the sale of our biocatalyst products, biocatalyst research and development agreements and a revenue sharing arrangement. Revenue is recognized when the related costs are incurred and the four basic criteria of revenue recognition are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. Where the revenue recognition criteria are not met, we defer the recognition of revenue by recording deferred revenue until such time that all criteria of revenue recognition are met.

We account for revenues from multiple element arrangements, such as license and platform technology transfer agreements and collaborative arrangements in which a licensee may purchase several deliverables, in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Subtopic 605-25, "Multiple Element Arrangements." For new or materially amended multiple element arrangements, we identify the deliverables at the inception of the arrangement and each deliverable within a multiple deliverable revenue arrangement is accounted for as a separate unit of accounting if both of the following criteria are met: (1) the delivered item or items have value to the customer on a standalone basis and (2) for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in our control. Revenue allocated to each element is then recognized based on when the basic four revenue recognition criteria are met for each element.

Biocatalyst Product Sales

Biocatalyst product sales consist of sales of biocatalyst enzymes, chemical intermediates and Codex[®] Biocatalyst Panels and Kits. Biocatalyst product sales are recognized once passage of title and risk of loss has occurred and contractually specified acceptance criteria, if any, have been met, provided all other revenue recognition criteria have also been met. Shipping and handling costs charged to customers are recorded as revenue.

Biocatalyst Research and Development

Biocatalyst research and development agreements typically provide us with multiple revenue streams, including research services fees for full time employee ("FTE") research services, up-front licensing fees, technology access fees, contingent payments upon achievement of contractual criteria, and royalty fees based on the licensees' product sales or cost savings achieved by our customers. We perform biocatalyst research and development activities as specified in each respective customer agreement. Payments for services received are not refundable. Certain research agreements are based on a contractual reimbursement rate per FTE working on the project. We recognize revenues from research services as those services are performed over the contractual performance periods. When up-front payments are combined with FTE services in a single unit of accounting, we recognize the up-front payments using the proportionate performance method of revenue recognition based upon the actual amount of research labor hours incurred relative to the amount of the total expected labor hours to be incurred by us, up to the amount of cash received. In cases where the planned levels of research services fluctuate substantially over the research term, we are required to make estimates of the total hours required to perform our obligations.

We recognize revenues from non-refundable, up-front license fees or technology access payments that are not dependent on any future performance by us when such amounts are earned. If we have continuing obligations to perform under the arrangement, such fees are recorded as deferred revenues and recognized over the estimated period of performance. Estimated performance periods are periodically reviewed based on the progress of the related program. The effect of any change made to an estimated performance period, and therefore to revenue recognized, would occur on a prospective basis in the period that the change was made.

A payment that is contingent upon the achievement of a substantive milestone is recognized in its entirety in the period in which the milestone is achieved. A milestone is an event (i) that can only be achieved based in whole or in part on either our performance or on the occurrence of a specific outcome resulting from our performance, (ii) for which there is, as of the date the arrangement is entered into, substantive uncertainty that the event will be achieved and (iii) results in additional payments being due to us. Milestones are considered substantive when the consideration earned from the achievement of the milestone (i) is commensurate with either our performance to achieve the milestone or the enhancement of the value of the item delivered as a result of a specific outcome resulting from its performance, (ii) relates solely to past performance and (iii) is reasonable relative to all deliverable and payment terms in the arrangement.

We recognize revenues from other contingent payments based on the passage of time or when earned as the result of a customer's performance in accordance with contractual terms and when such payments can be reasonably estimated and collectability of such payments is reasonably assured.

We recognize revenues from royalties based on licensees' sales of our biocatalyst products or products using our technologies.

Royalties are recognized as earned in accordance with the contract terms when royalties from licensees can be reasonably estimated and collectability is reasonably assured. For the majority of our royalty revenues, estimates are made using notification of the sale of licensed products from the licensees.

Revenue Sharing Arrangement

We recognize revenues from a revenue sharing arrangement based upon sales of licensed products by our revenue share partner Exela PharmSci, Inc. ("Exela") (see Note 11, "Related Party Transactions"). We recognize revenues net of product and selling costs upon notification from our revenue share partner of our portion of net profit based on the contractual percentage from the sale of licensed product.

Sales Allowances

Sales allowances primarily relate to product returns and prompt pay sales discounts and are recorded in the same period that the related revenues are recognized, resulting in a reduction in biocatalyst product sales revenue.

Cost of Biocatalyst Product Sales

Cost of biocatalyst product sales comprises both internal and third party fixed and variable costs including materials and supplies, labor, facilities and other overhead costs associated with our biocatalyst product sales. Shipping costs are included in our cost of biocatalyst product sales. Such charges were not significant in any of the periods presented.

Cost of Research and Development Services

Cost of research and development services related to services under research and development agreements approximates the research funding over the term of the respective agreements and is included in research and development expense. Costs of services provided under license and platform technology transfer agreements are included in research and development expenses and are expensed in the periods in which such costs are incurred.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects, partner-funded collaborative research and development activities, as well as license and platform technology transfer agreements, as mentioned above. 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 external costs, 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.

Stock-Based Compensation

We use the Black-Scholes-Merton option pricing model to estimate the fair value of options granted under our equity incentive plans. The Black-Scholes-Merton option pricing model requires the use of assumptions, including the expected term of the award and the expected stock price volatility. We had, due to insufficient historical data, used the "simplified method," as described in SEC Staff Accounting Bulletin No. 107, "Share-Based Payment," to determine the expected term of all stock options granted from the inception of our equity plans through the first half of 2015.

Beginning in the third quarter of 2015, we believe we have sufficient historical data to calculate expected terms for stock options granted. Thus, the expected term was based on historical exercise behavior on similar awards, giving consideration to the contractual terms, vesting schedules and expectations of future employee behavior. We used historical volatility to estimate expected stock price volatility. The risk-free rate assumption was based on United States Treasury instruments whose terms were consistent with the expected term of the stock options. The expected dividend assumption was based on our history and expectation of dividend payouts.

Restricted Stock Units ("RSUs"), Restricted Stock Awards ("RSAs") and performance-contingent restricted stock units ("PSUs") were measured based on the fair market values of the underlying stock on the dates of grant. PSUs awarded may be conditional upon the attainment of one or more performance objectives over a specified period. At the end of the performance period, if the goals are attained, the awards are granted.

Stock-based compensation expense was calculated based on awards ultimately expected to vest and was reduced for estimated forfeitures at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differed from those estimates. The estimated annual forfeiture rates for stock options, RSUs, PSUs, and RSAs are based on historical forfeiture experience.

The estimated fair value of stock options, RSUs and RSAs is expensed on a straight-line basis over the vesting term of the grant and the estimated fair value of PSUs is expensed using an accelerated method over the term of the award once management has determined that it is probable that the performance objective will be achieved. Compensation expense is recorded over the requisite service period based on management's best estimate as to whether it is probable that the shares awarded are expected to vest. Management assesses the probability of the performance milestones being met on a continuous basis.

We have not recognized, and do not expect to recognize in the near future, any excess income tax benefits related to employee stock-based compensation expense as a result of the full valuation allowance on our deferred tax assets including deferred tax assets related to net operating loss carryforwards.

Foreign Currency Translation

The United States dollar is the functional currency for our operations outside the United States. Accordingly, nonmonetary assets and liabilities originally acquired or assumed in other currencies are recorded in United States dollars at the exchange rates in effect at the date they were acquired or assumed. Monetary assets and liabilities denominated in other currencies are translated into United States dollars at the exchange rates in effect at the balance sheet date. Translation adjustments are recorded in other expense in the accompanying condensed consolidated statements of operations. Gains and losses realized from non-U.S. dollar transactions, including intercompany balances not considered as permanent investments, denominated in currencies other than an entity's functional

currency, are included in other expense in the accompanying condensed consolidated statements of operations.

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Cash and Cash Equivalents

We consider all highly liquid investments with maturity dates of three months or less at the date of purchase to be cash equivalents. Our cash and cash equivalents consist of cash on deposit with banks and money market funds. The majority of cash and cash equivalents is maintained with major financial institutions in North America. Deposits with these financial institutions may exceed the amount of insurance provided on such deposits. Cash and cash equivalents totaled \$22.4 million at June 30, 2016 and were comprised of cash of \$11.3 million and money market funds of \$11.1 million.

Inventories

Inventories are stated at the lower of cost or market value. Cost is determined using a weighted-average approach, assuming full absorption of direct and indirect manufacturing costs, based on our product capacity utilization assumptions. If inventory costs exceed expected market value due to obsolescence or lack of demand, valuation adjustments are recorded for the difference between the cost and the estimated market value. These valuation adjustments are determined based on significant estimates.

