

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-Q**

(Mark One)

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

**For the quarterly period ended September 30, 2017**

**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**

(State or other jurisdiction of  
incorporation or organization)

**71-0872999**

(I.R.S. Employer  
Identification No.)

**200 Penobscot Drive, Redwood City, California**

(Address of principal executive offices)

**94063**

(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, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

As of October 31, 2017, there were 48,346,865 shares of the registrant's Common Stock, par value \$0.0001 per share, outstanding.

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**Codexis, Inc.**  
**Quarterly Report on Form 10-Q**  
**For the Quarter Ended September 30, 2017**

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

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

	September 30, 2017	December 31, 2016
<b>Assets</b>		
Current assets:		
Cash and cash equivalents	\$ 23,826	\$ 19,240
Accounts receivable, net of allowances of \$34 at September 30, 2017 and \$421 at December 31, 2016	7,906	5,924
Inventories	849	825
Prepaid expenses and other current assets	2,443	1,238
Total current assets	35,024	27,227
Restricted cash	1,536	1,624
Marketable securities	1,163	1,142
Property and equipment, net	2,810	2,155
Goodwill	3,241	3,241
Other non-current assets	327	259
Total assets	\$ 44,101	\$ 35,648
<b>Liabilities and Stockholders' Equity</b>		
Current liabilities:		
Accounts payable	\$ 4,474	\$ 4,232
Accrued compensation	3,795	4,314
Other accrued liabilities	4,664	2,111
Deferred revenue	4,141	1,710
Total current liabilities	17,074	12,367
Deferred revenue, net of current portion	1,839	1,066
Financing obligation, net of current portion	360	—
Other long-term liabilities	2,736	3,116
Total liabilities	22,009	16,549
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; 48,343 shares and 41,255 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively	5	4
Additional paid-in capital	338,110	311,164
Accumulated other comprehensive income	13	—
Accumulated deficit	(316,036)	(292,069)
Total stockholders' equity	22,092	19,099
Total liabilities and stockholders' equity	\$ 44,101	\$ 35,648

See accompanying notes to the unaudited condensed consolidated financial statements

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
<b>Revenues:</b>				
Product sales	\$ 6,948	\$ 4,052	\$ 19,134	\$ 11,072
Research and development revenues	2,929	10,373	8,320	25,971
Revenue sharing arrangement	107	445	847	1,825
<b>Total revenues</b>	<b>9,984</b>	<b>14,870</b>	<b>28,301</b>	<b>38,868</b>
<b>Costs and operating expenses:</b>				
Cost of product sales	3,976	2,756	10,768	7,466
Research and development	8,055	5,467	20,242	16,265
Selling, general and administrative	7,989	5,229	21,141	18,451
<b>Total costs and operating expenses</b>	<b>20,020</b>	<b>13,452</b>	<b>52,151</b>	<b>42,182</b>
<b>Income (loss) from operations</b>	<b>(10,036)</b>	<b>1,418</b>	<b>(23,850)</b>	<b>(3,314)</b>
Interest income	28	12	96	40
Other income (expenses)	(68)	7	(80)	(39)
<b>Income (loss) before income taxes</b>	<b>(10,076)</b>	<b>1,437</b>	<b>(23,834)</b>	<b>(3,313)</b>
Provision for (benefit from) income taxes	150	—	132	(15)
<b>Net income (loss)</b>	<b>\$ (10,226)</b>	<b>\$ 1,437</b>	<b>\$ (23,966)</b>	<b>\$ (3,298)</b>
<b>Net income (loss) per share, basic</b>	<b>\$ (0.21)</b>	<b>\$ 0.04</b>	<b>\$ (0.53)</b>	<b>\$ (0.08)</b>
<b>Net income (loss) per share, diluted</b>	<b>\$ (0.21)</b>	<b>\$ 0.03</b>	<b>\$ (0.53)</b>	<b>\$ (0.08)</b>
Weighted average common stock shares used in computing net income (loss) per share, basic	48,147	40,940	45,568	40,504
Weighted average common stock shares used in computing net income (loss) per share, diluted	48,147	42,134	45,568	40,504

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 September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Net income (loss)	\$ (10,226)	\$ 1,437	\$ (23,966)	\$ (3,298)
Other comprehensive income (loss)				
Unrealized gain (loss) on marketable securities, net of tax expense of \$52 and \$0 for the three months ended September 30, 2017 and 2016, respectively, and tax benefit of \$8 and \$0 for the nine months ended September 30, 2017 and 2016, respectively	(90)	413	13	(21)
Other comprehensive income (loss)	(90)	413	13	(21)
<b>Total comprehensive income (loss)</b>	<b>\$ (10,316)</b>	<b>\$ 1,850</b>	<b>\$ (23,953)</b>	<b>\$ (3,319)</b>

See accompanying notes to the unaudited condensed consolidated financial statements

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

	Nine Months Ended September 30,	
	2017	2016
<b>Operating activities:</b>		
Net loss	\$ (23,966)	\$ (3,298)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of intangible assets	—	2,531
Depreciation and amortization	795	1,365
Gain on disposal of property and equipment	(5)	(35)
Income tax expense related to marketable securities	(8)	—
Stock-based compensation	5,212	3,861
Changes in operating assets and liabilities:		
Accounts receivable, net	(1,757)	(4,636)
Inventories	(24)	(84)
Prepaid expenses and other current assets	(1,303)	(18)
Restricted cash	13	(883)
Other assets	(68)	38
Accounts payable	150	(1,046)
Accrued compensation	(519)	(307)
Other accrued liabilities	2,287	60
Long term lease incentive	(319)	(319)
Other long term liabilities	(60)	—
Deferred revenue	3,204	(4,252)
Net cash used in operating activities	<u>(16,368)</u>	<u>(7,023)</u>
<b>Investing activities:</b>		
Purchase of property and equipment	(743)	(787)
Proceeds from disposal of property and equipment	5	35
Changes in restricted cash	75	4
Net cash used in investing activities	<u>(663)</u>	<u>(748)</u>
<b>Financing activities:</b>		
Proceeds from exercises of stock options	175	939
Proceeds from issuance of common stock, net of issuance costs	23,229	—
Principal payments on capital lease obligations	(117)	—
Taxes paid related to net share settlement of equity awards	(1,670)	(1,523)
Net cash provided by (used in) financing activities	<u>21,617</u>	<u>(584)</u>
Net increase (decrease) in cash and cash equivalents	4,586	(8,355)
Cash and cash equivalents at the beginning of the period	19,240	23,273
Cash and cash equivalents at the end of the period	<u>\$ 23,826</u>	<u>\$ 14,918</u>
<b>Supplemental disclosure of cash flow information:</b>		
Interest paid	\$ 131	\$ 12
Income taxes	\$ 32	\$ 5
<b>Supplemental non-cash financing activities:</b>		
Equipment acquired under capital leases	\$ 840	\$ —

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 consolidated financial statements, the “Company,” “we,” “us,” and “our” refers to Codexis, Inc. and its subsidiaries on a consolidated basis.

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

Many companies have historically used naturally occurring proteins to produce or enhance goods used in everyday life. Despite the growing number of commercial applications of naturally occurring proteins across many industries, the inherent limitations of naturally-occurring proteins frequently restrict their commercial use. Through the application of our proprietary CodeEvolver® protein engineering technology platform, we are able to engineer novel proteins to overcome these restrictions, thereby adding value or opening up new prospects for our existing and potential customers’ products, processes or businesses. We have developed new proteins that are significantly more stable and/or active in our customers’ commercial applications than proteins derived from nature.

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

We use our CodeEvolver® protein engineering technology platform to engineer custom enzymes. Most of our custom enzymes are intended for use as biocatalysts or protein catalysts. In simple terms, our protein catalysts can accelerate and/or improve yields of chemical reactions. We use our CodeEvolver® protein engineering technology platform to develop novel enzymes that enable industrial biocatalytic reactions and fermentations. Our technology platform has enabled commercially viable products and processes for the manufacture of pharmaceutical intermediates and active ingredients and fine chemicals.

Our approach to develop commercially viable biocatalytic manufacturing processes begins by conceptually designing the most cost-effective and practical process for a targeted product. We then develop optimized protein catalysts to enable that process design, using our CodeEvolver® protein engineering platform technology. Engineered protein catalyst candidates, many thousands for each protein engineering project, are then rapidly screened and validated in high throughput under relevant manufacturing operating conditions. This approach results in an optimized protein catalyst enabling cost-efficient processes that typically are relatively simple to run in conventional manufacturing equipment. This also allows for the efficient technical transfer of our process to our manufacturing partners.

The successful embodiment of our CodeEvolver® protein engineering technology platform in commercial manufacturing processes requires well-integrated expertise in a number of technical disciplines. In addition to those directly involved in practicing our CodeEvolver® protein engineering platform technology, such as molecular biology, enzymology, microbiology, cellular engineering, metabolic engineering, bioinformatics, biochemistry and high throughput analytical chemistry, our process development projects also involve integrated expertise in organic chemistry, chemical process development, chemical engineering, fermentation process development and fermentation engineering. Our integrated, multi-disciplinary approach to biocatalyst and process development is a critical success factor for our company.

We initially commercialized our CodeEvolver® protein engineering technology platform and products in the pharmaceuticals market, which remains 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 have also used the technology to develop protein catalysts 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, fragrances and agricultural chemicals.

More recently, we are also using the CodeEvolver® protein engineering technology platform to develop early stage, novel biotherapeutic product candidates, both for our customers and for our own business. Most notably, we are collaborating with a customer to develop CDX-6114, our lead program for the potential treatment of phenylketonuria ("PKU") disease in humans. PKU is an inherited metabolic disorder in which the enzyme that converts the essential amino acid phenylalanine into tyrosine is deficient.

We have also used our technology to develop an enzyme for customers using next generation sequencing ("NGS") and polymerase chain reaction ("PCR/qPCR") for *in vitro* molecular diagnostic and genomic research applications. Beta testing for the enzyme was initiated in the second quarter of 2017.

## **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 generally accepted accounting principles in the United States of America ("GAAP") and the applicable rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information. 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, 2016. The condensed consolidated balance sheet at December 31, 2016 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 September 30, 2017 and results of our operations and comprehensive income (loss) for the three and nine months ended September 30, 2017 and 2016, and cash flows for the nine months ended September 30, 2017 and 2016. 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 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, 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 for purposes of 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 reportable segment.



## ***Revenue Recognition***

We recognize revenues from the sale of our products, research and development agreements and revenue sharing arrangements. 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.

Where a portion of non-refundable up-front fees or other payments received are allocated to continuing performance obligations under the terms of a collaborative arrangement, they are recorded as deferred revenue and recognized as revenue ratably over the term of our estimated performance period under the agreement. We determine the estimated performance periods, and they 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.

## ***Product Sales***

Product sales consist of sales of protein catalysts, pharmaceutical intermediates, and Codex<sup>®</sup> Biocatalyst Panels and Kits. 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.

## ***Research and Development***

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 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 as revenue 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 products or products using our technologies. Royalties are recognized as earned in accordance with the contractual terms when royalties from licensees can be reasonably estimated and collectability is reasonably assured. For the majority of our royalty revenue, 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 sharing 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 sharing 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 product sales.

#### *Cost of Product Sales*

Cost of 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 product sales. Shipping costs are included in our cost of 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 FTE services under research and development agreements approximate the research funding over the term of the respective agreements and are 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. The expected term is based on historical exercise behavior on similar awards, giving consideration to the contractual terms, vesting schedules and expectations of future employee behavior. We use historical volatility to estimate expected stock price volatility. The risk-free rate assumption is based on United States Treasury instruments whose terms are consistent with the expected term of the stock options. The expected dividend assumption is based on our history and expectation of dividend payouts.

Restricted Stock Units ("RSUs"), Restricted Stock Awards ("RSAs"), performance based options ("PBOs"), and performance-contingent restricted stock units ("PSUs") are measured based on the fair market values of the underlying stock on the dates of grant. The vesting of PBOs and PSUs awarded is conditioned upon the attainment of one or more performance objectives over a specified period and upon continued employment through the applicable vesting date. At the end of the performance period, shares of stock subject to the PBOs and PSUs vest based upon both the level of achievement of performance objectives within the performance period and continued employment through the applicable vesting date.

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

The estimated fair value of stock options, RSUs and RSAs are expensed on a straight-line basis over the vesting term of the grant and the estimated fair value of PSUs and PBOs are 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.

