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, 2015

OR

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

For the transition period from to

Commission file number: 001-34705

Codexis, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**71-0872999**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
200 Penobscot Drive, Redwood City	**94063**
(Address of principal executive offices)	**(Zip Code)**

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

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

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

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

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

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

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

As of October 30, 2015, there were 40,306,967 shares of the registrant's Common Stock, par value $0.0001 per share, outstanding.

Codexis, Inc.

Quarterly Report on Form 10-Q

For The Three Months Ended September 30, 2015

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

	September 30, 2015	December 31, 2014
Assets		
Current assets:		
Cash and cash equivalents	$ 16,963	$ 26,487
Accounts receivable, net of allowances of $421 at September 30, 2015 and $428 at December 31, 2014	13,608	3,870
Inventories	678	1,395
Prepaid expenses and other current assets	1,092	1,255
Total current assets	32,341	33,007
Restricted cash	786	711
Marketable securities	1,231	688
Property and equipment, net	2,821	3,995
Intangible assets, net	3,655	6,186
Goodwill	3,241	3,241
Other non-current assets	265	294
Total assets	$ 44,340	$ 48,122
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 1,174	$ 4,673
Accrued compensation	2,554	2,946
Other accrued liabilities	2,151	2,619
Deferred revenue	6,949	3,497
Total current liabilities	12,828	13,735
Deferred revenue, net of current portion	4,316	3,813
Other long-term liabilities	3,888	4,263
Commitments and contingencies (Note 11)		
Stockholders' equity:		
Preferred stock, $0.0001 par value; 5,000 shares authorized, none issued and outstanding	—	—
Common stock, $0.0001 par value; 100,000 shares authorized at September 30, 2015 and December 31, 2014; shares issued and outstanding of 40,300 at September 30, 2015 and 39,563 at December 31, 2014	4	4
Additional paid-in capital	304,561	302,379
Accumulated other comprehensive income (loss)	201	(142)
Accumulated deficit	(281,458)	(275,930)
Total stockholders' equity	23,308	26,311
Total liabilities and stockholders' equity	$ 44,340	$ 48,122

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,	
	2015	2014	2015	2014
Revenues:				
Biocatalyst product sales	$ 1,818	$ 2,562	$ 6,915	$ 8,323
Biocatalyst research and development	14,517	3,364	19,247	7,176
Revenue sharing arrangement	1,066	1,546	4,056	5,617
Total revenues	17,401	7,472	30,218	21,116
Costs and operating expenses:				
Cost of biocatalyst product sales	1,302	1,532	4,009	6,179
Research and development	4,994	5,038	15,457	17,708
Selling, general and administrative	5,415	5,157	16,289	16,791
Total costs and operating expenses	11,711	11,727	35,755	40,678
Income (loss) from operations	5,690	(4,255)	(5,537)	(19,562)
Interest income	4	3	12	15
Other expenses	(26)	(57)	(147)	(183)
Income (loss) before income taxes	5,668	(4,309)	(5,672)	(19,730)
Provision for (benefit from) income taxes	274	253	(144)	(314)
Net income (loss)	$ 5,394	$ (4,562)	$ (5,528)	$ (19,416)
Net income (loss) per share, basic	$ 0.14	$ (0.12)	$ (0.14)	$ (0.51)
Net income (loss) per share, diluted	$ 0.13	$ (0.12)	$ (0.14)	$ (0.51)
Weighted average common shares used in computing net income (loss) per share, basic	39,767	38,450	39,340	38,063
Weighted average common shares used in computing net income (loss) per share, diluted	40,970	38,450	39,340	38,063

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,	
	2015	2014	2015	2014
Net income (loss)	$ 5,394	$ (4,562)	$ (5,528)	$ (19,416)
Other comprehensive income (loss):				
Unrealized gain (loss) on marketable securities, net of tax expense of $263 and $160 for the three months ended September 30, 2015 and 2014, respectively, and tax benefit of $200 and $89 for the nine months ended September 30, 2015 and 2014, respectively.	(449)	(261)	343	145
Other comprehensive income (loss)	(449)	(261)	343	145
Total comprehensive income (loss)	$ 4,945	$ (4,823)	$ (5,185)	$ (19,271)

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,	
	2015	**2014**
Operating activities:		
Net loss	$ (5,528)	$ (19,416)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of intangible assets	2,531	2,531
Depreciation and amortization of property and equipment	1,569	2,679
Impairment of property and equipment	—	1,841
Change in the fair value of assets held for sale	—	886
Gain on disposal of property and equipment	(5)	(115)
Income tax benefit related to marketable securities	(200)	(89)
Gain on sale of Hungarian subsidiary	—	(760)
Stock-based compensation	3,759	3,630
Amortization of premium on marketable securities	—	2
Bad debt expense	—	53
Changes in operating assets and liabilities:		
Accounts receivable, net	(9,738)	2,316
Inventories, net	717	(456)
Prepaid expenses and other current assets	163	(734)
Other assets	29	15
Accounts payable	(3,499)	(1,418)
Accrued compensation	(393)	(1,100)
Other accrued liabilities	(842)	194
Deferred revenue	3,955	5,288
Net cash used in operating activities	(7,482)	(4,653)
Investing activities:		
Purchase of property and equipment	(395)	(267)
Proceeds from maturities of marketable securities	—	3,000
Proceeds from sale of Hungarian subsidiary, net of selling costs	—	1,500
Proceeds from the sale of assets held for sale	—	281
Proceeds from sale of property and equipment	5	166
Increase in restricted cash	(75)	—
Net cash provided by (used in) investing activities	(465)	4,680
Financing activities:		
Proceeds from exercises of options to purchase common stock	235	180
Taxes paid related to net share settlement of equity awards	(1,812)	(815)
Net cash used in financing activities	(1,577)	(635)
Net decrease in cash and cash equivalents	(9,524)	(608)
Cash and cash equivalents at the beginning of the period	26,487	22,130
Cash and cash equivalents at the end of the period	$ 16,963	$ 21,522

See accompanying notes to the unaudited condensed consolidated financial statements

Notes to Condensed Consolidated Financial Statements
(Unaudited)

Note 1. Description of Business

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

We develop biocatalysts for the pharmaceutical and fine chemicals markets. Our proven technologies enable scale-up and implementation of biocatalytic solutions to meet customer needs for rapid, cost-effective and sustainable process development, from research to manufacturing.

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

Once potentially beneficial mutations are identified through this proprietary process, combinations of these mutations can then be tested until variant enzymes have been created that exhibit marketable performance characteristics superior to competitive products. This process allows for continuous, efficient improvements to the performance of enzymes. In the past, we implemented the CodeEvolver® Platform Technology through paid collaborations with our customers. In July 2014, we entered into our first license agreement pursuant to which we granted a license to a global pharmaceutical company to use the CodeEvolver® Platform Technology for its internal development purposes. In August 2015, we entered into a license agreement involving the CodeEvolver® Platform Technology with a second global pharmaceutical company and we continue to pursue licensing opportunities with additional customers.

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

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

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

Note 2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and the applicable rules and regulations of the Securities and Exchange Commission ("SEC") for interim financial information. Accordingly, they do not include all of the information and notes required by GAAP for complete financial statements. These interim condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto contained in our Annual Report on Form 10-K for the year ended December 31, 2014. The condensed consolidated balance sheet at December 31, 2014 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, 2015 and results of our operations and comprehensive income (loss) for the three and nine months ended September 30, 2015 and 2014, and cash flows for the nine months ended September 30, 2015 and 2014. 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, Brazil, Hungary (through the sale date of March 13, 2014), India, Mauritius, the Netherlands, and Singapore (dissolved in October 2014). 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, assets held for sale, intangible assets, goodwill arising out of business acquisitions, accrued liabilities, stock awards and the valuation allowances associated with deferred tax assets. Actual results could differ from those estimates and such differences may be material to the condensed consolidated financial statements.

Segment Reporting

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

Revenue Recognition

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

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

Biocatalyst Product Sales

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

Biocatalyst Research and Development

Biocatalyst research and development agreements typically provide us with multiple revenue streams, including research services fees for full time employee ("FTE") research services, up-front licensing fees, technology access, contingent payments upon achievement of contractual criteria, and royalty fees based on the licensees' product sales or cost savings achieved by our customers. We perform biocatalyst research and development activities as specified in each respective customer agreement. Payments for services received are not refundable. Certain research agreements are based on a contractual reimbursement rate per FTE working on the project. We recognize revenues from research services as those services are performed over the contractual performance periods. When up-front payments are combined with FTE services in a single unit of accounting, we

recognize the up-front payments using the proportionate performance method of revenue recognition based upon the actual amount of research labor hours incurred relative to the amount of the total expected labor hours to be incurred by us, up to the amount of cash received. In cases where the planned levels of research services fluctuate substantially over the research term, we are required to make estimates of the total hours required to perform our obligations.

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

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

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

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

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

Revenue Sharing Arrangement

We recognize revenues from a revenue sharing arrangement based upon sales of licensed products by our revenue share partner Exela PharmSci, Inc. ("Exela") (see Note 12, "Related Party Transactions"). We recognize revenues net of product and selling costs upon notification from our revenue share partner of our portion of net profit based on the contractual percentage from the sale of licensed product.

Sales Allowances

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

Cost of Biocatalyst Product Sales

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

Cost of Research and Development Services

Cost of research and development services related to services under research and development agreements approximate the research funding over the term of the respective agreements and is included in research and development expense.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects as well as research and development services 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. Costs to acquire technologies that are utilized in research and development and that have no alternative future use are expensed as incurred.

Stock-Based Compensation

We use the Black-Scholes-Merton option pricing model to estimate the fair value of options granted under our equity incentive plans. The Black-Scholes-Merton option pricing model requires the use of assumptions, including the expected term of the award and the expected stock price volatility. We have, due to insufficient historical data, used the "simplified method," as described in Staff Accounting Bulletin No. 107, "Share-Based Payment," to determine the expected life of all stock options granted from the inception of our equity plans through the first half of 2015. We believe we have sufficient historical data to calculate expected terms for stock options granted beginning in the third quarter of 2015. The expected term was based on historical exercise behavior on similar awards, giving consideration to the contractual terms, vesting schedules and expectations of future employee behavior. We used historical volatility to estimate expected stock price volatility. The risk-free rate assumption was based on United States Treasury instruments whose terms were consistent with the expected term of the stock options. The expected dividend assumption was based on our history and expectation of dividend payouts.

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

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

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

We have not recognized, and do not expect to recognize in the near future, any income tax benefit 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 also 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 ofthree 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. Most of our cash and cash equivalents are maintained with major financial institutions in North America. Deposits with these financial institutions may exceed the amount of insurance provided on such deposits. Cash and cash equivalents totaled $17.0 million at September 30, 2015 and were comprised of cash of $5.9 million and money market funds of $11.1 million.

Inventories

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

Marketable Securities

We invest in equity securities and we classify those investments as available-for-sale. These securities are carried at estimated fair value (see Note 5, "Marketable Securities") with unrealized gains and losses included in accumulated other comprehensive income (loss) in stockholders' equity. Available-for-sale equity securities with remaining maturities of greater than one year or which we currently do not intend to sell are classified as long-term.

We review several factors to determine whether a loss is other-than-temporary. These factors include, but are not limited to, the intent and ability to retain the investment in the issuer for a period of time sufficient to allow for any anticipated recovery in market value, the length of time and the extent to which the market value of the investment has been less than cost and the financial condition and near-term prospects of the issuer. Unrealized losses are charged against "Other expense" when a decline in fair value is determined to be other-than-temporary. Amortization of purchase premiums and accretion of purchase discounts and realized gains and losses of debt securities are included in interest income. The cost of securities sold is based on the specific identification method.

Fair Value Measurements

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

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

- Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities.
- Level 2: Directly or indirectly observable inputs as of the reporting date through correlation with market data, including quoted prices for similar assets and liabilities in active markets and quoted prices in markets that are not active. Level 2 also includes assets and liabilities that are valued using models or other pricing methodologies that do not require significant judgment since the input assumptions used in the models, such as interest rates and volatility factors, are corroborated by readily observable data from actively quoted markets for substantially the full term of the financial instrument.
- Level 3: Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions.

Concentrations of Credit Risk

Our financial instruments that are potentially subject to concentration of credit risk primarily consist of cash equivalents, short term investments, accounts receivable, marketable securities and restricted cash. We invest cash that is not required for immediate operating needs principally in money market funds.

Intangible Assets

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

Impairment of Long-Lived Assets

Our long-lived assets include property and equipment and intangible assets. We determined that we have a single entity wide asset group ("Asset Group"). The directed evolution technology patent portfolio acquired from Maxygen ("Core IP") is the most significant component of the Asset Group since it is the base technology for all aspects of our research and development activities, and represents the basis for all of our identifiable cash flow generating capacity. Consequently, we do not believe that identification of independent cash flows associated with long-lived assets is currently possible at any lower level than the Asset Group.

The Core IP is the only finite-lived intangible asset on our condensed consolidated balance sheet as ofSeptember 30, 2015. There has been no significant change in the utilization or estimated life of the Core IP since we acquired the technology patent portfolio from Maxygen.

The carrying value of our long-lived assets in the Asset Group may not be recoverable based upon the existence of one or more indicators of impairment which could include: a significant decrease in the market price of our common stock; current period cash flow losses or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the assets; slower growth rates in our industry; significant adverse changes in the business climate or legal factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the assets; loss of significant customers or partners; or the current expectation that the assets will more likely than not be sold or disposed of significantly before the end of their estimated useful life.

We evaluate recoverability of intangible assets based on the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the Asset Group. We make estimates and judgments about the future undiscounted cash flows over the remaining useful life of the Asset Group. Our anticipated future cash flows include our estimates of existing or in process product sales, production and operating costs, future capital expenditures, working capital needs, and assumptions regarding the ultimate sale of the Asset Group at the end of the life of the primary asset. The useful life of the Asset Group was based on the estimated useful life of the Core IP, the primary asset at the time of acquisition. There has been no change in the estimated useful life of the Asset Group. Although our cash flow forecasts are based on assumptions that are consistent with our plans, there is significant judgment involved in determining the cash flows attributable to the Asset Group over its estimated remaining useful life.

In the fourth quarter of 2014, we determined that there were no events or changes in circumstances that indicated that the carrying value of the Asset Group might not be recoverable. We concluded that the fair value of the reporting unit exceeded its carrying value and no impairment existed. During the nine months ended September 30, 2015, we did not identify any indicators of potential impairment of intangible assets or new information that would have a material impact on the forecast or the impairment analysis prepared as of December 31, 2014.

Goodwill

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

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

We use our market capitalization as an indicator of fair value. We believe that because our reporting unit is publicly traded, the ability of a controlling stockholder to benefit from synergies and other intangible assets that arise from control might cause the fair value of our reporting unit as a whole to exceed its market capitalization. However, 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 stockholder's 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 of2014. 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, 2014. During the nine months ended September 30, 2015, 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, 2014.

Income Taxes

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

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

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

We make estimates and judgments about future taxable income that are based on assumptions that are consistent with our plans and estimates. Should the actual amounts differ from our estimates, the amount of our valuation allowance could be materially impacted. Any adjustment to the deferred tax asset valuation allowance would be recorded in the income statement for the periods in which the adjustment is determined to be required. With the sale of the Hungarian subsidiary in the quarter ended March 31, 2014, the related net operating losses and other tax attributes are no longer available to us. The related deferred tax assets had a full valuation allowance and, as a result, their removal did not have a material impact to the financial statements.

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.

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.

We recognized an income tax expense of $0.3 million for both the three months ended September 30, 2015 and 2014. We recognized an income tax benefit of $0.1 million for the nine months ended September 30, 2015, as compared to $0.3 million for the same period in 2014.

Recently Issued and Adopted Accounting Guidance

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

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

In July 2015, the FASB issued ASU 2015-11, "Inventory (Topic 330): Simplifying the Measurement of Inventory," which simplifies the subsequent measurement of inventory by requiring inventory to be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price of inventory in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. This ASU is effective for public business entities for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. We are currently evaluating the impact of adopting ASU 2015-11 on our condensed consolidated financial statements and related disclosures.

In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date." This ASU defers the effective date of ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)" for all entities by one year. The standard outlines a single comprehensive model for entities to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance, including industry-specific guidance. The main principle of ASU 2014-09 is to recognize revenue when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 provides companies with two implementation methods: (i) apply the standard retrospectively to each prior reporting period presented (full retrospective application); or (ii) apply the standard retrospectively with the cumulative effect of initially applying the standard as an adjustment to the opening balance of retained earnings of the annual reporting period that includes the date of initial application (modified retrospective application). ASU 2014-09 as amended by ASU 2015-14 is effective for annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. The FASB will permit companies to adopt the new standard early, but not before the original effective date of December 15, 2016. We are currently in the process of evaluating the impact of the pending adoption of this standard 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 net income (loss) by the weighted-average number of shares of common stock outstanding, less RSAs subject to forfeiture. Diluted net income per share is computed by dividing net income by the weighted average number of shares of common stock outstanding, less RSAs subject to forfeiture, plus all additional common shares that would have been outstanding, assuming dilutive potential common shares had been issued for other dilutive securities. For periods of net loss, diluted and basic net loss per share were identical since potential common shares were excluded from the calculation, as their effect would be anti-dilutive.

The following table sets forth the computation of basic and diluted net income per share during the three and nine months ended September 30, 2015 and 2014 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Numerator				
Net income (loss)	$ 5,394	$ (4,562)	$ (5,528)	$ (19,416)
Denominator				
Weighted average common shares used in computing net income (loss) per share, basic	39,767	38,450	39,340	38,063
Effect of dilutive shares	1,203	—	—	—
Weighted average common shares used in computing net income (loss) per share, diluted	40,970	38,450	39,340	38,063
Net income (loss) per share, basic	$ 0.14	$ (0.12)	$ (0.14)	$ (0.51)
Net income (loss) per share, diluted	$ 0.13	$ (0.12)	$ (0.14)	$ (0.51)

Anti-Dilutive Securities

In periods of net loss, the weighted average number of shares outstanding related to potentially dilutive securities, prior to the application of the treasury stock method, are excluded from the computation of diluted net loss per common share because including such shares would have an anti-dilutive effect. The following shares were not considered in the computation of diluted net loss per share (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Shares issuable under Equity Incentive Plan	—	6,398	6,121	6,398
Shares issuable upon the conversion of warrants	—	75	75	75
Total shares excluded as anti-dilutive	—	6,473	6,196	6,473

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 License Agreement") with GlaxoSmithKline ("GSK"). Under the terms of the GSK License Agreement, we granted GSK a non-exclusive license to use the CodeEvolver® Platform Technology 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 License Agreement and subsequently a $5.0 million non-creditable, non-refundable milestone payment upon achievement of the first milestone. During the three months ended September 30, 2015, we achieved the second milestone of the agreement earning another milestone payment of $6.5 million. We are eligible to receive an additional contingent payment of $7.5 million upon the completion of the technology transfer period. We also have the potential to receive additional contingent payments that range from $5.75 million to $38.5 million per project based on GSK's successful application of the licensed technology. The contingent payments are not deemed substantive milestones due to the fact that the achievement of the event underlying the payment predominantly relates to GSK's performance of future development and commercialization activities.

For up to three years following the end of the three-year period during which we will transfer the CodeEvolver® Platform Technology to GSK, GSK can exercise an option, upon payment of certain additional fees, that would extend GSK's license to include certain improvements to the CodeEvolver® Platform Technology that arise during such period. In addition, we will also be eligible to receive royalties based on net sales, if any, of a limited set of products developed by GSK using the CodeEvolver® Platform Technology.

The term of the GSK License Agreement continues, unless earlier terminated, until the expiration of all payment obligations under the GSK License Agreement. At any time following the completion of the first technology transfer stage, GSK can terminate the GSK License Agreement by providing 90 days written notice to us. If GSK exercises this termination right during the three-year technology transfer period, GSK will make a one-time termination payment to us.

Under the GSK License 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, and 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. We determined that 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 described above will be recognized as revenue to the extent GSK purchases enzymes from us.

The up-front license fee of $6.0 million is being recognized over the technology transfer period of three years. We recognized license fees of $0.5 million and $1.5 million for the three and nine months ended September 30, 2015, respectively, and $0.5 million for the three and nine months ended September 30, 2014 as biocatalyst research and development revenues. We had a deferred revenue balance from GSK related to the upfront license fee of $3.5 million at September 30, 2015 and $5.0 million at December 31, 2014.

Merck Supply Agreement

On February 1, 2012, we entered into a five-year Sitagliptin Catalyst Supply Agreement ("Sitagliptin Catalyst Supply Agreement") with Merck Sharp and Dohme Corp., known as MSD outside the United States and Canada ("Merck") whereby Merck may obtain commercial scale substance for use in the manufacture of its products based on the active ingredient sitagliptin, e.g., Januvia®. Merck may extend the term of the Sitagliptin Catalyst Supply Agreement for an additional five years at its sole discretion.

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 Sitagliptin Catalyst Supply Agreement. The license fee is being recognized as collaborative research and development revenues ratably over the five year term of the Sitagliptin Catalyst Supply Agreement.

We recognized license fees of $0.5 million for each of the three months ended September 30, 2015 and 2014 and $1.5 million for each of the nine months ended September 30, 2015 and 2014 as biocatalyst research and development revenues. We had a deferred revenue balance from Merck related to license fees of $1.4 million at September 30, 2015 and $0.9 million at December 31, 2014. In addition, pursuant to the Sitagliptin Catalyst Supply Agreement, Merck may purchase supply from us for a fee based on contractually stated prices.

Merck Platform Technology Transfer and License Agreement

On August 3, 2015 ("Effective Date"), we entered into a CodeEvolver® platform technology transfer and license agreement (the "Merck License Agreement") with Merck. The Agreement allows Merck to use the CodeEvolver® Platform Technology in the field of human and animal healthcare.

We received a $5.0 million up-front licensing fee upon signing the Merck License Agreement. During the three months ended September 30, 2015, we achieved the first milestone of the Merck License Agreement earning a milestone payment of $5.0 million. We are eligible to receive an additional $8.0 million subject to the satisfactory completion of the second milestone of the technology transfer process. We will also be eligible to receive payments of up to a maximum of $15.0 million for each commercial active pharmaceutical ingredient ("API") that is manufactured by Merck using one or more novel enzymes developed by Merck using the CodeEvolver® Platform Technology.

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

Under the Merck License Agreement, we will transfer the CodeEvolver® Platform Technology to Merck over an approximately15 to 24 month period starting on the Effective Date (the "Technology Transfer Period"). As part of this technology transfer, we will provide to Merck our proprietary enzymes, proprietary protein engineering protocols and methods, and proprietary software algorithms. In addition, teams of our and Merck scientists will participate in technology training sessions and collaborative research projects at our laboratories in Redwood City, California and at a designated Merck laboratory. Upon completion of technology transfer, Merck will have CodeEvolver® Platform Technology installed at its designated site.