Marketable Securities

We invest in equity securities and we classify those investments as available-for-sale. These securities are carried at estimated fair value (see Note 5, "Cash Equivalents and Marketable Securities") with unrealized gains and losses included in accumulated other comprehensive income in stockholders' equity. Available-for-sale equity securities with remaining maturities of greater than one year or which we currently do not intend to sell are classified as long-term. We review several factors to determine whether a loss is other-than-temporary. These factors include, but are not limited to, the intent and ability to retain the investment in the issuer for a period of time sufficient to allow for any anticipated recovery in market value, the length of time and the extent to which the market value of the investment has been less than cost and the financial condition and near-term prospects of the issuer. Unrealized losses are charged against "Other expense" when a decline in fair value is determined to be other-than-temporary. Amortization of purchase premiums and accretion of purchase discounts and realized gains and losses of debt securities are included in interest income. The cost of securities sold is based on the specific identification method.

Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In determining fair value, we utilize valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible and we consider counterparty credit risk in our assessment of fair value. Carrying amounts of financial instruments, including cash equivalents, short-term investments, marketable investments, accounts receivable, accounts payable and accrued liabilities, approximate their fair values as of the balance sheet dates because of their generally short maturities.

The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, giving the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

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

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.

Concentrations of Credit Risk

Our financial instruments that are potentially subject to concentration of credit risk primarily consist of cash equivalents, short term investments, accounts receivable, marketable securities and restricted cash. We invest cash that

is not required for immediate operating needs principally in money market funds.

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Intangible Assets

Our intangible assets are finite-lived and consist of developed core technology and the intellectual property ("IP") rights associated with the acquisition of Maxygen Inc.'s ("Maxygen") directed evolution technology in 2010. Intangible assets were recorded at their fair values at the date we acquired the assets and, for those assets having finite useful lives, are amortized using the straight-line method over their estimated useful lives.

Impairment of Long-Lived Assets

Our long-lived assets include property and equipment and intangible assets. We determined that we have 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 our research and development activities, and represents the basis for all of our identifiable cash flow generating capacity. Consequently, we do not believe that identification of independent cash flows associated with long-lived assets is currently possible at any lower level than the Asset Group.

The Core IP is the only finite-lived intangible asset on our condensed consolidated balance sheet as of June 30, 2016. There has been no material change in the utilization or estimated life of the Core IP since we acquired the technology patent portfolio from Maxygen.

The carrying value of our long-lived assets in the Asset Group may not be recoverable based upon the existence of one or more indicators of impairment which could include: a significant decrease in the market price of our 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.

We evaluate recoverability of 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. We make estimates and judgments about the future undiscounted cash flows over the remaining useful life of the Asset Group. Our anticipated future cash flows include our estimates of existing or in process product sales, 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. The useful life of the Asset Group was based on the estimated useful life of the Core IP, the primary asset at the time of acquisition. There has been no change in the estimated useful life of the Asset Group. Although our cash flow forecasts are based on assumptions that are consistent with our plans, there is significant judgment involved in determining the cash flows attributable to the Asset Group over its estimated remaining useful life.

In the fourth quarter of 2015, we determined that there were no events or changes in circumstances that indicated that the carrying value of the Asset Group might not be recoverable. We concluded that the fair value of the reporting unit exceeded its carrying value and no impairment existed. During the six months ended June 30, 2016, we did not identify any indicators of potential impairment of intangible assets or new information that would have a material impact on the forecast or the impairment analysis prepared as of December 31, 2015.

Goodwill

We determined that we operate in one segment and reporting unit under the criteria in ASC 280, "Segment Reporting." Accordingly, our review of goodwill impairment indicators is performed at the parent level. We review goodwill impairment annually in the fourth quarter of each fiscal year and whenever events or changes in circumstances indicate the carrying value of goodwill may not be recoverable.

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 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.

We use our market capitalization as an indicator of fair value. We believe that because our reporting unit is publicly traded, the ability of a controlling stockholder 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. Therefore, we believe 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.

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If we were to use an income approach, it would establish a fair value by estimating the present value of our projected future cash flows expected to be generated from our business. The discount rate applied to the projected future cash flows to arrive at the present value would be intended to reflect all risks of ownership and the associated risks of realizing the stream of projected future cash flows. Our discounted cash flow methodology would consider projections of financial performance for a period of several years combined with an estimated residual value. The most significant assumptions we would use in a discounted cash flow methodology are the discount rate, the residual value and expected future revenue, gross margins and operating costs, along with considering any implied control premium. Should our market capitalization be less than total stockholders' equity as of our annual test date or as of any interim impairment testing date, we would also consider market comparables, recent trends in our stock price over a reasonable period and, if appropriate, use an income approach to determine whether the fair value of our 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. We base our fair value estimates on assumptions we believe to be reasonable. Actual future results may differ from those estimates.

Goodwill was tested for impairment in the fourth quarter of 2015. We determined that the fair value of the reporting unit exceeded the carrying value and no impairment existed. Based on the results obtained, we concluded there was no impairment of our goodwill as of December 31, 2015. During the six months ended June 30, 2016, we did not identify any indicators of potential impairment of goodwill or new information that would have a material impact on the forecast or the impairment analysis prepared as of December 31, 2015.

Income Taxes

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

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

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

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

We account for uncertainty in income taxes as required by the provisions of ASC Topic 740, "Income Taxes," which clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to estimate and measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. It is inherently difficult and subjective to estimate such amounts, as this requires us to determine the probability of various possible outcomes. We consider many factors when evaluating and estimating our tax positions and tax benefits, which may require periodic adjustments and may not accurately anticipate actual outcomes. We recognize interest and penalties as a component of our income tax expense.

The Tax Reform Act of 1986 and similar state provisions limit the use of net operating loss carryforwards in certain situations where equity transactions result in a change of ownership as defined by Internal Revenue Code Section 382. In the event we should experience such a change of ownership, utilization of our federal and state net operating loss carryforwards

could be limited. We maintain a full valuation allowance against net deferred tax assets as we believe that it is more likely than not that the majority of deferred tax assets will not be realized.

Benefit from income taxes was \$26 thousand and \$15 thousand for the three and six months ended June 30, 2016, respectively. Benefit from income taxes was \$0.4 million for each of the corresponding periods in 2015.

Recently Issued and Adopted Accounting Guidance

From time to time, new accounting pronouncements are issued by the FASB or other standards setting bodies that are adopted by us as of the specified effective date. Unless otherwise discussed, we believe that the impact of recently issued standards that are not yet effective will not have a material impact on our consolidated financial statements upon adoption.

In August 2014, the FASB issued Accounting Standards Update ("ASU") 2014-15, "Presentation of Financial Statements - Going Concern (Subtopic 205-40): Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern." ASU 2014-15 defines management's responsibility to evaluate whether there is substantial doubt about an organization's ability to continue as a going concern and provide related disclosures. ASU 2014-15 is effective for annual reporting periods ending after December 15, 2016, and interim periods within annual periods beginning after December 15, 2016. The adoption of ASU 2014-15 is not expected to have a material impact on our consolidated financial statements and related disclosures.

In July 2015, the FASB issued ASU 2015-11, "Inventory (Topic 330): Simplifying the Measurement of Inventory," which simplifies the subsequent measurement of inventory by requiring inventory to be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price of inventory in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. This ASU is effective for public business entities for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. We do not expect the adoption of ASU 2014-11 will have a material impact on our consolidated financial statements and related disclosures.

In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date." This ASU defers the effective date of ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)" for all entities by one year. The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The main principle of ASU 2014-09 is to recognize revenue when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 provides companies with two implementation methods: (i) apply the standard retrospectively to each prior reporting period presented (full retrospective application); or (ii) apply the standard retrospectively with the cumulative effect of initially applying the standard as an adjustment to the opening balance of retained earnings of the annual reporting period that includes the date of initial application (modified retrospective application). ASU 2014-09 as amended by ASU 2015-14 is effective for annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. The FASB will permit companies to adopt the new standard early, but not before the original effective date of December 15, 2016. We are currently in the process of evaluating the impact of the pending adoption of this standard (including other amendments, such as ASU 2016-10 and ASU 2016-12, discussed below) on our consolidated financial statements and related disclosures.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," which replaces prior lease guidance (Topic 840.) The new guidance requires lessees to put most leases on their balance sheets but recognize expenses on their income statements in a manner similar to today's accounting. The guidance also eliminates today's real estate-specific provisions for all entities. For lessors, the guidance modifies the classification criteria and the accounting for sales-type and direct financing leases. Entities are required to use a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. Entities have the option to use certain practical expedients. Full retrospective application is prohibited. This ASU is effective for public business entities for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted. We are currently evaluating the impact of adopting ASU 2016-02 on our consolidated financial statements and related disclosures.