#### ***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 \$23.8 million at September 30, 2017 and were comprised of cash of \$17.5 million and money market funds of \$6.3 million. At December 31, 2016, cash and cash equivalents totaled \$19.2 million and were comprised of cash of \$8.0 million and money market funds of \$11.2 million.

#### ***Restricted Cash***

In 2016, we began the process of liquidating our Indian subsidiary. The local legal requirements for liquidation required us to maintain our subsidiary's cash balance in an account managed by a legal trustee to satisfy our financial obligations. This balance is recorded as non-current restricted cash on the consolidated balance sheets and totaled \$0.8 million at September 30, 2017 and December 31, 2016.

In addition, pursuant to the terms of the lease agreement for our Redwood City, CA facilities, our letters of credit are collateralized by deposit balances of \$0.7 million as of September 30, 2017 and \$0.8 million as of December 31, 2016, which is recorded as non-current restricted cash on the consolidated balance sheets (see Note 10, "Commitments and Contingencies" for details).

### ***Inventories***

Inventories are stated at the lower of cost or net realizable value. Cost is determined using a weighted-average approach, assuming full absorption of direct and indirect manufacturing costs, or based on cost of purchasing from our vendors. If inventory costs exceed expected net realizable value due to obsolescence or lack of demand, valuation adjustments are recorded for the difference between the cost and the expected net realizable 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. No charge for the other-than-temporary impairment has been recorded in any of the periods presented.

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 and cash equivalents, accounts receivable, prepaid expenses and other current assets, restricted cash, marketable securities, accounts payable, accrued compensation, deferred revenue, and other 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 for identical assets or liabilities at the measurement date.
- Level 2: Inputs (other than quoted prices included in Level 1) that are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.
- Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities and which reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date.

### ***Concentrations of Credit Risk***

Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash and cash equivalents, accounts receivable, marketable securities, and restricted cash. Cash that is not required for immediate operating needs is invested principally in money market funds. Cash and cash equivalents are invested through banks and other financial institutions in the United States, India and Netherlands. Such deposits in those countries may be in excess of insured limits.

### ***Impairment of Long-Lived Assets***

Our long-lived assets consist of property and fully amortized acquired technology. We test property for recoverability when events or changes in circumstances indicate that its carrying value may not be recoverable. Factors we consider in deciding when to perform an impairment review include significant under-performance of our products in relation to expectations combined with a history of losses or a forecast of continuing losses associated with the use of that property, significant adverse changes in the business climate or legal factors, trends, and significant changes accumulation of costs in excess of the amount originally expected for the acquisition or construction of the property; loss of significant customers or partners; or the current expectation that the property will more likely than not be sold or disposed of significantly before the end its estimated useful life.

We measure the recoverability of property by comparing its carrying value to estimated future undiscounted net cash flows arising from that property. If the property's carrying value is not recoverable through the related undiscounted cash flows, it is considered to be impaired. We measure the impairment by comparing the difference between the property's carrying value and its estimated fair value. During the year ended December 31, 2016 and the nine months ended September 30, 2017, we did not identify any indicators of potential impairment of our property and concluded that there was no impairment.

### ***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 consolidated 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.

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 2016. 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, 2016. During the nine months ended September 30, 2017, 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, 2016.

## ***Income Taxes***

We account for income taxes using the asset and liability approach. Under this approach, deferred tax assets and liabilities are recognized for the expected tax consequences of temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements using enacted tax rates and tax laws in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are provided against deferred tax assets that are not likely to 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.

Expense from income taxes was \$150,000 and \$132,000 for the three and nine months ended September 30, 2017, respectively. The tax expense for the three and nine months ended September 30, 2017 primarily related to income tax expense attributable to a foreign subsidiary and unrecognized losses from changes in the fair value of our investment in CO2 Solutions. Benefit from income taxes was \$0 and \$15,000 for the three and nine months ended September 30, 2016, respectively.

### ***Recently Issued Accounting Pronouncements***

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 May 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." 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 in U.S. GAAP when it becomes effective and permits the use of either the retrospective or cumulative effect transition method. In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," which defers by one year the effective date of ASU 2014-09. The standard becomes effective for us beginning January 1, 2018, but allows us to adopt the standard one year earlier. In March 2016, the FASB issued ASU No. 2016-08, "Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," which requires an entity to determine whether the nature of its promise is to provide a good or service to the customer (i.e., the entity is a principal) or to arrange for the good or service to be provided to the customer by the other party (i.e., the entity is an agent). In April, 2016, the FASB issued ASU No. 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing," which clarifies the following two aspects of Topic 606: (a) identifying performance obligations; and (b) the licensing implementation guidance. In May 2016, the FASB issued ASU No. 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients," which clarifies guidance in certain narrow areas and adds some practical expedients. In September 2017, the FASB issued ASU No. 2017-13, "Revenue Recognition (Topic 605), Revenue from Contracts with Customers (Topic 606), Leases (Topic 840), and Leases (Topic 842)," which amends the early adoption date option for certain companies related to the adoption of ASU No. 2014-09 and ASU No. 2016-02. The effective date and transition requirements for these amendments are the same as the effective date and transition requirements of ASU 2014-09, which is effective for fiscal years, and for interim periods within those years, beginning after December 15, 2017. We intend to elect a modified retrospective method on adoption of this guidance with the initial application in January 2018.

The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. The standard defines a five-step process to achieve this principle and will require companies to use more judgment and make more estimates than under the current guidance. We have started our assessment of the impact of the new guidance on our consolidated financial statements and identified key revenue streams, including high level contract review. To date, our sources of research and development revenue have primarily been collaboration agreements. The most significant differences between Topic 606 and previous guidance for license and research and development revenue are: (i) allocating consideration to performance obligations; and (ii) estimating and determining the timing of recognition of variable consideration received from licensees, including up-front license payments, contingent milestones and royalties. Revenues from contingent milestone payments may be recognized earlier under Topic 606 than under Topic 605, based on an assessment of the probability of a significant reversal of such milestone revenue at each reporting date. The adoption of this guidance is expected to have a material impact on our consolidated financial statements and disclosure controls and will include qualitative and quantitative information about contracts with customers, and significant judgments and changes in judgments made in applying the guidance to contracts, and assets recognized from costs to obtain or fulfill contracts. We will continue to evaluate the potential impact of the new standard, and our preliminary assessments are subject to change. Additionally, we will continue to monitor industry activities and any additional guidance provided by regulators, standards setters, or the accounting profession as an ongoing component of our assessment and implementation plans.

In January 2016, the FASB issued ASU No. 2016-01, "Financial Instruments-Overall: Recognition and Measurement of Financial Assets and Financial Liabilities." This guidance principally affects accounting standards for equity investments, financial liabilities where the fair value option has been elected, and the presentation and disclosure requirements for financial instruments. Upon the effective date of the new guidance, all equity investments in unconsolidated entities, other than those accounted for using the equity method of accounting, will generally be measured at fair value through earnings. There will no longer be an available-for-sale classification and therefore, no changes in fair value will be reported in other comprehensive income (loss) for equity securities with readily determinable fair values. The new guidance on the classification and measurement will be effective for public business entities in fiscal years beginning after December 15, 2017, including interim periods within those fiscal years and early adoption is permitted. The Company is in the process of evaluating the impact of the adoption of ASU 2016-01 on the consolidated financial statements and currently anticipates the new guidance would impact its consolidated statements of operations and consolidated statements of comprehensive income as the Company's marketable equity securities, are currently classified as available-for-sale and are reported at fair value, with unrealized gains and losses, net of tax, recorded in accumulated other comprehensive income.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," which replaces prior lease guidance (Topic 840.) This guidance establishes a right-of-use ("ROU") model that requires a lessee to record a ROU asset and lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the Consolidated Statement of Operations. 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 this accounting standards updated on our Consolidated Financial Statements. We expect that upon adoption, ROU assets and lease liabilities will be recognized in the balance sheet in amounts that will be material.

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.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments," which provides the FASB's guidance on certain cash flow statements items. ASU 2016-15 is effective for fiscal reporting periods beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted including adoption in an interim period. The adoption of ASU 2016-15 is not expected to have a material impact on our consolidated financial statements and related disclosures.

In November 2016, the FASB issued ASU No. 2016-18, "Statement of Cash Flows (Topic 230) Restricted Cash a consensus of the FASB Emerging Issues Task Force." The standard requires restricted cash and restricted cash equivalents to be included with cash and cash equivalents on the statement of cash flows. The new standard is expected to be effective for fiscal years, and interim periods within those years, beginning after December 15, 2017, with early adoption permitted. We are currently evaluating the impact of adopting ASU 2016-18 on our consolidated financial statements and related disclosures.

In January 2017, the FASB issued ASU No. 2017-01 "Business Combinations (Topic 805): Clarifying the Definition of a Business". The guidance requires the use of a framework to determine whether a set of assets and activities constitutes an acquired or a sold business. The guidance is effective January 1, 2018 and must be adopted prospectively. Early adoption is encouraged.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment." The amendments eliminate Step 2 from the goodwill impairment test. The annual, or interim, goodwill impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. In addition, income tax effects from any tax deductible goodwill on the carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. The amendments also eliminate the requirements for any reporting unit with a zero or negative carrying amount to perform a qualitative assessment and, if it fails that qualitative test, to perform Step 2 of the goodwill impairment test. An entity still has the option to perform the qualitative assessment for a reporting unit to determine if the quantitative impairment test is necessary. The new standard is expected to be effective for fiscal years beginning after December 15, 2019, with early adoption permitted. We are currently evaluating the impact of adopting ASU 2017-04 on our consolidated financial statements and related disclosures.

In May 2017, the FASB issued ASU No. 2017-09, "Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting." The amendments provide guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. The new standard is effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2017 with early adoption permitted. We are currently evaluating the impact of adopting ASU 2017-09 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 are identical since potential common stock shares are 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 nine months ended September 30, 2017 and 2016 (in thousands, except per share amounts):

	Three months ended September 30,		Nine months ended September 30,	
	2017	2016	2017	2016
Numerator:				
Net income (loss)	\$ (10,226)	\$ 1,437	\$ (23,966)	\$ (3,298)
Denominator:				
Weighted average common stock shares used in computing net income (loss) per share, basic	48,147	40,940	45,568	40,504
Effect of dilutive shares	—	1,194	—	—
Weighted average common stock shares used in computing net income (loss) per share, diluted	48,147	42,134	45,568	40,504
Net income (loss) per share, basic	(0.21)	\$ 0.04	(0.53)	\$ (0.08)
Net income (loss) per share, diluted	(0.21)	\$ 0.03	(0.53)	\$ (0.08)

#### 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 September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Shares of common stock issuable pursuant to equity awards outstanding under the Equity Incentive Plan	7,494	2,149	7,494	5,371
Shares of common stock issuable upon exercise of outstanding warrants	—	73	—	73
Total shares excluded as anti-dilutive	7,494	2,222	7,494	5,444

### 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 CodeEvolver® Agreement”) with GlaxoSmithKline (“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 and earned milestone revenue of \$6.5 million. In April 2016, we completed the full transfer of the CodeEvolver® protein engineering platform technology and earned milestone revenue of \$7.5 million. We also have the potential to receive additional back end milestone payments that range from \$5.75 million to \$38.5 million per project based on GSK’s successful application of the licensed technology. The back end milestone 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.

In the third quarter of 2016, we earned and recognized the first contingent payment under the agreement related to the development of an enzyme for an already-commercialized product. In addition, 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 recognized ratably over the technology transfer period of three years from July 2014. We recognized all deferred revenues from the up-front license fees from GSK upon completion of the technology transfer in April 2016 and there were no remaining up-front license fees recognized in the three and nine months ended September 30, 2017. We recognized \$0 and \$3.0 million for the three and nine months ended September 30, 2016, respectively, as research and development revenue.

### ***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 Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc. (collectively, "Merck"). The Merck CodeEvolver® Agreement allows Merck to use the CodeEvolver® protein engineering technology platform in the field of human and animal healthcare.

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") and an exclusive license 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. 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.

Under the Merck CodeEvolver® Agreement, we transferred the CodeEvolver® protein engineering technology platform to Merck over the period from August 2015 through September 2016.

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 the enzyme to Merck 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. The Merck CodeEvolver® Agreement may also be terminated due to the uncured breach of the other party.