The licenses to Merck are granted under patents, patent applications and know-how that we own or control as of the Effective Date and that cover the CodeEvolver® Platform Technology. Any improvements to the CodeEvolver® Platform Technology during the Technology Transfer Period will also be included in the license grants from Codexis to Merck. At the end of the Technology Transfer Period, Merck can exercise annual options that, upon payment of certain option fees, would extend Merck's license to include certain improvements to the CodeEvolver® Platform Technology that arise during the three-year period that begins at the end of the Technology Transfer Period.

During the 15-month period that started on the Effective Date, we will provide additional enzyme evolution services to Merck at our laboratories in Redwood City.

The up-front license fee of$5.0 million is being recognized ratably over a two-year period. We recognized license fees of$0.4 million for the three months ended September 30, 2015, as biocatalyst research and development revenues and had a deferred revenue balance from Merck related to the Merck License Agreement license fees of $4.6 million at September 30, 2015.

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

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

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

Note 5. Marketable Securities

At September 30, 2015, securities classified as available-for-sale consisted of the following (in thousands):

	September 30, 2015				
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Average Contractual Maturities
					(in days)
Money market funds (1)	$ 11,115	$ —	$ —	$ 11,115	n/a
Common shares of CO_2 Solutions (2)	563	668	—	1,231	n/a
Total	$ 11,678	$ 668	$ —	$ 12,346	

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

(2) Common shares of CO_2 Solutions are classified as marketable securities on our condensed consolidated balance sheets.

There were no marketable securities in an unrealized loss position at September 30, 2015.

At December 31, 2014, securities classified as available-for-sale consisted of the following (in thousands):

	December 31, 2014				
	Adjusted Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Average Contractual Maturities
					(in days)
Money market funds (1)	$ 14,602	$ —	$ —	$ 14,602	n/a
Common shares of CO_2 Solutions (2)	563	125	—	688	n/a
Total	$ 15,165	$ 125	$ —	$ 15,290	

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

(2) Common shares of CO_2 Solutions are classified in marketable securities on our condensed consolidated balance sheets.

There were no marketable securities in an unrealized loss position at December 31, 2014.

Note 6. Fair Value Measurements

Fair Value of Financial Instruments

The following table presents the financial instruments that were measured at fair value on a recurring basis at September 30, 2015 by level within the fair value hierarchy (in thousands):

	September 30, 2015			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 11,115	$ —	$ —	$ 11,115
Common shares of CO_2 Solutions	—	1,231	—	1,231
Total	$ 11,115	$ 1,231	$ —	$ 12,346

The following table presents the financial instruments that were measured at fair value on a recurring basis at December 31, 2014 by level within the fair value hierarchy (in thousands):

	December 31, 2014			
	Level 1	Level 2	Level 3	Total
Money market funds	$ 14,602	$ —	$ —	$ 14,602
Common shares of CO_2 Solutions	—	688	—	688
Total	$ 14,602	$ 688	$ —	$ 15,290

We estimated the fair value of our investment in 10,000,000 common shares of CO_2 Solutions using the market value of common shares as determined by trading on the TSX Venture Exchange.

Note 7. Balance Sheets Details

Inventories

Inventories consisted of the following (in thousands):

	September 30, 2015	December 31, 2014
Raw materials	$ 182	$ 84
Work-in-process	11	65
Finished goods	485	1,246
Inventories	$ 678	$ 1,395

Property and Equipment, net

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

	September 30, 2015	December 31, 2014
Laboratory equipment	$ 21,354	$ 23,002
Leasehold improvements	9,782	9,773
Computer equipment	3,271	3,262
Office furniture and equipment	1,227	1,227
Construction in progress (1)	151	24
Property and equipment	35,785	37,288
Less: accumulated depreciation and amortization	(32,964)	(31,452)
Less: impairment of laboratory equipment (2)	—	(1,841)
Property and equipment, net	$ 2,821	$ 3,995

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

(2) We recorded an impairment charge of $1.8 million in the second quarter of 2014, reducing the carrying value of certain laboratory equipment related to our Codexol program to zero. The impairment charge was reflected within research and development expenses on the condensed consolidated statements of operations.

Intangible Assets, net

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

	September 30, 2015			December 31, 2014			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Amortization Period
							(years)
Maxygen intellectual property	$ 20,244	$ (16,589)	$ 3,655	$ 20,244	$ (14,058)	$ 6,186	6

The estimated future amortization expense to be charged to research and development through the year ending December 31, 2016 is as follows (in thousands):

Year ending December 31:	Total
2015 (remaining 3 months)	$ 843
2016	2,812
	$ 3,655

Goodwill

Goodwill had a carrying value of approximately $3.2 million at September 30, 2015 and December 31, 2014.

Note 8. Assets Held for Sale and Sale of Former Hungarian Subsidiary

In the fourth quarter of 2013, we announced that we would begin winding down our CodeXyme® cellulase enzyme program. As a result of the termination of this research program, we concluded that certain excess research and development equipment, including assets at our Hungarian subsidiary as well as some assets in the United States, were no longer needed and would be sold.

On March 13, 2014, we entered into an agreement with Intrexon Corporation to sell 100% of our equity interests in our Hungarian subsidiary, Codexis Laboratories Hungary Kft, as well as all assets of such subsidiary that were previously classified as held for sale. On March 15, 2014, the sale transaction closed and we received cash proceeds of $1.5 million from the sale. Accordingly, we reduced the carrying value of assets held for sale by $0.8 million and recognized a gain of $0.8 million in connection with the sale which was included in research and development expenses. As part of the purchase, the buyer obtained all of the Hungarian assets held for sale and assumed all employment and facility lease related contract obligations. There were no transaction related costs incurred other than legal fees, which were recorded in selling, general and administrative expenses.

Prior to the sale of our Hungarian subsidiary in the first quarter of 2014, we transferred certain of the subsidiary's equipment to another of our European subsidiaries and incurred a reclaimable VAT liability of approximately $0.4 million. We paid this VAT amount in July 2014 and recorded a receivable, which is reflected in prepaid expenses and other current assets in our condensed consolidated balance sheets at September 30, 2015 and December 31, 2014.

During the second quarter of 2014, we revised our plan to sell certain U.S. research and development equipment. As part of the revised plan, some equipment was returned to operational use. Additionally, we exchanged certain equipment for more suitable, newer equipment and recognized a loss of approximately $0.2 million as part of the exchange. We also decided to expedite the disposal of other held for sale assets by selling these assets through auction which resulted in further impairment charges of $0.6 million for the three months ended June 30, 2014. We disposed of the remaining held for sale equipment in the third quarter of 2014, which resulted in an additional impairment charge of $0.1 million.

There were no assets classified as held for sale as of September 30, 2015 and as of December 31, 2014.

Note 9. Stock-Based Compensation

Equity Incentive Plans

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

The 2010 Plan provides for the grant of incentive stock options, non-statutory stock options, RSUs, RSAs, PSUs, stock appreciation rights, and stock purchase rights to our employees, non-employee directors and consultants.

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

We issue employees RSUs, which generally vest over either a three year period with 33% of the awards vesting on each annual anniversary or a four year period with 25% of the awards vesting on each annual anniversary. We may grant RSUs with different vesting terms from time to time.

Performance-contingent Restricted Stock Units

The compensation committee of the Board has approved grants of PSUs to employees. These awards have dual triggers of vesting based upon the successful achievement of certain corporate operating milestones in specified timelines, as well as a

requirement of continued employment. When the performance goals are deemed to be probable of achievement for these types of awards, time-based vesting and, as a result, recognition of stock-based compensation expense commences.

In the first quarter of 2015, we awarded PSUs ("2015 PSUs") based upon the achievement of various weighted performance criteria, including revenue growth, non-GAAP net income growth, new licensing collaborations, and securing a drug development partnership. The 2015 PSUs vest such that one-half of the PSUs subject to the award vest one year following the grant, and the remainder of the PSUs vest two years following the grant, subject to our achievement of the performance goals and the recipient's continued service on each vesting date. If the performance goal is achieved at the threshold level, the number of shares issuable in respect of the 2015 PSUs will be equal to half the number of PSUs granted. If the performance goal is achieved at the target level, the number of shares issuable in respect of the 2015 PSUs will be equal to the number of PSUs granted. If the performance goal is achieved at the superior level, the number of shares issuable in respect of the 2015 PSUs will be equal to two times the number of PSUs granted. The number of shares issuable upon achievement of the performance goal at the levels between the threshold and target levels or target level and superior levels is determined using linear interpolation. Achievement below the threshold level results in no shares being issuable in respect of the 2015 PSUs. During the three and nine months ended September 30, 2015, we evaluated our achievement against the performance criteria for the 2015 PSUs and recognized expense based on the estimated achievement rate.

In 2014 we awarded PSUs ("2014 PSUs") based upon the achievement of certain cash flow performance goals. The 2014 PSUs vest such that one-half of the PSUs subject to the award vest one year following the grant, and the remainder of the PSUs vest two years following the grant, subject to our achievement of the performance goals and the recipient’s continued service on each vesting date. If the performance goal is achieved at the threshold level, the number of shares issuable in respect of the 2014 PSUs will be equal to half the number of PSUs granted. If the performance goal is achieved at the target level, the number of shares issuable in respect of the 2014 PSUs will be equal to the number of PSUs granted. If the performance goal is achieved at the superior level, the number of shares issuable in respect of the 2014 PSUs will be equal to two times the number of PSUs granted. The number of shares issuable upon achievement of the performance goal at the levels between the threshold and target levels or target level and superior levels is determined using linear interpolation. Achievement below the threshold level results in no shares being issuable in respect of the 2014 PSUs. During the third quarter of 2014, we concluded that it was not probable that the performance objective would be achieved at the target level of 100%, and we reduced stock-based compensation expense to reflect a lower level of estimated achievement.

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,	
	2015	2014	2015	2014
Research and development (1)	$ 181	$ 227	$ 710	$ 734
Selling, general and administrative	1,042	828	3,049	2,896
Total	$ 1,223	$ 1,055	$ 3,759	$ 3,630

(1) Stock-based compensation expense associated with cost of biocatalyst product sales is included in research and development. Amounts were immaterial for all periods presented.

The following table presents total stock-based compensation expense by security types included in the condensed consolidated statements of operations for thethree and nine months ended September 30, 2015 and 2014 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Stock options	$ 281	$ 247	$ 798	$ 843
RSUs and RSAs	566	722	2,020	2,383
PSUs	376	86	941	404
Total	$ 1,223	$ 1,055	$ 3,759	$ 3,630

As of September 30, 2015, unrecognized stock-based compensation expense, net of expected forfeitures, was$2.0 million related to unvested employee stock options, $2.1 million related to unvested RSUs and RSAs and$0.9 million related to unvested PSUs.

Valuation Assumptions

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2015	2014	2015	2014
Expected term (in years) (1)	5.2	6.0	6.0	6.0
Volatility	67%	68%	66%	65%
Risk-free interest rate	1.64%	1.91%	1.70%	1.915%
Dividend yield	—%	—%	—%	—%
Weighted-average estimated fair value of stock options granted	$ 2.31	$ 1.43	$ 2.09	$ 1.20

(1) We have, due to insufficient historical data, used the simplified method to determine the expected term of stock options granted. In the third quarter of 2015, we have applied historical data to calculate an expected term for stock options granted (see Note 2, "Basis of Presentation and Summary of Significant Accounting Policies").

Note 10. Capital Stock

Exercise of options

For the nine months ended September 30, 2015 and 2014, 128,921 and 136,796 shares were exercised at a weighted-average exercise price of $1.82 and $1.34 per share, respectively, with net cash proceeds of $0.2 million for both periods.

Warrants

Our outstanding warrants are exercisable for common stock at any time during their respective terms. As of September 30, 2015, the following warrants remain outstanding:

	September 30, 2015		
Issue Date	Shares Subject to Warrants	Exercise Price per Share	Expiration
July 17, 2007	2,384	$ 12.45	February 9, 2016
September 28, 2007	72,727	$ 8.25	September 28, 2017

Note 11. Commitments and Contingencies

Operating Leases

Our headquarters are located in Redwood City, California, where we occupy approximately 107,000 square feet of office and laboratory space in four buildings within the same business park of Metropolitan Life Insurance Company ("Met-Life"). We entered into the initial lease with Met-Life for a portion of this space in 2004 and the lease has been amended multiple times since then to adjust space and amend the terms of the lease, with the latest amendment being in 2012. The various terms for the spaces under the lease have expiration dates that range from January 2017 through January 2020.

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 $1.4 million at September 30, 2015, and is reflected in other liabilities on the consolidated balance sheet. Rent expense for the Redwood City properties is recognized on a straight-line basis over the term of the lease.

We are required to restore certain of the Redwood City facilities that we are renting to their original form. We are expensing the asset retirement obligation over the terms of the respective leases. We review the estimated obligation each reporting period and make adjustments if our estimates change. In 2014, we entered into a sublease agreement whereby certain changes were made to our facility by our sublessor. As such, on December 31, 2014, we revised our estimated asset retirement obligation to restore the sublet facility to its original form and recognized an asset retirement obligation of $0.3 million and correspondingly increased our related estimated cash payments. Accretion expense related to our asset retirement obligations

was nominal in each of the three and nine months ended September 30, 2015 and nil in each of the three and nine months ended September 30, 2014.

In accordance with 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, 2015 and December 31, 2014. These deposits are recorded as restricted cash on the consolidated balance sheets.

Prior to March 2014, we also rented facilities in Hungary. Rent expense was being recognized on a straight-line basis over the respective terms of the leases. The facility lease was transferred to Intrexon Corporation in connection with the sale of Codexis Laboratories Hungary Kft (see Note 8, "Assets Held for Sale and Sale of Former Hungarian Subsidiary").

Rent expense was $0.9 million and $2.6 million in the three and nine months ended September 30, 2015, respectively, partially offset by sublease income of $0.2 million and $0.5 million, respectively. Rent expense was $0.9 million and $2.5 million in the three and nine months ended September 30, 2014, respectively, partially offset by sublease income of $0.1 million and $0.3 million during the respective periods in 2014.

Future minimum payments under noncancellable operating leases are as follows at September 30, 2015 (in thousands):

	Lease payments
Years ending December 31,	
2015 (3 months remaining)	$ 689
2016	2,827
2017	2,677
2018	2,736
2019 and beyond	3,054
Total	$ 11,983

Legal Proceedings

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

Other Contingencies

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

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 12. Related Party Transactions

Exela PharmSci, Inc.

We signed a commercialization agreement with Exela in 2007, whereby Exela agreed to pay to us a contractual percentage share of Exela's net profit from the sales of licensed products.

Thomas R. Baruch, one of our directors, serves on the board of directors of Exela and is a limited partner in Presidio Partners 2007, L.P., which owns more than10% of Exela's outstanding capital stock. Consequently, Mr. Baruch has an indirect pecuniary interest in the shares of Exela held by Presidio Partners 2007, L.P. Mr. Baruch is also a limited partner in CMEA Ventures, which owned 7.4% of our common stock until November 10, 2014, at which time the shares were transferred to Presidio Partners 2014, L.P. Mr. Baruch has no direct or indirect pecuniary interest in the shares of our common stock owned by Presidio Partners 2014, L.P.

We recognized $1.1 million and $4.1 million for the three and nine months ended September 30, 2015, respectively, and $1.5 million and $5.6 million for the three and nine months ended September 30, 2014, respectively, shown in the consolidated statement of operations as revenue sharing arrangement. We had receivables of$0.3 million at September 30, 2015 and no receivables at December 31, 2014 from Exela.

Alexander A. Karsner

Alexander A. Karsner was a member of Board until the expiration of his term at the close of our Annual Meeting of Stockholders on June 11, 2014. In addition, Mr. Karsner provided consulting services to us beginning in 2011 through June 30, 2014. Amounts paid to Mr. Karsner for consulting services were nil for the three and nine months ended September 30, 2015 and nil and $60,000 for the three and nine months ended September 30, 2014, respectively.

Note 13. 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,	
	2015	2014	2015	2014
Customer A	39%	27%	34%	26%
Customer B	40%	*	26%	*
Customer C (related party)	*	21%	13%	27%

** Less than 10% in period presented*

Of the customers that contributed 10% or more of our total revenues, the following had accounts receivable balances for the periods presented:

	Percentage of Accounts Receivables at	
	September 30, 2015	December 31, 2014
Customer A	42%	63%
Customer B	47%	2%
Customer C (related party)	*	—%

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

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,	
	2015	2014	2015	2014
Revenues:				
United States	$ 8,755	$ 4,747	$ 16,516	$ 12,518
Asia				
India	369	225	519	636
Others	619	658	1,305	1,338
Europe				
Ireland	160	—	160	2,744
Others	7,498	1,842	11,712	3,864
Other	—	—	6	16
Total revenues	$ 17,401	$ 7,472	$ 30,218	$ 21,116

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

	September 30, 2015	December 31, 2014
Long-lived assets		
United States	$ 6,741	$ 10,475

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, 2014 included in our Annual Report on Form 10-K filed with the SEC on March 6, 2015. 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. 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 in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2014 filed with the SEC on March 6, 2015, as incorporated herein and referenced in Part II, Item 1A of this Quarterly Report on Form 10-Q and elsewhere in this report. The forward-looking statements in this Quarterly Report on Form 10-Q represent our views as of the date of this Quarterly Report on Form 10-Q. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Quarterly Report on Form 10-Q.

Business Overview

We develop biocatalysts for the pharmaceutical and fine chemicals markets. Our proven technologies enable scale-up and implementation of biocatalytic solutions to meet customer needs for rapid, cost-effective and sustainable process development, from research to manufacturing.

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

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

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

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

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

Results of Operations Overview

Revenues were $17.4 million for the third quarter of 2015, an increase of 133% from $7.5 million for the third quarter of 2014. The increase in revenues was due to the achievement of milestones of $5.0 million and $6.5 million under our collaborative arrangements with Merck Sharp & Dohme Corp., known as MSD outside the United States and Canada ("Merck"), and GlaxoSmithKline ("GSK"), respectively, during the third quarter of 2015, partially offset by lower biocatalyst product sales and lower revenues from our revenue sharing arrangement with Exela PharmSci, Inc. ("Exela").

Revenues from our revenue sharing arrangement with Exela decreased by $0.5 million, or 31%, to $1.1 million for the third quarter of 2015 compared to the same period in 2014. The decrease was due to lower sales of the argatroban injectable drug, which resulted from the expiration of the formulation patent for argatroban in June 2014, allowing for generic competition in the subsequent quarters.

Biocatalyst product sales decreased by $0.7 million, or 29%, to $1.8 million for the third quarter of 2015 compared to the corresponding period in 2014, primarily due to the timing of customer demands.

Biocatalyst research and development revenues were $14.5 million for the third quarter of 2015, an increase of $11.2 million, or 332%, compared to the third quarter of 2014, driven by the achievement of milestones under our collaborative arrangements with Merck and GSK.

Cost of biocatalyst product sales was $1.3 million for the third quarter of 2015, a decrease of 15% from $1.5 million for the third quarter of 2014, due primarily to the decrease of biocatalyst product sales. Biocatalyst product gross margin in the third quarter of 2015 was 28% compared to 40% in the same period in 2014, due to changes in the product sales mix.

Research and development expenses remained flat at $5.0 million for the third quarter of 2015 compared to the same period in 2014. Research and development expenses in the third quarter of 2015 included higher lab supply expenses offset by lower depreciation expenses and lower contractor charges.

Selling, general and administrative expenses were $5.4 million for the third quarter of 2015, an increase of 5% from $5.2 million for the third quarter of 2014. The increase in general and administrative expenses for the third quarter of 2015 was primarily driven by higher personnel-related expenses (including stock-based compensation), partially offset by lower legal expenses and contractor charges.

Net income for the third quarter of 2015 was $5.4 million, representing basic net income of $0.14 per share. This compares favorably to a net loss of $4.6 million, or net loss of $0.12 per share, for the third quarter of 2014. The net income position is primarily related to the achievement of the milestones from the Merck License Agreement and the GSK License Agreement.

Cash and cash equivalents decreased to $17.0 million as of September 30, 2015 compared to $26.5 million as of December 31, 2014. Net cash used in operating activities increased to $7.5 million in the nine months ended September 30, 2015 compared to $4.7 million in the nine months ended September 30, 2014. We are actively collaborating with new and existing customers in the pharmaceutical and other markets and we believe that we can utilize our products and services, and develop new products and services, to increase our revenue and gross margins in future periods. We believe that based on our current level of operations, our existing cash, cash equivalents, and marketable securities will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements for at least the next 12 months.

GSK Platform Technology Transfer, Collaboration and License Agreement

In July 2014, we entered into a CodeEvolver® platform technology transfer, collaboration and license agreement (the "GSK License Agreement") with GSK. Under the terms of the GSK License Agreement, we granted GSK a non-exclusive license to use the CodeEvolver® Platform Technology 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 License Agreement and subsequently a $5.0 million non-creditable, non-refundable milestone payment upon achievement of the first milestone. During the three months ended September 30, 2015, we achieved the second milestone of the agreement earning another milestone payment of $6.5 million. We are eligible to receive an additional contingent payment of $7.5 million upon the completion of the technology transfer period. We also have the potential to receive additional contingent payments that range from $5.75 million to $38.5 million per project based on GSK's successful application of the licensed technology. The contingent payments are not deemed substantive milestones due to the fact that the achievement of the event underlying the payment predominantly relates to GSK's performance of future development and commercialization activities. We do not expect to begin receiving these additional contingent payments, if any, during the first three years of the GSK License Agreement.

For up to three years following the end of the three-year period during which we will transfer the CodeEvolver® Platform Technology to GSK, GSK can exercise an option, upon payment of certain additional fees, that would extend GSK's license to include certain improvements to the CodeEvolver® Platform Technology that arise during such period. In addition, we will also be eligible to receive royalties based on net sales, if any, of a limited set of products developed by GSK using the CodeEvolver® Platform Technology.

The term of the GSK License Agreement continues, unless earlier terminated, until the expiration of all payment obligations under the GSK License Agreement. At any time following the completion of the first technology transfer stage, GSK can terminate the GSK License Agreement by providing 90 days written notice to us. If GSK exercises this termination right during the three-year technology transfer period, GSK will make a one-time termination payment to us.

Under the GSK License 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, and 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. We determined that 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 described above will be recognized as revenue to the extent GSK purchases enzymes from us.

The up-front license fee of $6.0 million is being recognized over the technology transfer period of three years. We recognized license fees of $0.5 million and $1.5 million for the three and nine months ended September 30, 2015, respectively, and $0.5 million for the three and nine months ended September 30, 2014 as biocatalyst research and development revenues. We had a deferred revenue balance from GSK related to the upfront license fee of $3.5 million at September 30, 2015 and $5.0 million at December 31, 2014.

Merck Platform Technology Transfer and License Agreement

On August 3, 2015 ("Effective Date"), we entered into a CodeEvolver® platform technology transfer and license agreement (the "Merck License Agreement") with Merck. The Agreement allows Merck to use the CodeEvolver® Platform Technology in the field of human and animal healthcare.