In March 2016, the FASB issued ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting," changing certain aspects of accounting for share-based payments to employees (Topic 718), as well as affecting the accounting classification within the statement of cash flows. The new guidance will require all income tax effects of awards to be recognized in the income statement when the awards vest or are settled. It will allow a policy election to account for forfeitures as they occur and will allow an employer to repurchase more of an employee's shares than it can today for tax withholding purposes without triggering liability accounting. This ASU is effective for public business entities for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. Early adoption is permitted. We are currently evaluating the impact of adopting ASU 2016-09 on our consolidated financial statements and related disclosures.

In April 2016, the FASB issued ASU 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing," adding clarification, while retaining the core principles in the revenue guidance. For identifying performance obligations, the ASU clarifies when a promised good or service is separately identifiable (i.e., distinct within the context of the contract) and allow entities to disregard items that are immaterial in the context of a contract. For licensing, the ASU clarifies how an entity should evaluate the nature of its promise in granting a license of IP, which will determine whether it recognizes revenue over time ("symbolic IP") or at a point in time ("functional IP"). The effective date and transition requirements for these amendments are the same as those of the new revenue standard (ASU 2014-09, as amended by ASU 2015-14).

In May 2016, the FASB issued ASU 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients," amending guidance in the new revenue standard on transition, collectability, noncash consideration and the presentation of sales taxes and other similar taxes. The amendments clarify that for a contract to be considered completed at transition, all (or substantially all) of the revenue must have been recognized under existing GAAP. The FASB also clarified the collectability assessment and expanded circumstances under which nonrefundable consideration may receive revenue recognition when collectability of the remainder is not probable. The FASB clarified that the fair value of noncash consideration should be measured at contract inception for determining the transaction price. The amendments permit an entity to make a policy election to exclude from the transaction price sales taxes and similar taxes. The effective date and transition requirements for these amendments are the same as those of the new revenue standard (ASU 2014-09, as amended by ASU 2015-14).

In June 2016, the FASB issued ASU 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments," which amends the FASB's guidance on the impairment of financial instruments. The ASU adds to GAAP an impairment model (known as the "current expected credit loss model") that is based on expected losses rather than incurred losses. ASU 2016-13 is effective for annual reporting periods ending after December 15, 2019, including interim periods within those fiscal years. Early adoption is permitted for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The adoption of ASU 2016-13 is not expected to have a material impact on our consolidated financial statements and related disclosures.

Note 3. Net Income (Loss) per Share

Basic net income (loss) per share is computed by dividing the net income (loss) by the weighted-average number of shares of common stock outstanding, less RSAs subject to forfeiture. Diluted net income (loss) per share is computed by dividing net income (loss) by the weighted average number of shares of common stock outstanding plus all additional common stock shares that would have been outstanding, assuming dilutive potential common stock shares had been issued for other dilutive securities. For periods of net loss, diluted and basic net loss per share were identical since potential common stock shares were excluded from the calculation, as their effect was anti-dilutive.

The following table sets forth the computation of basic and diluted net income (loss) per share during three and six months ended June 30, 2016 and 2015 (in thousands, except per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Numerator:				
Net income (loss)	\$2,239	\$(5,360)	\$(4,735)	\$(10,922)
Denominator:				
Weighted average common stock shares used in computing net income (loss) per share, basic	40,495	39,301	40,283	39,066
Effect of dilutive shares	1,073	—	—	—
Weighted average common stock shares used in computing net income (loss) per share, diluted	41,568	39,301	40,283	39,066
Net income (loss) per share, basic	\$0.06	\$(0.14)	\$(0.12)	\$(0.28)
Net income (loss) per share, diluted	\$0.05	\$(0.14)	\$(0.12)	\$(0.28)

Anti-Dilutive Securities

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Shares of common stock issuable pursuant to equity awards outstanding under the Equity Incentive Plan	2,574	6,595	5,645	6,595
Shares of common stock issuable upon exercise of outstanding warrants	73	75	73	75
Total shares excluded as anti-dilutive	2,647	6,670	5,718	6,670

Note 4. Collaborative Arrangements

GSK Platform Technology Transfer, Collaboration and License Agreement

In July 2014, we entered into a CodeEvolver® platform technology transfer collaboration and license agreement (the “GSK CodeEvolve® Agreement”) with GSK. Pursuant to the terms of the agreement, we granted GSK a non-exclusive license to use the CodeEvolver® protein engineering technology platform to develop novel enzymes for use in the manufacture of GSK's pharmaceutical and health care products.

We received a \$6.0 million up-front licensing fee upon signing the GSK CodeEvolver® Agreement and subsequently a \$5.0 million non-creditable, non-refundable milestone payment upon achievement of the first milestone in 2014. In September 2015, we achieved the second milestone of the agreement earning another milestone payment of \$6.5 million. In April 2016, we completed the full transfer of the engineering platform technology earning milestone revenue of \$7.5 million for which payment was received in June 2016. We also have the potential to receive additional contingent payments that range from \$5.75

million to \$38.5 million per project based on GSK's successful application of the licensed technology. The contingent payments are not deemed substantive milestones due to the fact that the achievement of the event underlying the payment predominantly relates to GSK's performance of future development and commercialization activities. We are eligible to receive royalties based on net sales, if any, of a limited set of products developed by GSK using the CodeEvolver® protein engineering technology platform.

The term of the GSK CodeEvolver® Agreement continues, unless earlier terminated, until the expiration of all payment obligations under the GSK CodeEvolver® Agreement. GSK can terminate the GSK CodeEvolver® Agreement by providing 90 days written notice to us.

Under the GSK CodeEvolver® Agreement, the significant deliverables were determined to be the license, platform technology transfer, and contingent obligation to supply GSK with enzymes manufactured by us at GSK's expense. We determined that the license did not have stand-alone value. In addition, we determined that the license and the platform technology transfer and our participation in joint steering committee activities in connection with the platform technology transfer represent a single unit of accounting. Our participation in the joint steering committee does not represent a separate unit of accounting because GSK could not negotiate for and/or acquire these services from other third parties and our participation on the joint steering committee is coterminous with the technology transfer period. Amounts to be received under the supply arrangement, if any, described above will be recognized as revenue to the extent GSK purchases enzymes from us.

The up-front license fee of \$6.0 million was being recognized ratably over the technology transfer period of three years since July 2014. As the technology transfer was completed earlier than anticipated, we recognized license fees of \$2.5 million and \$3.0 million for the three and six months ended June 30, 2016, respectively, and compared to \$0.5 million and \$1.0 million for the three and six months ended June 30, 2015, respectively, as biocatalyst research and development revenues. We had a deferred revenue balance from GSK related to the upfront license fee of zero at June 30, 2016 and \$3.0 million at December 31, 2015.

Merck Platform Technology Transfer and License Agreement

In August 2015, we entered into a CodeEvolver® platform technology transfer and license agreement (the "Merck CodeEvolver® Agreement") with Merck. The Agreement allows Merck to use the CodeEvolver® protein engineering technology platform in the field of human and animal healthcare.

We received a \$5.0 million up-front license fee upon execution of the Merck CodeEvolver® Agreement, which is being recognized ratably over the estimated platform technology transfer period of two years. In September 2015, we achieved the first milestone of the Merck CodeEvolver® Agreement earning a milestone payment of \$5.0 million. We are eligible to receive an additional \$8.0 million subject to the satisfactory completion of the second milestone of the technology transfer process. We will also be eligible to receive payments of up to a maximum of \$15.0 million for each commercial API that is manufactured by Merck using one or more novel enzymes developed by Merck using the CodeEvolver® protein engineering technology platform.

Under the terms of the Merck CodeEvolver® Agreement, we granted to Merck a non-exclusive worldwide license to use the CodeEvolver® protein engineering technology platform to research, develop and manufacture novel enzymes for use by Merck in its internal research programs ("Merck Non-Exclusive Field"). The license to Merck is exclusive for the research, development and manufacture of novel enzymes for use by Merck in the chemical synthesis of therapeutic products owned or controlled by Merck ("Merck Exclusive Field"). Merck has the right to grant sublicenses to affiliates of Merck and, in certain limited circumstances, to third parties. We also granted to Merck a license to make or have made products manufactured using the CodeEvolver® protein engineering technology platform with a right to grant sublicenses solely to affiliates of Merck, contract manufacturing organizations and contract research organizations. The manufacturing license is exclusive in the Merck Exclusive Field and non-exclusive in the Merck Non-Exclusive Field. The licenses are subject to certain limitations based on pre-existing contractual obligations that apply to the technology and intellectual property that are the subject of the license grants. The licenses do not permit the use of the CodeEvolver® protein engineering technology platform to discover any therapeutic enzyme, diagnostic product or vaccine. In addition, Merck is prohibited from using the CodeEvolver® protein engineering technology platform to develop or produce enzymes or any other compounds for or on behalf of any third parties except in a very limited manner when Merck divests a therapeutic product that is manufactured using an enzyme developed using the CodeEvolver® protein engineering technology platform.