We received a \$5.0 million up-front license fee upon execution of the Merck CodeEvolver® Agreement, which was recognized ratably over the estimated platform technology transfer period of two years. The technology transfer was completed in September 2016. We have the potential to receive payments of up to a maximum of \$15.0 million for each commercial active pharmaceutical ingredient ("API") that is manufactured by Merck using one or more novel enzymes developed by Merck using the CodeEvolver® protein engineering technology platform.

The deferred revenues relating to the up-front license fees were fully recognized as of December 31, 2016, and there were no remaining up-front license fees recorded in 2017. We recognized \$0.6 million and \$1.9 million for the three and nine months ended September 30, 2016, respectively, as research and development revenue. Additionally, we recognized research and development revenues of \$0.9 million and \$2.7 million for the three and nine months ended September 30, 2017, respectively, compared to \$0.6 million and \$1.3 million for the three and nine months ended September 30, 2016, respectively, for various research projects under our collaborative arrangement.

#### ***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.

Effective as of January 2016, we and Merck amended the Sitagliptin Catalyst Supply Agreement to prospectively provide for variable pricing based on the cumulative volume of sitagliptin purchased by Merck under the Sitagliptin Catalyst Supply Agreement and to allow Merck to purchase a percentage of its requirements for sitagliptin from a specified third-party supplier. Merck has the right to terminate the Sitagliptin Catalyst Supply Agreement at any time after January 1, 2018 by giving us 24 months' advance written notice. In June 2017, we completed a contractual milestone by qualifying the specified third-party enzyme supplier and recognized \$0.0 million as research and development revenue.

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 \$1.0 million for the three and nine months ended September 30, 2017, respectively, and \$0.3 million and \$1.0 million for the three and nine months ended September 30, 2016, respectively, as research and development revenues. We had a deferred revenue balance from Merck related to license fees of \$1.8 million at September 30, 2017 and \$1.3 million at December 31, 2016. In addition, pursuant to the terms of the agreement, Merck may purchase supply from us for a fee based on contractually stated prices and we recognized \$1.5 million and \$6.5 million for the three and nine months ended September 30, 2017, respectively, compared to \$1.7 million and \$4.4 million for the three and nine months ended September 30, 2016 in product sales under this agreement.

#### ***Biopharmaceutical Collaborative Development Agreement***

In May 2015, we entered into a collaborative development agreement with a leading global biopharmaceutical company. Under the terms of the agreement, we used our CodeEvolver® protein engineering platform technology to develop a novel enzyme for use in our partner's therapeutic development program. We recognized revenues of \$0 and \$0.1 million for the three and nine months ended September 30, 2017, respectively, compared to \$0 and \$1.8 million for the three and nine months ended September 30, 2016 as collaborative research and development revenues. The collaborative development agreement was terminated by mutual consent in August 2017.

#### ***Enzyme Supply Agreement***

In November 2016, we entered into a supply agreement whereby our customer may purchase quantities of one of our proprietary enzymes for use in its commercial manufacture of a product. Pursuant to the supply agreement, we received an upfront payment of \$0.75 million in December 2016, which we accordingly recorded as deferred revenues. Such upfront payment will be recognized over the period of the supply agreement as the customer purchases our proprietary enzyme. As of September 30, 2017 and December 31, 2016, we had deferred revenue from the supply agreement of \$0.7 million. Under the agreement, we recognize product revenues for quantities of enzyme sold to our customer when all revenue recognition criteria are met.

### Research and Development Agreement

In March 2017, we entered into a multi-year research and development services agreement with a fine chemicals customer. Under the agreement, we have the potential to receive research and development revenues and milestone payments based on the customer's decision to continue the development process. We received an upfront payment of \$3.0 million, which is recognized ratably over the maximum term of the services period of 21 months, of which we recognized revenue of \$0.4 million and \$0.9 million in the three and nine months ended September 30, 2017, respectively. We also recognized \$0.6 million and \$1.1 million of revenue for research and development services on a net payment received under the agreement for the three and nine months ended September 30, 2017, respectively. Total revenue recognized under the research and development agreement for the three and nine months ended September 30, 2017 was \$1.1 million and \$1.9 million, respectively. As of September 30, 2017, we had deferred revenue from the development services agreement of \$2.9 million.

### Note 5. Cash Equivalents and Marketable Securities

Cash equivalents and marketable securities classified as available-for-sale at September 30, 2017 and at December 31, 2016 consisted of the following (in thousands):

	September 30, 2017			
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds <sup>(1)</sup>	\$ 6,262	\$ —	\$ —	\$ 6,262
Common shares of CO2 Solutions <sup>(2)</sup>	563	600	—	1,163
<b>Total</b>	<b>\$ 6,825</b>	<b>\$ 600</b>	<b>\$ —</b>	<b>\$ 7,425</b>

  

	December 31, 2016			
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds <sup>(1)</sup>	\$ 11,172	\$ —	\$ —	\$ 11,172
Common shares of CO2 Solutions <sup>(2)</sup>	563	579	—	1,142
<b>Total</b>	<b>\$ 11,735</b>	<b>\$ 579</b>	<b>\$ —</b>	<b>\$ 12,314</b>

(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 September 30, 2017 or at December 31, 2016.

### Note 6. Fair Value Measurements

The following tables present the financial instruments that were measured at fair value on a recurring basis at September 30, 2017 and December 31, 2016 by level within the fair value hierarchy (in thousands):

	September 30, 2017			
	Level 1	Level 2	Level 3	Total
Money market funds	\$ 6,262	\$ —	\$ —	\$ 6,262
Common shares of CO2 Solutions	—	1,163	—	1,163
<b>Total</b>	<b>\$ 6,262</b>	<b>\$ 1,163</b>	<b>\$ —</b>	<b>\$ 7,425</b>

  

	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Money market funds	\$ 11,172	\$ —	\$ —	\$ 11,172
Common shares of CO2 Solutions	—	1,142	—	1,142
<b>Total</b>	<b>\$ 11,172</b>	<b>\$ 1,142</b>	<b>\$ —</b>	<b>\$ 12,314</b>

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

### Accounts Receivable

The following is a summary of activity in our allowance for doubtful accounts for the periods presented (in thousands):

Allowance as of December 31, 2016	\$	(421)
Write-offs and other <sup>(1)</sup>		387
Allowance as of September 30, 2017	\$	(34)

(1) The change in allowance for doubtful accounts was mainly related to the write-off of receivables from a foreign customer.

### Inventories

Inventories consisted of the following (in thousands):

	September 30, 2017	December 31, 2016
Raw materials	\$ 159	\$ 118
Work-in-process	110	59
Finished goods	580	648
Inventories	\$ 849	\$ 825

### Property and Equipment, net

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

	September 30, 2017	December 31, 2016
Laboratory equipment	\$ 19,682	\$ 18,849
Leasehold improvements	10,503	10,395
Computer equipment and software	3,678	3,267
Office equipment and furniture	1,185	1,171
Construction in progress <sup>(2)</sup>	50	124
Property and equipment	35,098	33,806
Less: accumulated depreciation and amortization	(32,288)	(31,651)
Property and equipment, net	\$ 2,810	\$ 2,155

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

### Goodwill

Goodwill had a carrying value of approximately \$3.2 million at September 30, 2017 and December 31, 2016.

## 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, PBOs, stock appreciation rights, and stock purchase rights to our employees, non-employee directors and consultants.

### ***Stock Options***

The option exercise price for incentive stock options 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, of which 25% vest at the end of one year, and 75% vest monthly over the remaining three years. We may grant options with different vesting terms from time to time. Unless an employee's termination of service is due to disability or death, upon termination of service, any unexercised vested options will be forfeited at the end of three months or the expiration of the option, whichever is earlier.

### ***Restricted Stock Units (RSUs)***

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

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

In 2015 and 2016, the compensation committee of the Board approved, and, in February 2017 solely in respect of non-executive employees, delegated to our Chief Executive Officer the authority to approve grants of PSUs. In February 2017, the compensation committee of the Board also approved grants of PBOs and PSUs to our executives. The PSUs and PBOs vest based upon both the successful achievement of certain corporate operating milestones in specified timelines and continued employment through the applicable vesting date. When the performance goals are deemed to be probable of achievement for these types of awards, recognition of stock-based compensation expense commences.

In the first quarter of 2017, our compensation committee and Chief Executive Officer granted PSUs ("2017 PSUs") and our compensation committee granted PBOs ("2017 PBOs"), each of which commence vesting based upon the achievement of various weighted performance goals, including revenue growth, fundraising, service revenue, new platform license revenue, and strategic advancement of biotherapeutics pipeline. The number of shares underlying the 2017 PSUs and 2017 PBOs that are eligible to vest are based upon our achievement of the performance goals and, once the number of shares eligible to vest is determined, those shares vest in two equal installments with 50% vesting upon achievement and the remaining 50% vesting on the first anniversary of achievement, in each case, subject to the recipient's continued service through the applicable vesting date. If the performance goals are achieved at the threshold level, the number of shares eligible to vest in respect of the 2017 PSUs and the 2017 PBOs would be equal to half the number of 2017 PSUs granted and one-quarter the number of shares underlying the 2017 PBOs granted. If the performance goals are achieved at the target level, the number of shares eligible to vest in respect of the 2017 PSUs and 2017 PBOs would be equal to the number of 2017 PSUs granted and half of the shares underlying the 2017 PBOs granted. If the performance goals are achieved at the superior level, the number of shares eligible to vest in respect of the 2017 PSUs would be equal to two times the number of 2017 PSUs granted and equal to the number of 2017 PBOs granted. The number of shares issuable upon achievement of the performance goals at the levels between the threshold and target levels for the 2017 PSUs and 2017 PBOs or between the target level and superior levels for the 2017 PSUs would be determined using linear interpolation. Achievement below the threshold level would result in no shares being eligible to vest in respect of the 2017 PSUs and 2017 PBOs. As of September 30, 2017, we estimated that the 2017 PSU and 2017 PBOs performance goals would be achieved at 132.9% of the target level. Accordingly, we recognized expense to reflect the target level.

In 2016, we awarded PSUs ("2016 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. In the first quarter of 2017, we determined that the 2016 PSU performance goals had been achieved at 142.3% of the target level, and recognized expenses accordingly. Accordingly, one-half of the shares underlying the 2016 PSUs vested in the first quarter of 2017 and one-half of the shares underlying the 2016 PSUs will vest in the first quarter of 2018, in each case subject to the recipient's continued service on each vesting date. No PBOs were awarded in 2016.

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, with other terms similar to the 2014 PSUs and 2016 PSUs. 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. One-half of the shares underlying 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. No PBOs were awarded in 2015.

### *Stock-Based Compensation Expense*

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Research and development	\$ 386	\$ 246	\$ 1,050	\$ 688
Selling, general and administrative	1,447	984	4,162	3,173
Total	\$ 1,833	\$ 1,230	\$ 5,212	\$ 3,861

The following table presents total stock-based compensation expense by security types included in the condensed consolidated statements of operations for the three and nine months ended September 30, 2017 and 2016 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Stock options	\$ 393	\$ 249	\$ 1,107	\$ 820
RSUs and RSAs	456	445	1,399	1,580
PSUs	385	536	1,373	1,461
PBOs	599	—	1,333	—
Total	\$ 1,833	\$ 1,230	\$ 5,212	\$ 3,861

As of September 30, 2017, unrecognized stock-based compensation expense, net of expected forfeitures, was \$2.6 million related to unvested employee stock options, \$1.6 million related to unvested RSUs and RSAs, \$0.7 million related to unvested PSUs, and \$1.6 million related to unvested PBOs based on current estimates of the level of achievement.

### *Valuation Assumptions*

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
	(1)			
Expected term (in years)	—	5.2	5.3	5.3
Volatility	—	63%	62%	65%
Risk-free interest rate	—	1.18%	2.02%	1.29%
Dividend yield	—	—%	—%	—%
Weighted-average estimated fair value of stock options granted	—	\$ 2.25	\$ 2.52	\$ 2.51

(1) The Company did not grant employee stock options or PBOs in the three months ended September 30, 2017.

## **Note 9. Capital Stock**

### *Exercise of Options*

For the nine months ended September 30, 2017 and 2016, 63,509 and 361,145 shares, respectively, were exercised at a weighted-average exercise price of \$2.76 and \$2.60 per share, respectively, with net cash proceeds of \$0.2 million and \$0.9 million, respectively.

### **Warrants**

On September 28, 2017, warrants to purchase 72,727 shares of common stock, at an exercise price of \$8.25 per share, expired. No warrants were outstanding as of September 30, 2017.