We received a $5.0 million up-front licensing fee upon signing the Merck License Agreement. During the three months ended September 30, 2015, we achieved the first milestone of the Merck License Agreement earning a milestone payment of $5.0 million. We are eligible to receive an additional $8.0 million subject to the satisfactory completion of the second milestone of the technology transfer process. We will also be eligible to receive payments of up to a maximum of $15.0 million for each commercial active pharmaceutical ingredient ("API") that is manufactured by Merck using one or more novel enzymes developed by Merck using the CodeEvolver® Platform Technology.

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

Under the Merck License Agreement, we will transfer the CodeEvolver® Platform Technology to Merck over an approximately 15 to 24 month period starting on the Effective Date (the "Technology Transfer Period"). As part of this technology transfer, we will provide to Merck our proprietary enzymes, proprietary protein engineering protocols and methods, and proprietary software algorithms. In addition, teams of our and Merck scientists will participate in technology training sessions and collaborative research projects at our laboratories in Redwood City, California and at a designated Merck laboratory. Upon completion of technology transfer, Merck will have CodeEvolver® Platform Technology installed at its designated site.

The licenses to Merck are granted under patents, patent applications and know-how that we own or control as of the Effective Date and that cover the CodeEvolver® Platform Technology. Any improvements to the CodeEvolver® Platform Technology during the Technology Transfer Period will also be included in the license grants from Codexis to Merck. At the end of the Technology Transfer Period, Merck can exercise annual options that, upon payment of certain option fees, would extend Merck's license to include certain improvements to the CodeEvolver® Platform Technology that arise during the three-year period that begins at the end of the Technology Transfer Period.

During the 15-month period that started on the Effective Date, we will provide additional enzyme evolution services to Merck at our laboratories in Redwood City.

The up-front license fee of $5.0 million is being recognized ratably over a two-year period. We recognized license fees of $0.4 million for the three months ended September 30, 2015 as biocatalyst research and development revenue and had a deferred revenue balance from Merck related to the Merck License Agreement license fees of $4.6 million at September 30, 2015.

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

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

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

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	
	2015	2014	$	%	2015	2014	$	%
Revenues:								
Biocatalyst product sales	$ 1,818	$ 2,562	$ (744)	(29)%	$ 6,915	$ 8,323	$ (1,408)	(17)%
Biocatalyst research and development	14,517	3,364	11,153	332 %	19,247	7,176	12,071	168 %
Revenue sharing arrangement	1,066	1,546	(480)	(31)%	4,056	5,617	(1,561)	(28)%
Total revenues	17,401	7,472	9,929	133 %	30,218	21,116	9,102	43 %
Costs and operating expenses:								
Cost of biocatalyst product sales	1,302	1,532	(230)	(15)%	4,009	6,179	(2,170)	(35)%
Research and development	4,994	5,038	(44)	(1)%	15,457	17,708	(2,251)	(13)%
Selling, general and administrative	5,415	5,157	258	5 %	16,289	16,791	(502)	(3)%
Total costs and operating expenses	11,711	11,727	(16)	— %	35,755	40,678	(4,923)	(12)%
Income (loss) from operations	5,690	(4,255)	9,945	(234)%	(5,537)	(19,562)	14,025	(72)%
Interest income	4	3	1	33 %	12	15	(3)	(20)%
Other expenses	(26)	(57)	31	(54)%	(147)	(183)	36	(20)%
Income (loss) before income taxes	5,668	(4,309)	9,977	(232)%	(5,672)	(19,730)	14,058	(71)%
Provision for (benefit from) income taxes	274	253	21	8 %	(144)	(314)	170	(54)%
Net income (loss)	$ 5,394	$ (4,562)	$ 9,956	(218)%	$ (5,528)	$ (19,416)	$ 13,888	(72)%

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

- Biocatalyst product sales revenues consist of sales of biocatalyst enzymes, chemical intermediates, and Codex® Biocatalyst Panels and Kits.
- Biocatalyst research and development revenues include license, technology access and exclusivity fees, research services FTE, contingent payments, royalties, and optimization and screening fees.
- Revenue sharing arrangement revenues are recognized based upon sales of licensed products by Exela.

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
(In Thousands)	2015	2014	$	%	2015	2014	$	%
Biocatalyst product sales	$ 1,818	$ 2,562	$ (744)	(29)%	$ 6,915	$ 8,323	$ (1,408)	(17)%
Biocatalyst research and development	14,517	3,364	11,153	332 %	19,247	7,176	12,071	168 %
Revenue sharing arrangement	1,066	1,546	(480)	(31)%	4,056	5,617	(1,561)	(28)%
Total revenues	$ 17,401	$ 7,472	$ 9,929	133 %	$ 30,218	$ 21,116	$ 9,102	43 %

Typically, revenues 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, and as a result, we are dependent upon the performance and capacity of third party manufacturers for the commercial scale manufacturing of the enzymes used in our pharmaceutical and fine chemicals business.

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

Total revenues increased $9.9 million and $9.1 million in the three and nine months ended September 30, 2015, respectively, compared to the same periods in 2014 as a result of the increase in biocatalyst research and development revenues, partially offset by decreases in biocatalyst product sales and revenues from our revenue-sharing arrangement with Exela.

Biocatalyst product sales decreased $0.7 million and $1.4 million in the three and nine months ended September 30, 2015, respectively, compared to the same periods in 2014. The decreases were primarily due to the timing of customer demand during the three and nine months ended September 30, 2015 compared to the same periods in 2014.

Biocatalyst research and development revenues increased approximately $11.2 million and $12.1 million in the three and nine months ended September 30, 2015 as a result of the achievement of milestones of $5.0 million and $6.5 million from the Merck License Agreement and the GSK License Agreement, respectively, during the third quarter of 2015.

Revenues from the revenue-sharing arrangement with Exela for the sales of argatroban injectable drug decreased $0.5 million and $1.6 million during the three and nine months ended September 30, 2015, respectively, compared to the same periods in 2014. The decrease is the result of the expiration of the formulation patent for argatroban in June 2014, allowing for generic competition in the subsequent quarters. We believe that revenues from our revenue-sharing arrangement with Exela may continue to decline in future quarters due to increasing generic competition.

Cost and Operating Expenses

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
(In Thousands)	**2015**	**2014**	**$**	**%**	**2015**	**2014**	**$**	**%**
Cost of biocatalyst product sales	$ 1,302	$ 1,532	$ (230)	(15)%	$ 4,009	$ 6,179	$ (2,170)	(35)%
Research and development	4,994	5,038	(44)	(1)%	15,457	17,708	(2,251)	(13)%
Selling, general and administrative	5,415	5,157	258	5 %	16,289	16,791	(502)	(3)%
Total operating expenses	$ 11,711	$ 11,727	$ (16)	— %	$ 35,755	$ 40,678	$ (4,923)	(12)%

Cost of Biocatalyst Product Sales and Product Gross Margin

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
(In Thousands)	**2015**	**2014**	**$**	**%**	**2015**	**2014**	**$**	**%**
Biocatalyst product sales	$ 1,818	$2,562	$ (744)	(29)%	$ 6,915	$ 8,323	$ (1,408)	(17)%
Cost of biocatalyst product sales	1,302	1,532	(230)	(15)%	4,009	6,179	(2,170)	(35)%
Biocatalyst product gross profit	$ 516	$1,030	$ (514)	(50)%	$ 2,906	$ 2,144	$ 762	36 %
Product gross margin (%)	28%	40%			42%	26%		

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

Our cost of biocatalyst product sales decreased by $0.2 million, or 15%, during the three months ended September 30, 2015 and $2.2 million, or 35%, during the nine months ended September 30, 2015 due to lower biocatalyst product sales compared to the same periods in 2014. Product gross margins were 28% and 42% in the three and nine months ended September 30, 2015, compared to 40% and 26% in the same periods in 2014 due to changes in the product 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, depreciation of facilities and laboratory equipment and amortization of acquired technologies, and (iii) external costs. Research and development expenses are expensed when incurred. We budget total

research and development expenses on an internal department level because we do not have project or program level reporting capabilities.

Research and development expenses remained flat for the third quarter of 2015 and decreased by $2.3 million during the nine months ended September 30, 2015 compared to the same periods in 2014. Research and development expenses for the nine months ended 2014 included non-recurring non-cash impairment charges of $2.7 million, of which $1.8 million was related to the write down of assets associated with our CodeXol program and the remainder due to changes in fair value of assets held for sale. Additionally, research and development expenses for the first quarter of 2014 included a $0.8 million gain from the sale of our former Hungarian subsidiary. Excluding such non-recurring charges, research and development expenses decreased $0.4 million during the nine months ended September 30, 2015 compared to the same periods in 2014, primarily due to a decrease in depreciation expenses resulting from the aforementioned impairments and the sale of our Hungarian subsidiary in 2014, partially offset by an increase in employee-related expenses of $0.4 million in the nine months ended September 30, 2015 compared to the same period in 2014.

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 marginally by $0.3 million, or 5%, during the third quarter of 2015 and decreased by $0.5 million, or 3%, for the nine months ended September 30, 2015, compared to the same periods in 2014. The increase during the third quarter of 2015 was driven by increases in personnel-related expenses, including an increase in stock-based compensation expense of $0.2 million, partially offset by decreases in legal, insurance and contractor expenses. The decrease during the nine months ended September 30, 2015 related primarily to a decrease in legal fees.

Interest income and other expenses

	Three months ended September 30,		Change		Nine months ended September 30,		Change	
(In Thousands)	**2015**	**2014**	**$**	**%**	**2015**	**2014**	**$**	**%**
Interest income	$ 4	$ 3	$ 1	33 %	$ 12	$ 15	$ (3)	(20)%
Other expenses	(26)	(57)	31	(54)%	(147)	(183)	36	(20)%
Total other expenses	$ (22)	$ (54)	$ 32	(59)%	$ (135)	$ (168)	$ 33	(20)%

Changes to our interest income were marginal during the three and nine months ended September 30, 2015 compared to the same periods in 2014, driven primarily by changes in our cash and cash equivalent balances.

Other expenses decreased for the three and nine months ended September 30, 2015 compared to the same periods in 2014. These changes were primarily related to fluctuations in foreign currency.

Provision for (benefit from) income taxes

We recognized an income tax expense of $0.3 million for both the three months ended September 30, 2015 and 2014. We recognized an income tax benefit of $0.1 million for the nine months ended September 30, 2015, as compared to $0.3 million for the same period in 2014. The decrease was primarily due to the release of reserves related to uncertain tax positions that was recorded in 2014 whereas no release was recorded in 2015.

The tax benefit for the nine months ended September 30, 2015 primarily related to unrecognized gains from changes in the fair value of our investment in CO_2 Solutions. The tax benefit for the nine months ended September 30, 2014 primarily consisted of income tax benefit attributable to foreign operations offset by the tax effect of the unrecognized gain from our investment in CO_2 Solutions. Additionally, for the nine months ended September 30, 2014, we recognized approximately $0.4 million of previously unrecognized tax benefits related to our operations in Singapore.

We continue to recognize a full valuation allowance against our net deferred tax assets as we believe that it is more likely than not that the majority of our deferred tax assets will not be realized.

Liquidity and Capital Resources

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

(In Thousands)	September 30, 2015	December 31, 2014
Cash and cash equivalents	$ 16,963	$ 26,487
Working capital	$ 19,513	$ 19,272

	Nine months ended September 30,	
(In Thousands)	2015	2014
Net cash used in operating activities	$ (7,482)	$ (4,653)
Net cash provided by (used in) investing activities	(465)	4,680
Net cash used in financing activities	(1,577)	(635)
Net decrease in cash and cash equivalents	$ (9,524)	$ (608)

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

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

We expect to receive payments totaling $11.5 million during the fourth quarter of 2015 from the achievement of milestones under our collaborative arrangements with Merck and GSK. We believe that based on our current level of operations, our existing cash and cash equivalents will provide adequate funds for ongoing operations, planned capital expenditures and working capital requirements for at least the next 12 months. However, we may need additional capital if our current plans and assumptions change. Our need for additional capital will depend on many factors, including the financial success of our business, the spending required to develop and commercialize new and existing products, the effect of any acquisitions of other businesses, technologies or facilities that we may make or develop in the future, our spending on new market opportunities, and the potential costs for the filing, prosecution, enforcement and defense of patent claims, if necessary.

If our capital resources are insufficient to meet our capital requirements, and we are unable to enter into or maintain collaborations with partners that are able or willing to fund our development efforts or commercialize any products that we develop or enable, we will have to raise additional funds to continue the development of our technology and products and complete the commercialization of products, if any, resulting from our technologies. If future financings involve the issuance of equity securities, our existing stockholders would suffer dilution. If we raise debt financing, we may be subject to restrictive covenants that limit our ability to conduct our business. We may not be able to raise sufficient additional funds on terms that are favorable to us, if at all. If we fail to raise sufficient funds and fail to generate sufficient revenue to achieve planned gross margins and to control operating costs, our ability to fund our operations, take advantage of strategic opportunities, develop products or technologies, or otherwise respond to competitive pressures could be significantly limited. If this happens, we may be forced to delay or terminate research or development programs or the commercialization of products resulting from our technologies, curtail or cease operations or obtain funds through collaborative and licensing arrangements that may require us 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 $7.5 million for the nine months ended September 30, 2015, which resulted from a net loss of $5.5 million for the nine months ended September 30, 2015 adjusted for non-cash depreciation and amortization of $4.1 million and stock-based compensation of $3.8 million, as well as changes in operating assets and liabilities. Such changes included an increase in accounts receivable of $9.7 million related to the achievement of milestones from collaborative arrangements with Merck and GSK during the third quarter of 2015 and a decrease in accounts payable of $3.5 million, which were partially offset by an increase in deferred revenues of $4.0 million.

Cash used in operating activities was $4.7 million for the nine months ended September 30, 2014, which resulted from a net loss of $19.4 million for the nine months ended September 30, 2014, adjusted for non-cash depreciation and amortization of $5.2 million, stock-based compensation of $3.6 million and impairment and changes in fair values of assets held for sale totaling $2.7 million. Cash used in operating activities was offset by the receipt of $6.0 million in up-front fees under the collaborative arrangement with GSK and a $0.8 million gain on the sale of our Hungarian subsidiary.

Cash Flows from Investing Activities

Cash used in investing activities was $0.5 million for the nine months ended September 30, 2015 primarily due to the purchase of property and equipment.

Cash provided by investing activities was $4.7 million for the nine months ended September 30, 2014 mainly resulting from $3.0 million in proceeds from the maturity of our investments in marketable securities and $1.5 million in proceeds from the sale of our Hungarian subsidiary.

Cash Flows from Financing Activities

Cash used in financing activities was $1.6 million and $0.6 million for the nine months ended September 30, 2015 and 2014, respectively. Cash used in financing activities consisted of the payment of taxes related to the net share settlement of equity awards, partially offset by the proceeds from exercises of employee stock options.

Off-Balance Sheet Arrangements

We did not have any off-balance sheet arrangements as of September 30, 2015.

Contractual Obligations

Our contractual obligations principally arise from operating leases primarily related to our leased facilities in Redwood City, California. There have been no significant changes in our payments due under contractual obligations, compared to those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2014.

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 significant changes to our critical accounting policies as discussed in our Annual Report on Form 10-K for the year ended December 31, 2014.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk Management

Our cash flows and earnings are subject to fluctuations due to changes in foreign currency exchange rates, interest rates and other factors. There were no significant changes in our market risk exposures for the three and nine months ended September 30, 2015. This is discussed in further detail in our Annual Report on Form 10-K for the year ended December 31, 2014 filed with the SEC on March 6, 2015.

Equity Price Risk

As described in Note 5, "Marketable Securities" and Note 6, "Fair Value Measurements" to the condensed consolidated financial statements, we have an investment in common shares of CO_2 Solutions, whose shares are publicly traded in Canada on the TSX Venture Exchange. As of September 30, 2015, the fair value of our investment in CO_2 Solutions' common stock was $1.2 million and our carrying cost for the investment was $0.6 million.

This investment is exposed to fluctuations in both the market price of CO_2 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 CO_2 Solution's common shares as of September 30, 2015 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, 2015 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 required by Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended. 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, 2015 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

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, 2014, 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, 2014 with respect to the Risk Factors. Investors should consider the Risk Factors, as updated below, prior to making an investment decision with respect to our stock.

Our results of operations may be adversely affected by the results of regulatory tax examinations.

We are subject to value added tax, customs tax, sales and use tax, withholding tax, payroll tax, income tax and other taxes in connection with the operation of our business. The regulators from the various jurisdictions in which we operate periodically perform audits, and we are regularly subject to, and are currently undergoing, audits and assessments by tax authorities in the United States and foreign jurisdictions for prior tax years. Although we believe our tax estimates are reasonable, and we intend to defend our positions if necessary, the final outcome of tax audits and related proceedings is inherently uncertain and could be materially different than that reflected in our historical income tax provisions and accruals. Moreover, we could be subject to assessments of substantial additional taxes and/or fines or penalties relating to ongoing or future audits. The adverse resolution of any audits or related proceedings could have an adverse effect on our financial position and results of operations.

Compliance with European Union chemical regulations could be costly and adversely affect our business and results of operations.

Some of our products are subject to the European Union regulatory regime known as The Registration, Evaluation and Authorization of Chemicals (“REACH”). REACH mandates that certain chemicals manufactured in, or imported into, the European Union be registered and evaluated for their potential effects on human health and the environment. Under REACH, we and our contract manufacturers located in the European Union are required to register certain of our products based on the quantity of such product imported into or manufactured in the European Union and on the product’s intended end-use. The registration, evaluation and authorization process under REACH can be costly and time consuming. Problems or delays in the registration, evaluation or authorization process under REACH could delay or prevent the manufacture of some of our products in, or the importation of some of our products into, the European Union, which could adversely affect our business and results of operations. In addition, if we or our contract manufacturers fail to comply with REACH, we may be subject to penalties or other enforcement actions, which could have a material adverse effect on our business and results of operations.

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

Not applicable.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

Not applicable.

ITEM 6. EXHIBITS

See the Exhibit Index on the page immediately following the signature page to this Quarterly Report on Form 10-Q for a list of exhibits filed as part of this Quarterly Report, which Exhibit Index is 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 5, 2015

By: /s/ John Nicols

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

Date: November 5, 2015

By: /s/ Gordon Sangster

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

EXHIBIT INDEX

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

ITEM 6. Exhibits

3.1	Amended and Restated Certificate of Incorporation of Codexis, Inc. filed with the Secretary of the State of the State of Delaware on April 27, 2010 and effective as of April 27, 2010 (incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2010, filed on May 28, 2010).
3.2	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	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†	Platform Technology Transfer and License Agreement by and between the Company and Merck Sharp & Dohme Corp., dated as of August 3, 2015.
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, 2015, formatted in Extensible Business Reporting Language (XBRL) includes: (i) Condensed Consolidated Balance Sheets at September 30, 2015 and December 31, 2014, (ii) Condensed Consolidated Statements of Income for the Three and Nine Months Ended September 30, 2015 and 2014, (iii) Condensed Consolidated Statements of Comprehensive Income (Loss) for the Three and Nine Months Ended September 30, 2015 and 2014, (iv) Condensed Consolidated Statements of Cash Flows for the Nine Months Ended September 30, 2015 and 2014, and (v) Notes to Condensed Consolidated Financial Statements.

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

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

PLATFORM TECHNOLOGY TRANSFER AND LICENSE AGREEMENT

THIS PLATFORM TECHNOLOGY TRANSFER AND LICENSE AGREEMENT (together with any exhibits attached hereto, this "**Agreement**") is made and entered into as of August 3, 2015 (the "**Effective Date**"), by and between Codexis, Inc., a corporation organized and existing under the laws of Delaware ("**Codexis**"), and Merck Sharp & Dohme Corp., a corporation organized and existing under the laws of New Jersey ("**Merck**"). Codexis and Merck are sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties.**"

RECITALS

WHEREAS, Codexis possesses expertise in the engineering and optimization of biocatalysts for use in pharmaceutical compound synthesis and manufacture;

WHEREAS, Merck seeks to develop biocatalytic approaches to synthesize compounds of interest to Merck and to practice the Platform Technology under the licenses granted by Codexis and in connection with a technology transfer from Codexis; and

WHEREAS, Codexis desires to grant to Merck such license and perform such technology transfer, on the terms and conditions set forth herein.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing premises and the mutual promises, covenants and conditions contained in this Agreement, the Parties agree as follows:

1. DEFINITIONS. The terms in this Agreement with initial letters capitalized, whether used in the singular or the plural, shall have the meaning set forth below.

1.1 "**Additional Services**" means any enzyme evolution related services performed by Codexis pursuant to Section 4.2 of this Agreement.

1.2 "**Affiliate**" means any Person that directly or indirectly is controlled by, controls or is under common control with a Party to this Agreement. For the purposes of this definition, the term "control" (including, with correlative meanings, the terms "controlled by" and "under common control with") as used with respect to a Person means (a) in the case of a corporate entity, direct or indirect ownership of voting securities entitled to cast more than fifty percent (50%) of the votes in the election of directors, (b) in the case of a non-corporate entity, direct or indirect ownership of more than fifty percent (50%) of the equity interests with the power to direct the management and policies of such entity, or (c) any other arrangement whereby a Person controls or has the right to control the board of directors or equivalent governing body or management of a corporation or other entity; *provided* that,

if local Applicable Law restricts foreign ownership, control shall be established by direct or indirect ownership of the maximum ownership percentage that may, under such local Applicable Law, be owned by foreign interests.

1.3 "**Agreement Payments**" means all amounts, fees, royalties, and other payments made by Merck to Codexis under this Agreement.

1.4 "**Applicable Law**" means all applicable laws, statutes, rules, regulations, ordinances and other pronouncements having the effect of law of any federal, national, multinational, state, provincial, county, city or other political subdivision, government or Regulatory Authority.

1.5 "**Approved Server**" means physical or virtual computer server(s) that are (i) required for the operation of the Codexis Software, (ii) controlled by Merck or its designated Third Party cloud service provider, and (iii) meet all hardware specifications, software specifications, and other specifications and requirements specified by Codexis for the proper operation of the Codexis Software.

1.6 "**Arising Codexis Enzyme Technology**" means: (a) the amino acid sequence and structure of any Covered Enzyme or Enzyme developed under any of a Technology Transfer Project or an Evolution Program or during Additional Services and (b) structure activity data that describes the structure activity relationship and other characteristics of any Covered Enzyme(s) or Enzyme(s) noted in (a), and in each of (a) and (b), which data and information are Controlled by Codexis. For the avoidance of doubt, Arising Codexis Enzyme Technology shall not include any of the foregoing (a) or (b) developed outside of a Technology Transfer Project or an Evolution Program or during Additional Services.

1.7 "**Arising Codexis Enzyme Technology IP**" means Intellectual Property Rights which have arisen directly from the Arising Codexis Enzyme Technology. For clarity, the Arising Codexis Enzyme Technology IP excludes any Background IP of Merck, any Arising Merck Process Technology IP, any Arising Merck Enzyme Technology IP, and any Merck API Process Technology IP.