Under the Merck CodeEvolver® Agreement, we are transferring the CodeEvolver® protein engineering technology platform to Merck over an approximately 15 to 24 month period starting on the effective date of the agreement. As part of this technology transfer, we provide to Merck our proprietary enzymes, proprietary protein engineering protocols and methods, and

proprietary software algorithms. Upon completion of technology transfer, Merck will have the CodeEvolver[®] protein engineering technology platform installed at its designated site.

The licenses to Merck are granted under patents, patent applications and know-how that we own or control as of the effective date of the agreement and that cover the CodeEvolver[®] protein engineering technology platform. Any improvements to the CodeEvolver[®] protein engineering technology platform during the technology transfer period will also be included in the license grants from Codexis to Merck. At the end of the technology transfer period, Merck can exercise annual options that, upon payment of certain option fees, would extend Merck's license to include certain improvements to the CodeEvolver[®] protein engineering technology platform that arise during the three-year period that begins at the end of the technology transfer period. We will also provide additional enzyme evolution services to Merck at our laboratories in Redwood City through November 3, 2016.

Under the Merck CodeEvolver[®] Agreement, we will own any improvements to our protein engineering methods, processes and algorithms that arise and any enzyme technology or process technology that are developed during a technology transfer project, an evolution program or additional services. Merck will own (the "Merck-Owned Technology") (a) any enzyme technology that is developed solely by Merck under the Agreement using the CodeEvolver[®] protein engineering technology platform (a "Project Enzyme") and (b) the methods of use of any Project Enzyme or any enzyme developed jointly by Merck and us using the CodeEvolver[®] protein engineering technology platform. Merck granted to us a worldwide, non-exclusive, fully paid-up, royalty-free license, with the right to grant sublicenses, to use the Merck-Owned Technology outside of the Merck Exclusive Field.

For each API that Merck manufactures using an enzyme developed with the CodeEvolver[®] protein engineering technology platform, we will have a right of first refusal to supply Merck with the enzyme used to manufacture the API if Merck outsources the supply of the enzyme. Our right of first refusal applies during the period that begins on the completion of a phase III clinical trial for the product containing the API and ends five years following regulatory approval for such product.

The Merck CodeEvolver[®] Agreement has a term that continues, unless earlier terminated, until the expiration of all payment obligations under the agreement. Merck may terminate the Merck CodeEvolver[®] Agreement by providing 90 days written notice to us. If Merck exercises this termination right during the technology transfer period, Merck will make a one-term termination payment to us of \$8.0 million. We can terminate the Merck CodeEvolver[®] Agreement by providing 30 days written notice to Merck if we determine, pursuant to our contractual audit rights under the agreement, that Merck has repeatedly failed to make required payments to us and/or materially underpaid us an amount due under the Merck CodeEvolver[®] Agreement. In the event the Merck CodeEvolver[®] Agreement is terminated earlier by Merck, or by us due to an uncured material breach by Merck, or if Merck sells or transfers to a third party any Merck business or facility that includes any of our proprietary materials, information or technology, we have the right to conduct an audit of Merck's facilities to confirm that all of our proprietary materials, information and technology have been destroyed. The Merck CodeEvolver[®] Agreement contains indemnification provisions under which Merck and we have agreed to indemnify each other against certain third party claims.

The up-front license fee of \$5.0 million is being recognized ratably over a two-year period. We recognized license fees of \$0.6 million and \$1.3 million for the three and six months ended June 30, 2016, respectively, as biocatalyst research and development revenues and had a deferred revenue balance from Merck related to the Merck CodeEvolver[®] Agreement license fees of \$2.7 million at June 30, 2016 and \$4.0 million at December 31, 2015.

Merck Sitagliptin Catalyst Supply Agreement

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

The Sitagliptin Catalyst Supply Agreement requires Merck to pay an annual license fee for the rights to the Sitagliptin technology each year for the term of the agreement. Amounts of annual license fees are based on contractually agreed prices and are on a declining scale. Prior to December 2015, the aggregate license fee for the initial five year period was being recognized ratably over the initial five year term of the Sitagliptin Catalyst Supply Agreement as collaborative research and development revenue. Due to the amendment entered in December 2015 as noted above,

we revised our performance period in December 2015 and began recognizing the remaining unamortized portion of the license fee and the aggregate license fees for the second five year period over the revised period on a straight line basis.

We recognized license fees of \$0.3 million and \$0.7 million for the three and six months ended June 30, 2016, respectively, and \$0.5 million and \$1.0 million for the three and six months ended June 30, 2015, respectively, as biocatalyst research and development revenues. We had a deferred revenue balance from Merck related to license fees of \$2.0 million at June 30, 2016

and \$1.0 million at December 31, 2015. In addition, pursuant to the Sitagliptin Catalyst Supply Agreement, Merck may purchase supply from us for a fee based on contractually stated prices.

Note 5. Cash Equivalents and Marketable Securities

Cash equivalents and marketable securities classified as available-for-sale at June 30, 2016 and at December 31, 2015 consisted of the following (in thousands):

	June 30, 2016				
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Average Contractual Maturities (in days)
Money market funds ⁽¹⁾	\$11,141	\$ —	\$	—\$ 11,141	n/a
Common shares of CO2 Solutions ⁽²⁾	563	552	—	1,115	n/a
Total	\$11,704	\$ 552	\$	—\$ 12,256	
	December 31, 2015				
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Average Contractual Maturities (in days)
Money market funds ⁽¹⁾	\$11,120	\$ —	\$	—\$ 11,120	n/a
Common shares of CO2 Solutions ⁽²⁾	563	986	—	1,549	n/a
Total	\$11,683	\$ 986	\$	—\$ 12,669	

(1) Money market funds are classified in cash and cash equivalents on our condensed consolidated balance sheets.

(2) Common shares of CO2 Solutions are classified in marketable securities on our condensed consolidated balance sheets.

There were no marketable securities in an unrealized loss position at June 30, 2016 or at December 31, 2015.

Note 6. Fair Value Measurements

The following tables present the financial instruments that were measured at fair value on a recurring basis at June 30, 2016 and December 31, 2015 by level within the fair value hierarchy (in thousands):

	June 30, 2016			
	Level 1	Level 2	Level 3	Total
Money market funds	\$11,141	\$—	\$	—\$11,141
Common shares of CO2 Solutions	—	1,115	—	1,115
Total	\$11,141	\$1,115	\$	—\$12,256
	December 31, 2015			
	Level 1	Level 2	Level 3	Total
Money market funds	\$11,120	\$—	\$	—\$11,120
Common shares of CO2 Solutions	—	1,549	—	1,549
Total	\$11,120	\$1,549	\$	—\$12,669

We determine the fair value of Level 1 assets using quoted prices in active markets for identical assets. We estimated the fair value of our investment in 10,000,000 common shares of CO2 Solutions using the market value of common shares as determined by trading on the TSX Venture Exchange, and we classified our investment in CO2 Solutions as Level 2 assets due to the volatile and low trading volume. There were no transfers between Level 1 and Level 2 securities in the periods presented. (See also Note 5, "Cash Equivalents and Marketable Securities".)

Note 7. Balance Sheets Details

Inventories

Inventories consisted of the following (in thousands):

	June 30, December 31,	
	2016	2015
Raw materials	\$ 258	\$ 262
Work-in-process	153	—
Finished goods	744	730
Inventories	\$ 1,155	\$ 992

Property and Equipment, net

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

	June 30, December 31,	
	2016	2015
Laboratory equipment	\$20,285	\$ 20,503
Leasehold improvements	10,395	10,369
Computer equipment and software	3,284	3,271
Office equipment and furniture	1,179	1,178
Construction in progress ⁽¹⁾	—	3
Property and equipment	35,143	35,324
Less: accumulated depreciation and amortization	(32,740)	(32,215)
Property and equipment, net	\$2,403	\$ 3,109

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

Intangible Assets, net

Intangible assets, net consisted of the following (in thousands, except weighted average amortization period):

	June 30, 2016			December 31, 2015			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Amortization Period (years)
Developed and core technology	\$1,534	\$ (1,534)	\$ —	\$1,534	\$ (1,534)	\$ —	5
Maxygen intellectual property	20,244	(19,119)	1,125	20,244	(17,432)	2,812	6
Intangible assets, net	\$21,778	\$ (20,653)	\$ 1,125	\$21,778	\$ (18,966)	\$ 2,812	

The remaining estimated future amortization expense to be charged to research and development through December 31, 2016 is \$1.125 million.

Goodwill

Goodwill had a carrying value of approximately \$3.2 million at June 30, 2016 and December 31, 2015.