### **Public Offering**

In April 2017, we completed a public offering in which we issued and sold 6.3 million shares of our common stock, par value \$0.0001 per share, at a public offering price of \$4.00 per share. We received net proceeds of approximately \$23.2 million after deducting the underwriting discounts, commissions and other offering expenses of \$0.6 million.

Consolidated statements of stockholders' equity as of September 30, 2017 and 2016 are as follows (in thousands):

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
	December 31, 2015	40,343				
Exercise of stock options	361	—	939	—	—	939
Release of stock awards	911	—	—	—	—	—
Employee stock-based compensation	—	—	3,861	—	—	3,861
Cancelled shares	(397)	—	(1,523)	—	—	(1,523)
Total comprehensive loss	—	—	—	(22)	(3,298)	(3,320)
September 30, 2016	41,218	\$ 4	\$ 309,258	\$ 383	\$ (286,809)	\$ 22,836
December 31, 2016	41,255	\$ 4	\$ 311,164	\$ —	\$ (292,069)	\$ 19,099
Exercise of stock options	64	—	175	—	—	175
Release of stock awards	1,096	—	—	—	—	—
Employee stock-based compensation	—	—	5,212	—	—	5,212
Cancelled shares	(397)	—	(1,670)	—	—	(1,670)
Issuance of common stock, net of issuance costs	6,325	1	23,229	—	—	23,230
Total comprehensive loss	—	—	—	13	(23,966)	(23,953)
September 30, 2017	48,343	\$ 5	\$ 338,110	\$ 13	\$ (316,036)	\$ 22,092

### **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 in October 2016. The various terms for the spaces under the lease had expiration dates that range from January 2020 through January 2022. As described further below, in October 2016, we exercised an option to extend our lease of certain spaces through January 2022. Beginning in February 2014, we have subleased office space to different subtenants with separate options to extend the subleases. If all such options to extend were exercised, these agreements would expire at various dates through 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 \$1.0 million and \$1.3 million at September 30, 2017 and December 31, 2016, respectively, and is reflected as 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 areas 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 September 30, 2017 and December 31, 2016, 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 nine months ended September 30, 2017 and September 30, 2016.

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 September 30, 2017 and \$0.8 million as of December 31, 2016. These deposits are recorded as restricted cash on the consolidated balance sheets.

Rent expense was \$1.0 million and \$2.8 million during the three and nine months ended September 30, 2017, respectively, partially offset by sublease income of \$0.3 million and \$1.0 million, respectively. Rent expense was \$0.9 million and \$2.6 million during the three and nine months ended September 30, 2016, respectively, partially offset by sublease income of \$0.3 million and \$0.9 million, respectively.

### **Capital Leases**

In December 2016, we entered into a three-year financing lease agreement with a third party supplier for the purchase of laboratory equipment that was partially financed through a capital lease of approximately \$0.4 million. The lease became effective upon delivery of the equipment, which occurred in February 2017, and the term of the lease is three years from the effective date. This financing agreement was accounted for as a capital lease due to the bargain purchase option at the end of the lease.

In April 2017, we entered into a three-year financing lease agreement with a third party supplier for the purchase of information technology equipment for approximately \$0.3 million. The effective date of the lease was May 19, 2017 and the term of the lease is three years. This financing agreement was accounted for as a capital lease due to the bargain purchase option at the end of the lease.

### **Leases**

Future minimum payments under non-cancellable capital and operating leases are as follows at September 30, 2017 (in thousands):

Years ending December 31,	Capital Leases	Operating Leases
2017 (3 months remaining)	\$ 63	\$ 776
2018	252	3,185
2019	252	3,280
2020	60	712
2021 and beyond	—	531
Total minimum lease payments	627	\$ 8,484
Less: amount representing interest	(39)	
Present value of capital lease obligations	588	
Less: current portion	(228)	
Long-term portion of capital leases	\$ 360	

Minimum payments have not been reduced by future minimum sublease rentals of \$1.5 million to be received under non-cancellable subleases at September 30, 2017.

### **Other Commitments**

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

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

Other Commitment Agreement Type	Agreement Date	Future Minimum Payment
Manufacture and supply agreement with expected future payment date of December 2022	April 2016	\$ 1,693
Service agreement for the development of manufacturing process	April 2017	2,180
Service agreement for stability study	July 2017	369
Total other commitments		\$ 4,242

### ***Credit Facility***

Effective June 30, 2017, we entered into a credit facility (the “Credit Facility”) consisting of term loans (“Term Debt”) totaling up to \$10.0 million, and advances (“Advances”) under a revolving line of credit (“Revolving Line of Credit”) totaling up to \$5.0 million with an accounts receivable borrowing base of 80% of eligible accounts receivable. At September 30, 2017, we have not drawn from the Credit Facility. We may draw on the Term Debt at any time prior to June 30, 2018, subject to customary conditions for funding including, among others, that no event of default exists. We may draw on the Revolving Line of Credit at any time prior to the maturity date. On July 1, 2021, any loans for Term Debt mature and the Revolving Line of Credit terminates. Term Debt bears interest through maturity at a variable rate based on the London Interbank Offered Rate plus 3.60%. Advances under the Revolving Line of Credit bear interest at a variable annual rate equal to the greater of (i) 1.00% above the prime rate and (ii) 5.00%.

The Credit Facility allows for interest-only payments on Term Debt through August 1, 2019. Monthly payments of principal and interest on the Term Debt are required following the applicable amortization date. We may elect to prepay in full the Term Debt and Advances under the Revolving Line of Credit at any time. Prepayments of Term Debt and early termination of the Revolving Line of Credit are subject to prepayment and final payment fees are as follows:

	Term Debt	Revolving Line of Credit
Through and including the first anniversary of the funding date of the first Term Debt drawn	2.0%	
After the first anniversary of the funding date of the first Term Debt drawn and before the maturity date	1.0%	
On the earliest to occur of the maturity date, the acceleration of Term Debt drawn or prepayment of Term Debt drawn	5.5%	
Through and including the first anniversary of the closing date		3.0%
After the first anniversary of the closing date through and including the second anniversary of the closing date		2.0%
After the second anniversary of the closing date through and including the third anniversary of the closing date		1.0%

Our obligations under the Credit Facility are secured by a lien on substantially all of our personal property other than our intellectual property. The Credit Facility includes a number of customary covenants and restrictions which require us to comply with certain financial covenants including achieving consolidated product revenues levels at minimum levels as set forth in the Credit Facility through December 2018 and on and after January 2019, in each case unless we maintain certain minimum cash levels with the lender in an amount equal to or greater than six times the sum of the average six-month trailing operating cash flow net outlay plus the average monthly principal due and payable in the immediately succeeding three-month period. The Credit Facility places various restrictions on the Company’s transferring collateral, incurring additional indebtedness, engaging in mergers or acquisitions, paying dividends or making other distributions, making investments, creating liens and selling assets and permitted assets to be held at foreign subsidiaries above specified caps, in each case subject to certain exceptions. A failure to comply with these covenants could permit the lender to exercise remedies against us and the collateral securing the Credit Facility, including foreclosure of our properties securing the Credit Facilities and our cash. At September 30, 2017, we were in compliance with the covenants for the Credit Facility.

### ***Legal Proceedings***

On February 19, 2016, we filed a complaint against EnzymeWorks, Inc., a California corporation, EnzymeWorks, Inc., a Chinese corporation (collectively with the California corporation, “EnzymeWorks”), and Junhua “Alex” Tao (collectively with EnzymeWorks, 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 certain of the claims in the First Amended Complaint. We opposed the Defendant’s Partial Motion to Dismiss. On August 11, 2016, the judge issued an order that denied the Defendants’ Partial Motion to Dismiss with respect to all five claims and in all relevant parts, and granted the motion with respect to certain underlying arguments. The Defendants filed their Answer on September 1, 2016, stating that the Defendants would not contest infringement of the asserted patents and denying the trade secret claim and other non-patent claims. There are no counterclaims. On July 19, 2017, Defendants filed a Stipulation with Proposed Order seeking leave to file Defendants’ First Amended Answer to add an affirmative defense of “competition privilege.” The Court entered the Order granting leave for Defendants to file the First Amended Answer on July 24, 2017, and Defendants filed a First Amended Answer on July 25, 2017. On July 31, 2017, the parties filed a stipulation acknowledging that EnzymeWorks had not denied or disputed its infringement of each of Codexis’ ten asserted patents, or the validity of those patents. Based on this stipulation, on August 8, 2017, the Court granted partial summary judgment of patent infringement against EnzymeWorks and ruled that the patents in the suit are not invalid. In addition, on September 25, 2017, the Court granted Codexis’ motion to amend the Complaint to add a voidable transfer claim against Junhua Tao and his son, Andrew Tao. Codexis filed the second amended Complaint on September 28, 2017. 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.***

We entered into a commercialization agreement with Exela in 2007. Under the license agreement, as amended, we and Exela cross-licensed certain technology relating to the manufacture of argatroban, an API, in exchange for rights to certain sublicensing fees or development payments and profit sharing.

Thomas R. Baruch, one of our directors, serves on the board of directors of Exela, and is a retired general partner in Presidio Partners 2007, LP which owns over 10% of Exela’s outstanding capital stock. As such, Mr. Baruch has an indirect pecuniary interest in the shares of Exela held by Presidio Partners 2007, L.P.

We recognized \$0.11 million and \$0.85 million for the three and nine months ended September 30, 2017, respectively, and \$0.45 million and \$1.83 million for the three and nine months ended September 30, 2016, respectively, shown in the condensed consolidated statement of operations as a revenue sharing arrangement. We had no receivables from Exela at September 30, 2017 and December 31, 2016.

#### ***AstraZeneca PLC***

Pam P. Cheng, a member of our board of directors, joined AstraZeneca PLC as Executive Vice President, Operations and Information Technology in June 2015. We sell biocatalyst products to AstraZeneca PLC and to Alfa Aesar, which is a purchasing agent of AstraZeneca PLC.

In the three and nine months ended September 30, 2017 and 2016, we recognized de minimis revenue from AstraZeneca PLC and no revenue from Alfa Aesar for the same periods. Accounts receivable from AstraZeneca PLC is nominal as of September 30, 2017 and no accounts receivable were outstanding at December 31, 2016. At September 30, 2017, we had no accounts receivables and \$0.4 million in accounts receivable at December 31, 2016 from Alfa Aesar.

## 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 September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Customer A	27%	76%	37%	43%
Customer B	*	*	*	27%
Customer C	29%	*	18%	*
Customer D	11%	*	11%	*
Customer E	10%	*	*	*
Customer F	*	11%	*	*

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	
	September 30, 2017	December 31, 2016
Customer A	30%	54%
Customer C	35%	*
Customer E	13%	*
Customer F	*	16%

\* Less than 10% of the period presented

### Geographic Information

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenues:				
United States	\$ 3,597	\$ 10,356	9,695	\$ 15,458
Asia				
Singapore	875	792	4,369	2,912
India	1,273	714	3,548	2,760
Others	816	245	2,008	740
Europe				
United Kingdom	2	145	46	10,726
Switzerland	826	937	3,154	1,555
Slovenia	—	79	1,632	823
Ireland	2,240	1,505	2,526	1,505
Others	347	80	1,224	621
Others	8	17	99	1,768
Total revenues	\$ 9,984	\$ 14,870	\$ 28,301	\$ 38,868

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

Long-lived assets:	September 30, 2017	December 31, 2016
United States	\$ 3,137	\$ 2,414

### Note 13. Subsequent Events

On October 12, 2017 (the “Effective Date”), we entered into a Global Development, Option and License Agreement (the “Agreement”) with Nestec Ltd. (“Nestlé Health Science”).

Pursuant to the Agreement, we granted to Nestlé Health Science, under certain of our patent rights and know-how: (i) an option (the “Option”) to obtain an exclusive, worldwide, royalty-bearing, sublicensable license to develop and commercialize certain products (each, a “Product”) based on our therapeutic enzyme product candidates for the treatment of hyperphenylalaninemia, and (ii) an exclusive right of first negotiation (the “Right of First Negotiation”) to obtain an exclusive worldwide license to develop and commercialize up to two enzymes discovered by us for use in the field of the prevention, diagnosis, treatment and management of inborn errors of amino acid metabolism.