1.8 "**Arising Codexis Process Technology**" means methods of using Covered Enzyme(s) or Enzyme(s) in compound synthesis, developed under either a Technology Transfer Project or an Evolution Program or during Additional Services and which methods are Controlled by Codexis; *provided* that Arising Codexis Process Technology shall exclude technology that is generally applicable to chemical process development and to the synthesis and scale-up of small molecule compounds and that does not specifically require the use or performance of such Covered Enzyme or Enzyme.

1.9 "**Arising Codexis Process Technology IP**" means Intellectual Property Rights which have arisen directly from the Arising Codexis Process Technology. For clarity, the Arising Codexis Process Technology IP excludes any Background IP of Merck, any Arising Merck Process Technology IP, any Arising Merck Enzyme Technology IP, and any Merck API Process Technology IP.

1.10 "**Arising Merck Enzyme Technology**" means the Technology related to any Covered Enzyme or Enzyme created, developed, or invented solely by Merck. For clarity, no Covered

Enzyme or Enzyme created, developed, or invented during a Technology Transfer Program or an Evolution Program or Additional Services will be deemed to have been solely developed by Merck.

1.11 "**Arising Merck Enzyme Technology IP**" means Intellectual Property Rights which have arisen directly from the Arising Merck Enzyme Technology. For clarity the Arising Merck Enzyme Technology IP excludes any Background IP of Codexis, any Arising Codexis Process Technology IP and any Arising Codexis Enzyme Technology IP.

1.12 "**Arising Merck Process Technology**" means any Process Technology that is created, developed, or invented solely by Merck or jointly by Merck and Codexis.

1.13 **"Arising Merck Process Technology IP**" means Intellectual Property Rights which have arisen directly from the Arising Merck Process Technology. For clarity, the Arising Merck Process Technology IP excludes any Background IP of Codexis, any Arising Codexis Process Technology IP, any Arising Codexis Enzyme Technology IP and any Arising Merck Enzyme Technology IP.

1.14 "**Background IP**" means any and all Intellectual Property Rights which are Controlled by a Party and (a) exist as of the Effective Date and/or (b) arise during the Term independently of the other Party and this Agreement.

1.15 "**Business Day**" means a day other than Saturday, Sunday or any day on which commercial banks located in New York, New York are authorized or obligated by Applicable Law to close.

1.16 "**Calendar Quarter**" means the period beginning on the Effective Date and ending on the last day of the calendar quarter in which the Effective Date falls and, thereafter, each successive period of three (3) consecutive calendar months ending on March 31, June 30, September 30 or December 31.

1.17 "**Calendar Year** " means the period beginning on the Effective Date and ending on December 31st of the calendar year in which the Effective Date falls, and thereafter, each successive period of twelve (12) consecutive calendar months commencing on January 1 and ending on December 31.

1.18 "**Claim**" means any claim, demand, cause of action, suit, dispute, proceeding, arbitration, audit, hearing, investigation or inquiry (whether formal or informal).

1.19 "**Codexis Core Patents**" means the Patents set forth on Exhibit 1.19.

1.20 "**Codexis Core Technology**" means those (i) tools, processes and methods Controlled by Codexis; and (ii) generally applicable tools, processes and methods which Codexis has the ability to transfer to or license to Merck, in each of (i) and (ii) above: (a) used to identify, select, optimize, isolate, modify, engineer, research, develop, make, have made and/or import enzymes, Covered Enzymes and Enzymes, through the recombination and/or rearrangement and/or mutation of genetic material for the creation of genetic diversity, using any methods, including but not limited to Codexis

Software, in silico, in vitro, and and/or in vivo technologies, (b) screening techniques, methodologies and/or processes of using the resulting genes and/or proteins to identify and assess their potential utility, (c) gene expression methods applicable in high throughput screening, (d) cultivation of microorganisms, (e) techniques for producing, harvesting, and/or purifying proteins, and (f) including the Codexis Software, in each of (a) – (f) above, as described in Exhibit 1.20.

1.21 "**Codexis Core Technology Improvements**" means any Improvement to the Codexis Core Technology practiced by Codexis or any Affiliate of Codexis which are licensed to Merck under Section 3.2, that is generated by Codexis, or both Parties, or on behalf of Codexis or both Parties, or by Codexis with a Third Party, during the TT Term (and, if Merck exercises the Option, during the Improvements TT Term) and is Controlled by Codexis, excluding any Improvement to the Codexis Core Technology which arises from Merck's Background IP.

1.22 "**Codexis Core Technology Improvements IP**" means any and all Intellectual Property Rights which is generated by or on behalf of Codexis or any Affiliate of Codexis or jointly between the Parties or any Affiliate of the Parties which Covers the Codexis Core Technology Improvements. For clarity, the Codexis Core Technology Improvements IP excludes any Background IP of Merck, any Arising Merck Process Technology IP, any Arising Merck Enzyme Technology IP, and any Merck API Process Technology IP.

1.23 "**Codexis Documentation**" means any documentation disclosed by Codexis to Merck pursuant to Article 2 (including with respect to the Platform Technology and any Improvements), including all documentation relating to the Codexis Methods, the Technology Transfer Plan, and documentation related to the Codexis Software and the documentation described in the Technology Transfer Plan and any and all copies thereof, in whole or in part.

1.24 "**Codexis Enzymes**" means any Covered Enzyme which is Controlled by Codexis and transferred to Merck pursuant to the Technology Transfer Plan.

1.25 "**Codexis Enzyme Patents**" means the Patents set forth on Exhibit 1.25.

1.26 "**Codexis Initial Enzyme(s)**" means any Codexis Enzyme or any Enzyme contained within a Codexis Library which is designated as an Initial Enzyme pursuant to a Technology Transfer Project.

1.27 "**Codexis Library**" means any collection, set or sub-set of expression vectors containing genes Controlled by Codexis that encode for Covered Enzymes, Enzymes or enzymes, transferred to Merck under the Technology Transfer Plan, for the propagation of additional enzyme stock.

1.28 "**Codexis Materials**" means all biocatalytic materials disclosed or transferred to Merck by Codexis under and specifically in furtherance of this Agreement, including, without limitation, (a) the Codexis Libraries and Codexis Enzymes, and (b) kits and plates generally consisting of multiple, genetically-diverse enzymes that are made commercially available to the general public by Codexis through Codexis' catalog or website.

1.29 "**Codexis Mayflower Patents**" means the Patents set forth on Exhibit 1.29.

1.30 "**Codexis Methods**" means (a) as of the Effective Date, the methods and protocols listed in Appendix IV of the Technology Transfer Plan, and (b) after the Effective Date, the methods and protocols disclosed by Codexis and drafted by Codexis documenting in sufficient detail to enable a scientist with reasonable skills and experience in the field of protein engineering or protein biochemistry to practice the Platform Technology. The Codexis Methods shall include the most current and complete procedures used by Codexis as of the date on which they are disclosed to Merck with respect to the procedures described therein.

1.31 "**Codexis Software**" means [***], and all other software disclosed under the Technology Transfer Plan, as amended from time to time, together with all software Controlled by Codexis and disclosed by Codexis under this Agreement, including all versions and improvements practiced by Codexis during the TT Term, in each case solely in executable form.

1.32 "**Commercially Reasonable Efforts**" means, with respect to a Party's obligations under this Agreement, efforts consistent with the efforts and resources normally used by a similarly situated pharmaceutical, biotechnology or technology company in the exercise of its reasonable business discretion relating to the development or commercialization of a product with similar product characteristics that is of similar market potential at a similar stage of development or commercialization, taking into account issues of efficacy, safety, patent and regulatory exclusivity, product profile, anticipated or approved labeling, present and future market potential, competitive market conditions, the proprietary position of the compound or product, the regulatory structure involved, and other technical, legal, scientific, medical or commercial factors, and the profitability of the product, including in light of pricing and reimbursement issues.

1.33 "**Completion of Wave 1**" means the achievement of the Wave 1 Milestone Success Criteria as defined under the Technology Transfer Plan.

1.34 "**Completion of Wave 2**" means the achievement of the Wave 2 Success Criteria as defined under the Technology Transfer Plan.

1.35 "**Controlled**" or "**Controls**" means, when used in reference to an item of Technology or to Intellectual Property Rights, the legal authority or right of a Party (whether directly or through any of its Affiliates to the extent a Party has the requisite authority), whether by ownership, assignment or by license, other than pursuant to this Agreement, to grant the right to use such item of Technology or a license or sublicense of such Intellectual Property Rights to the other Party, or to otherwise disclose proprietary or trade secret information to such other Party, without violating any Applicable Law, breaching the terms of any agreement with any Third Party, or misappropriating the proprietary or trade secret information or other Intellectual Property Rights of a Third Party.

1.36 "**Cover**" or "**Covers**" means, a particular item or method encompassed by any Intellectual Property Rights, that, but for a license under or ownership right in such Intellectual Property Rights, the use, making, having made, offering for sale, sale, importation, or other exploitation of such item would infringe or misappropriate such Intellectual Property Rights (assuming, in the case of pending Patent applications, that such pending Patent applications were issued Patents).

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.37 "**Covered Enzyme**" means any enzyme that is Covered by the Licensed IP.

1.38 "**Designated Lab**" means the laboratory(ies) selected by Merck and specified in the Technology Transfer Plan which are located at a single Merck facility in the continental United States and designated to implement the Platform Technology. As of the Effective Date, the Designated Lab will be located at the single Merck facility set forth in Exhibit 1.38. Merck may, upon written notice to Codexis, change the location of a Designated Lab to another single Merck facility within the continental United States.

1.39 "**Diagnostic**" means [***].

1.40 "**Dollar**" or "**$**" means the lawful currency of the United States.

1.41 "**enzyme**" (without initial capital) means an immature or mature peptide or protein (including derivatives) with enzymatic or biocatalytic activity.

1.42 "**Enzyme**" means any enzyme which is derived from the use of the Platform Technology pursuant to this Agreement.

1.43 "**Excluded Claim**" mean a dispute, controversy or claim between the Parties that concerns: [***].

1.44 "**FDA**" means the U.S. Food and Drug Administration, or any successor agency thereto.

1.45 "**Fee Bearing Therapeutic Product**" means a Therapeutic Product for which development was initiated during the Initiation Period.

1.46 "**FTE**" means the equivalent of the work of one (1) Codexis scientist, or one (1) Merck scientist, as the case may be, full time for one (1) year. In no event will one (1) person count for more than one (1) FTE in any year.

1.47 "**U.S. GAAP**" means generally accepted accounting principles adopted by the U.S. Securities and Exchange Commission, consistently applied.

1.48 "**Generic Version**" means, with respect to a Therapeutic Product, that a Third Party is manufacturing and supplying on a commercial scale a pharmaceutical product therapeutically equivalent to the Therapeutic Product without infringing any Intellectual Property Rights Controlled by Merck or Codexis and such pharmaceutical product is A/B Rated with respect to a Therapeutic Product. For the purposes of this definition, "**A/B Rated**" means, inside the United States, "therapeutically equivalent" as evaluated by the FDA, applying the definition of "therapeutically equivalent" set forth in the preface to the then-current edition of the FDA publication "Approved Drug Products With Therapeutic Equivalence Evaluations" and, outside the United States, such equivalent determination by the applicable Regulatory Authorities as is necessary to permit pharmacists or other individuals authorized to dispense pharmaceuticals under Applicable Law to substitute one product for

another product in the absence of specific instruction from a physician or other authorized prescriber under Applicable Law.

1.49 "**Good Clinical Practices**" or "**GCP**" means the then-current international ethical and scientific quality standards for designing, conducting, recording and reporting trials that involve the participation of human subjects. In the United States, GCP shall be based on Good Clinical Practices established through FDA guidance (including ICH E6) and, outside the United States, GCP shall be based on ICH E6.

1.50 "**Good Laboratory Practices**" or "**GLP**" means the then-current Good Laboratory Practice (or similar standards) for the performance of laboratory activities for pharmaceutical products as are required by applicable Regulatory Authorities or Applicable Law. In the United States, Good Laboratory Practices are established through FDA regulations (including 21 C.F.R. Part 58), FDA guidance, FDA current review and inspection standards and current industry standards.

1.51 "**Good Manufacturing Practices**" or "**GMP**" means the then-current Good Manufacturing Practices for the manufacture of products as are required by applicable Regulatory Authorities or Applicable Law. In the United States, GMP shall be as defined under the rules and regulations of the FDA, as the same may be amended from time to time.

1.52 "**Improvement**" means an enhancement, extension, upgrade, improvement, derivative work, or update.

1.53 "**Improvements TT Term**" means the period beginning on the expiration of the TT Term and continuing until and ending on the earlier of (a) the Improvements TT Term Expiration Date, or (b) the early termination of this Agreement by Codexis in accordance with Sections 12.2, 12.3, 12.4 or 12.5.

1.54 "**Improvements TT Term Expiration Date**" means the [***] year anniversary of the TT Term Expiration Date or a later date if the Improvements TT Term is extended in accordance with Section 3.5.7.

1.55 "**Information**" means any and all information and data, including without limitation all Know-How and all other scientific, pre-clinical, clinical, regulatory, manufacturing, marketing, financial and commercial information or data, whether communicated in writing or orally or by any other method, which is provided by one Party to the other Party in connection with this Agreement.

1.56 "**Initial Enzyme**" means the single Merck Initial Enzyme or Codexis Initial Enzyme contributed to a Technology Transfer Project which is selected to undergo Initial Enzyme Optimization. Once an Initial Enzyme is selected, such selection may only be changed by mutual written consent of the Parties.

1.57 "**Initial Enzyme Optimization**" means the process of optimizing an Initial Enzyme.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.58 "**Initial Technology Transfer Inventory**" means all of the items set out in Appendices I, II and III of the Technology Transfer Plan.

1.59 "**Initiation Period**" means the period beginning on the TT Term Expiration Date and ending on the earlier of (a) the date that is ten (10) years after the TT Term Expiration Date, or (b) the termination of this Agreement.

1.60 "**In-License Agreements**" means all agreements pursuant to which any Licensed IP is licensed or sublicensed to Codexis from a Third Party and which are listed in Exhibit 1.60.

1.61 "**In-Licensed IP**" means the In-Licensed Patents and any In-Licensed Know-How.

1.62 "**In-Licensed Know-How**" means all Know-How of Third Parties Controlled by Codexis as of the Effective Date and licensed to Codexis pursuant to the In-License Agreements, in each case that Covers the Codexis Documentation, the Codexis Materials, Know-How related to the operation of the Codexis Software (but excluding the Codexis Software itself) or the practice of the Platform Technology.

1.63 "**In-Licensed Patents**" means the Patents set forth on Exhibit 1.63.

1.64 "**Intellectual Property Rights**" means Patents, Know-How and copyrights, including all applications for registration for the foregoing and all other similar proprietary rights as may exist anywhere in the world.

1.65 "**Internal Research Purposes**" means scientific research programs in the animal and/or human healthcare field conducted internally by Merck or its Affiliates, which are specifically directed to the purposes of their internal research, but excluding the discovery of novel Therapeutics [***].

1.66 "**Invention**" means any discovery, invention, contribution, method, finding, or improvement, whether or not patentable, and all related Know-How.

1.67 "**Invoice**" means any invoice submitted to Merck by Codexis under this Agreement, produced in accordance with Merck's processing requirements.

1.68 "**Know-How**" means non-public materials and technical information, including techniques, methods, processes, technology, recipes, formulae, designs, equipment configurations and uses, biological samples, compounds and cell lines, and biological, chemical, pharmacological, toxicological, clinical, assay and related trade secrets, manufacturing data, preclinical and clinical data, specifications, ingredients, manufacturing processes, formulation, specifications, sourcing information, quality control and testing procedures, and related know-how and trade secrets and including all of the foregoing related to the operation of the Codexis Software, but in each case excluding the Codexis Software itself.

1.69 "**knowledge of Codexis Senior Management**" means, with respect to any matter in question, that any of Codexis' [***] is actually aware or has actual knowledge of such matter [***].

1.70 "**Licensed Additional Codexis Know-How**" means any and all Know-How which (a) Codexis or any Codexis Affiliate comes to Control during the TT Term (and, if Merck exercises the Option, during the Improvements TT Term) and which Covers (i) the Platform Technology, (ii) Arising Codexis Enzyme Technology, (iii) Arising Codexis Process Technology, (iv) any Codexis Core Technology Improvements, (v) the Codexis Documentation, or (vi) Codexis Materials and including any Know-How related to the operation of the Codexis Software, but in each case excluding the Codexis Software itself, and (b) Codexis or any Codexis Affiliate comes to Control during the Term and which Covers the Merck Core Technology Improvements.

1.71 "**Licensed Additional Codexis Patents**" means any and all Patents which (a) Codexis or any Affiliate comes to Control during the TT Term (and, if Merck exercises the Option, during the Improvements TT Term) and which Covers (i) the Platform Technology, (ii) Arising Codexis Enzyme Technology, (iii) Arising Codexis Process Technology, or (iv) any Codexis Core Technology Improvements and (b) Codexis or any Codexis Affiliate comes to Control during the Term and which Covers the Merck Core Technology Improvements.

1.72 "**Licensed IP**" means (a) the Licensed Patents, (b) the In-Licensed Patents (c) the Licensed Know-How, (d) the In-Licensed Know-How, (e) the Licensed Additional Codexis Know-How and (f) the Licensed Additional Codexis Patents.

1.73 "**Licensed Know-How**" means any Know-How Controlled by Codexis as of the Effective Date which is disclosed or provided to Merck pursuant to the Technology Transfer Plan, including the Codexis Documentation, Codexis Materials and Know-How related to the operation of the Codexis Software (but excluding the Codexis Software itself), but only to the extent existing as of the Effective Date.

1.74 "**Licensed Patents**" means the Codexis Core Patents, the Codexis Mayflower Patents and the Codexis Enzyme Patents.

1.75 "**Losses**" means any liability, loss, damage, expense (including reasonable legal expenses, costs of litigation, and attorneys' fees) or judgment, whether for money or equitable relief, of any kind.

1.76 "**Merck API Process Technology**" means all Technology (excluding however any Process Technology) of or relating to manufacturing or processing an active pharmaceutical ingredient, in either case which Technology relates to a specific active pharmaceutical ingredient, including any Merck Developed API, developed by or for (other than any Technology developed by Codexis on behalf of Merck or any of its Affiliates) or otherwise Controlled by Merck, but in each case excluding the Codexis Software.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.77 "**Merck API Process Technology IP**" means all Intellectual Property Rights of any kind or nature in or to any Merck API Process Technology.

1.78 "**Merck Core Technology Improvements**" means any Improvement to the Codexis Core Technology practiced by Merck or any Affiliate of Merck that is generated solely by Merck during the Term, excluding any Improvement to the Codexis Core Technology which arises from Merck's Background IP.

1.79 "**Merck Core Technology Improvements IP**" means any and all Intellectual Property Rights which are generated solely by Merck or any Affiliate of Merck which Cover the Merck Core Technology Improvements. For clarity, the Merck Core Technology Improvements IP excludes any Background IP of Merck, any Arising Merck Process Technology IP, any Arising Merck Enzyme Technology IP, and any Merck API Process Technology IP.

1.80 "**Merck Developed API**" means any active pharmaceutical ingredient, where such active pharmaceutical ingredient is owned or Controlled by Merck and developed and/or manufactured by Merck using at least one (1) Enzyme.

1.81 "**Merck Exclusive Field**" means the research, development, and manufacture of Covered Enzymes and Enzymes for use in the animal and/or human healthcare field solely by Merck and its Affiliates, or on behalf of Merck and its Affiliates in accordance with Section 3.2, in the chemical synthesis of Therapeutic Products owned or Controlled by Merck (including, for clarity, the chemical synthesis of Merck Developed APIs for formulation into any Therapeutic Controlled by Merck), but excluding, in any event, the discovery of any Therapeutic Enzyme, Diagnostic, or Vaccine.

1.82 "**Merck Initial Enzyme(s)**" means any enzyme (which for clarity is not an "Enzyme") that is provided by Merck and which is designated as an Initial Enzyme pursuant to a Technology Transfer Project excluding, for clarity, Enzymes derived from a Codexis Enzyme or a Codexis Library.

1.83 "**Merck Non-Exclusive Field**" means the research, development, and manufacture of Covered Enzymes and Enzymes for use solely by Merck and its Affiliates, or on behalf of Merck and its Affiliates in accordance with Section 3.2, for Internal Research Purposes, but excluding, in any event, the discovery of any Therapeutic Enzyme, Diagnostic, or Vaccine, or any sale, lease, license, transfer or use of such Covered Enzymes or Enzymes as a standalone product or a component of a product.

1.84 "**Merck Project Library**" means any collection, set or sub-set of Enzymes and/or expression vectors containing genes that encode for Enzymes derived from a Technology Transfer Project.

1.85 "**Option Improvements**" means all Improvements relating to the Platform Technology, including, without limitation, Codexis Core Technology Improvements (including any and all Improvements to the Codexis Methods, the Initial Technology Transfer Inventory and the Codexis

Software), Improvements to the Codexis Materials and/or the Codexis Documentation, which have come to be Controlled by Codexis during the applicable Option Year.

1.86 "**Option Year**" means each of the [***] twelve (12)-month periods commencing with the day immediately following the TT Term Expiration Date and thereafter commencing with each anniversary thereof. For clarity, the [***].

1.87 "**Patent(s)**" means (a) patents and patent applications anywhere in the world, (b) all divisionals, continuations, continuations in-part thereof or any other patent application claiming priority, or entitled to claim priority, directly or indirectly to (i) any such patents or patent applications, or (ii) any patent or patent application from which such patents or patent applications claim, or is entitled to claim, direct or indirect priority, (c) all patents issuing on any of the foregoing anywhere in the world, together with all registrations, reissues, re-examinations, patents of addition, renewals, substitutions, validations, and re-validations, supplemental protection certificates or extensions of any of the foregoing anywhere in the world, and (d) all provisional and any other priority patent applications filed worldwide.

1.88 "**Person**" means any individual, firm, corporation, partnership, limited liability company, trust, business trust, joint venture, governmental authority, association or other entity.

1.89 "**Phase III Clinical Trial**" means a human clinical trial in any country that would satisfy the requirements of 21 CFR 312.21(c).

1.90 "**Platform Technology**" means (a) the Codexis Core Technology, (b) the Codexis Enzymes, and (c) the Codexis Libraries, and in each case, which are provided to Merck by Codexis under this Agreement.

1.91 "**Process Technology**" means any method, process, or other invention pertaining to the use of any Covered Enzyme or Enzyme; *provided* that Process Technology shall exclude Technology that is generally applicable to chemical process development and to the synthesis and scale up of compounds and that does not specifically require the use or performance of an enzyme, Covered Enzyme, or Enzyme.

1.92 "**Project Enzyme**" means any Enzyme derived from an Initial Enzyme arising from a Round of Enzyme Evolution.

1.93 **"Prosecution**" means the preparation, drafting, filing, prosecution (including any interferences, reissue proceedings, reexaminations, inter partes reviews, post-grant reviews, oppositions and Patent office appeals) and maintenance of Patents in the Territory. When used as a verb, "**Prosecute**" means to engage in Prosecution.