Note 8. Stock-Based Compensation Equity Incentive Plans

In March 2010, our board of directors (the "Board") and stockholders approved the 2010 Equity Incentive Award Plan (the "2010 Plan"), which became effective upon the completion of our initial public offering in April 2010. The number of shares of our common stock available for issuance under the 2010 Plan is equal to 1,100,000 shares plus any shares of common stock reserved for future grant or issuance under our 2002 Stock Plan (the "2002 Plan") that remained unissued at the time of completion of the initial public offering. The 2010 Plan also provides for automatic annual increases in the number of shares reserved for future issuance. All grants will reduce the 2010 Plan reserve by one share for every share granted.

The 2010 Plan provides for the grant of incentive stock options, non-statutory stock options, RSUs, RSAs, PSUs, stock appreciation rights, and stock purchase rights to our employees, non-employee directors and consultants. The option exercise price for incentive stock options is at least 100% of the fair value of our common stock on the date of grant and the option exercise price for nonstatutory stock options is at least 85% of the fair value of our common stock on the date of grant, as determined by the Board. If, at the time of a grant, the optionee directly or by attribution owns stock possessing more than 10% of the total combined voting power of all of our outstanding capital stock, the exercise price for these options must be at least 110% of the fair value of the underlying common stock. Stock options granted to employees generally have a maximum term of 10 years and vest over a four year period from the date of grant 25% vest at the end of one year, and 75% vest monthly over the remaining three years. We may grant options with different vesting terms from time to time. Unless an employee's termination of service is due to disability or death, upon termination of service, any unexercised vested options will be forfeited at the end of three months or the expiration of the option, whichever is earlier.

We issue employees RSUs, which generally vest over either a three year period with one-third of the awards vesting on each annual anniversary or a four year period with 25% of the awards vesting on each annual anniversary. We may grant RSUs with different vesting terms from time to time.

Performance-contingent Restricted Stock Units

The compensation committee of the Board has approved grants of PSUs to employees. These awards have dual triggers of vesting based upon the successful achievement of certain corporate operating milestones in specified timelines, as well as a requirement of continued employment. When the performance goals are deemed to be probable of achievement for these types of awards, time-based vesting and, as a result, recognition of stock-based compensation expense commences.

In the first quarter of 2016, we awarded PSUs based upon the achievement of various weighted performance goals, including revenue growth, non-GAAP net income growth, new licensing collaborations, new R&D service revenue arrangements and novel therapeutic enzymes advancement ("2016 PSUs"). These 2016 PSUs vest such that one-half of the 2016 PSUs subject to the award vest approximately one year following the grant, and the remainder of the 2016 PSUs vest approximately two years following the grant, subject to our achievement of the performance goals and the recipient's continued service on each vesting date. If the performance goals are achieved at the threshold level, the number of shares issuable in respect of the 2016 PSUs would be equal to half the number of 2016 PSUs granted. If the performance goals are achieved at the target level, the number of shares issuable in respect of the 2016 PSUs would be equal to the number of 2016 PSUs granted. If the performance goals are achieved at the superior level, the number of shares issuable in respect of the 2016 PSUs would be equal to two times the number of 2016 PSUs granted. The number of shares issuable upon achievement of the performance goals at the levels between the threshold and target levels or between the target level and superior levels would be determined using linear interpolation. Achievement below the threshold level would result in no shares being issuable in respect of the 2016 PSUs. As of June 30, 2016, we estimated that the 2016 PSU performance goals would be achieved at 100% of the target level. Accordingly, we recognized expense to reflect the target level.

In 2015, we awarded PSUs ("2015 PSUs") based upon the achievement of various weighted performance goals, including revenue growth, non-GAAP net income growth, new licensing collaborations, and securing a drug development partnership ("2015 PSUs"), with other terms similar to the 2014 PSUs and 2016 PSUs. One-half of the 2015 PSUs vested in the first quarter of each of 2016 and 2017, subject to the recipient's continued service on each vesting date. In the first quarter of 2016, we determined that the 2015 PSU performance goals had been achieved at

92.8% of the target level, and recognized expenses accordingly.

In 2014, we awarded PSUs ("2014 PSUs") based upon the achievement of certain cash flow performance goals, with other terms similar to the 2015 PSUs and 2016 PSUs. One-half of the 2014 PSUs vested in the first quarter of each of 2015 and 2016, subject to the recipient's continued service on each vesting date. In the first quarter of 2015, we determined that the 2014 PSU performance goals had been achieved at 53.0% of the target level, and recognized expenses accordingly.

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Stock-Based Compensation Expense

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

	Three Months		Six Months	
	Ended June 30,		Ended June 30,	
	2016	2015	2016	2015
Research and development	\$222	\$238	\$442	\$529
Selling, general and administrative	1,020	1,013	2,189	2,007
Total	\$1,242	\$1,251	\$2,631	\$2,536

The following table presents total stock-based compensation expense by security types included in the condensed consolidated statements of operations for the three and six months ended June 30, 2016 and 2015 (in thousands):

	Three Months		Six Months	
	Ended June 30,		Ended June 30,	
	2016	2015	2016	2015
Stock options	\$267	\$269	\$571	\$517
RSUs and RSAs	561	662	1,135	1,454
PSUs	414	320	925	565
Total	\$1,242	\$1,251	\$2,631	\$2,536

As of June 30, 2016, unrecognized stock-based compensation expense, net of expected forfeitures, was \$2.0 million related to unvested employee stock options, \$2.3 million related to unvested RSUs and RSAs and \$1.7 million related to unvested PSUs.

Valuation Assumptions

The weighted-average assumptions used to estimate the fair value of employee stock options granted were as follows:

	Three Months		Six Months	
	Ended June 30,		Ended June 30,	
	2016	2015	2016	2015
Expected term (in years) ⁽¹⁾	5.3	6.0	5.4	6.0
Volatility	64 %	66 %	65 %	66 %
Risk-free interest rate	1.46 %	1.78 %	1.30 %	1.70 %
Dividend yield	— %	— %	— %	— %
Weighted-average estimated fair value of stock options granted	\$1.94	\$2.58	\$2.30	\$2.09

(1) We had, due to insufficient historical data, used the "simplified method," as described in SEC Staff Accounting Bulletin No. 107, "Share-Based Payment", to determine the expected term of all stock options granted from the inception of our equity plans through the first half of 2015. Beginning in the third quarter of 2015, we believe we have sufficient historical data to calculate expected terms for stock options granted. (See Note 2, "Basis of Presentation and Summary of Significant Accounting Policies.")

Note 9. Capital Stock

Exercise of options

For the six months ended June 30, 2016 and 2015, 323,981 and 100,030 shares were exercised at a weighted-average exercise price of \$2.58 and \$1.95 per share, respectively, with net cash proceeds of \$0.8 million and \$0.2 million, respectively.

Warrants

Our outstanding warrants are exercisable for common stock at any time during their respective terms. As of June 30, 2016, the following warrants remain outstanding:

Issue Date	June 30, 2016		Expiration
	Shares Subject to Warrants	Exercise Price per Share	
September 28, 2007	72,727	\$ 8.25	September 28, 2017

Note 10. Commitments and Contingencies

Operating Leases

Our headquarters are located in Redwood City, California, where we occupy approximately 107,200 square feet of office and laboratory space in four buildings within the same business park of Metropolitan Life Insurance Company ("Met-Life"). We entered into the initial lease with Met-Life for a portion of this space in 2004 and the lease has been amended multiple times since then to adjust space and amend the terms of the lease, with the latest amendment being in 2012. The various terms for the spaces under the lease have expiration dates that range from January 2017 through January 2020. In October 2015, we entered into an agreement to sublet a portion of our headquarters to a subtenant effective January 2016. This sublease expires in November 2019.

We incurred \$3.6 million of capital improvement costs related to the facilities leased from Met-Life through December 31, 2012. During 2011 and 2012, we requested and received \$3.1 million of reimbursements from the landlord from the tenant improvement and HVAC allowances for the completed construction. The reimbursements were recorded once cash was received and are amortized on a straight line basis over the term of the lease as a reduction in rent expense. The remaining lease incentive obligation was \$1.5 million at June 30, 2016, and is reflected in other liabilities on the consolidated balance sheet. Rent expense for the Redwood City properties is recognized on a straight-line basis over the term of the lease.

We are required to restore certain of the Redwood City facilities that we are renting to their original form. We are expensing the asset retirement obligation over the terms of the respective leases. We review the estimated obligation each reporting period and make adjustments if our estimates change. We recorded asset retirement obligations of \$0.4 million as of both June 30, 2016 and December 31, 2015, which are included in other liabilities on the consolidated balance sheets. Accretion expense related to our asset retirement obligations was nominal in the three and six months ended June 30, 2016 and nominal in the three and six months ended June 30, 2015.