Under the terms of the Agreement, upon its exercise of the Option (subject to certain conditions), Nestlé Health Science will be granted a license to any enzyme (each, a “Compound”) covered by specified patent applications, other than any enzyme that has other clinically significant, specified activity against another molecule, unless that enzyme’s specified activity against phenylalanine is ten times greater than its activity against such other molecule (in which case it is not excluded). Furthermore, we and our affiliates and customers generally will retain the right to use any enzyme as a biocatalyst, provided that preclinical development of such enzyme has not commenced. The first Compound to be developed under the Agreement is our enzyme CDX-6114 (the “Initial Compound”).

Pursuant to the Agreement, Nestlé Health Science is obligated to pay us an upfront cash payment of \$14 million within 30 days after the Effective Date and, in the event Nestlé Health Science exercises the Option, \$3 million within 60 days after the effective time of the license. Other potential payments from Nestlé Health Science to us under the Agreement include (i) development and approval milestones of up to \$90 million, (ii) sales-based milestones of up to \$250 million in the aggregate, which aggregate amount is achievable if net sales exceed \$1 billion in a single year, and (iii) tiered royalties, at percentages ranging from the middle single digits to low double-digits, of net sales of Product.

In addition to the Agreement, we and Nestlé Health Science concurrently entered into a strategic collaboration agreement pursuant to which we and Nestlé Health Science will collaborate to leverage the CodeEvolver platform technology to develop novel enzymes for Nestlé Health Science’s established Consumer Care and Medical Nutrition business areas.

## 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, 2016 included in our Annual Report on Form 10-K for the year ended December 31, 2016, as filed with the SEC on March 9, 2017 (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 II, Item 1A of this Quarterly Report on Form 10-Q and 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 discover, develop and sell proteins that deliver value to our clients in a growing set of industries. We view proteins as a vast untapped source of value-creating materials, and we are using our proven technologies, which we have been continuously improving over our fifteen-year history, to commercialize an increasing number of novel proteins, both as proprietary Codexis products and in partnership with our customers.

Many companies have historically used naturally occurring proteins to produce or enhance goods used in everyday life. Despite the growing number of commercial applications of naturally occurring proteins across many industries, the inherent limitations of naturally occurring proteins frequently restrict their commercial use. Through the application of our proprietary CodeEvolver<sup>®</sup> protein engineering technology platform, we are able to engineer novel proteins to overcome these restrictions, thereby adding value or opening up new prospects for our existing and potential customers' products, processes or businesses. We have developed new proteins that are significantly more stable and/or active in our customers' commercial applications than proteins derived from nature.

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

We use our CodeEvolver<sup>®</sup> protein engineering technology platform to engineer custom enzymes. Most of our custom enzymes are intended for use as biocatalysts or protein catalysts. In simple terms, our protein catalysts can accelerate and/or improve yields of chemical reactions. We use our CodeEvolver<sup>®</sup> protein engineering technology platform to develop novel enzymes that enable industrial biocatalytic reactions and fermentations. Our technology platform has enabled commercially viable products and processes for the manufacture of pharmaceutical intermediates and active ingredients and fine chemicals.

Our approach to develop commercially viable biocatalytic manufacturing processes begins by conceptually designing the most cost-effective and practical process for a targeted product. We then develop optimized protein catalysts to enable that process design using our CodeEvolver® protein engineering platform technology. Engineered protein catalyst candidates - many thousands for each protein engineering project - are then rapidly screened and validated in high throughput under relevant manufacturing operating conditions. This approach results in an optimized protein catalyst enabling cost-efficient processes that typically are relatively simple to run in conventional manufacturing equipment. This also allows for the efficient technical transfer of our process to our manufacturing partners.

The successful embodiment of our CodeEvolver® protein engineering technology platform in commercial manufacturing processes requires well-integrated expertise in a number of technical disciplines. In addition to those directly involved in practicing our CodeEvolver® protein engineering platform technology, such as molecular biology, enzymology, microbiology, cellular engineering, metabolic engineering, bioinformatics, biochemistry and high throughput analytical chemistry, our process development projects also involve integrated expertise in organic chemistry, chemical process development, chemical engineering, fermentation process development and fermentation engineering. Our integrated, multi-disciplinary approach to biocatalyst and process development is a critical success factor for our company.

We initially commercialized our CodeEvolver® protein engineering technology platform and products in the pharmaceuticals market, which remains 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 have also used the technology to develop protein catalysts 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, fragrances and agricultural chemicals.

More recently, we are also using the CodeEvolver® protein engineering technology platform to develop early stage, novel biotherapeutic product candidates, both for our customers and for our own business. Most notably, we are collaborating with a customer to develop CDX-6114, our lead program for the potential treatment of phenylketonuria ("PKU") disease in humans. PKU is an inherited metabolic disorder in which the enzyme that converts the essential amino acid phenylalanine into tyrosine is deficient.

We have also used our technology to develop an enzyme for customers using next generation sequencing ("NGS") and polymerase chain reaction ("PCR/qPCR") for in vitro molecular diagnostic and genomic research applications. Beta testing for the enzyme was initiated in the second quarter of 2017.

### ***Results of Operations Overview***

Revenues decreased to \$10.0 million for the third quarter of 2017 from \$14.9 million in the third quarter of 2016, primarily due to lower research and development service revenues. Research and development service revenues for the third quarter of 2017 decreased to \$2.9 million from \$10.4 million in the third quarter of 2016 as the prior year included an \$8.0 million milestone and a \$0.6 million pro-rata recognition of deferred revenues relating to the technology transfer of our proprietary CodeEvolver® protein engineering platform to Merck. An increase in third quarter 2017 research and development service revenues from Tate & Lyle and Merck partially offset the decrease in research and development revenues. Product sales increased by approximately \$2.9 million, or 71%, from the prior year quarter to \$6.9 million, which was primarily due to higher customer demand for enzymes for both generic and branded products. Revenues from Exela in a revenue sharing arrangement decreased by \$0.3 million, or 76%, from the prior year quarter.

Product gross margins increased to 43% in the three months ended September 30, 2017, compared to 32% in the same period in 2016 due to improved sales mix.

Research and development expenses increased by \$2.6 million, or 47%, to \$8.1 million for the third quarter of 2017, compared to the third quarter of 2016, due primarily to an increase in outside services relating to CDX-6114, our orally dosable enzyme therapeutic candidate for PKU, and an increase in costs associated with higher headcount, which were partially offset by the absence of amortization of intangibles, which ceased in the fourth quarter of 2016.

Selling, general and administrative expense increased by \$2.8 million, or 53%, to \$8.0 million for the third quarter of 2017, compared to the third quarter of 2016, due primarily to an increase in legal expenses related to intellectual property and an increase in costs associated with higher headcount, which were partially offset by lower depreciation expense.

Net loss for the third quarter of 2017 was \$10.2 million, representing a net loss of \$0.21 per basic and diluted share. This compares to net income of \$1.4 million, representing basic net income of \$0.04 per basic share or diluted net income of \$0.03 per share for the third quarter of 2016. The increase in net loss for the third quarter of 2017 over the same period of the prior year is primarily related to recognition of a milestone payment of \$8.0 million and related deferred revenues of \$0.6 million in the prior year quarter from the technology transfer of our proprietary CodeEvolver<sup>®</sup> protein engineering platform to Merck and increased spending in outside services relating to the development of our CDX-6114 product, which were partially offset by increased revenue from product sales.

Cash and cash equivalents increased by \$4.6 million to \$23.8 million as of September 30, 2017 compared to \$19.2 million as of December 31, 2016. Net cash used in operating activities increased to \$16.4 million in the nine months ended September 30, 2017 compared to \$7.0 million in the nine months ended September 30, 2016. On April 12, 2017, we completed a public offering of approximately 6.3 million shares of our common stock at an offering price of \$4.00 per share resulting in net proceeds to us of \$23.2 million. 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.

In June 2017, we entered into a loan and security agreement that allows us to borrow up to \$10.0 million under a term loan, and up to \$5.0 million under a revolving credit facility with 80% of certain eligible accounts receivable as a borrowing base (the "Credit Facility"). Obligations under the Credit Facility are secured by a lien on substantially all of our personal property other than our intellectual property. As of September 30, 2017, no amounts were borrowed under the Credit Facility and we were in compliance with the covenants for the Credit Facility. See Note 10, "Commitments and Contingencies-Credit Facility".

#### ***GSK Platform Technology Transfer, Collaboration and License Agreement***

In July 2014, we entered into a CodeEvolver<sup>®</sup> platform technology transfer and license agreement (the "GSK CodeEvolver<sup>®</sup> Agreement") with GSK. Pursuant to the terms of the agreement, we granted GSK a non-exclusive license to use the CodeEvolver<sup>®</sup> 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<sup>®</sup> 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 earned milestone revenue of \$6.5 million. In the second quarter of 2016, we completed the full transfer of the protein engineering platform technology and earned milestone revenue of \$7.5 million. We also have the potential to receive additional back end milestone payments that range from \$5.75 million to \$38.5 million per project based on GSK's successful application of the licensed technology. The back end milestone 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<sup>®</sup> protein engineering technology platform.

The up-front license fee of \$6.0 million was recognized ratably over the technology transfer period of three years from July 2014. We recognized all deferred revenues from the up-front license fees from GSK upon completion of the technology transfer in April 2016 and there were no remaining up-front license fees recognized in the three and nine months ended September 30, 2017. We recognized \$0 and \$3.0 million for the three and nine months ended September 30, 2016, respectively, as research and development revenue.

In September 2016, we recorded our first back end milestone payment based on GSK's successful application of our technology in an existing pharmaceutical product.



### ***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 execution of the Merck CodeEvolver® Agreement, which was recognized ratably over the estimated platform technology transfer period of two years. The technology transfer was completed in September 2016. The deferred revenues relating to the up-front license fees were fully recognized as of December 31, 2016, and there were no remaining up-front license fees recorded in 2017. We recognized \$0.6 million and \$1.9 million of the up-front license fees for the three and nine months ended September 30, 2016, respectively, as research and development revenue. Additionally, we recognized research and development revenues of \$0.9 million and \$2.7 million for the three and nine months ended September 30, 2017, respectively, compared to \$0.6 million and \$1.3 million for the three and nine months ended September 30, 2016, respectively, for various research projects under our collaborative arrangement.

Following the completion of the technology transfer, we may 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.

## Results of Operations

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

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
	2017	2016	\$	%	2017	2016	\$	%
<b>Revenues:</b>								
Product sales	\$ 6,948	\$ 4,052	\$ 2,896	71%	\$ 19,134	\$ 11,072	\$ 8,062	73%
Research and development revenues	2,929	10,373	(7,444)	(72)%	8,320	25,971	(17,651)	(68)%
Revenue sharing arrangement	107	445	(338)	(76)%	847	1,825	(978)	(54)%
Total revenues	9,984	14,870	(4,886)	(33)%	28,301	38,868	(10,567)	(27)%
<b>Costs and operating expenses:</b>								
Cost of product sales	3,976	2,756	1,220	44%	10,768	7,466	3,302	44%
Research and development	8,055	5,467	2,588	47%	20,242	16,265	3,977	24%
Selling, general and administrative	7,989	5,229	2,760	53%	21,141	18,451	2,690	15%
Total costs and operating expenses	20,020	13,452	6,568	49%	52,151	42,182	9,969	24%
Income (loss) from operations	(10,036)	1,418	(11,454)	(808)%	(23,850)	(3,314)	(20,536)	(620)%
Interest income	28	12	16	133%	96	40	56	140%
Other income (expenses)	(68)	7	(75)	(1,071)%	(80)	(39)	(41)	(105)%
Income (loss) before income taxes	(10,076)	1,437	(11,513)	(801)%	(23,834)	(3,313)	(20,521)	(619)%
Provision for (benefit from) income taxes	150	—	150	—%	132	(15)	147	980%
Net income (loss)	\$ (10,226)	\$ 1,437	\$ (11,663)	(812)%	\$ (23,966)	\$ (3,298)	\$ (20,668)	(627)%

### Revenues

Our revenue is comprised of product sales, research and development revenues, and a revenue sharing arrangement, as follows:

- Product sales consist of sales of enzymes, chemical intermediates, and Codex<sup>®</sup> Biocatalyst Panels and Kits.
- Research and development revenues include license, technology access and exclusivity fees, research services fees for FTE, milestone payments, royalties, and optimization and screening fees.
- Revenue sharing arrangement is recognized based upon sales of licensed products by Exela.