1.94 "**Regulatory Approval(s)**" means, with respect to any Therapeutic Product in any jurisdiction, all approvals from any Regulatory Authority necessary for the commercial manufacture, marketing and sale of any product containing such Therapeutic Product in such jurisdiction in accordance with Applicable Law, including without limitation, receipt of pricing and reimbursement approvals, where required.

1.95 "**Regulatory Authority**" means any national or supranational governmental authority, including without limitation, the FDA, which has responsibility in countries in the Territory over the development and/or commercialization of any Therapeutic Product, as applicable.

1.96 "**Regulatory Filings**" means any and all regulatory applications, filings, approvals and associated correspondence required to develop any Therapeutic Product in each country or jurisdiction in the Territory.

1.97 "**Restricted Enzyme**" means any enzyme, or any vector that encodes for any such enzyme, listed in Exhibit 1.97. During the Term, Exhibit 1.97 may be revised in accordance with Section 3.6.

1.98 "**ROFR Period**" means, with respect to a given Merck Developed API, the period beginning on completion of a [***] and ending on the [***].

1.99 "**Round(s) of Enzyme Evolution**" means round of Initial Enzyme Optimization conducted during a Technology Transfer Project resulting in Project Enzymes.

1.100 "**Sitagliptin Agreement**" means that certain Sitagliptin Catalyst Supply Agreement entered into by and between the Parties and effected as of February 1, 2012.

1.101 "**Technology**" means Know-How, Inventions, industrial designs, works of authorship, development tools, files, records and data, all emulation and simulation tools and reports, prototypes, sequences, structures, databases and data collections, and all tangible embodiments of the foregoing, *provided, however*, Technology shall not include Codexis Software (or software, source code, object code, graphical user interfaces, application programming interfaces, programs, objects, modules, algorithms, routines or firmware used or utilized in Codexis Software).

1.102 "**Technology Transfer**" means (a) the transfer to Merck of the Platform Technology, Codexis Documentation, Codexis Software, Codexis Materials, and Improvements thereto which come to be Controlled by Codexis during the TT Term (and, if Merck exercises an Option, during that portion of the Improvements TT Term for which the exercised Option applies), and (b) the training provided to Merck with respect to the Platform Technology, in each case to be conducted in accordance with the Technology Transfer Plan and Article 2.

1.103 "**Technology Transfer Plan**" means that plan for the Technology Transfer as mutually agreed between the Parties and set forth in Exhibit 1.103 as of the Effective Date and as may be amended by the Parties during the TT Term in accordance with Section 2.2.2 itemizing each Party's responsibilities and obligations, the activities to be performed by each Party, and a timeline for performance of such activities, in connection with the Technology Transfer from Codexis to Merck to fully implement the Platform Technology at the Designated Lab.

1.104 "**Technology Transfer Project**" means any Enzyme evolution project that was initiated using an Initial Enzyme during the TT Term.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

1.105 "**Territory**" means all of the countries in the world, and their territories and possessions.

1.106 "**Therapeutic**" means a compound, molecule, pharmaceutical, drug, biological preparation, or other product for the treatment or prevention of any disease or medically treatable or preventable condition.

1.107 "**Therapeutic Enzyme**" means [***].

1.108 "**Therapeutic Product**" means any Therapeutic owned or Controlled by Merck or its Affiliates (or their permitted licensees, successors, assigns and transferees) containing a Merck Developed API.

1.109 "**Third Party**" means any Person other than Merck and Affiliates of Merck, and Codexis and Affiliates of Codexis.

1.110 "**TT Term**" means the period beginning on the Effective Date and ending on the TT Term Expiration Date.

1.111 "**TT Term Expiration Date**" means the earlier of (a) the date of satisfactory completion of the Technology Transfer (in accordance with Section 2.2.7), or (b) the later to occur of fifteen (15) months following the Effective Date or such later date as determined pursuant to Section 2.2.7.

1.112 "**United States**" or "**U.S.**" means the United States of America and all its territories and possessions.

1.113 "**Vaccine**" means [***].

1.114 "[***]" means that either [***].

1.115 "**Wave**" means each phase of the Technology Transfer noted as Wave 1 and Wave 2 of the Technology Transfer Plan in force as of the Effective Date, and from time-to-time during the TT Term.

2. TECHNOLOGY TRANSFER

2.1 Management of Technology Transfer.

2.1.1 Scientific Lead. Each Party shall designate in writing within fifteen (15) days after the Effective Date, a " **Scientific Lead**" with all necessary scientific skill and expertise to fulfil such role in accordance with this Article 2, to be the primary contact for such Party responsible for managing day-to-day communications between the Parties with respect to the technical aspects of the Technology Transfer and other scientific and technical activities (including any Additional Services) set forth in this Agreement, including responsibility for scheduling teleconferences and coordinating meetings and technical support as required hereunder. Each Party may respectively appoint a substitute Scientific Lead to represent it under this Section 2.1.1.

2.1.2 Alliance Manager. Each Party shall designate in writing within fifteen (15) days after the Effective Date, an " **Alliance Manager**" with all necessary business skill and expertise as necessary to be the primary contact for such Party as regards all business development and/or contract-related communications between the Parties for all matters in connection with this Agreement, outside of the purview of the technical matters for which the Scientific Leads are responsible. The Alliance Managers shall be responsible for initially addressing any finance, legal and business issues that may arise. Each Party may respectively appoint a substitute Alliance Manager to represent it under this Section 2.1.2.

2.1.3 Limitations. The Scientific Leads and the Alliance Managers shall not have the authority to amend, modify or waive compliance with this Agreement, through meeting minutes, e-mails or otherwise.

2.2 Technology Transfer.

2.2.1 Technology Transfer Plan. The Parties shall perform the Technology Transfer in Waves during the TT Term pursuant to the timelines and in accordance with the responsibilities allocated under the Technology Transfer Plan. Each Party shall perform the activities assigned to such Party under the Technology Transfer Plan at the sites identified in Section 2.2.6 and shall perform all such activities in compliance with Applicable Law. Each Party shall be responsible for all salaries and costs and expenses of their own personnel (including, without limitation, travel and living expenses). Without limiting the foregoing, Codexis shall provide Merck the Codexis Methods at dates no later than those set forth in the timelines in the Technology Transfer Plan. Codexis shall promptly transfer to Merck (a) the Initial Technology Transfer Inventory, (b) the Codexis Materials, (c) the Codexis Documentation, and (d) the Codexis Software and other Platform Technology, at dates no later than those set forth in the timelines in Technology Transfer Plan. All Technology Transfer activities shall be performed [***] by the Parties. Notwithstanding anything to the contrary, subject to any updates to the Technology Transfer Plan pursuant to Section 2.2.2, Codexis shall not be obligated to transfer to Merck any information and/or materials not described in the Technology Transfer Plan.

2.2.2 Updates to Technology Transfer Plan. In the event that errors and/or omissions in the Technology Transfer Plan are discovered by Merck and/or Codexis during the TT Term and the Parties agree to update the Technology Transfer Plan pursuant to any reasonable scientific rationale agreed between the Parties to enable Merck to practice the Platform Technology, the Parties shall then update the Technology Transfer Plan accordingly.

2.2.3 Improvements Arising During TT Term. Within [***] after the end of the Calendar Quarters ending June 30 and December 31, Codexis will disclose to Merck any and all Improvements relating to the Platform Technology which have come to be Controlled by Codexis at any time during the TT Term, and which have been identified and are being practiced by Codexis in its own business operations, including, without limitation, all Codexis Core Technology Improvements (including any and all Improvements to the Codexis Methods, the Initial Technology Transfer Inventory and the Codexis Software), Improvements to the Codexis Materials and the Codexis Documentation,

Arising Codexis Enzyme Technology, and/or Arising Codexis Process Technology which come to be Controlled by Codexis during the TT Term. [***].

2.2.4 Technology Transfer Teams. In order to effect Section 2.2:

(a) Merck shall identify a Technology Transfer team of personnel and in such numbers as it may so determine (the "**Merck Team**") to participate in the Technology Transfer. Merck may change any member(s) of the Merck Team in its sole discretion at any time. The Merck Team shall have all reasonable skills and experience in the field of protein engineering to perform the Technology Transfer. [***]. [***], Merck shall remain at all times fully liable for its respective responsibilities with respect to the Technology Transfer.

(b) Codexis shall identify a Technology Transfer team to lead the Merck Team in the Technology Transfer (the "**Codexis Team**") as detailed in the Technical Transfer Plan. Codexis, in its sole discretion, may change any member(s) of the Codexis Team at any time. Each member of the Codexis Team shall have all necessary scientific experience and expertise to perform the Technology Transfer in accordance with the Technology Transfer Plan. [***]. [***], Codexis shall remain at all times fully liable for its respective responsibilities with respect to the Technology Transfer.

2.2.5 Wave 1 of Technology Transfer Plan . After the Effective Date, the Codexis Team will transfer Codexis screening capabilities to Merck as outlined in the Technology Transfer Plan. Wave 1 will be deemed complete upon Completion of Wave 1.

2.2.6 Wave 2 of Technology Transfer Plan . On an agreed-upon date, the Codexis Team and the Merck Team will participate in Wave 2 of Technology Transfer activities by enabling Merck to practice the Platform Technology at the Designated Lab. As part of Wave 2, Codexis and Merck shall participate in Technology Transfer Project 1 at Codexis' facility in Redwood City, California and Technology Transfer Project 2 at the Designated Lab. Each of Merck and Codexis shall bear its own costs and expenses of providing such training. Wave 2 will be deemed complete upon Completion of Wave 2.

2.2.7 Completion of Technology Transfer . The Technology Transfer will be deemed complete upon the Completion of Wave 1 and the Completion of Wave 2. If the Completion of Wave 1 does not occur within [***] from the Effective Date and/or the Completion of Wave 2 does not occur by the TT Term Expiration Date, and the delay in the Completion of Wave 1 and/or the Completion of Wave 2 is proximately caused by decision(s), action(s) or inaction(s) of Merck, its Affiliates and/or Third Parties controlled by Merck and/or its Affiliates, then the TT Term Expiration Date shall be extended by the period of time equal to the delay in the Completion of Wave 1 and/or the Completion of Wave 2 which is proximately caused by such decision(s), action(s) and/or inaction(s) of Merck, its Affiliates and/or Third Parties controlled by Merck or its Affiliates, *provided, however*, in no event will the TT Term Expiration Date be extended pursuant to this Section 2.2.7 beyond [***] from the Effective Date where any such extension is proximately caused by decision(s), action(s) or inaction(s) of Merck, its Affiliates and/or Third Parties controlled by Merck and/or its Affiliates. If Completion of Wave 1 and/or the Completion of Wave 2 are not achieved on or before [***] from the Effective Date where such non-achievement is proximately caused by decision(s), action(s) or inaction(s) of Merck, its

Affiliates and/or Third Parties controlled by Merck and/or its Affiliates, the applicable milestone payment(s) set forth in Section 7.3 shall be paid to Codexis in the manner set forth in Section 7.3. In the event either Party reasonably disputes whether or not the Completion of Wave 1 and/or the Completion of Wave 2 have occurred, the Parties will submit such dispute for resolution in accordance with Article 13.

2.3 Transfers of Materials. In the event that the Parties mutually agree that a transfer of any biopharmaceutical, biological, chemical or other like material ("**Material(s)**") from one Party to the other Party is necessary or desirable to facilitate the Parties' collaborative activities pursuant to this Agreement then, except (i) where Codexis Materials are transferred by Codexis to Merck pursuant to the Technology Transfer Plan (which in all cases shall be itemized and recorded in writing, such written records to be sent to Merck for confirmation of receipt of all such items), or (ii) where Materials are transferred by Codexis to Merck and are identified as a "deliverable" under a Statement of Work, such Materials will be transferred subject to and in accordance with a material transfer agreement in a form satisfactory to both Parties.

2.4 Designated Lab. Merck shall be responsible for providing space for the Designated Lab, procuring all equipment necessary for operation of the Designated Lab, designing the Designated Lab, and constructing the Designated Lab.

3. LICENSES

3.1 Licenses to Codexis.

3.1.1 Merck Background IP License. Subject to the terms and conditions of this Agreement, Merck hereby grants to Codexis, during the Term, a worldwide, non-exclusive, non-transferable (except as provided in Section 14.8), fully paid-up, royalty-free right and license, with the right to grant sublicenses solely to Affiliates, under Merck's Background IP in the Merck Exclusive Field and Merck Non-Exclusive Field solely as necessary for Codexis to perform its obligations during the Technology Transfer and under each Technology Transfer Project as set forth in the written research plan applicable to such Technology Transfer Project and for any Additional Services.

3.1.2 Arising Merck Enzyme Technology IP. Subject to the terms and conditions of this Agreement (including, for the avoidance of doubt, Article 12), Merck hereby grants to Codexis a worldwide, exclusive, non-transferable (except as provided in Section 14.8), fully paid-up, royalty-free right and license, with the right to grant sublicenses through multiple tiers, under the Arising Merck Enzyme Technology IP invented using the Platform Technology, solely to improve, make, have made, use, and sell Enzymes for use solely outside of the Merck Exclusive Field.

3.1.3 Arising Merck Process Technology IP. Subject to the terms and conditions of this Agreement (including, for the avoidance of doubt, Article 12), Merck hereby grants to Codexis a worldwide, non-exclusive, non-transferable (except as provided in Section 14.8), fully paid-up, royalty-free right and license, with the right to grant sublicenses through multiple tiers, under the Arising Merck Process Technology IP (excluding, in any event, any Merck API Process Technology IP) invented using the Platform Technology for any use solely outside of the Merck Exclusive Field. During

[***] and for a period of [***], Codexis covenants and agrees that, notwithstanding [***]. After the [***] period, Codexis shall [***], *provided* that Codexis shall [***].

3.2 Licenses to Merck.

3.2.1 Platform Technology Licenses. Subject to the terms and conditions of this Agreement (including the limitations set forth in Section 3.4), Codexis on behalf of itself and its Affiliates hereby grants to Merck, during the Term, a nontransferable (except as provided in Section 14.8), right and license, with the right to grant sublicenses to Affiliates, in accordance with, and to the extent permitted under, Section 3.3, under the Licensed IP in the Territory, with respect to enzymes, including any enzyme owned or otherwise Controlled by Merck under this Agreement or otherwise, to use in the Designated Lab the Platform Technology (or any aspect of the Platform Technology) (but excluding the Codexis Software, which shall instead be subject to the license set forth in Section 3.2.2, below), which right and license shall be:

(a) exclusive in the Merck Exclusive Field; and

(b) non-exclusive in the Merck Non-Exclusive Field;

in each of Sections 3.2.1(a) and 3.2.1(b), solely to research, develop, use, optimize, modify, isolate, engineer, identify, select, make, have made, import and/or export, Enzymes, other than any Restricted Enzyme.

3.2.2 License to Codexis Software. Subject to the terms and conditions of this Agreement (including the limitations set forth in Section 3.4), Codexis on behalf of itself and its Affiliates hereby grants to Merck, during the Term, a nontransferable (except as provided in Section 14.8), right and license, sublicensable to Affiliates in accordance with, and to the extent permitted under, Section 3.3), to (i) deploy [***] the Codexis Software on Approved Servers, and (ii) access and use [***] the Codexis Software solely from the Designated Lab. [***]. The foregoing license set forth in this Section 3.2.2 shall be:

(a) exclusive in the Merck Exclusive Field; and

(b) non-exclusive in the Merck Non-Exclusive Field;

in each of Sections 3.2.2(a) and 3.2.2(b), solely to research, develop, use, optimize, modify, isolate, engineer, identify select, make, have made, import and/or export Enzymes, other than any Restricted Enzyme.

3.2.3 Manufacturing Licenses. Subject to the terms and conditions of this Agreement (including the limitations set forth in Section 3.4), Codexis hereby on behalf of itself and its Affiliates grants to Merck, during the Term, a non-transferable (except as provided in Section 14.8) right and license, with the right to grant sublicenses to Affiliates, contract manufacturing organizations (CMOs), contract research organizations (CROs), or other contract service organizations in accordance with and to the extent permitted under Section 3.3 under the Licensed IP in the Territory, solely to make,

have made, import and/or export Enzyme(s) for use in Therapeutic Product(s) or Merck Developed API(s), which right and license shall be:

(a) exclusive in the Merck Exclusive Field; and

(b) non-exclusive in the Merck Non-Exclusive Field.

3.2.4 Loss of Exclusivity. The exclusive licenses granted by Codexis to Merck in the Merck Exclusive Field pursuant to Sections 3.2.1, 3.2.2 and 3.2.3 shall become non-exclusive, on a Therapeutic-by-Therapeutic and country-by-country basis, on the first date that both (i) [***], and (ii) [***].

3.3 Sublicensing. To the extent that either Party is permitted to grant sublicenses under the licenses granted to it under this Agreement, either Party shall have the right to grant such sublicenses through multiple tiers of sublicensees; *provided* that:

3.3.1 any sublicense agreement between Merck and a Third Party sublicensee relating to the performance of Merck's obligations or exercise of Merck's rights under this Agreement shall include material transfer terms, and non-use and non-disclosure confidentiality terms, that are no less stringent than terms used by Merck in the ordinary course of Merck's business in similar transactions involving Merck's proprietary materials and information of a similar nature;

3.3.2 any such sublicense is consistent with and subject to the terms of this Agreement and shall terminate automatically upon termination of the corresponding license hereunder;

3.3.3 each Party, within thirty (30) days after the effective date of any sublicense, shall provide written notice to the other Party of the grant, the date, and the identity of the Third Party of any sublicense to a Third Party;

3.3.4 each Party shall not be relieved of its obligations pursuant to this Agreement as a result of such sublicense ; and

3.3.5 any sublicense granted by Merck shall (a) prohibit the sublicensee from using the Platform Technology for any purpose other than as specified in Section 3.2.1, Section 3.2.2 and Section 3.2.3 and (b) require the sublicensee to destroy all Platform Technology, and all Information of Codexis, in possession of such sublicensee after completion of the sublicensee's obligations under such sublicense.

3.4 Limitations on Licenses.

3.4.1 In-Licensed Patents. With respect to any aspect of the In-Licensed Patents for which Codexis has less than fully exclusive, worldwide rights (e.g., co-exclusive, non-exclusive, limited territorial or otherwise restricted rights), the licenses provided in Sections 3.2.1, 3.2.2, 3.2.3 and 3.5.6 shall be limited to the scope of those rights that Codexis Controls.

3.4.2 Codexis Mayflower Patents. The licenses provided in Sections 3.2.1, 3.2.2, 3.2.3 and 3.5.6 shall be limited as set forth in Exhibit 3.4.2.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

3.4.3 No Use for Third Parties.

(a) Merck shall not use, and shall cause its Affiliates and permitted sublicensees not to use, the Platform Technology to engineer, synthesize, manufacture or otherwise develop or produce any Enzymes, molecules, biologic agents, drug products, therapeutic agents or any other compounds for or on behalf of any Third Party and/or to that Third Party's order or direction. [***], if Merck or any Affiliate [***], and Merck or such Affiliate, [***], then Merck and/or its Affiliate may, [***].

(b) Merck shall not use, and shall cause its Affiliates and permitted sublicenses not to use, the Platform Technology to make or have made and sell, offer for sale, lease, barter, donate or otherwise transfer any enzymes or Enzymes to any Third Party. [***]. if Merck or any Affiliate [***], and Merck or such Affiliate, [***], then (a) Merck or its Affiliates [***], and (b) Merck may [***].

(c) Merck shall [***].

3.4.4 Enzyme Supplier. During the Term, [***] would supply to Merck or its Affiliates or permitted sublicensees any Enzymes developed using rights licensed by Codexis to Merck under the terms of this Agreement, [***].

3.4.5 Codexis Software Restrictions. Codexis retains ownership of all Codexis Software and rights therein and Merck will maintain the copyright notice and any other notices that appear on the Codexis Software on any copies and any media. Merck will not (and will not allow any Affiliate or Third Party to) [***]. Prior to disposing of any media or apparatus containing any part of the Codexis Software, Merck shall completely destroy any Codexis Software contained therein. All the limitations and restrictions on Codexis Software in this Agreement shall also apply to any Codexis Documentation for the Codexis Software. Merck acknowledges and agrees that it will be solely responsible for providing, maintaining, and supporting the Approved Servers.

3.5 Options to Improvements Arising After TT Term.

3.5.1 Option Grants. Subject to the terms and conditions of this Agreement, Codexis hereby grants to Merck [***] annual options, exercisable within the Improvements TT Term and [***] thereafter at Merck's sole discretion in accordance with Section 3.5.2, to acquire the rights described in Section 3.5.3, which options shall be exclusive as to the Merck Exclusive Field and non-exclusive in the Merck Non-Exclusive Field (each, an "**Option**").

3.5.2 Initial Disclosure. Within [***] following each Option Year, Codexis will discuss with Merck any Option Improvements which have come to be Controlled by Codexis during the applicable Option Year and which have been identified and are being practiced by Codexis in its own business operations, and will describe all such Option Improvements to Merck in sufficient detail to assist Merck in determining whether to exercise an Option with respect to such Option Improvements. Merck shall have [***] after receipt of the initial disclosure regarding such Option Improvements to request the disclosure of further information Controlled by Codexis with respect to such Option

Improvements ("**Option Evaluation Request**"). All such disclosures, whether initial or subsequent, shall be considered the Information of Codexis.

3.5.3 Option Exercise. Merck shall have [***] after receipt of the initial disclosure or, if an Option Evaluation Request is timely made, [***] from the date of Codexis' further disclosure of information disclosure pursuant to the Option Evaluation Request, to request in writing that Codexis disclose and license the Option Improvements to Merck ("**Option Election Date**"). If Merck timely exercises an Option, then Merck shall, within [***] of the Option Election Date, pay to Codexis the sum of [***] for the Option elected and Codexis will promptly disclose to Merck any and all Option Improvements subject to such Option and such Option Improvements shall be deemed licensed to Merck under Section 3.5.6.

3.5.4 [***] Exercise of Option. Merck will be [***].

For example, if Merck [***].

3.5.5 Role of Scientific Lead. During the Improvements TT Term and for [***] thereafter, if Merck exercises an Option with respect to any Option Improvements, Codexis shall make its Scientific Lead reasonably available to provide telephonic or web-based advisory technical support and assistance to Merck in Merck's practice of the Platform Technology and such Option Improvements.

3.5.6 Grant of Rights. Subject to the terms and conditions of this Agreement (including the limitations set forth in Sections 3.2, 3.3 and 3.4), effective immediately upon Merck's exercise of an Option in accordance with Section 3.5.3, Codexis hereby on behalf of itself and its Affiliates grants to Merck a worldwide, non-transferrable (except as permitted under Section 14.8), non-sublicensable (except as permitted in accordance with Sections 3.2.1, 3.2.2 and 3.2.3) license, which license shall be either exclusive, non-exclusive or both as determined in accordance with Sections 3.2.1, 3.2.2 and 3.2.3, under all of Codexis' right to Codexis Core Technology Improvements IP practiced by Codexis during the Option Year for which the Option is exercised (pursuant to Section 3.5.3) or [***] exercised (pursuant to Section 3.5.4). Codexis shall provide any technology transfer or scientific or technical resources reasonably requested by Merck, and reasonably necessary for Merck, to practice such Codexis Core Technology Improvements IP, at Merck's reasonable expense. During the Improvements TT Term, Codexis' Alliance Manager will periodically disclose to Merck's Alliance Manager information regarding new, updated or improved Enzyme kits or panels (as defined in this Section 3.5.6 below). For purposes of this Section 3.5.6, the term "new, updated or improved Enzyme kits or panels" means a collection of multiple, genetically-diverse Enzymes, Controlled by Codexis, that are first made commercially available to the general public by Codexis through Codexis' catalog or website. All information, documents and other materials provided by Codexis to Merck pursuant to this Section 3.5.6 shall constitute Information of Codexis.