Pursuant to the terms of the amended lease agreement, we exercised our right to deliver a letter of credit in lieu of a security deposit. The letters of credit are collateralized by deposit balances held by the bank in the amount of \$0.7 million as of June 30, 2016 and December 31, 2015. These deposits are recorded as restricted cash on the consolidated balance sheets.

Rent expense was \$0.8 million and \$1.7 million during the three and six months ended June 30, 2016, respectively, including sublease income of \$0.3 million and \$0.5 million, respectively. Rent expense was \$0.9 million and \$1.7 million during the three and six months ended June 30, 2015, respectively, including sublease income of \$0.2 million and \$0.3 million, respectively.

Future minimum payments under noncancellable operating leases are as follows at June 30, 2016 (in thousands):

Years ending December 31, Lease payments

2016 (6 months remaining)	\$ 1,419
2017	2,677
2018	2,736
2019	2,818
2020	236
Total	\$ 9,886

Minimum payments have not been reduced by future minimum sublease rentals of \$2.3 million to be received under non-cancellable subleases at June 30, 2016.

Other Commitments

In April 2016, we entered into a new manufacture and supply agreement that resulted in an additional total commitment up to \$1.8 million, with payment to be made in December 2022 or after.

Legal Proceedings

On February 19, 2016, we filed a complaint against EnzymeWorks, Inc., a California corporation, EnzymeWorks, Inc., a Chinese corporation, and Junhua "Alex" Tao (collectively, the "Defendants") in the United States District Court for the Northern District of California. On April 29, 2016, we filed a First Amended Complaint. The First Amended Complaint alleges that the Defendants have engaged in willful patent infringement, trade secret misappropriation, breach of contract, intentional

interference with contractual relations, intentional interference with prospective economic relations and statutory and common law unfair competition. We have sought injunctive relief, monetary damages, treble damages, restitution, punitive damages and attorneys' fees. On May 13, 2016, the Defendants filed a Partial Motion to Dismiss all claims in the First Amended Complaint other than the patent infringement and trade secret misappropriation claims. We have opposed the Defendant's Partial Motion to Dismiss. We are unable to determine when this litigation will be resolved or its ultimate outcome.

Other than our litigation against the Defendants, we are not currently a party to any material litigation or other material legal proceedings.

Indemnifications

We are required to recognize a liability for the fair value of any obligations we assume upon the issuance of a guarantee. We have certain agreements with licensors, licensees and collaborators that contain indemnification provisions. In such provisions, we typically agree to indemnify the licensor, licensee and collaborator against certain types of third party claims. The maximum amount of the indemnifications is not limited. We accrue for known indemnification issues when a loss is probable and can be reasonably estimated. There were no accruals for expenses related to indemnification issues for any periods presented.

Note 11. Related Party Transactions

Exela PharmSci, Inc.

Since September 2007, we have been party to a license agreement with Exela PharmaSci, Inc. ("Exela"). Under the license agreement, as amended, we and Exela cross-licensed certain technology relating to the manufacture of argatroban, an active pharmaceutical ingredient, in exchange for rights to certain sublicensing fees or development payments and profit sharing.

CMEA Ventures Life Sciences 2000, L.P. and its affiliate held approximately 7.4% of our common stock until its sale of all such shares on November 10, 2014 to Presidio Partners 2014, L.P. Presidio Partners 2007, L.P. (formerly CMEA Ventures VII, L.P.) owns over 10% of Exela's outstanding capital stock. Thomas R. Baruch, one of our directors, serves on the board of directors of Exela, and is a general partner in Presidio Partners 2007, L.P. Mr. Baruch is also a general partner in CMEA Ventures Life Sciences 2000, L.P. Mr. Baruch has no direct or indirect pecuniary interest in the shares of our common stock owned by Presidio Partners 2014, L.P.

We recognized \$0.7 million and \$1.4 million for the three and six months ended June 30, 2016, respectively, and \$1.5 million and \$3.0 million for the three and six months ended June 30, 2015, respectively, shown in the consolidated statement of operations as revenue sharing arrangement. We had \$0.3 million of receivables from Exela at June 30, 2016 and no receivables at December 31, 2015.

Note 12. Significant Customer and Geographic Information

Significant Customers

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

	Percentage of Total Revenues for the			
	Three Months Ended June 30, 2016		Six Months Ended June 30, 2015	
Customer A	17%	28%	24%	27%
Customer B	63%	*	44%	*
Customer C (related party)	*	24%	*	23%

* Less than 10% in the period presented

Customers that each contributed 10% or more of our total accounts receivable had the following balances for the periods presented:

	Percentage of Accounts Receivables at	
	June 30, 2016	December 31, 2015
Customer A	59 %	12 %
Customer D	*	22 %
Customer E ⁽¹⁾ *	40 %	%
Customer F	10 %	*

* Revenue percentage was less than 10%; accounts receivable balance not applicable

(1) This represents a \$3.1 million settlement relating to past-due payments and settlement of future payments associated with our royalty business with a non-core customer as of December 31, 2015. We collected the full amount in February 2016.

Geographic Information

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Revenues:				
United States	\$2,758	\$3,466	\$6,852	\$7,763
Asia				
India	1,023	29	2,046	150
Singapore	1,165	—	2,121	—
Others	269	465	495	686
Europe				
United Kingdom	10,071	514	10,581	1,203
Others	716	1,544	1,903	3,014
Total revenues	\$16,002	\$6,018	\$23,998	\$12,816

Identifiable long-lived assets were all in the United States as follows (in thousands):

Long-lived assets:	June 30, December 31,	
	2016	2015
United States	\$ 3,811	\$ 6,231

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, 2015 included in our Annual Report on Form 10-K for the year ended December 31, 2015, as filed with the SEC on March 8, 2016 (the "Annual Report"). This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements include, but are not limited to, expectations regarding our strategy, business plans, financial performance and developments relating to our industry. These statements are often identified by the use of words such as may, will, expect, believe, anticipate, intend, could, should, estimate, or continue, and similar expressions or variations. Such forward-looking statements are subject to risks, uncertainties and other factors that could cause actual results and the timing of certain events to differ materially from future results expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those set forth in Part I, Item 1A of our Annual Report, as incorporated herein and referenced 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.

Business Overview

We develop biocatalysts for the pharmaceutical and fine chemicals markets. 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.

Biocatalysts are enzymes that initiate and/or accelerate chemical reactions. Manufacturers have historically used naturally occurring biocatalysts to produce many goods used in everyday life. However, inherent limitations in naturally occurring biocatalysts have restricted their commercial use. Our proprietary CodeEvolver[®] protein engineering technology platform, which introduces genetic mutations into microorganisms in order to give rise to changes in enzymes that they produce, is able to overcome many of these limitations, allowing us to evolve and optimize biocatalysts to perform specific and desired chemical reactions at commercial scale. Once potentially beneficial mutations are identified through this proprietary process, combinations of these mutations can then be tested until variant enzymes have been created that exhibit marketable performance characteristics superior to competitive products. This process allows for continuous, efficient improvements to the performance of enzymes. In the past, we implemented the CodeEvolver[®] protein engineering technology platform through paid collaborations with our customers. In July 2014, we entered into our first license agreement pursuant to which we granted a license to GSK, a global pharmaceutical company, to use the CodeEvolver[®] protein engineering technology platform for their internal development purposes. In August 2015, we entered into a second license agreement involving the CodeEvolver[®] protein engineering technology platform with Merck, a global pharmaceutical company, and we continue to pursue licensing opportunities with additional customers.

We have commercialized our technology and products in the pharmaceuticals market, which is our primary business focus. Our customers, which include several large global pharmaceutical companies, use our technology, products and services in their manufacturing processes and process development.

We also use our technology to develop biocatalysts for use in the fine chemicals market. The fine chemicals market consists of several large market verticals, including food and food ingredients, animal feed, flavors and fragrances, and agricultural chemicals.

We are also using our technology to develop an early stage, novel enzyme therapeutic product candidate for the potential treatment of phenylketonuria ("PKU") in humans. PKU is an inherited metabolic disorder in which the enzyme that converts the essential amino acid phenylalanine into tyrosine is deficient.

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

Results of Operations Overview

Revenues were \$16.0 million for the second quarter of 2016, an increase of 166% from \$6.0 million for the second quarter of 2015. The increase in revenues was due to higher biocatalyst product sales, the achievement of research and development milestones and recognition of previously deferred license fees during the second quarter of 2016, partially offset by lower revenues from our revenue sharing arrangement with Exela PharmSci, Inc. ("Exela").