The following table shows the amounts of our product sales, research and development revenues from our condensed consolidated statements of operations for the periods presented (in thousands):

(In Thousands)	Three months ended September 30,		Change		Nine months ended September 30,		Change	
	2017	2016	\$	%	2017	2016	\$	%
Product sales	\$ 6,948	\$ 4,052	\$ 2,896	71%	\$ 19,134	\$ 11,072	\$ 8,062	73%
Research and development revenues	2,929	10,373	(7,444)	(72)%	8,320	25,971	(17,651)	(68)%
Revenue sharing arrangement	107	445	(338)	(76)%	847	1,825	(978)	(54)%
Total revenues	\$ 9,984	\$ 14,870	\$ (4,886)	(33)%	\$ 28,301	\$ 38,868	\$ (10,567)	(27)%

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 decreased \$4.9 million and \$10.6 million in the three and nine months ended September 30, 2017, respectively, compared to the same periods in 2016 primarily due to the absence of revenues recognized on achievement of milestones in the prior year, partially offset by an increase in product sales.

Product sales increased \$2.9 million, or 71%, and \$8.1 million, or 73% in the three and nine months ended September 30, 2017, respectively, compared to the same periods in 2016 due to higher customer demand for enzymes for both generic and branded products. We expect that the product revenues for the year will be higher than the prior year due to increased demand for our enzymes.

Research and development revenues were \$2.9 million and \$8.3 million in the three and nine months ended September 30, 2017, respectively, compared to \$10.4 million and \$26.0 million for the same periods in 2016. The decrease in research and development revenues for the three and nine months ended September 30, 2017 is primarily due to the achievement of technology transfer milestones in the prior year. The completion of the technology transfer to Merck resulted in prior year milestone revenue of \$8.0 million for the three and nine months ended September 30, 2016 and license fee revenues of \$0.6 million and \$1.8 million for the three and nine months ended September 30, 2016. The completion of the technology transfer to GSK resulted in prior year revenues of \$0 for the three months ended September 30, 2016 and \$10.5 million for the nine months ended September 30, 2016 from recognition of a milestone payment and related deferred revenues. The decrease in revenues was partially offset by higher research and development service revenues for Tate & Lyle and Merck. We expect that the research and development revenues for the year will be lower than the prior year as the latter included milestone payments and related deferred revenue recognition from both GSK and Merck from the completion of the transfer of our CodeEvolver® protein engineering platform to both companies in 2016.

Revenues from the revenue-sharing arrangement with Exela decreased by \$0.3 million and \$1.0 million during the three and nine months ended September 30, 2017, respectively, compared to the same period in 2016. This is a result of the expiration of the formulation patent for argatroban in June 2014, allowing for generic competition in the subsequent quarters. We expect that the 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**

Our cost and operating expenses are comprised of cost of product sales, research and development expense, and selling, general and administrative expense. The following table shows the amounts of our cost of product sales, research and development expense, and selling, general and administrative expense from our consolidated statements of operations for the periods presented (in thousands):

(In Thousands)	Three months ended September 30,		Change		Nine months ended September 30,		Change	
	2017	2016	\$	%	2017	2016	\$	%
	Cost of product sales	\$ 3,976	\$ 2,756	\$ 1,220	44%	\$ 10,768	\$ 7,466	\$ 3,302
Research and development expense	8,055	5,467	2,588	47%	20,242	16,265	3,977	24%
Selling, general and administrative expense	7,989	5,229	2,760	53%	21,141	18,451	2,690	15%
Total costs and operating expenses	\$ 20,020	\$ 13,452	\$ 6,568	49%	\$ 52,151	\$ 42,182	\$ 9,969	24%

### **Cost of Product Sales and Product Gross Margin**

The following table shows the amounts of our revenues from product sales, cost of product sales, product gross profit and product gross margin from our consolidated statements of operations for the periods presented (in thousands):

(In Thousands)	Three months ended September 30,		Change		Nine months ended September 30,		Change	
	2017	2016	\$	%	2017	2016	\$	%
	Revenues from product sales	\$ 6,948	\$ 4,052	\$ 2,896	71%	\$ 19,134	\$ 11,072	\$ 8,062
Cost of product sales	3,976	2,756	1,220	44%	10,768	7,466	3,302	44%
Product gross profit	\$ 2,972	\$ 1,296	\$ 1,676	129%	\$ 8,366	\$ 3,606	\$ 4,760	132%
Product gross margin (%)	43%	32%			44%	33%		

Cost of 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 product sales.

Product gross margins were 43% and 44% in the three and nine months ended September 30, 2017, respectively, compared to 32% and 33%, respectively, in the corresponding periods in 2016 due to improved sales mix.

#### **Research and Development Expenses**

Research and development expenses consist of costs incurred for internal projects as well as partner-funded collaborative research and development activities. These costs 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, and depreciation of facilities and laboratory equipment, and (iii) external costs. Research and development expenses are expensed when incurred.

Research and development expenses increased by \$2.6 million, or 47%, during the three months ended September 30, 2017 and \$4.0 million, or 24%, during the nine months ended September 30, 2017, compared to the same periods in 2016 primarily due to an increase in outside services relating to CDX-6114, our orally dosable enzyme therapeutic candidate for PKU disease, and increased costs associated with higher headcount, partially offset by the absence of amortization of intangibles, which were fully amortized during the fourth quarter of 2016.

#### **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 \$2.8 million, or 53% during the three months ended September 30, 2017 compared to the same period in 2016, primarily due to an increase in legal expenses related to intellectual property and an increase in costs associated with higher headcount, which were partially offset by lower depreciation expense. For the nine months ended September 30, 2017, selling, general and administrative expenses increased by \$2.7 million, or 15%, compared to the corresponding period in 2016, primarily due to an increase in legal expenses and an increase in costs associated with higher headcount, which were partially offset by lower depreciation expense and lower outside services.

#### **Interest income and other income (expense)**

(In Thousands)	Three months ended September 30,		Change		Nine months ended September 30,		Change	
	2017	2016	\$	%	2017	2016	\$	%
Interest income	\$ 28	\$ 12	\$ 16	133%	\$ 96	\$ 40	\$ 56	140%
Other income (expense)	(68)	7	(75)	(1,071)%	(80)	(39)	(41)	(105)%
Total other income (expense)	\$ (40)	\$ 19	\$ (59)	(311)%	\$ 16	\$ 1	\$ 15	1,500%

Interest income was not material during the three and nine months ended September 30, 2017 and 2016.

The change in other income (expense) for the nine months ended September 30, 2017 compared to the same period in 2016 was primarily related to fluctuations in foreign currency.

#### **Provision for income taxes**

We recognized income tax expense of \$150,000 and \$132,000 for the three and nine months ended September 30, 2017, respectively. The tax expense for the three and nine months ended September 30, 2017 primarily related to income tax expense attributable to a foreign subsidiary and unrecognized losses from changes in the fair value of our investment in CO2 Solutions. We recognized benefit from income tax of \$0 and \$15,000 for the three and nine months ended September 30, 2016, 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.

## Net income (loss)

Net loss for the third quarter of 2017 was \$10.2 million, representing a net loss of \$0.21 per basic and diluted share. This compares to net income of \$1.4 million, representing basic net income of \$0.04 per share or diluted net income of \$0.03 per share for the third quarter of 2016. For the nine months ended September 30, 2017, net loss was \$24.0 million, representing a net loss of \$0.53 per basic and diluted share. This compares to a net loss of \$3.3 million, representing basic net loss of \$0.08 per basic and diluted share for the nine months ended September 30, 2016. The increase in net loss for the three and nine months ended September 30, 2017 compared to the same period of the prior year is primarily related to the decrease in milestones included in research and development revenues and an increase in operating expenses which were partially offset by an increase in revenue from product sales net of associated increases in costs of product sales.

## 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. For the nine months ended September 30, 2017 our most significant cash flow activities consisted of \$23.2 million of net proceeds from our underwritten public offering, which was completed in April 2017, partially offset by \$16.4 million of cash used in operations and \$1.7 million taxes paid related to net share settlement of restricted stock awards. We actively manage our cash usage and investment of liquid cash to ensure the maintenance of sufficient funds to meet our working capital 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 September 30, 2017 and December 31, 2016, as well as our statements of cash flows for the three and nine months ended September 30, 2017 and 2016:

(In Thousands)	September 30, 2017	December 31, 2016
Cash and cash equivalents	\$ 23,826	\$ 19,240
Working capital	\$ 17,950	\$ 14,860

  

(In Thousands)	Nine months ended September 30,	
	2017	2016
Net cash used in operating activities	\$ (16,368)	\$ (7,023)
Net cash used in investing activities	(663)	(748)
Net cash provided by (used in) financing activities	21,617	(584)
Net increase (decrease) in cash and cash equivalents	<u>\$ 4,586</u>	<u>\$ (8,355)</u>

We have historically experienced negative cash flows from operations as we continue to invest in key technology development projects and improvements to our CodeEvolver® protein engineering technology platform, and expand our business development and collaborations with new customers. Our cash flows from operations will continue to be affected principally by sales and gross margins from product sales and collaborative research and development services provided to customers, as well as our headcount costs, primarily in research and development. Our primary source of cash flows from operating activities is cash receipts from our customers for purchases of products and/or collaborative research and development services. Our largest uses of cash from operating activities are for employee-related expenditures, rent payments, inventory purchases to support our product 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 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. On May 2, 2017, we received a payment in the low single-digit million dollar range from a customer relating to our March 2017 research and development agreement.

In June 2017, we entered into the Credit Facility, which consists of term debt for loans that allow us to borrow up to \$10.0 million and a revolving credit facility that allows us to borrow up to \$5.0 million with a certain eligible accounts receivable borrowing base of 80% of eligible accounts receivable. We may draw on the term debt at any time prior to June 30, 2018, subject to customary conditions for funding including, among others, that no event of default exists. Draws on the Credit Facility are secured by a lien on substantially all of our personal property other than our intellectual property. No amounts were drawn down under the credit facility as of September 30, 2017. At September 30, 2017, we were in compliance with the covenants for the Credit Facility. The Credit Facility requires us to maintain compliance with certain financial covenants including attainment of certain lender-approved projections or maintenance of certain minimum cash levels. Restrictive covenants in the Credit Facility restrict the payment of dividends or other distributions. For additional information about our contractual obligations, see Note 10 "Commitments and Contingencies" in the accompanying notes to the unaudited condensed consolidated financial statements. 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.

On October 12, 2017 (the "Effective Date"), we entered into a Global Development, Option and License Agreement (the "Agreement") with Nestec Ltd. ("Nestlé Health Science").

Pursuant to the Agreement, we granted to Nestlé Health Science, under certain of our patent rights and know-how: (i) an option (the "Option") to obtain an exclusive, worldwide, royalty-bearing, sublicensable license to develop and commercialize certain products (each, a "Product") based on our therapeutic enzyme product candidates for the treatment of hyperphenylalaninemia, and (ii) an exclusive right of first negotiation (the "Right of First Negotiation") to obtain an exclusive worldwide license to develop and commercialize up to two enzymes discovered by us for use in the field of the prevention, diagnosis, treatment and management of inborn errors of amino acid metabolism.

Pursuant to the Agreement, Nestlé Health Science is obligated to pay us an upfront cash payment of \$14 million within 30 days after the Effective Date and, in the event Nestlé Health Science exercises the Option, \$3 million within 60 days after the effective time of the license. Other potential payments from Nestlé Health Science to us under the Agreement include (i) development and approval milestones of up to \$90 million, (ii) sales-based milestones of up to \$250 million in the aggregate, which aggregate amount is achievable if net sales exceed \$1 billion in a single year, and (iii) tiered royalties, at percentages ranging from the middle single digits to low double-digits, of net sales of Product.

As of September 30, 2017, we had cash and cash equivalents of \$23.8 million and \$15.0 million available to borrow under the Credit Facility. Our liquidity is dependent upon our cash and cash equivalents, cash flows provided by operating activities and the continued availability of borrowings under the Credit Facility.

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 to relinquish commercial rights, or grant licenses on terms that are not favorable to us. If adequate funds are not available, we will not be able to successfully execute our business plan or continue our business.

### Cash Flows from Operating Activities

Cash used in operating activities was \$16.4 million net for the nine months ended September 30, 2017, which resulted from a net loss of \$24.0 million for the nine months ended September 30, 2017 adjusted for non-cash charges for depreciation and amortization of \$0.8 million and stock-based compensation of \$5.2 million. Additional cash provided by changes in operating assets and liabilities was \$1.6 million. Changes in operating assets and liabilities included a \$3.2 million increase in deferred revenues primarily related to an upfront payment received from a fine chemicals customer, a \$2.3 million increase in other accrued liabilities primarily due to legal fees and outside services and a \$0.4 million increase in accounts payable which were partially offset by increases of \$1.8 million in accounts receivable, \$1.3 million in prepaid expenses primarily for outside services and decreases of \$0.5 million in accrued compensation and \$0.3 million in long term incentive obligation.