3.5.7 Extension of the Improvements TT Term. Upon mutual written agreement of the Parties, and payment by Merck to Codexis of an amount to be mutually agreed in good faith by the Parties, within the sixty (60) day period prior to the then-current Improvements TT Term Expiration Date, the Improvements TT Term Expiration Date may be extended by one (1) year. The

Parties may extend the Improvements TT Term Expiration Date any number of times in accordance with this Section 3.5.7.

3.6 Restricted Enzymes.

3.6.1 During the Term, in its ordinary course of business, Codexis will conduct research and development activities for itself and Third Parties under the Licensed IP using the Platform Technology and, in connection with such research and development activities, will generate Potentially Restricted Enzymes that, in certain cases, on a Potential Restricted Enzyme-by-Potentially restricted Enzyme basis, (a) will be owned in whole or in part by such Third Parties or exclusively licensed in whole or in part by Codexis to such Third Parties, (b) will not be Controlled by Codexis, or (c) Codexis otherwise has a reasonable basis to designate as a Potentially Restricted Enzyme. For purposes of this Section 3.6.1, the term "**Potentially Restricted Enzyme**" means any enzyme, or any vector that encodes for enzyme, derived from the use of the Platform Technology by Codexis after the Effective Date that, in either case, may not be Controlled by Codexis or is an enzyme that Codexis has a reasonable basis to designate as a Potentially Restricted Enzyme. In the event that any Potentially Restricted Enzyme generated by Codexis is not Controlled by Codexis or is an enzyme that Codexis has a reasonable basis to designate as a Potentially Restricted Enzyme, Codexis, subject to confidentiality obligations owed by Codexis to any Third Party, will inform the Patent Committee of such Potentially Restricted Enzyme at its next regularly scheduled meeting and amend the list of Restricted Enzymes set forth in Exhibit 1.97 to include the Potentially Restricted Enzyme. The Patent Committee will review information provided by Codexis with respect to any such Potentially Restricted Enzyme and, in accordance with Section 5.5.3, determine whether the list of Restricted Enzymes set forth on Exhibit 1.97 shall be revised to include such Potentially Restricted Enzyme and, if applicable, any particular field(s) and/or use(s) restrictions with respect to such Potentially Restricted Enzyme. The Patent Committee will create and maintain a list of all Potentially Restricted Enzymes.

3.6.2 In the event that Merck wishes to exercise its rights under Section 3.6.1 to any Restricted Enzyme for any specific field(s) and/or use(s), it shall notify Codexis in writing of such request. Codexis shall then have [***] in which to confirm to Merck in writing whether Codexis Controls such Restricted Enzyme for such specific field(s) and/or use(s) requested by Merck. In the event that Codexis does Control such Restricted Enzyme for such specific field(s) and/or use(s) then effective upon the date of such written confirmation from Codexis, such Restricted Enzyme shall be an Enzyme for such specific field(s) or use(s) for the purpose of Section 3.2. [***].

3.7 Merck Developed Improvements. During the Term, within [***] after the end of the Calendar Quarters ending June 30 and December 31, Merck's representative on the Patent Committee will meet and discuss with Codexis' representative on the Patent Committee any Codexis Core Technology Improvements, Merck Core Technology Improvements, Arising Merck Enzyme Technology, and Arising Merck Process Technology (other than any Merck API Process Technology) which Merck has developed since the last such meeting. Codexis shall have [***] after such meeting and receipt of the initial disclosure regarding such Codexis Core Technology Improvements, Merck Core Technology Improvements, Arising Merck Enzyme Technology, and Arising Merck Process Technology to request

the disclosure of further information and Technology which is Controlled by Merck. Any disclosures or transfers of Technology from Merck to Codexis under this Section 3.7 shall be at Codexis' sole expense.

3.8 Public Domain Information and Material. Codexis acknowledges and agrees that Merck shall be free to utilize, without restriction, any information, material, or other Technology that is (a) within the Platform Technology (including any Improvements thereto) and (b) wholly within the public domain.

3.9 No Implied Licenses. No license or other right is or shall be created or granted hereunder by implication, estoppel or otherwise. All licenses and rights are or shall be granted only as expressly provided in this Agreement. All rights not expressly granted by a Party under this Agreement are reserved by such Party and may be used by such Party for any purpose. For clarity, there shall be no implied license or implied other right in favor of Codexis to any Enzyme, and there shall be no implied license or implied other right in favor of Merck to any Technology or Intellectual Property Rights of Codexis that is not expressly addressed in this Agreement.

4. SERVICES

4.1 Evolution Programs. In addition to, and not in lieu of, the Technology Transfer, Codexis shall provide to Merck, [***] into the data and decision matrix/process of Codexis for [***] evolution programs dedicated to Merck during the fifteen (15) month period commencing with the Effective Date at Codexis' facility in Redwood City, California (each an "**Evolution Program**"). [***]. Codexis' only obligation with respect to Evolution Program(s) is to perform such Evolution Program(s) in good faith and to provide services of its personnel. Codexis makes no warranty that the Evolution Programs will result in any level of success. All Evolution Programs will conclude, if not earlier completed, on the date which is fifteen (15) months after the Effective Date. At any time during this fifteen (15) month period, [***]. Merck and Codexis previously entered into that certain [***] and [***] (each an "**Existing [***]**" and collectively the "**Existing [***]**"). Should Merck decide to transfer the subject of work from an Existing [***] to either (a) a Technology Transfer Project or (b) an Evolution Program, then from the date such transfer becomes effective the terms and conditions of this Agreement shall apply to such work in substitution for the terms and conditions of the Existing [***].

4.2 Additional Services. At any time during the Term, Codexis and Merck may mutually agree for Codexis to perform additional enzyme evolution related services for the benefit of Merck, with the scope, deliverables, fees, and conduct of the Parties with respect to such additional services to be set forth in a mutually agreeable statement of work (each, a "**Statement of Work**") in a form substantially similar to that attached as Exhibit 4.2. All Additional Services, and the performance thereof by Codexis, will be subject to the terms and conditions of this Agreement. All Additional Services shall be performed [***] by Codexis. Without limiting the foregoing, Codexis will [***] to accomplish the Additional Services in accordance with any applicable Statement of Work and the terms of this Agreement.

4.3 Subcontracting. Subject to Merck's compliance with Section 3.3 and Codexis' prior written consent, such consent not to be unreasonably withheld, conditioned or delayed, Merck may

perform any of its obligations or exercise any of its rights under this Agreement through one or more Third Party contractors, contract manufacturing organizations (CMOs), contract research organizations (CROs) or other contract service organizations, *provided, however*, Merck may not subcontract any activities to a Third Party that would permit such a Third Party to receive and/or use the Platform Technology. Subject to Codexis' compliance with Section 3.3, and Merck's prior written consent, such consent not to be unreasonably withheld, conditioned or delayed, Codexis may perform any of its obligations under Technology Transfer Project 1 (as described in the Technology Transfer Plan) and Technology Transfer Project 2 (as described in the Technology Transfer Plan) and Article 4 through one or more Third Party contractors, contract service organizations and academic or government collaborators; *provided* that the activities corresponding to such obligations [***]. Merck hereby approves the use by Codexis of the subcontractors set forth on Exhibit 4.3.

5. JOINT STEERING COMMITTEE; PATENT COMMITTEE.

5.1 Joint Steering Committee Establishment. Within thirty (30) days after the Effective Date, the Parties shall establish a joint steering committee (the "**Joint Steering Committee**" or "**JSC**") to have overall responsibility for managing and directing the Technology Transfer and Additional Services and to oversee and make certain decisions regarding the Technology Transfer and the Additional Services. The JSC shall also provide a forum for sharing advice, progress and results relating to the activities conducted by the Parties and shall attempt to facilitate the resolution of any disputes between the Parties. At each meeting of the JSC, each Party shall brief the JSC regarding the content, execution and results achieved by such Party with respect to the Technology Transfer and Additional Services. Each Party, through its representatives on the JSC, shall be permitted to provide advice and commentary with respect to the Technology Transfer and Additional Services. The JSC shall have the following specific responsibilities:

5.1.1 oversee, review and provide advice regarding the overall progress of the Technology Transfer and any Additional Services;

5.1.2 coordinate by way of each Party's Scientific Leads the research activities under a written research plan relating to a Technology Transfer Project agreed by the Parties and coordinate sharing of results and data arising therefrom;

5.1.3 appoint and oversee subcommittees as it deems appropriate for carrying out activities under this Agreement, including for oversight of any specific aspects of any portion of the Technology Transfer, Additional Services, or other matters;

5.1.4 review the Technology Transfer Plan and any Statements of Work and, if appropriate, propose modifications thereto to the Parties; and

5.1.5 perform any other activities or functions as the Parties may mutually agree in writing.

5.2 Membership; Meetings. The JSC shall be composed of two (2) employees from each of Merck and Codexis and shall meet, in person, by teleconference, or by video-teleconference, at

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

least one (1) time per Calendar Quarter, or more or less often as the Parties shall determine; *provided* that nothing under this Agreement shall prevent the Parties from meeting in person, by teleconference, or by video-teleconference more frequently as may be mutually agreed by the JSC representatives. In-person meetings shall alternate between Codexis and Merck locations within the United States whenever possible unless otherwise agreed by the Parties. The first such meeting shall be within forty-five (45) days after the Effective Date. Any member of the JSC may designate a substitute, who shall be an employee of the applicable Party, to attend with prior written notice to the other Party. Ad hoc guests who are subject to written confidentiality obligations at least as stringent as the provisions in Article 10 may be invited to JSC meetings. Each Party may replace its JSC members with other of its employees, at any time, upon written notice to the other Party.

5.3 Decision-Making; Limitations on JSC. Decisions of the JSC shall be made by consensus, including issues concerning technical feasibility and the deployment of Codexis resources, with each Party having collectively one (1) vote in all decisions. The JSC shall have only such powers as are specifically delegated to it in this Agreement, and such powers shall be subject to the terms and conditions set forth herein. Without limiting the generality of the foregoing, the JSC shall have no power to amend this Agreement, the Technology Transfer Plan, or any Statement of Work. The Parties shall be alternately responsible for preparing and circulating minutes, for approval by the non-preparing Party, within fourteen (14) days after each meeting including but not limited to a list of topics of discussion at the meeting and a list of any actions, decisions or determinations approved and a list of any issues and actions to be resolved. If the JSC is unable to reach a consensus decision on a matter that is within its decision-making authority within thirty (30) days after it has met and attempted to reach such decision, then such matter shall be resolved in accordance with Article 13. Any matter not expressly provided for hereunder and any matter relating to any Merck Background IP, Merck Developed API, Therapeutic Products, Platform Technology (other than certain Improvements with respect thereto), Licensed IP (other than certain Improvements with respect thereto), or Codexis Background IP (other than certain Improvements with respect thereto) shall remain outside of the scope of the JSC.

5.4 Duration of JSC. The JSC shall be automatically disbanded upon the TT Term Expiration or the earlier termination of this Agreement; *provided* that the Parties may, by mutual written agreement, extend the term of the JSC for additional one (1) year periods after the expiration of the TT Term with a separate mutual written agreement required for each such one (1) year extension.

5.5 Patent Committee

5.5.1 Establishment. Within sixty (60) days after the Effective Date, the Parties shall establish a Patent committee (the "**Patent Committee**") to discuss, oversee and coordinate the Prosecution (or abandonment) of Patents, enforcement of Patents, and defense against claims of infringement of Third Party patents relating to Intellectual Property licensed under Article 3, Sections 2.2.3, 3.5 and 3.7, including for example Codexis Core Technology Improvements IP, Arising Codexis Enzyme Technology IP, Arising Codexis Process Technology IP, Arising Merck Enzyme Technology IP and Arising Merck Process Technology IP, and any related Intellectual Property matters regarding any Inventions made during the Term, including for example, the Licensed Additional Codexis Patents and the Licensed Additional Codexis Know-How; and to provide recommendations to the Parties

regarding the Prosecution of such Patents and related Intellectual Property matters. Within thirty (30) days after the end of each half year, each Party shall provide the Patent Committee with a report listing all Patents relating to such Parties' utilization of the Platform Technology filed by that Party during that half year.

5.5.2 Membership; Meetings. The Patent Committee shall be composed of one (1) employee from each of Merck and Codexis knowledgeable in U.S. patent law and the technology areas that are the subject of this Agreement. The Patent Committee shall meet, in person, by teleconference, or by video-teleconference, at least one (1) time per Calendar Quarter, or more or less often as the Parties shall determine. In-person meetings shall alternate between Codexis and Merck locations within the United States whenever possible unless otherwise agreed by the Parties. The first such meeting shall be within ninety (90) days after the Effective Date. Any member of the Patent Committee may designate a substitute, who shall be an employee of the applicable Party, to attend with prior written notice to the other Party. Ad hoc guests who are subject to written confidentiality obligations at least as stringent as the provisions in Article 10 may be invited to Patent Committee meetings. Each Party may replace its Patent Committee members with other of its employees with the qualifications set forth in this Section 5.5.2, at any time, upon written notice to the other Party.

5.5.3 Decision-Making; Limitations on Patent Committee. Decisions of the Patent Committee shall be made by consensus, with each Party having collectively one (1) vote in all decisions. The Patent Committee shall have only such powers as are specifically delegated to it in this Agreement and such powers shall be subject to the terms and conditions set forth herein. Without limiting the generality of the foregoing, the Patent Committee shall have no power to amend this Agreement, the Technology Transfer Plan or any written research plan. If the Patent Committee is unable to reach a consensus decision on a matter that is within its decision-making authority within thirty (30) days after it has met and attempted to reach such decision, then either Party may refer such matter for resolution by the executive officers designated by the Parties for attempted resolution pursuant to Section 13.1. In the event that the executive officers of each Party are unable to resolve such matter within the time period specified in Section 13.1, then Codexis shall have final decision-making authority with respect to any dispute relating specifically to Restricted Enzymes and Codexis Patents and Merck shall have final decision-making authority with respect to any dispute relating specifically to Merck Patents. The Patent Committee shall provide status updates to the JSC once per Calendar Quarter as long as the JSC is in existence and, thereafter, to the Parties.

5.5.4 Duration of Patent Committee. The Patent Committee shall endure for the Term and, by mutual agreement, beyond the Term.

6. INTELLECTUAL PROPERTY

6.1 Background Rights. Each Party shall retain all right, title and interest to its Background IP, and, except as expressly set forth in this Agreement, no right or license to Patents or other Intellectual Property Rights is granted by either Party to the other Party.

6.2 Inventorship; Ownership of Technology.

6.2.1 Generally. Inventorship of Inventions and ownership of any other Technology shall be determined by Applicable Law. Subject to and except as set forth in Sections 6.2.2 through 6.2.9, all patentable Inventions invented solely by or on behalf of either Party or jointly by or on behalf of both Parties under this Agreement, and all Intellectual Property Rights therein, shall be owned in accordance with inventorship.

6.2.2 Codexis Core Technology Improvements IP. Codexis shall own any and all Codexis Core Technology Improvements and Codexis Core Technology Improvements IP. Merck hereby assigns to Codexis all of Merck's right, title and interest in and to the Codexis Core Technology Improvements IP.

6.2.3 Arising Codexis Enzyme Technology IP. Codexis shall own any and all Arising Codexis Enzyme Technology and Arising Codexis Enzyme Technology IP. Merck hereby assigns to Codexis all of Merck's right, title and interest in and to the Arising Codexis Enzyme Technology IP.

6.2.4 Arising Merck Enzyme Technology IP. Merck shall own any and all Arising Merck Enzyme Technology and Arising Merck Enzyme Technology IP. Codexis hereby assigns to Merck all of Codexis' right, title and interest in and to the Arising Merck Enzyme Technology IP.

6.2.5 Arising Codexis Process Technology IP. Codexis shall own any and all Arising Codexis Process Technology and Arising Codexis Process Technology IP. Merck hereby assigns to Codexis all of Merck's right, title and interest in and to the Arising Codexis Process Technology IP.

6.2.6 Arising Merck Process Technology IP. Merck shall own any and all Arising Merck Process Technology and Arising Merck Process Technology IP. Codexis hereby assigns to Merck all of Codexis' right, title and interest in and to the Arising Merck Process Technology IP.

6.2.7 Merck API Process Technology IP. Merck shall own any and all Merck API Process Technology and Merck API Process Technology IP. Codexis hereby assigns to Merck all of Codexis' right, title and interest in and to the Merck API Process Technology IP.

6.2.8 Merck Core Technology Improvements IP. Codexis shall own any and all Merck Core Technology Improvements and Merck Core Technology Improvements IP. Merck hereby assigns to Codexis all of Merck's right, title and interest in and to the Merck Core Technology Improvements IP.

6.2.9 Ownership of Enzymes. As between the Parties, (i) Merck shall exclusively own all Enzymes (and any Technology and Intellectual Property Rights related thereto) derived solely from Merck's use of the Platform Technology pursuant to this Agreement and (ii) Codexis shall exclusively own all Enzymes (and any Technology and Intellectual Property Rights related thereto) not derived solely from Merck's use of the Platform Technology pursuant to this Agreement.

6.3 Further Assurances. Each Party and its Affiliates shall sign and deliver to the other Party all writings and do all such things as may be necessary or appropriate to vest in such other Party all right, title and interest in and to all Codexis Core Technology Improvements IP, Merck Core Technology Improvements, Arising Codexis Enzyme Technology IP, Arising Merck Process Technology IP, and Merck API Process Technology IP in accordance with Section 6.2.

6.4 Employees and Agents. Each Party shall ensure that all employees, agents, consultants, contractors and permitted subcontractors performing activities under or contemplated by this Agreement, have assigned or are obligated to assign their interest in any Invention invented in the course of such activities to the Party for which such employee, agent, consultant, contractor or subcontractor is providing its services.

6.5 Prosecution of Patents.

6.5.1 In General. The Patent Committee shall have oversight regarding the Prosecution of Patents disclosing and/or claiming Inventions directly related to Codexis Core Technology Improvements, Merck Core Technology Improvements, Arising Merck Enzyme Technology, Arising Merck Process Technology, Arising Codexis Enzyme Technology, and Arising Codexis Process Technology, and shall provide recommendations to the Parties to maximize the value of such Patents. To the extent necessary, the Parties agree to cooperate in good faith to coordinate the Prosecution of such Patents, including submissions of Patent applications worldwide (e.g., to coordinate the filing of Patent applications to ensure that the Parties file related applications on the same day). The Parties shall agree in good faith on a strategy with respect to Prosecution of any Patents disclosing and/or claiming any jointly-owned Inventions.

6.5.2 Codexis Prosecution. As between the Parties, Codexis shall have the sole right, but not the obligation, to Prosecute all Patents disclosing and/or claiming all Codexis Core Technology, Merck Core Technology Improvements, Codexis Core Technology Improvements, Codexis Enzymes, Codexis Libraries, Arising Codexis Enzyme Technology and Arising Codexis Process Technology (the "**Codexis Patents**"), in Codexis' sole discretion and at Codexis' sole cost and expense.

6.5.3 Merck Prosecution. As between the Parties, Merck shall have the sole right, but not the obligation, to Prosecute all Patents disclosing and/or claiming all Arising Merck Enzyme Technology and Arising Merck Process Technology (collectively, the "**Merck Patents**"), in Merck's sole discretion and at Merck's sole cost and expense.

6.5.4 Back-Up Rights. If Merck decides not to Prosecute, or not to continue Prosecuting, any Merck Patents, Merck shall provide Codexis with written notice of such decision at least forty-five (45) days prior to the date upon which the subject matter of such Merck Patent shall lapse or become abandoned. The basis for such decision shall be discussed by the Patent Committee pursuant to Section 6.5.1 and Codexis shall thereupon have the right (but not the obligation) to assume responsibility for Prosecution of such Merck Patent at Codexis' expense, and with counsel of Codexis' choosing. Effective upon the date Codexis assumes responsibility for Prosecution of such Merck Patent, and the costs and expenses relating thereto, Merck hereby assigns any and all interest held by Merck in, to, and under such Merck Patent to Codexis.

6.5.5 CREATE Act. Each Party acknowledges and agrees that this Agreement is a "joint research agreement" as contemplated by 35 U.S.C. § 102(c), and that all inventions arising under this Agreement are intended to have the benefit of the rights and protections conferred by the Cooperative Research and Enhancement Act of 2004 ("CREATE Act"). Each Party agrees to disclose the names of both Parties in each Patent application for all inventions arising under all Technology Transfer Projects in accordance with the requirements of 35 U.S.C. § 102(c)(3).

6.6 Enforcement of Patents.

6.6.1 Notice. If either Party becomes aware of any suspected infringement of any Codexis Patent or Merck Patent, or any Codexis Patent or Merck Patent is challenged in any action or proceeding (any of the foregoing, an "**Infringement Action**"), such Party shall notify the other Party's representative on the Patent Committee, and following such notification, the Parties shall confer.

6.6.2 Enforcement. As between the Parties, Merck will have the first right, but not the obligation, to bring any Infringement Action with respect to any Merck Patent at its sole cost and expense, and Codexis shall have the sole right, but not the obligation, to bring any Infringement Action with respect to any Codexis Patent at its sole cost and expense.

6.6.3 Procedure for Enforcement.

(a) The non-enforcing Party pursuant to Section 6.6.2 shall reasonably assist the enforcing Party (at the enforcing Party's expense) in any Infringement Action if so requested, such assistance to be coordinated through the Parties' Patent Committee members, and the non-enforcing Party shall lend its name and be joined as a party plaintiff to such action if reasonably requested by such enforcing Party or required by Applicable Law. The non-enforcing Party shall have the right to participate and be represented in any such action by its own counsel at its own expense. The non-enforcing Party shall cooperate, at the enforcing Party's cost and expense, with the enforcing Party in investigating or terminating any suspected infringement, whether through legal action, negotiation or otherwise, including by producing all reasonably pertinent records, papers, information, samples, specimens and similar items, and directing its employees to testify and grant interviews, upon the request of the enforcing Party. The enforcing Party will keep the non-enforcing Party reasonably informed of the status of the action through the enforcing Party's Patent Committee members.