Revenues from biocatalyst product sales increased by \$1.3 million, or 62%, to \$3.3 million for the second quarter of 2016 compared to the same period in 2015, primarily due to the higher customer demand, in particular higher sales of enzymes for Merck's manufacture of sitagliptin in the second quarter.

Revenues from biocatalyst research and development increased by \$9.5 million, or 376%, to \$12.1 million for the second quarter of 2016, compared to the same period in 2015, primarily due to the achievement of the third and final milestone in the transfer of our proprietary CodeEvolver[®] protein engineering platform technology to GSK, which resulted in recognition of a \$7.5 million milestone payment and recognition of \$2.5 million of deferred revenues upon early completion of the technology transfer. The achievement of the final milestone under our collaboration agreement with a major biopharmaceutical company also contributed to the increase in revenues, mostly offset by the absence of royalties from two non-core customers in the second quarter of the prior year.

Revenues from our revenue sharing arrangement with Exela decreased by \$0.8 million, or 55%, to \$0.7 million for the second quarter of 2016 compared to the same period in 2015. The decrease was due to lower sales of the argatroban injectable drug, resulting from the expiration of the formulation patent for argatroban in June 2014, and subsequent generic competition.

Cost of biocatalyst product sales increased by \$1.0 million, or 78%, to \$2.2 million for the second quarter of 2016, compared to the same period in 2015, due primarily to higher biocatalyst product sales.

Product gross margins were 32% in the three months ended June 30, 2016, compared to 38% in the same period in 2015 due to higher sales of lower margin products.

Research and development expenses for the second quarter of 2016 remained essentially flat compared to the same period in the prior year.

Selling, general and administrative expense increased by \$1.1 million, or 21%, to \$6.4 million for the second quarter of 2016 compared to the second quarter of 2015, primarily as a result of higher legal expenses and marketing expenses.

Net income for the second quarter of 2016 was \$2.2 million, representing basic net income of \$0.06 per share or diluted net income of \$0.05 per share, which compares to a net loss of \$5.4 million, or a net loss of \$0.14 per share, for the second quarter of 2015. The change to net income for the second quarter of 2016 from a net loss in the same period of the prior year is primarily related to the achievement of the third and final milestone in the transfer of our proprietary CodeEvolver[®] protein engineering platform technology to GSK.

Cash and cash equivalents decreased by \$0.9 million to \$22.4 million as of June 30, 2016 compared to \$23.3 million as of December 31, 2015. Net cash provided by operating activities was \$0.2 million in the six months ended June 30, 2016 compared to \$8.0 million cash used in the six months ended June 30, 2015. 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.

GSK Platform Technology Transfer, Collaboration and License Agreement

In July 2014, we entered into a CodeEvolver[®] platform technology transfer and license agreement (the "GSK CodeEvolver[®] Agreement") with GSK. Pursuant to the terms of the agreement, we granted GSK a non-exclusive license to use the CodeEvolver[®] protein engineering technology platform to develop novel enzymes for use in the manufacture of GSK's pharmaceutical and health care products.

We received a \$6.0 million up-front license fee upon execution of the GSK CodeEvolver[®] Agreement and subsequently a \$5.0 million non-creditable, non-refundable milestone payment upon achievement of the first milestone in 2014. In September 2015, we achieved the second milestone and recognized the related milestone payment of \$6.5 million. In the second quarter of 2016, we completed the full transfer of the protein engineering platform technology earning milestone revenue of \$7.5 million of which payment was received in June 2016. We also have the potential to receive additional contingent payments that range from \$5.75 million to \$38.5 million per project based on GSK's successful application of the licensed technology. The contingent payments are not deemed

substantive milestones due to the fact that the achievement of the event underlying the payment predominantly relates to GSK's performance of future development and commercialization activities.

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We are eligible to receive royalties based on net sales, if any, of a limited set of products developed by GSK using the CodeEvolver® protein engineering technology platform.

The up-front license fee of \$6.0 million was being recognized ratably over the technology transfer period of three years, starting July 2014. As the technology transfer was completed earlier than anticipated, we recognized license fees of \$2.5 million and \$3.0 million for the three and six months ended June 30, 2016, compared to \$0.5 million and \$1.0 million for the three and six months ended June 30, 2015, respectively, as biocatalyst research and development revenues. We had a deferred revenue balance from GSK related to the upfront license fee of zero at June 30, 2016 and \$3.0 million at December 31, 2015.

Merck Platform Technology Transfer and License Agreement

In August 2015, we entered into a CodeEvolver® platform technology transfer and license agreement (the "Merck CodeEvolver® Agreement") with Merck, which allows Merck to use the CodeEvolver® protein engineering technology platform in the field of human and animal healthcare.

We received a \$5.0 million up-front license fee upon signing the Merck CodeEvolver® Agreement, which is being recognized ratably over two years. In September 2015, we achieved the first milestone of the Merck CodeEvolver® Agreement, earning a milestone payment of \$5.0 million. We are eligible to receive an additional \$8.0 million subject to the satisfactory completion of the second milestone of the technology transfer process. We will also be eligible to receive payments of up to a maximum of \$15.0 million for each commercial API that is manufactured by Merck using one or more novel enzymes developed by Merck using the CodeEvolver® protein engineering technology platform. Under the Merck CodeEvolver® Agreement, we are transferring the CodeEvolver® protein engineering technology platform to Merck over an approximately 15 to 24 month period starting on the effective date of the agreement. As part of this technology transfer, we provide to Merck our proprietary enzymes, proprietary protein engineering protocols and methods, and proprietary software algorithms. Upon completion of technology transfer, Merck will have the CodeEvolver® protein engineering technology platform installed at its designated site.

At the end of the technology transfer period, Merck can exercise annual options that, upon payment of certain option fees, would extend Merck's license to include certain improvements to the CodeEvolver® protein engineering technology platform that arise during the three-year period that begins at the end of the technology transfer period. We will also provide additional enzyme evolution services to Merck at our laboratories in Redwood City through November 3, 2016.

We recognized license fees of \$0.6 million and \$1.3 million for the three and six months ended June 30, 2016, respectively, as biocatalyst research and development revenue and had a deferred revenue balance from Merck related to the Merck CodeEvolver® Agreement license fees of \$2.7 million at June 30, 2016 and \$4.0 million at December 31, 2015.

Results of Operations

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

	Three months ended June 30,		Change		Six months ended June 30,		Change	
	2016	2015	\$	%	2016	2015	\$	%
Revenues:								
Biocatalyst product sales	\$3,280	\$2,020	\$1,260	62 %	\$7,020	\$5,097	\$1,923	38 %
Biocatalyst research and development	12,064	2,533	9,531	376 %	15,598	4,729	10,869	230 %
Revenue sharing arrangement	658	1,465	(807)	(55)%	1,380	2,990	(1,610)	(54)%
Total revenues	16,002	6,018	9,984	166 %	23,998	12,816	11,182	87 %
Costs and operating expenses:								
Cost of biocatalyst product sales	2,221	1,250	971	78 %	4,710	2,706	2,004	74 %
Research and development	5,112	5,170	(58)	(1)%	10,798	10,463	335	3 %
Selling, general and administrative	6,420	5,296	1,124	21 %	13,222	10,874	2,348	22 %
Total costs and operating expenses	13,753	11,716	2,037	17 %	28,730	24,043	4,687	19 %
Income (loss) from operations	2,249	(5,698)	7,947	139 %	(4,732)	(11,227)	6,495	58 %
Interest income	13	4	9	225 %	28	8	20	250 %
Other expenses, net	(49)	(96)	47	49 %	(46)	(121)	75	62 %
Income (loss) before income taxes	2,213	(5,790)	8,003	138 %	(4,750)	(11,340)	6,590	58 %
Benefit from income taxes	(26)	(430)	404	94 %	(15)	(418)	403	96 %
Net income (loss)	\$2,239	\$(5,360)	\$7,599	142 %	\$(4,735)	\$(10,922)	\$6,187	57 %

Our revenues are comprised of biocatalyst product sales, biocatalyst research and development revenues, and revenue from a revenue sharing arrangement.

Biocatalyst product sales revenues consist of sales of biocatalyst enzymes, chemical intermediates, and Codex® Biocatalyst Panels and Kits.

Biocatalyst research and development revenues include license, technology access and exclusivity fees, research services, milestone payments, royalties, and optimization and screening fees.

Revenue sharing arrangement revenues are recognized based upon sales of licensed products by Exela.