Cash used in operating activities was \$7.0 million for the nine months ended September 30, 2016, which resulted from a net loss of \$3.3 million for the nine months ended September 30, 2016, adjusted for non-cash charges for depreciation and amortization of \$3.9 million and stock-based compensation of \$3.9 million. Additional cash uses from changes in operating assets and liabilities were \$11.4 million. Changes in operating assets and liabilities included a \$4.6 million increase in accounts receivable and a \$4.3 million decrease in deferred revenues, in each case primarily related to revenue recognition on the achievement of milestones from collaborative arrangements with Merck and GSK, a \$1.0 million decrease in accounts payable primarily reflecting the timing of payments and a \$0.9 million increase in restricted cash-current relating to our subsidiary in India.

### Cash Flows from Investing Activities

Cash used in investing activities was \$0.7 million for both the nine months ended September 30, 2017 and 2016, which is primarily attributable to purchase of property and equipment.

### Cash Flows from Financing Activities

Cash provided by financing activities was \$21.6 million for the nine months ended September 30, 2017 which represents \$23.2 million of net proceeds from the underwritten public offering in April 2017, partially offset by \$1.7 million for taxes paid related to net share settlement of equity awards. Cash used in operating activities was \$0.6 million for the nine months ended September 30, 2016 which is primarily attributable to \$1.5 million of taxes paid related to net share settlement of equity awards, partially offset by \$0.9 million in proceeds from exercise of stock options.

### Contractual Obligations

(In Thousands)	Payments due by period			
	Total	Less than 1 year	1-3 years	3-5 years
Capital lease obligations	\$ 627	\$ 252	\$ 375	\$ —
Operating leases	8,484	3,161	4,672	651
Total	<u>\$ 9,111</u>	<u>\$ 3,413</u>	<u>\$ 5,047</u>	<u>\$ 651</u>

### Other Commitments

We have other commitments related to supply and service arrangements entered into the normal course of business. For additional information about other commitments, see Note 10 "Commitments and Contingencies" in the accompanying notes to the unaudited condensed consolidated financial statements. Future minimum payments reflect amounts those obligations are expected to have on our liquidity and cash flows in future period and include obligations subject to risk of cancellation by us (in thousands):

Other Commitment Agreement Type	Agreement Date	Future Minimum Payment
Manufacture and supply agreement with expected future payment date of December 2022	April 2016	\$ 1,693
Service agreement for the development of manufacturing process	April 2017	2,180
Service agreement for stability study	July 2017	369
Total other commitments		<u>\$ 4,242</u>

In June 30, 2017, we entered into a credit facility consisting of term loans totaling up to \$10.0 million, and advances under a revolving line of credit totaling up to \$5.0 million with an accounts receivable borrowing base of 80% of certain eligible accounts receivable. We may draw on the term debt at any time prior to June 30, 2018, subject to customary conditions for funding including, among others, that no event of default exists. The credit facility terminates July 1, 2021. Term debt loans bear interest through maturity at a variable rate based on the London Interbank Offered Rate plus 3.60%. Advances under the revolving line of credit bear interest at a variable annual rate equal to the greater of (i) 1.00% above the prime rate and (ii) 5.00%. No amounts were drawn down under the credit facility as of September 30, 2017. For additional information about our credit facility, see Note 10 "Commitments and Contingencies" in the accompanying notes to the unaudited condensed consolidated financial statements.

#### **Off-Balance Sheet Arrangements**

As of September 30, 2017, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4) of Regulation S-K as promulgated by the SEC.

#### **Critical Accounting Policies and Estimates**

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make judgments, estimates and assumptions in the preparation of our consolidated financial statements and accompanying notes. Actual results could differ from those estimates. There have been no material changes to our critical accounting policies or estimates as discussed in our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 9, 2017.



### **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

#### ***Market Risk Management***

Our cash flows and earnings are subject to fluctuations due to changes in foreign currency exchange rates, interest rates and other factors. These market risk exposures are disclosed in Part I, Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2016, filed with the SEC on March 9, 2017.

#### ***Interest Rate Sensitivity***

In September 30, 2017, we entered into a credit facility agreement consisting of term loans totaling up to \$10.0 million, and advances under a revolving line of credit totaling up to \$5.0 million. Draws on the term debt bear interest at a variable rate based on the London Interbank Offered Rate plus 3.60%. Advances under the revolving line of credit bear interest at a variable annual rate equal to the greater of (i) 1.00% above the prime rate and (ii) 5.00%. Increases in these variable interest rates will increase our future interest expense and decrease our results of operations and cash flows. No amounts were drawn down under the credit facility as of September 30, 2017.

#### ***Equity Price Risk***

As described in Note 5, "Cash Equivalents and Marketable Securities" and Note 6, "Fair Value Measurements" to the condensed consolidated financial statements, we have an investment in common shares of CO2 Solutions, whose shares are publicly traded in Canada on the TSX Venture Exchange. As of September 30, 2017, the fair value of our investment in CO2 Solutions' common stock was \$1.2 million, including an unrealized gain of \$0.6 million.

This investment is exposed to fluctuations in both the market price of CO2 Solutions' common shares and changes in the exchange rate between the U.S. dollar and the Canadian dollar. The effect of a 10% adverse change in the market price of CO2 Solution's common shares as of September 30, 2017 would have been an unrealized loss of approximately \$0.1 million, recognized as a component of our condensed consolidated statements of comprehensive income (loss). The effect of a 10% adverse change in the exchange rate between the U.S. dollar and the Canadian dollar as of September 30, 2017 would have been an unrealized loss of approximately \$0.1 million, recognized as a component of our condensed consolidated statements of comprehensive income (loss).

### **ITEM 4. CONTROLS AND PROCEDURES**

#### ***Evaluation of Disclosure Controls and Procedures***

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

Our management, including our principal executive officer and our principal financial and accounting officer, evaluated the effectiveness of our disclosure controls and procedures as defined by Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Based on this review, our principal executive officer and our principal financial and accounting officer concluded that these disclosure controls and procedures were effective as of September 30, 2017 at the reasonable assurance level.

#### ***Changes in Internal Control over Financial Reporting***

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

***Inherent Limitations on Effectiveness of Controls***

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

## PART II. OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

On February 19, 2016, we filed a complaint against EnzymeWorks, Inc., a California corporation, EnzymeWorks, Inc., a Chinese corporation (collectively with the California corporation, “EnzymeWorks”), and Junhua “Alex” Tao (collectively with EnzymeWorks, 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 certain of the claims in the First Amended Complaint. We opposed the Defendant’s Partial Motion to Dismiss. On August 11, 2016, the judge issued an order that denied the Defendants’ Partial Motion to Dismiss with respect to all five claims and in all relevant parts, and granted the motion with respect to certain underlying arguments. The Defendants filed their Answer on September 1, 2016, stating that the Defendants would not contest infringement of the asserted patents and denying the trade secret claim and other non-patent claims. There are no counterclaims. On July 19, 2017, Defendants filed a Stipulation with Proposed Order seeking leave to file Defendants’ First Amended Answer to add an affirmative defense of “competition privilege.” The Court entered the Order granting leave for Defendants to file the First Amended Answer on July 24, 2017, and Defendants filed a First Amended Answer on July 25, 2017. On July 31, 2017, the parties filed a stipulation acknowledging that EnzymeWorks had not denied or disputed its infringement of each of Codexis’ ten asserted patents, or the validity of those patents. Based on this stipulation, on August 8, 2017, the Court granted partial summary judgment of patent infringement against EnzymeWorks and ruled that the patents in the suit are not invalid. In addition, on September 25, 2017, the Court granted Codexis’ motion to amend the Complaint to add a voidable transfer claim against Junhua Tao and his son, Andrew Tao. Codexis filed the second amended Complaint on September 28, 2017. 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.

### ITEM 1A. RISK FACTORS

We have included in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2016, a description of certain risks and uncertainties that could affect our business, future performance or financial condition (the “Risk Factors”). Except as set forth below, there are no material changes from the disclosure provided in the Form 10-K for the year ended December 31, 2016 with respect to the Risk Factors. Investors should consider the Risk Factors prior to making an investment decision with respect to our stock.

***Our biotherapeutic programs are early stage, highly regulated and expensive. Our ability to obtain additional development partners for the programs, to advance our product candidates to clinical trials and to ultimately receive regulatory approvals is highly uncertain.***

We are developing novel biotherapeutic candidates, in particular our novel oral enzyme product candidate for the treatment of phenylketonuria (“PKU”). The successful development of biotherapeutic candidates involves many risks and uncertainties, requires long timelines and may lead to uncertain results. In addition, drug development is highly regulated and requires areas of expertise and capital resources we do not currently possess. In October 2017, we entered into a Global Development, Option and License Agreement with Nestec Ltd. (“Nestlé Health Science”) pursuant to which we granted to Nestlé Health Science an option to obtain an exclusive, worldwide, royalty-bearing, sublicensable license to develop and commercialize certain products based on our therapeutic enzyme product candidates for the treatment of hyperphenylalaninemia, including CDX-6114, our product candidate for the treatment of PKU, as well as an exclusive right of first negotiation to obtain an exclusive worldwide license to develop and commercialize any enzyme discovered by us for use in the field of the prevention, diagnosis, treatment and management of inborn errors of amino acid metabolism. (See Note 13, “Subsequent Events”.) Our efforts to advance our PKU program, including CDX-6114, and any other biotherapeutic candidates that we develop are subject to numerous risks, including the following:

- The regulatory approval processes of the FDA and comparable foreign authorities are lengthy, time consuming and inherently unpredictable. If we or Nestlé Health Science, as applicable, are ultimately unable to obtain regulatory approval for CDX-6114 or any other product candidates that we may develop in the future, our business will be harmed. To obtain regulatory approval to market any product candidate, preclinical studies and costly and lengthy clinical trials are required, and the results of the studies and trials are highly uncertain. A failure of one or more pre-clinical or clinical trials can occur at any stage, and many companies that have believed their drug candidates performed satisfactorily in pre-clinical and clinical testing have nonetheless failed to obtain marketing approval of their product candidates.
- We may find it difficult to enroll patients in our clinical trials given the limited number of patients that have PKU. Any enrollment difficulties could delay clinical trials and any potential product approval.
- Delays in the commencement or completion of clinical testing could significantly affect our product development costs or the product development costs of our present and any future collaborators. We do not know whether planned clinical trials will begin on time or be completed on schedule, if at all. The commencement and completion of clinical trials can be delayed for a number of reasons.
- If Nestlé Health Science does not exercise its option with respect to CDX-6114 or any other product candidates that we develop under our agreement, or if it terminates any development program under its collaboration with us, whether as a result of our inability to meet milestones or otherwise, any potential revenue from those collaborations will be significantly reduced or non-existent, and our results of operations and financial condition will be materially and adversely affected. In addition, without a partner to assist us with the funding and development of our PKU program, we may not have sufficient funds or expertise to advance development of the program on our own.
- We do not have experience in drug development or regulatory matters related to drug development. As a result, we rely or will rely on third parties to conduct our pre-clinical and clinical studies, assist us with drug manufacturing and formulation and perform other tasks for us. If these third parties do not successfully carry out their responsibilities or comply with regulatory requirements, we may receive lower quality products or services, suffer reputational harm and not be able to obtain regulatory approval for CDX-6114 or any other product candidates that we may develop in the future.
- Our efforts to use CodeEvolver® protein engineering technology platform to generate new lead biotherapeutic candidates, whether under our collaboration with Nestlé Health Science or otherwise, may not be successful in creating candidates of value.
- We will be exposed to potential product liability risks through the testing of experimental therapeutics in humans, which may expose us to substantial uninsured liabilities.
- Third parties may develop intellectual property that could limit our ability to develop, market and commercialize CDX-6114, if approved, or any other product candidates that we may develop in the future.
- Changes in methods of treatment of disease, such as gene therapy, could cause us to stop development of our product candidate or reduce or eliminate potential demand for CDX-6114, if approved, or any other product candidates that we may develop in the future.