(b) A settlement, consent judgment or other voluntary final disposition of a suit under this Section 6.6.3 may be entered into by the enforcing Party without the consent of the non-enforcing Party; *provided* that any such settlement, consent judgment or other disposition of any action or proceeding by an enforcing Party under this Article 6 shall not, without the consent of the non-enforcing Party (not to be unreasonably withheld), (a) impose any liability or obligation on the non-enforcing Party, (b) include the grant of any license, covenant or other rights to any Third Party that would conflict with or reduce the scope of the subject matter included under the licenses granted to the non-enforcing Party under this Agreement, (c) conflict with or reduce the scope of the subject matter claimed in any Patent owned by the non-enforcing Party, or (d) adversely affect the interest of the non-enforcing Party in any material respect.

6.6.4 Damages. In the event that a Party exercises the rights conferred in this Section 6.6, and such Party recovers any damages or other sums in such action or in settlement thereof, such damages or other sums recovered shall first be applied to all out-of-pocket costs and expenses incurred by the Parties in connection therewith, including attorneys' fees. If such recovery is insufficient to cover all such costs and expenses of both Parties, it shall be shared in proportion to the total of such costs and expenses incurred by each Party. If, after such reimbursement of the Parties' costs and expenses, any funds shall remain from such damages or other sums recovered, such remaining funds shall be retained by the prosecuting Party.

6.7 Defense Against Third Party Intellectual Property Rights.

6.7.1 Claims of Infringement Relating to Therapeutic Products or Merck Developed API. If a Third Party asserts, or either Party becomes aware of a Third Party's intention to assert, that any Intellectual Property Rights owned or otherwise controlled by the Third Party are infringed by the manufacture, use, sale, offer for sale, import or export of a Therapeutic Product or Merck Developed API in the Territory, the Party first obtaining knowledge of such a claim shall immediately provide the other Party notice of such claim along with the related facts in reasonable detail. In such event, unless the Parties otherwise agree, as between the Parties, Merck shall have the sole right, but not the obligation, at its expense, to control the defense of such claim with respect to such Therapeutic Product or Merck Developed API, subject to Codexis' indemnification obligations set forth in Section 11.1.2 and the obligation for Codexis to assume such defense if requested by Merck. Codexis shall cooperate with Merck in Merck's defense of any such claim at Merck's reasonable request and expense, and Codexis shall have the right to be represented separately by counsel of its own choice, but at its own expense. Notwithstanding anything to the contrary in this Agreement, Merck shall also control settlement of such claim; *provided, however*, that no settlement shall be entered into without the prior consent of Codexis, such consent not to be unreasonably withheld or delayed.

6.7.2 Claims of Infringement Relating to Licensed Rights. If a Third Party asserts, or either Party becomes aware of a Third Party's intention to assert, that a Patent owned or otherwise controlled by the Third Party is infringed by the exercise by Merck or its Affiliates of any rights licensed to Merck hereunder (other than by the manufacture, use, sale, offer for sale, import or export of a Therapeutic Product or Merck Developed API in the Territory), the Party first obtaining knowledge of such a claim shall immediately provide the other Party notice of such claim along with the related facts in reasonable detail. In such event, unless the Parties otherwise agree, as between the Parties, Codexis shall have the sole right, but not the obligation, at its expense, to control the defense of such claim. Merck shall cooperate with Codexis in Codexis' defense of any such claim at Codexis' reasonable request and expense, and Merck shall have the right to be represented separately by counsel of its own choice, but at its own expense. Notwithstanding anything to the contrary in this Agreement, Codexis shall also control settlement of such claim; *provided, however,* that no settlement shall be entered into without the prior consent of Merck if such settlement would adversely affect the rights and benefits of, or impose or adversely affect any obligations on, Merck, such consent not to be unreasonably withheld or delayed.

7. FINANCIAL TERMS

7.1 Upfront Payment. In consideration of the Technology Transfer and licenses granted to Merck under this Agreement, within [***] after the Effective Date, Merck shall pay to Codexis a non-creditable, non-refundable upfront payment of five million Dollars ($5,000,000).

7.2 Option Fee. Upon each exercise of an Option, as set forth in Section 3.5.3, Merck shall pay, within [***] after Merck's receipt of an Invoice from Codexis, the non-creditable, non-refundable payment specified in Section 3.5.3.

7.3 Technology Transfer Milestones. In consideration of the Technology Transfer and licenses granted to Merck under this Agreement, Merck shall pay to Codexis, within [***] of Merck's receipt of an Invoice from Codexis, each of the creditable, non-refundable milestone payments set forth in this Section 7.3 upon achievement of the applicable milestone event.

Technology Transfer Milestone Event	Milestone Payment
Completion of Wave 1	$5,000,000.00
Completion of Wave 2	$8,000,000.00

7.4 Merck Developed API Payments.

7.4.1 Following Regulatory Approval of a Fee Bearing Therapeutic Product, Merck shall pay to Codexis the following amounts based on [***] of each Merck Developed API(s) manufactured using at least one (1) Enzyme by or for Merck, its Affiliates or its or their permitted licensees, successors, assignees or transferees (in accordance with Sections 3.4.3 or 14.8) for use, intended for use or usable in a Fee Bearing Therapeutic Product, on a Merck Developed API manufactured using at least one (1) Enzyme by Merck Developed API manufactured using at least one (1) Enzyme basis ("[***] Payment"):

[***] Merck Developed API manufactured using at least one (1) Enzyme	[***] Payment
[***]	$[***]
[***]	$[***]

The event triggering the obligation of Merck to make a [***] Payment to Codexis shall be the manufacture of a Merck Developed API manufactured using at least one (1) Enzyme, notwithstanding that (i) the Merck Developed API manufactured using at least one (1) Enzyme may be placed into inventory for

intended future use, (ii) Merck, its Affiliates or its or their permitted licensees, successors, assigns or transferees have not specifically identified the Merck Developed API manufactured using at least one (1) Enzyme in question as being intended for use in a particular lot of Fee Bearing Therapeutic Product, and/or (iii) Merck, its Affiliates or its or their permitted licensees, successors, assigns or transferees have not manufactured or sold the Fee Bearing Therapeutic Product. Notwithstanding the foregoing, in no event will the total, cumulative [***] Payments payable to Codexis for any Merck Developed API manufactured using at least one (1) Enzyme, regardless of the number of Therapeutic Products such Merck Developed API manufactured using at least one (1) Enzyme is used, intended for use, or usable in, exceed fifteen million Dollars ($15,000,000). For clarity, the amounts payable to Codexis based on the Merck Developed API manufactured using at least one (1) Enzyme are and shall be deemed to be unaffected by the number of Enzymes used, intended for use, or usable in the manufacture of such Merck Developed API manufactured using at least one (1) Enzyme.

7.4.2 During the Term, within [***] after the end of each Calendar Year, Merck shall deliver to Codexis a written notice identifying each (a) Fee Bearing Therapeutic Product and the Merck Developed API contained within each Fee Bearing Therapeutic Product and (b) Therapeutic Product (and the Merck Developed API contained within each such Therapeutic Product) that (i) is in active development by Merck, its Affiliates or a permitted licensee or assign and (ii) is being evaluated or has been evaluated in a Phase III Clinical Trial. During the Term, Codexis may from time to time request from Merck to confirm to Codexis whether a specific Therapeutic that (i) is in active development by Merck, its Affiliates or a permitted licensee or assign and (ii) is being evaluated or has been evaluated in a Phase III Clinical Trial is manufactured using an Enzyme, and Merck will respond in writing within a reasonable time to such written request from Codexis.

7.5 Payment Reports. Beginning after the first Regulatory Approval of a Fee Bearing Therapeutic Product, and at all times thereafter during the Term so long as Merck, its Affiliates or its permitted licensees, successors, assignees or transferees is manufacturing a Fee Bearing Therapeutic Product, Merck shall furnish to Codexis a written report, within [***] after the end of each Calendar Quarter, showing the amount of [***] Payments due for such Calendar Quarter pursuant to Section 7.4. At the same time each payment report is issued, Merck shall issue Codexis a purchase order for the [***] Payments totaled in each payment report (itemized for each Merck Developed API). The foregoing report shall include:

(a) identification of each Fee Bearing Therapeutic Product containing a Merck Developed API and the Enzyme(s) used in such Merck Developed API;

(b) [***] of each Merck Developed API manufactured during the reporting period for use, for intended use, or usable in each Fee Bearing Therapeutic Product, as well as the cumulative total [***] of such Merck Developed API manufactured for use, intended use, or usable in each Fee Bearing Therapeutic Product;

(c) the amount payable in Dollars which shall have accrued hereunder in respect of each such [***] of Merck Developed API and the basis for calculating such

amounts, as well as the cumulative total amount payable in Dollars which shall have been accrued hereunder in respect of such Merck Developed API;

(d) withholding Taxes, if any, required by Applicable Law to be deducted in respect of such amounts.

The report shall be accompanied by a copy of [***].

7.6 Manner of Payment. All Agreement Payments shall be made in Dollars by wire transfer of immediately available funds to such U.S. bank account as shall be designated by Codexis; *provided, however*, that any notice by Codexis of a change in such account shall not be effective until [***] after receipt thereof by Merck.

7.7 Right of First Refusal for Enzyme Supply. Subject to the limitations in this Agreement (including this Section 7.7), and solely in the event Merck or its Affiliate(s) wish to accept a bona fide offer from a specific, qualified Third Party to supply Enzymes for Merck Developed APIs, Codexis shall have a right of first refusal, solely during the ROFR Period for a specific Therapeutic Product, to [***] supply Merck and its Affiliate(s) their required quantities of Enzyme(s) for those Merck Developed API(s) that are solely for use in such Therapeutic Product(s). A "bona fide offer," for purposes of this Section 7.7, must [***]. The foregoing right [***]. Prior to entering into any agreement with Codexis for the supply of Enzymes, and prior to obtaining supply of any Enzyme from Codexis, Merck shall [***]. If Codexis [***]. For clarity, [***]. For purposes of clarity, nothing in this Agreement will (1) limit or abridge in any respect the rights and obligations of the Parties under the Sitagliptin Agreement, or (2) limit or restrict in any way Merck's ability or the ability of any of Merck's Affiliates to self-produce (whether at a Merck facility or facilities, or at a facility or facilities of any of Merck's Affiliates) any Enzymes for Merck Developed APIs. Should Merck or its Affiliates at any time [***].

7.8 Taxes.

7.8.1 Merck will make all payments to Codexis under this Agreement without deduction or withholding for taxes, except to the extent that any such deduction or withholding is required by Applicable Law in effect at the time of payment.

7.8.2 Any tax required to be withheld on amounts payable under this Agreement shall be paid promptly by Merck on behalf of Codexis to the appropriate governmental authority, and Merck will furnish Codexis with proof of payment of such tax. Any such tax required to be withheld will be borne by Codexis.

7.8.3 Merck and Codexis will cooperate with respect to all documentation required by any taxing authority or reasonably requested by Merck to secure a reduction in the rate of applicable withholding taxes. Within [***] after the execution of this Agreement, Codexis will deliver to Merck an accurate and complete Internal Revenue Service Form W-9.

7.8.4 If Merck had a duty to withhold taxes in connection with any payment it made to Codexis under this Agreement but Merck failed to withhold, and such taxes were assessed against and paid by Merck, then Codexis will reimburse Merck for such taxes (plus interest)

actually paid by Merck. If Merck makes a claim under this Section 7.8.4, it will comply with the obligations imposed by Section 7.8.2 as if Merck had withheld taxes from a payment to Codexis.

7.9 Interest Due. Without limiting any other rights or remedies available to either Party, Merck shall pay to Codexis interest on any payments that are not paid on or before the date such payments are due under this Agreement at a rate equal to the lesser of (a) [***] the 1-year LIBOR rate on the date such payment was due to be paid or (b) the maximum applicable legal rate on such date, in either (a) or (b), calculated on the total number of days payment was delinquent.

7.10 Payment Terms. On a quarterly basis, Codexis shall submit an invoice to Merck upon receipt of each payment report and purchase order issued pursuant to Section 7.5. Upon receipt of a valid invoice from Codexis, Merck shall make net payment to Codexis within [***].

7.11 Reconciliation. In the event that Merck is determined, as a consequence of an audit conducted by Codexis pursuant to Article 8, to have either:

(a) not paid to Codexis any Agreement Payments with respect to a Merck Developed API for which Agreement Payments are payable; or

(b) underpaid any amounts by more than [***] of the undisputed amounts that should have been paid to Codexis;

(c) whether in the case of (a) or (b), for each occurrence after the first occurrence that Merck is determined, as a consequence of a separate, independent audit conducted by Codexis pursuant to Section 8.2.1 to have:

(i) not paid to Codexis any Agreement Payments with respect to a Fee Bearing Therapeutic Product for which Agreement Payments are payable; or

(ii) underpaid any amounts by more than [***] of the undisputed amounts that should have been paid to Codexis;

Merck shall pay to Codexis, within [***] from invoice by Codexis, (A) the outstanding amount due to Codexis as determined under this Section 7.11, (B) interest due in respect of the amount noted in (A) as determined pursuant to Section 7.9; and (C) the amount calculated to be [***] of the amount noted in (A) above.

8. RECORDS RETENTION AND AUDIT RIGHTS

8.1 Records Retention. Merck shall keep, and shall cause each of its Affiliates to keep, complete and accurate records (books of accounting shall be maintained in accordance with U.S. GAAP), for the following periods:

(a) for purposes of verifying Merck's and its Affiliates' compliance with Article 3, Section 7.4 and Section 7.7, for the immediately preceding [***]; and

(b) for purposes of verifying the accuracy of payment reports and purchase orders submitted by Merck (for its own behalf, and on behalf of its Affiliates and Third Party licensees, successors, transferees and assignees) pursuant to Section 7.5, for a period of [***] after the Calendar Year during which the payment report (and supporting documentation) and purchase order were issued.

As Merck is responsible for the payment of [***] Payments due under Section 7.4 and for submitting payment reports and purchase orders pursuant to Section 7.5 for Merck Developed API(s) manufactured by or for permitted Third Party licensees, successors, assignees and transferees, Merck shall be responsible for collecting from permitted Third Party licensees, successors, assignees and transferees and maintaining for the periods set forth in this Section 8.1 all books and records that are reasonably necessary for Merck to demonstrate compliance with Sections 7.4 and 7.5.

8.2 Audit Rights.

8.2.1 Upon the written request of Codexis and not more than [***] in each Calendar Year, Merck shall permit Codexis, through its authorized representatives (as described in Section 8.2.2) to audit Merck's and its Affiliates' compliance with Article 3, Section 7.4, Section 7.7 and/or to verify the accuracy of payment reports (and supporting documentation) and purchase orders submitted by Merck pursuant to Section 7.5. For the avoidance of doubt, Codexis' exercise of its audit rights set forth above shall be limited to [***], whether it exercises its rights to audit all or any part of the areas of compliance which are subject to audit. Once an audit is complete (including any extensions of the audit to allow for investigation of issues revealed by the audit), Codexis shall [***].

8.2.2 All such audit(s) shall be conducted by an independent certified public accounting firm [***] selected by Codexis and reasonably acceptable to Merck (using, as appropriate, reputable subject matter experts for non-financial matters) and at Codexis' expense (subject to Section 8.2.6 below). All such audits shall be conducted during normal business hours and upon reasonable advance notice and shall be limited to the books and records of Merck and its Affiliates reasonably related to the area of inquiry. Codexis shall treat all such records subject to review under this Section 8.2.2 in accordance with the confidentiality and non-use provisions of this Agreement, and shall cause its accounting firm (and associated experts) to enter into an acceptable confidentiality agreement with Merck obligating it to retain all such information in confidence pursuant to such confidentiality agreement.

8.2.3 All such audit(s) shall be limited to the applicable time periods specified in Section 8.1.

8.2.4 To the extent the audit is directed at Merck's and/or its Affiliates' compliance with Section 7.4, results of such investigation shall be made available to both Merck and Codexis; *provided* that such designee shall disclose to Codexis only its determination of whether the product constitutes a Fee Bearing Therapeutic Product and shall disclose no other information revealed in such investigation to Codexis. Any materials examined by such designee shall be deemed Merck's Information, which may not be disclosed by such designee to any Third Party. If, as a result of any such

investigation, such designee determines that such product constitutes a Fee Bearing Therapeutic Product, then Merck shall (a) make all payments required to be made to Codexis under Section 7.4 with respect to such Fee Bearing Therapeutic Product that occurred prior to the date the Parties received such results within [***] after the date the Parties received such results, and shall be responsible for any such payments with respect to such Fee Bearing Therapeutic Product thereafter and (b) pay interest on all late payments in accordance with Section 7.9.

8.2.5 To the extent the audit is directed at Merck's and/or its Affiliates' compliance with Section 7.5, the report of the independent certified public accounting firm shall be shared with Merck prior to distribution to Codexis such that Merck can provide the independent, certified public accounting firm with justifying remarks for inclusion in the report prior to sharing the conclusions of such report with Codexis. Results of any such examination shall be made available to both Merck and Codexis. The independent, certified public accounting firm shall disclose to Codexis only the amounts that the independent, certified public accounting firm believes to be due and payable hereunder to Codexis and details concerning any discrepancy from the amount paid and the amount due, and shall disclose no other information revealed in such audit. Any and all records examined by such independent, certified public accounting firm shall be deemed Merck's Information, which may not be disclosed by said independent, certified public accounting firm to any Third Party. If, as a result of any inspection of the books and records of Merck, it is shown that payments under this Agreement were less than the amount that should have been paid, then Merck shall (i) make all payments required to be made to Codexis to eliminate any discrepancy revealed by such inspection within [***] and (ii) pay interest on all late payments in accordance with Section 7.9. In the event that the audit demonstrates a net overpayment by Merck, Merck shall withhold such overpayment from future [***] Payments.

8.2.6 Codexis shall pay for such audits, except that in the event that the audited amounts reveal an underpayment, or complete failure to pay with respect to a Merck Developed API for which Agreement Payments are payable, by Merck [***] of the undisputed amounts that should have been paid during the period in question as per the audit, Merck shall pay Codexis' out-of-pocket costs of the audit (including the fees and expenses of the independent, certified public accounting firm).

9. REPRESENTATIONS, WARRANTIES, AND COVENANTS; DISCLAIMERS; LIMITATION OF LIABILITY

9.1 Mutual Representations and Warranties. Each Party represents and warrants to the other Party as of the Effective Date [***], that:

9.1.1 such Party is duly organized, validly existing, and in good standing under the Applicable Law of the jurisdiction of its incorporation and has full corporate power and authority to enter into this Agreement and to carry out the provisions hereof;

9.1.2 execution of this Agreement and the performance by such Party of its obligations hereunder have been duly authorized;

9.1.3 this Agreement has been duly executed and delivered on behalf of such Party, and constitutes a legal, valid, binding obligation of such Party, enforceable against it in accordance with the terms hereof;

9.1.4 the performance of this Agreement by such Party does not create a breach or default under any other agreement to which it is a party, which breach or default would adversely affect the other Party;

9.1.5 the execution, delivery, and performance of this Agreement by such Party does not conflict with any agreement, instrument, or understanding, oral or written, to which it is a party or by which it is bound, nor violate any Applicable Law of any court, governmental body or administrative or other agency having jurisdiction over such Party;

9.1.6 no government authorization, consent, approval, license, exemption, filing or registration with any court or governmental department, commission, board, bureau, agency or instrumentality, domestic or foreign, under any Applicable Law currently in effect, is or will be necessary for, or in connection with, the transaction contemplated by this Agreement or any other agreement or instrument executed in connection herewith, or for the performance by such Party of its obligations under this Agreement and such other agreements, except as may be required to obtain applicable Regulatory Approvals or Regulatory Filings related to the development of any Therapeutic Product; and

9.1.7 with specific regard to each Party's performance of their respective obligations to the other Party under this Agreement, such Party has not employed and, to its knowledge, has not used a contractor or consultant that has employed any individual or entity (a) debarred by the FDA (or subject to a similar sanction of any other applicable Regulatory Authority), (b) who is the subject of an FDA debarment investigation or proceeding (or similar proceeding of any other applicable Regulatory Authority), or (c) has been charged with or convicted under Applicable Law of the United States for conduct relating to the development or approval, or otherwise relating to the regulation of any product under the Generic Drug Enforcement Act of 1992, in each case, in the conduct of its activities prior to the Effective Date.

9.2 Additional Representations and Warranties of Codexis. Codexis, on behalf of itself and its Affiliates, hereby represents and warrants to Merck that, except as otherwise disclosed in writing by Codexis to Merck and accepted in writing by Merck, as of the Effective Date:

9.2.1 [***];

9.2.2 Codexis is the sole and exclusive owner of the Licensed Patents and the Licensed Know-How and has the full authority to grant the full and unencumbered scope of rights and licenses (other than as set forth in Exhibit 1.29) granted to Merck under this Agreement;

9.2.3 to the knowledge of Codexis Senior Management, no licenses under any Third Party Intellectual Property Rights are necessary for Codexis to grant to Merck the licenses

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hereunder (other than licenses to commercially available software or open source software such as, by way of example only, [***] or [***]);

9.2.4 the Licensed Patents are all of the Patents Controlled by Codexis that are (i) necessary to practice the Platform Technology; and (ii) which Cover the practice of the Platform Technology;

9.2.5 the Licensed Know-How and the In-Licensed Know-How account for all of the Know-How Controlled by Codexis that is (i) necessary to practice the Platform Technology; and (ii) which Cover the practice of the Platform Technology;

9.2.6 neither Codexis nor any of its Affiliates has granted any right, license or interest to any Third Party relating to or under the Licensed IP or to the Platform Technology that would conflict or would otherwise be inconsistent with any of the rights, licenses or interests granted to Merck under this Agreement;

9.2.7 the Licensed Know-How (other than In-Licensed Know How) were generated either by employees or contractors of Codexis, and in each case the terms of employment or engagement of such employees or contractors vested in Codexis all right, title and interest in and to any Know-How generated by them or has obtained or has the legal right to obtain assignments of all such Licensed Know-How;

9.2.8 to the knowledge of Codexis Senior Management, no Third Party has rights in the Licensed Patents, the Licensed Know-How or the Platform Technology that would adversely affect Merck's rights under this Agreement;

9.2.9 [***];

9.2.10 [***];

9.2.11 [***];

9.2.12 in respect of each of the In-License Agreements, to the knowledge of Codexis Senior Management:

(a) each of the In-License Agreements is in full force and effect and neither Codexis nor its Affiliates have materially breached or received any written or oral notice of any breach or any written or oral notice of the intent to terminate under any of the In-License Agreements;

(b) each sublicense granted to Merck has been granted to Merck pursuant to the terms of each respective In-License Agreement;

(c) each of the In-License Agreements disclosed to Merck is true, accurate and not misleading as to the terms thereof that have not been redacted; and

(d) Exhibit 1.60 sets forth a true and complete list of all In-License Agreements;

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9.2.13 [***];

9.2.14 the license limitations in Section 3.4.2 with respect to the Codexis Mayflower Patents are exhaustive, complete, accurate and not misleading; and

9.2.15 certain of the inventions claimed in the In-Licensed Patents, the Codexis Core Technology IP and the Intellectual Property Rights therein, have been made with funds provided by the U.S. government, and that with respect thereto the U.S. government retains a non-exclusive license as set forth in 35 U.S.C. § 202 and, as a result, this Agreement is subject to all of the terms and conditions of 35 U.S.C. § 200 et seq., which sets forth additional obligations with regard to inventions made with U.S. government funds and products based thereon, including a preference for manufacture in the U.S. pursuant to 35 U.S.C. § 204.