(In Thousands)	Three months ended June 30,		Change		Six months ended June 30,		Change	
	2016	2015	\$	%	2016	2015	\$	%
Biocatalyst product sales	\$3,280	\$2,020	\$1,260	62 %	\$7,020	\$5,097	\$1,923	38 %
Biocatalyst research and development	12,064	2,533	9,531	376 %	15,598	4,729	10,869	230 %
Revenue sharing arrangement	658	1,465	(807)	(55)%	1,380	2,990	(1,610)	(54)%
Total revenues	\$16,002	\$6,018	\$9,984	166 %	\$23,998	\$12,816	\$11,182	87 %

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

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

Total revenues increased \$10.0 million and \$11.2 million in the three and six months ended June 30, 2016, respectively, compared to the same period in 2015 as a result of the increase in biocatalyst research and development revenues, and biocatalyst product sales, partially offset by a decrease from our revenue-sharing arrangement with Exela.

Biocatalyst product sales increased \$1.3 million and \$1.9 million in the three and six months ended June 30, 2016, respectively, compared to the same period in 2015, due to the timing of customer demands during the three and six months ended June 30, 2016 compared to 2015. This primarily resulted from a year-over-year increase in enzyme sales for Merck's sitagliptin manufacturing.

Biocatalyst research and development revenues increased approximately \$9.5 million and \$10.9 million in the three and six months ended June 30, 2016, respectively, compared to the same period in 2015. This was primarily due to achievement of the third and final milestone in the transfer of our proprietary CodeEvolver[®] protein engineering platform technology to GSK which resulted in recognition of a \$7.5 million milestone payment and recognition of \$2.5 million of deferred revenues upon early completion of the technology transfer. The achievement of the final milestone under our collaboration agreement with a major biopharmaceutical company also contributed to the increase in revenues, mostly offset by lower royalties from two non-core customers in the second quarter of the prior year. Revenues from the revenue-sharing arrangement with Exela for the sales of argatroban injectable drug decreased \$0.8 million and \$1.6 million during the three and six months ended June 30, 2016, respectively, compared to the same period in 2015. This is a result of the expiration of the formulation patent for argatroban in June 2014, allowing for generic competition in the subsequent quarters after expiration of the patent. We expect that revenue-sharing arrangement revenues may decline in future quarters due to increased competition resulting from the expiration of the third party patent related to the production of argatroban.

Cost and Operating Expenses

(In Thousands)	Three months ended June 30,		Change		Six months ended June 30,		Change	
	2016	2015	\$	%	2016	2015	\$	%
Cost of biocatalyst product sales	\$2,221	\$1,250	\$971	78 %	\$4,710	\$2,706	\$2,004	74 %
Research and development expense	5,112	5,170	(58)	(1)%	10,798	10,463	335	3 %
Selling, general and administrative expense	6,420	5,296	1,124	21 %	13,222	10,874	2,348	22 %
Total costs and operating expenses	\$13,753	\$11,716	\$2,037	17 %	\$28,730	\$24,043	\$4,687	19 %

Cost of Biocatalyst Product Sales and Product Gross Margin

(In Thousands)	Three months ended June 30,		Change		Six months ended June 30,		Change	
	2016	2015	\$	%	2016	2015	\$	%
Revenues from biocatalyst product sales	\$3,280	\$2,020	\$1,260	62 %	\$7,020	\$5,097	\$1,923	38 %
Cost of biocatalyst product sales	2,221	1,250	971	78 %	4,710	2,706	2,004	74 %
Biocatalyst product gross profit	\$1,059	\$770	\$289	38 %	\$2,310	\$2,391	\$(81)	(3)%
Product gross margin (%)	32%	38%			33%	47%		

Cost of biocatalyst product sales comprises both internal and third-party fixed and variable costs, including materials and supplies, labor, facilities and other overhead costs associated with our biocatalyst product sales.

Our cost of biocatalyst product sales increased by \$1.0 million, or 78%, during the three months ended June 30, 2016 and \$2.0 million, or 74%, during the six months ended June 30, 2016, compared to the corresponding periods in 2015, due primarily to higher biocatalyst product sales. Product gross margins were 32% and 33% in the three and six months ended June 30, 2016, respectively, compared to 38% and 47%, respectively, in the corresponding periods in 2015 due to changes from higher sales of lower margin products.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects, partner-funded collaborative research and development activities as well as license and platform technology transfer agreements. These costs primarily consist of (i) employee-related costs, which include salaries and other personnel-related expenses (including stock-based compensation), (ii) various allocable expenses, which include occupancy-related costs, supplies, depreciation of facilities and laboratory equipment and amortization of acquired technologies, and (iii) external costs, which include outside services and consulting fees. Research and development expenses are expensed when incurred.

Research and development expenses decreased marginally by \$0.1 million, or 1%, during the three months ended June 30, 2016, compared to the same period in 2015, primarily due to lower facilities costs. For the six months ended June 30, 2016, research and development expenses increased by \$0.3 million, or 3%, compared to the same period in 2015, due primarily to higher consulting fees related to the evaluation of potential new drug development targets.

Selling, General and Administrative Expenses

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

Selling, general and administrative expenses increased by \$1.1 million, or 21%, and \$2.3 million, or 22%, for the three and six months ended June 30, 2016, respectively, compared to the corresponding periods in 2015, primarily as a result of higher legal expenses, higher consulting fees relating to exploration of a new adjacent market and higher marketing expenses.

Interest income and other income (expense)

	Three months ended June 30,		Change		Six months ended June 30,		Change	
(In Thousands)	2016	2015	\$	%	2016	2015	\$	%
Interest income	\$13	\$4	\$9	225%	\$28	\$8	\$20	250%
Other expense	(49)	(96)	47	49%	(46)	(121)	75	62%
Total other expense	\$(36)	\$(92)	\$56	61%	\$(18)	\$(113)	\$95	84%

Interest income was not material during the three and six months ended June 30, 2016 and 2015.

Other expense improved for the six months ended June 30, 2016 compared to the same period in 2015, primarily related to fluctuations in foreign currency.

Provision for income taxes

We recognized income tax benefits of \$26 thousand and \$15 thousand for the three and six months ended June 30, 2016 and 2015, respectively. We continue to recognize a full valuation allowance against our net deferred tax assets as we believe that it is more likely than not that the majority of our deferred tax assets will not be realized.

Liquidity and Capital Resources

Liquidity is the measurement of our ability to meet working capital needs and to fund capital expenditures. Our sources of cash include operations and stock option exercises. We actively manage our cash usage and investment of liquid cash to ensure the maintenance of sufficient funds to meet our daily needs. The majority of our cash and investments are held in U.S. banks, and our foreign subsidiaries maintain a limited amount of cash in their local banks to cover their short-term operating expenses.

The following tables summarize our cash and cash equivalents and working capital as of June 30, 2016 and December 31, 2015, as well as our statements of cash flows for the three and six months ended June 30, 2016 and 2015:

(In Thousands)	June 30, December 31,	
	2016	2015
Cash and cash equivalents	\$22,352	\$ 23,273
Working capital	\$15,460	\$ 17,998

(In Thousands)	Six months ended June 30,	
	2016	2015
Net cash provided by (used in) operating activities	\$187	\$(8,020)
Net cash used in investing activities	(447)	(253)
Net cash used in financing activities	(661)	(1,616)
Net decrease in cash and cash equivalents	\$(921)	\$(9,889)

We have historically experienced negative cash flows from operations as we continue to invest in key technology development projects and improvements to our biocatalysis technology platform, and expand our business development and collaborations with new customers. Our cash flows from operations will continue to be affected principally by sales and gross margins from biocatalyst product sales and research and development services provided to customers, as well as our headcount costs, primarily in research and development. Our primary source of cash flows from operating activities is cash receipts from our customers for purchases of biocatalyst products and/or biocatalyst 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 sales and non-payroll research and development costs.

We are eligible to earn milestone and other contingent payments for the achievement of defined collaboration objectives and certain royalty payments under our collaboration agreements. Our ability to earn these milestone and contingent payments and the timing of achieving these milestones is primarily dependent upon the outcome of our collaborators' research and development activities and is uncertain at this time. We expect to receive payments totaling \$8.0 million during the remaining six months of 2016 from the achievement of a milestone under our collaborative arrangement with Merck. We are actively collaborating with new and existing customers in the pharmaceutical and food industries. We expect that we can utilize our current products and services, and develop new products and services, to increase our revenue and gross margins in future periods.

We believe that based on our current level of operations, our existing cash and cash equivalents 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 business, the spending required to develop and commercialize new and existing products, the effect of any acquisitions of other businesses, technologies or facilities that we may make or develop in the future, our spending on new market opportunities, and the potential costs for the filing, prosecution, enforcement and defense of patent claims, if necessary.

If our capital resources are insufficient to meet our capital requirements, and we are unable to enter into or maintain collaborations with partners that are able or willing to fund our development efforts or commercialize any products that we develop or enable, we will have to raise additional funds to continue the development of our technology and products and complete the commercialization of products, if any, resulting from our technologies. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. If we raise debt financing, 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 revenue 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

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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 provided by operating activities was \$0.2 million net for the six months ended June 30, 2016, resulting from a net