***If we are unable to comply with the terms of our credit facility, our business and financial condition would be materially and adversely affected.***

On June 30, 2017 we entered into a credit facility ("Credit Facility") financing arrangement secured by a lien on substantially all of our personal property other than our intellectual property. Although we have no loans or draws under the Credit Facility as of the date of this report, the Credit Facility includes affirmative and negative covenants including, among others, covenants requiring us to achieve consolidated product revenues at minimum levels and restricting our ability to transfer collateral, incur additional indebtedness, engage in mergers or acquisitions, pay dividends or make other distributions, make investments, create liens and sell assets. The Credit Facility also includes events of default including, among other things, our failure to pay any amounts due under the Credit Facility, a breach of covenants under the Credit Facility, our insolvency, a material adverse change, the occurrence of any default under certain other indebtedness in an amount greater than \$250,000 and a final judgment against us in an amount greater than \$250,000. If an event of default occurs, it could cause our obligations to become immediately due and payable and our lender would be entitled to foreclose against the collateral securing the indebtedness, including our cash. If our indebtedness were to be accelerated, we may be unable to repay such debt and, therefore, such acceleration could materially and adversely affect our business and financial condition. For more information regarding our compliance with our financial covenants, see "Management's Discussion and Analysis of Financial Condition and Results of Operations."

***Debt service obligation may place us at a competitive disadvantage in our industry.***

Draws under the Credit Facility would create debt service obligations for us. Although we have not drawn on the Credit Facility to date, any future draws under the Credit Facility and the related debt service requirements could adversely affect our ability to operate our business and may limit our ability to take advantage of potential business opportunities. For example, the Credit Facility presents the following risks, certain of which apply regardless of whether we draw on the Credit Facility:

- we may be required to use a portion of our cash flow from operations to make debt service payments, thereby reducing the availability of our cash flow to fund working capital, capital expenditures, product development efforts, research and development, and other general corporate requirements;
- our interest expense could increase if prevailing interest rates increase, because a portion of draws which could be made under the Credit Facility bear interest at floating rates;
- the Credit Facility could reduce our flexibility to adjust to changing business conditions or obtain additional financing to fund working capital, capital expenditures, product development efforts, research and development, and other general corporate requirements; and
- restrictive covenants in our Credit Facility, which apply regardless of whether we draw down under the facility, limit our ability to, among other things, transfer collateral, incur additional indebtedness, engage in mergers or acquisitions, pay dividends or make other distributions, make investments, create liens and sell assets.

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

Effective June 30, 2017, we entered into a credit facility consisting of a term debt note for loans totaling up to \$10.0 million, and advances under a revolving line of credit totaling up to \$5.0 million. Covenants in the credit facility limit our ability to pay dividends or make other distributions. For additional information see Note 10 "Commitments and Contingencies" in the accompanying notes to the unaudited condensed consolidated financial statements.

**ITEM 3. DEFAULTS UPON SENIOR SECURITIES**

None.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**ITEM 5. OTHER INFORMATION**

Not applicable.

**ITEM 6. EXHIBITS**

- 3.1 [Amended and Restated Certificate of Incorporation of Codexis, Inc. filed with the Secretary of the State of Delaware on April 27, 2010 and effective as of April 27, 2010 \(incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed on May 28, 2010\).](#)
- 3.2 [Certificate of Designations of Series A Junior Participating Preferred Stock of Codexis, Inc., filed with the Secretary of State of the State of Delaware on September 4, 2012 \(incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K, filed on September 4, 2012\).](#)
- 3.3 [Amended and Restated Bylaws of Codexis, Inc. effective as of April 27, 2010 \(incorporated by reference to Exhibit 3.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed on May 28, 2010\).](#)
- 4.1 Reference is made to Exhibits 3.1 through 3.3.
- 4.2 [Form of the Company's Common Stock Certificate \(incorporated by reference to Exhibit 4.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2012, filed on August 9, 2012\).](#)
- 10.1 [First Amendment to Loan and Security Agreement effective as of September 28, 2017 by and between Codexis, Inc., a Delaware corporation \("Borrower"\), having a place of business at 200 Penobscot Drive, Redwood City, CA 94063 and Western Alliance Bank, an Arizona corporation, having a place of business at 55 Almaden Boulevard, San Jose, CA 95113. \("Bank"\).](#)
- 31.1 [Certification of Principal Executive Officer Required Under Rule 13a-14\(a\) and 15d-14\(a\) of the Securities Exchange Act of 1934, as amended.](#)
- 31.2 [Certification of Principal Financial Officer Required Under Rule 13a-14\(a\) and 15d-14\(a\) of the Securities Exchange Act of 1934, as amended.](#)
- 32.1 [Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14\(b\) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. § 1350.](#)
- 101 The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, formatted in Extensible Business Reporting Language (XBRL) includes: (i) Condensed Consolidated Balance Sheets at September 30, 2017 and December 31, 2016, (ii) Condensed Consolidated Statements of Operations for the Three and Nine Months Ended September 30, 2017 and 2016, (iii) Condensed Consolidated Statements of Comprehensive Income (Loss) for the Three and Nine Months Ended September 30, 2017 and 2016, (iv) Condensed Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2017 and 2016, and (v) Notes to Condensed Consolidated Financial Statements.

\* Filed as exhibits to the registrant's Registration Statement on Form S-1 (File No. 333-164044), effective April 21, 2010, and incorporated herein by reference.

**SIGNATURES**

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

**Codexis, Inc.**

Date: November 9, 2017

By: /s/ John J. Nicols

John J. Nicols  
President and Chief Executive Officer  
(principal executive officer)

Date: November 9, 2017

By: /s/ Gordon Sangster

Gordon Sangster  
Chief Financial Officer  
(principal financial and accounting officer)

## FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT

THIS FIRST AMENDMENT to Loan and Security Agreement (this “**Amendment**”) is made effective as of September 28, 2017 (the “**Amendment Date**”) and made by and among **WESTERN ALLIANCE BANK**, an Arizona corporation (“**Bank**”) and **CODEXIS, INC.**, a Delaware corporation (“**Borrower**”).

WHEREAS, Bank and Borrower have entered into that certain Loan and Security Agreement, dated as of June 30, 2017 (as amended, supplemented, restated or otherwise modified from time to time, the “**Loan Agreement**”); and

WHEREAS, Bank and Borrower desire to amend certain provisions of the Loan Agreement as provided herein and subject to the terms and conditions set forth herein;

NOW, THEREFORE, in consideration of the promises, covenants and agreements contained herein, and other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Bank and Borrower hereby agree as follows:

1. Capitalized terms used herein but not otherwise defined shall have the respective meanings given to them in the Loan Agreement.
2. Section 1.1 of the Loan Agreement is hereby amended by amending and restating the following definitions therein as follows:

“Permitted Indebtedness” means:

- (a) Indebtedness of Borrower in favor of Bank arising under this Agreement or any other Loan Document;
- (b) Indebtedness existing on the Closing Date and disclosed in the Perfection Certificate on the Closing Date;
- (c) Indebtedness secured by a lien described in clause (c) of the defined term “Permitted Liens,” provided (i) such Indebtedness does not exceed the lesser of the cost or fair market value of the equipment financed with such Indebtedness and (ii) such Indebtedness does not exceed \$750,000 in the aggregate at any given time;
- (d) Subordinated Debt;
- (e) Unsecured Indebtedness to trade creditors incurred in the ordinary course of business;
- (f) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;
- (g) intercompany Indebtedness constituting Permitted Investments;
- (h) Indebtedness under corporate credit cards used in the ordinary course of business in an aggregate amount not to exceed Four Hundred Thousand Dollars (\$400,000) at any given time;
- (i) letters of credit in the ordinary course of business in connection with the leasing of real property in an aggregate amount not to exceed Seven Hundred Fifty Thousand Dollars (\$750,000);



(j) Indebtedness (in the aggregate outstanding amount of not greater than Five Hundred Thousand Dollars (\$500,000) at any given time) consisting of the financing of insurance premiums in the ordinary course of business;

(k) Indebtedness of Codexis Laboratories India Pte., Ltd. in connection with a bank guarantee in the aggregate amount of Indian Rupees 29,000,000 to comply with the applicable orders or requirements of the sales tax department of the Government of India;

(l) additional unsecured Indebtedness not to exceed Two Hundred Fifty Thousand dollars (\$250,000) in the aggregate at any time; and

(m) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (a) through (j) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon Borrower, or its Subsidiary, as the case may be.

3. The following subsection (e) is hereby added to Section 6.3 of the Loan Agreement:

(e) When requested by Bank, Borrower shall provide evidence to the Bank that Borrower is then current with respect to payment of the rent due for Borrower's headquarters.

4. The following Section 6.15 is hereby added to the Loan Agreement:

**6.15 Electronic Access to Books.** If Borrower is unable to comply with its obligation set forth in Section 3.3(i) above, commencing on the first Funding Date, Borrower shall provide Bank with continuous access to Borrower's books and corporate records by providing the Person designated, and for whom an email address is provided, by the Bank with electronic access to Borrower's books and corporate records; provided that Borrower shall not modify such access procedure or the location of such Borrower's books and corporate records without providing prior written notice to the Bank and ensuring that the Bank has continuous access to such Borrower's books and corporate records; provided, further, that such electronic access to Borrower's books and corporate records shall no longer be required when Borrower's books and corporate records are located at an office of Borrower for which Bank has an effective landlord waiver in such form and substance as are reasonably satisfactory to the Bank. For the purposes of clarification, upon Borrower's compliance with this Section 6.15, Borrower's failure to comply with Section 3.3(i) above shall not constitute and Event of Default under this Agreement.

5. Limitation of Amendment.

a. The amendments set forth above are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right, remedy or obligation which the Bank or Borrower may now have or may have in the future under or in connection with any Loan Document, as amended hereby.

b. This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

6. To induce the Bank to enter into this Amendment, Borrower hereby represents and warrants to the Bank as follows:

- a. Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct in all material respects as of such date), and (b) no Event of Default has occurred and is continuing;
  - b. Borrower has the power and due authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;
  - c. The organizational documents of Borrower delivered to the Bank on the Effective Date, and updated pursuant to subsequent deliveries by the Borrower to the Bank, if any, remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;
  - d. The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (i) any law or regulation binding on or affecting Borrower, (ii) any contractual restriction with a Person binding on Borrower, (iii) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (iv) the organizational documents of Borrower;
  - e. The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration by Borrower with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made; and
  - f. This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and by general equitable principles.
7. Except as expressly set forth herein, the Loan Agreement shall continue in full force and effect without alteration or amendment. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements.
  8. This Amendment shall be deemed effective as of the Amendment Date upon the due execution and delivery to the Bank of this Amendment by each party hereto.
  9. This Amendment may be executed in any number of counterparts, each of which shall be deemed an original, and all of which, taken together, shall constitute one and the same instrument.
  10. This Amendment and the rights and obligations of the parties hereto shall be governed by and construed in accordance with the laws of the State of California.

***[Balance of Page Intentionally Left Blank]***

**IN WITNESS WHEREOF**, the parties hereto have caused this First Amendment to Loan and Security Agreement to be executed as of the date first set forth above.

**BORROWER:**

**CODEXIS, INC., A DELAWARE CORPORATION**

By /s/ Gordon Sangster  
Name: Gordon Sangster  
Title: CFO

**BANK:**

**WESTERN ALLIANCE BANK, AN ARIZONA CORPORATION**

By /s/ Bill Wickline  
Name: Bill Wickline  
Title: VP, Director of Portfolio Management

*BOS 48434269v2*

CERTIFICATION

I, John J. Nicols, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Codexis, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 9, 2017

/s/ John J. Nicols

John J. Nicols  
President and Chief Executive Officer  
(principal executive officer)

CERTIFICATION

I, Gordon Sangster, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Codexis, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 9, 2017

/s/ Gordon Sangster

Gordon Sangster  
Senior Vice President and Chief Financial Officer  
(principal financial and accounting officer)

**CERTIFICATION PURSUANT TO  
18 U.S.C. SECTION 1350,  
AS ADOPTED PURSUANT TO  
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Codexis, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended September 30, 2017, as filed with the Securities and Exchange Commission (the "Report"), John J. Nicols, President and Chief Executive Officer of the Company and Gordon Sangster, Senior Vice President and Chief Financial Officer of the Company, respectively, do each hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- The information in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 9, 2017

/s/ John J. Nicols

John J. Nicols  
President and Chief Executive Officer  
(principal executive officer)

/s/ Gordon Sangster

Gordon Sangster  
Senior Vice President and Chief Financial Officer  
(principal financial and accounting officer)