9.3 Mutual Covenants. Each Party hereby covenants to the other Party that:

9.3.1 all employees of such Party or its Affiliates, and all agents, consultants, contractors and subcontractors (as provided in Section 4.3) of such Party or its Affiliates performing any activities under a research plan under a Technology Transfer Project (including, in the case of Codexis, any Additional Services) shall be under the obligation to assign all right, title and interest in and to their inventions and discoveries, whether or not patentable, if any, to such Party as the sole owner thereof;

9.3.2 such Party shall perform its obligations and activities under this Agreement (including, in the case of Codexis, the Additional Services) in compliance with Applicable Law and industry standards, including, without limitation, GLP, GCP and GMP, in each case as applicable under Applicable Law of the country and the state and local government wherein such activities are conducted, and with respect to the care, handling and use in research and development activities hereunder of any non-human animals by or on behalf of such Party, shall at all times comply (and shall ensure compliance by any of its subcontractors) with Applicable Law, and also with the standards in the pharmaceutical industry for the development and manufacture of pharmaceutical products, and (b) with individuals who are appropriately trained and qualified;

9.3.3 with specific regard to each Party's performance of their respective obligations to the other Party under this Agreement, neither Party shall employ (or, to its knowledge, use any contractor or consultant that employs) any individual or entity (a) debarred by the FDA (or subject to a similar sanction of any other applicable Regulatory Authority), (b) who is the subject of an FDA debarment investigation or proceeding (or similar proceeding of any other applicable Regulatory Authority), or (c) has been charged with or convicted under any Applicable Law of the United States for conduct relating to the development, approval or otherwise relating to the regulation of any product under the Generic Drug Enforcement Act of 1992, in each case, in the conduct of its activities under this Agreement; and

9.3.4 neither Party shall, during the Term, grant any right or license to any Third Party relating to any of the Intellectual Property Rights it Controls that would conflict or interfere with any of the rights or licenses granted to the other Party hereunder.

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9.4 Additional Covenants of Merck. Merck hereby covenants to Codexis that:

9.4.1 all Merck employees and contractors that will have access to Codexis Confidential Information and/or Platform Technology shall be subject to confidentiality obligations with Merck subjecting the employee or contractor to Merck's maintenance, non-disclosure, and non-use obligations under Article 10;

9.4.2 any financial information contained in any Merck report delivered pursuant to Article 7 will be generated using the same financial reporting system, using the same data, and in the same manner that Merck uses to generate financial information for Merck's public reporting obligations; and

9.4.3 during the Term, Merck shall not, and Merck shall cause its Affiliates and its permitted sublicensees to not, challenge the validity, scope or enforceability of or otherwise oppose any Patents included within the Licensed IP in any country, [***].

9.5 Additional Covenants of Codexis. Codexis hereby covenants to Merck that:

9.5.1 with respect to each In-License Agreement, Codexis shall maintain and keep each In-License Agreement in full force and effect under each In-License Agreement's respective terms for the term of the In-Licensed IP licensed pursuant to such In-License Agreement;

9.5.2 Codexis shall not amend any such In-License Agreement in a manner that adversely affects Merck's rights under this Agreement and/or imposes any additional obligations upon Merck not disclosed to Merck under the In-License Agreements;

9.5.3 Codexis, pursuant to the terms of the In-License Agreements, shall pay any and all annual license fees due to all Third Party licensors during the Term required to maintain each In-License Agreement; *provided, however*, that nothing contained herein shall require Codexis to be responsible for Losses arising from the breach of any In-License Agreements by Merck as a sublicensee; and

9.5.4 If during the Term Merck [***] concludes that one or more [***] are necessary to [***] during the Term and in the manner contemplated by Section 9.2.1, Merck shall notify Codexis in writing [***] and Merck and Codexis shall [***]. If the Parties [***]. If the Parties [***]. If the Parties [***]. If the [***]. If the [***]. If the [***]. In no event will the [***].

9.6 DISCLAIMERS

9.6.1 CODEXIS DISCLAIMER. EXCEPT AS EXPRESSLY SET FORTH IN SECTIONS 9.1, 9.2, 9.3 AND 9.5, CODEXIS MAKES NO REPRESENTATIONS, WARRANTIES OR COVENANTS OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY CODEXIS INFORMATION, CODEXIS PATENTS, CODEXIS CORE TECHNOLOGY, CODEXIS CORE TECHNOLOGY IMPROVEMENTS, MERCK CORE TECHNOLOGY IMPROVEMENTS, ARISING CODEXIS

ENZYME TECHNOLOGY, ARISING CODEXIS PROCESS TECHNOLOGY OR ANY LICENSE GRANTED BY CODEXIS HEREUNDER, OR WITH RESPECT TO THE PRODUCTS. EXCEPT AS EXPRESSLY SET FORTH IN SECTIONS 9.1, 9.2, 9.3 AND 9.5, NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION OR WARRANTY THAT ANY PATENT OR OTHER PROPRIETARY RIGHTS INCLUDED IN THE CODEXIS PATENTS ARE VALID OR ENFORCEABLE OR THAT USE OF THE CODEXIS PATENTS, CODEXIS CORE TECHNOLOGY, CODEXIS CORE TECHNOLOGY IMPROVEMENTS, MERCK CORE TECHNOLOGY IMPROVEMENTS, ARISING CODEXIS ENZYME TECHNOLOGY AND ARISING CODEXIS PROCESS TECHNOLOGY CONTEMPLATED HEREUNDER [***].

9.6.2 MERCK DISCLAIMER. EXCEPT AS EXPRESSLY SET FORTH IN SECTIONS 9.1, 9.3 AND 9.4, MERCK MAKES NO REPRESENTATIONS, WARRANTIES OR COVENANTS OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY MERCK INFORMATION OR ANY LICENSE GRANTED BY MERCK HEREUNDER. EXCEPT AS EXPRESSLY SET FORTH IN SECTIONS 9.1, 9.3 AND 9.4, NOTHING IN THIS AGREEMENT SHALL BE CONSTRUED AS A REPRESENTATION OR WARRANTY THAT ANY PATENT OR OTHER PROPRIETARY RIGHTS INCLUDED IN THE MERCK BACKGROUND IP, ARISING MERCK ENZYME TECHNOLOGY OR ARISING MERCK PROCESS TECHNOLOGY ARE VALID OR ENFORCEABLE OR THAT THE USE OF THE MERCK BACKGROUND IP, ARISING MERCK ENZYME TECHNOLOGY OR ARISING MERCK PROCESS TECHNOLOGY CONTEMPLATED HEREUNDER [***].

9.6.3 LIMITATION OF LIABILITY . EXCEPT FOR A BREACH OF [***], OR CLAIMS OF A THIRD PARTY THAT ARE SUBJECT TO INDEMNIFICATION UNDER ARTICLE 11, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY WITH RESPECT TO ANY SUBJECT MATTER OF THIS AGREEMENT, WHETHER UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY, FOR ANY INCIDENTAL, INDIRECT, SPECIAL, EXEMPLARY, PUNITIVE, MULTIPLE OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOSS OF USE, DAMAGE TO GOODWILL OR LOSS OF BUSINESS.

10. CONFIDENTIALITY

10.1 Nondisclosure Obligation. All Information disclosed by one Party to the other Party hereunder shall, during the Term and for a period of ten (10) years thereafter, be (a) maintained in confidence by the receiving Party and (b) shall not be disclosed to any Third Party or (c) used for any purpose except as permitted by this Agreement (it being understood that this clause (c) shall not create or imply any rights or licenses not expressly granted under this Agreement) without the prior written consent of the disclosing Party, except to the extent that such Information:

10.1.1 is known by the receiving Party at the time of its receipt, and not through a prior disclosure by the disclosing Party, as documented by the receiving Party's business records;

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10.1.2 is in the public domain by use and/or publication before its receipt from the disclosing Party, or thereafter enters the public domain through no fault of the receiving Party;

10.1.3 is subsequently disclosed to the receiving Party by a Third Party who may lawfully do so and is not under an obligation of confidentiality to the disclosing Party; or

10.1.4 is developed by the receiving Party independently of Information received from the disclosing Party, as documented by the receiving Party's business records.

Any combination of features or disclosures shall not be deemed to fall within the foregoing exclusions merely because individual features are published or available to the general public or in the rightful possession of the receiving Party unless the combination itself and principle of operation are published or available to the general public or in the rightful possession of the receiving Party.

10.2 Authorized Disclosure. The receiving Party may disclose Information belonging to the disclosing Party, and Information deemed to belong to both Parties under the terms of this Agreement, to the extent and only to extent) such disclosure is reasonably necessary in the following instances the receiving Party may disclose Information belonging to the disclosing Party, and Information deemed to belong to both Parties under the terms of this Agreement, to the extent and only to extent) such disclosure is reasonably necessary in the following instances:

10.2.1 Prosecuting Patents;

10.2.2 to a Regulatory Authority in order to obtain Patents or to gain or maintain Regulatory Approval, but such disclosure may be only to the extent reasonably necessary to obtain Patents or Regulatory Approval;

10.2.3 prosecuting or defending litigation, including responding to a subpoena in a Third Party litigation;

10.2.4 subject to Section 10.5, complying with Applicable Law (including the rules and regulations of the Securities and Exchange Commission or any national securities exchange) and with judicial process, if in the reasonable opinion of the receiving Party's counsel, such disclosure is necessary for such compliance; and

10.2.5 disclosure, solely on a "need to know basis," to Affiliates, sublicensees, potential or actual acquirers, merger partners, or assigns permitted under Section 14.8, permitted subcontractors, investment bankers, investors, lenders or other potential financial partners, and their and each of the Parties' respective directors, employees, consultants, contractors and agents, each of whom prior to disclosure must be bound by written obligations of confidentiality and non-use no less restrictive than the obligations set forth in this Article 10; *provided, however*, that in each of the above situations, the receiving Party shall remain responsible for any failure by any Person who receives Information pursuant to this Section 10.2.5 to treat such Information as required under this Article 10.

If and whenever any Information is disclosed in accordance with this Section 10.2, such disclosure shall not cause any such Information to cease to be confidential, except to the extent that such disclosure

results in a public disclosure of such Information (other than by breach of this Agreement). Where reasonably possible and subject to Section 10.4 and other than pursuant to Section 10.2.5, the receiving Party shall notify the disclosing Party of the receiving Party's intent to make such disclosure pursuant to this Section.

If a Party is required by judicial or administrative process to disclose Information that is subject to the non-disclosure provisions of this Section 10.2, such Party shall promptly inform the other Party of the disclosure that is being sought in order to provide the other Party an opportunity to challenge or limit the disclosure obligations. Information that is disclosed by judicial or administrative process shall remain otherwise subject to the confidentiality and non-use provisions of this Section 10.2, and the Party disclosing Information pursuant to law or court order shall take all steps reasonably necessary, including without limitation obtaining an order of confidentiality, to ensure the continued confidential treatment of such Information.

10.3 Terms of this Agreement. The Parties acknowledge that this Agreement and all of the respective terms of this Agreement shall be treated as Information of both Parties, except that Exhibits [***] are Information of Codexis.

10.4 Securities. In the event either Party proposes to file with the Securities and Exchange Commission or the securities regulators of any state or other jurisdiction a registration statement or any other disclosure document which describes or refers to the terms and conditions of this Agreement under the Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, or any other securities Applicable Law, the Party shall notify the other Party of such intention and shall provide such other Party with a copy of the relevant portions of the proposed filing prior to such filing (and any revisions to such portions of the proposed filing a reasonable time prior to the filing thereof), including any exhibits thereto relating to the terms and conditions of this Agreement, and shall use reasonable efforts to obtain confidential treatment of the terms and conditions of this Agreement that such other Party reasonably requests be kept confidential, and shall only disclose Information that it is advised by counsel is legally required to be disclosed. No such notice shall be required under this Section 10.4 if the description of or reference to this Agreement contained in the proposed filing has been included in any previous filing made by either Party hereunder or otherwise approved by the other Party.

10.5 Publicity/Use of Names.

10.5.1 Upon execution of this Agreement, Codexis shall issue the press release mutually agreed upon by the Parties and set forth in Exhibit 10.5.1. Any disclosure that is required by Applicable Law (including the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended), or the rules of a securities exchange or the Securities and Exchange Commission or the securities regulations of any state or other jurisdiction, may be made by Codexis or Merck; *provided* that any such required disclosure will not contain any Information of, respectively, Merck or Codexis and, if disclosure of such information is required by Applicable Law or such rules or regulations, the Parties will comply with Sections 10.2 and 10.5, as applicable, and will use reasonable efforts to minimize such disclosure and obtain confidential treatment for any such information that is disclosed to a

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governmental agency. Codexis may publicly disclose any information that has previously been disclosed in accordance with this Section 10.5.1 without any requirement to receive Merck's approval thereof or to provide Merck with an opportunity to review such disclosure.

10.5.2 Codexis agrees to provide to Merck a copy of any public announcement regarding this Agreement or the subject matter thereof within a reasonable period of time under the circumstances prior to its scheduled release, which period of time shall not be less than fifteen (15) Business Days where practicable, for Merck's review. Except as otherwise required by Applicable Law, Codexis shall remove any Information of Merck that Merck deems to be inappropriate for disclosure. Codexis agrees not to use the name or trademark of Merck, its Affiliates, or its employees, without the prior written consent of Merck, except that Codexis may disclose that Merck is a licensee of Codexis hereunder.

10.5.3 Merck may make public announcements and publications regarding any Merck Developed API or Therapeutic Product in its sole discretion, and such announcement or publication shall not be subject to this Section 10.5. In addition, Merck may publish scientific papers and make scientific presentations; *provided, however*, that such publications and presentations do not include the Information of Codexis.

10.6 Existing CDA. The Parties entered into a confidential disclosure agreement dated as of [***] (the "**Confidential Disclosure Agreement**"). If any terms or conditions set forth in this Article 10 conflict with or are inconsistent with the terms and conditions of the Confidential Disclosure Agreement with respect to any information disclosed thereunder that would be considered Information hereunder, this Article 10 will govern over the Confidential Disclosure Agreement with respect to such information to the extent of such conflict or inconsistency. Subject to the foregoing, the Confidential Disclosure Agreement shall remain in full force and effect, in accordance with its terms, with respect to information disclosed thereunder to the extent such information would not be considered Information hereunder.

11. INDEMNITY AND INSURANCE

11.1 Codexis Indemnity.

11.1.1 Codexis shall indemnify, defend and hold harmless Merck and its Affiliates, and their respective officers, directors, employees, agents, licensors, and their respective successors, heirs and assigns, and representatives (the "**Merck Indemnitees**"), from and against any and all Losses from Claims from Third Party(ies), to the extent arising out of or relating to, directly or indirectly: (a) the negligence, recklessness or wrongful intentional acts or omissions of Codexis, its Affiliates, and sublicensees (excluding Merck) and its or their respective directors, officers, employees and agents, in connection with Codexis' performance of its obligations or exercise of its rights under this Agreement, or (b) any breach by Codexis of any representation, warranty or covenant set forth in this Agreement; including for each of clauses (a) and (b), claims and threatened claims based on (i) product liability, bodily injury, risk of bodily injury, death or property damage or (ii) the failure to comply with Applicable Law; *provided, however*, that Codexis' indemnification obligations under this Section

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11.1.1 will not apply to any such Losses to the extent (A) such Losses are finally determined by a court or tribunal of competent jurisdiction to be attributable to any Merck Indemnitee having committed an act or acts of negligence, recklessness or willful misconduct, (B) such Losses result from any breach by Merck of any representation, warranty or covenant set forth in this Agreement, or (C) Merck is required to indemnify Codexis pursuant to Section 11.2.

11.1.2 Subject to the limitations set forth in Section 11.1.3, Codexis shall indemnify, defend and hold harmless Merck Indemnitees from and against any and all Losses from Claims from Third Party(ies) [***]; provided, however, that Codexis' indemnification obligations under this Section 11.1.2 will not apply to any such Losses to the extent (A) such Losses are finally determined by a court or tribunal of competent jurisdiction to be attributable to any Merck Indemnitee having committed an act or acts of negligence, recklessness or willful misconduct, (B) such Losses result from any breach by Merck of any representation, warranty or covenant set forth in this Agreement, or (C) Merck is required to indemnify Codexis pursuant to Section 11.2 for such Losses. [***].

11.1.3 Codexis' indemnification obligations under Section 11.1.2 will be limited as follows: [***].

11.2 Merck Indemnity. Merck shall indemnify, defend, and hold harmless Codexis and its Affiliates, and their respective officers, directors, employees, agents, licensors, and their respective successors, heirs and assigns, and representatives (the "**Codexis Indemnitees**"), from and against any and all Losses from Claims from Third Party(ies) to the extent arising out of or relating to, directly or indirectly: (a) the negligence, recklessness or wrongful intentional acts or omissions of Merck, its Affiliates, and sublicensees and its or their respective directors, officers, employees and agents, in connection with Merck's performance of its obligations or exercise of its rights under this Agreement; (b) any breach by Merck of any representation, warranty or covenant set forth in this Agreement; (c) research, development, synthesis, transfer, handling, storage, sale, use, optimization, modification, isolation, engineering, identification, selection, making, having made, importation, exportation or other disposition of any Merck Developed API or Therapeutic Product by or on behalf of Merck or any of its Affiliates, sublicensees, agents and contractors (other than Codexis) , including for each of clauses (a), (b), and (c) above, claims and threatened claims based on (i) product liability, bodily injury, risk of bodily injury, death or property damage or (ii) the failure to comply with Applicable Law; *provided, however*, that Merck's indemnification obligations under this Section 11.2 will not apply to any such Losses to the extent (A) such Losses are finally determined by a court or tribunal of competent jurisdiction to be attributable to any Codexis Indemnitee having committed an act or acts of negligence, recklessness or willful misconduct, (B) such Losses result from any breach by Codexis of any representation, warranty or covenant set forth in this Agreement, or (C) Codexis is required to indemnify Merck pursuant to Section 11.1.

11.3 Indemnification Procedure. A claim to which indemnification applies under Section 11.1 or Section 11.2 shall be referred to herein as an "Indemnification Claim." If any Person or Person (collectively, the "Indemnitee") intends to claim indemnification under this Article 11, the Indemnitee shall notify the other Party (the "**Indemnitor**") in writing promptly upon becoming aware of any claim that may be an Indemnification Claim (it being understood and agreed, however, that the

failure by an Indemnitee to give such notice shall not relieve the Indemnitor of its indemnification obligation under this Agreement, except and only to the extent that the Indemnitor is actually prejudiced as a result of such failure to give notice). The Indemnitor shall have the right to assume and control the defense of the Indemnification Claim at its own expense with counsel selected by the Indemnitor and reasonably acceptable to the Indemnitee; *provided, however,* that an Indemnitee shall have the right to retain its own counsel, with the fees and expenses to be paid by the Indemnitor, if representation of such Indemnitee by the counsel retained by the Indemnitor would be inappropriate due to actual or potential conflicting interests between such Indemnitee and the Indemnitor; *provided* that the Indemnitor shall not be obligated to pay the fees of more than one counsel retained by all Indemnitees. If the Indemnitor does not assume the defense of the Indemnification Claim as described in this Section 11.3 above, the Indemnitee may defend the Indemnification Claim, but shall have no obligation to do so. The Indemnitee shall not settle or compromise the Indemnification Claim without the prior written consent of the Indemnitor, and the Indemnitor shall not settle or compromise the Indemnification Claim in any manner which would have an adverse effect on the Indemnitee's interests (including any rights under this Agreement), without the prior written consent of the Indemnitee, which consent, in each case, shall not be unreasonably withheld or delayed. The Indemnitee shall reasonably cooperate with the Indemnitor at the Indemnitor's reasonable expense and shall make available to the Indemnitor all pertinent information under the control of the Indemnitee, which information shall be subject to Article 10.

11.4 Insurance. Each Party shall maintain at all times during the Term commercial general liability insurance and product liability insurance in respect of any Claim from a Third Party, as contemplated in Section 11.1.1 and Section 11.2, from a recognized, creditworthy insurance company, with coverage limits of at least [***] per such Claim from such Third Party. With respect to Merck, such product liability insurance shall include coverage for any Claims from Third Party(ies) subject to Section 11.2 in respect of any Merck Developed API or Therapeutic Product undergoing clinical trials. The minimum level of insurance set forth herein shall not be construed to create a limit on either Party's liability hereunder. Within ten (10) days following reasonable written request from either Party, the other Party shall furnish to the requesting Party a certificate of insurance evidencing such coverage. In the case of a material modification or cancellation of such coverage, each Party shall notify the other Party as soon as reasonably practicable and provide the other Party with a new certificate of insurance evidencing that such Party's coverage meets the requirements of this Section 11.4. Notwithstanding the aforementioned, each Party may elect to self-insure or re-insure all of parts of the limits described above and, in such event, this Section 11.4 shall apply to such self-insurance or re-insurance arrangements *mutatis mutandis.*

12. TERM AND TERMINATION.

12.1 Term. This Agreement shall become effective on the Effective Date and shall remain in effect unless and until terminated pursuant to Section 12.2, Section 12.3, Section 12.4 or Section 12.5, or by mutual agreement of the Parties. The period from the Effective Date until the date of termination of this Agreement shall be the "**Term.**"

12.2 Termination for Material Breach. Either Party (the "**Non-Breaching Party**") may, without prejudice to any other remedies available to it at law or in equity, terminate this

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Agreement, in its entirety, in the Non-Breaching Party's sole discretion in the event the other Party (the " **Breaching Party**") has materially breached this Agreement, and such material breach has continued for sixty (60) days (the "**Cure Period**") after written notice thereof is provided to the Breaching Party by the Non-Breaching Party, such notice describing the alleged material breach in sufficient detail to put the Breaching Party on notice. If at the end of the Cure Period, the Breaching Party can demonstrate that it is actively seeking to remedy such material breach, then at the Breaching Party's request and with the consent of the Non-Breaching Party (not to be unreasonably withheld), the Non-Breaching Party shall grant an additional forty-five (45) days for the Breaching Party to remedy such breach.

12.3 Insolvency or Bankruptcy. To the extent permitted under Applicable Law, either Party may terminate this Agreement, (a) if, at any time, the other Party files in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of the Party or of substantially all of its assets, or (b) if the other Party is served with an involuntary petition against it, filed in any insolvency proceeding, and such petition shall not be dismissed within ninety (90) days after the filing thereof, or (c) if the other Party shall propose or be a party to any dissolution or liquidation, or (d) if the other Party shall make an assignment of substantially all of its assets for the benefit of creditors. Each Party agrees to give the other Party prompt notice of the foregoing events giving rise to termination under this Section 12.3. All rights and licenses granted under or pursuant to any section of this Agreement are and shall otherwise be deemed to be for purposes of Section 365(n) of Title 11, United States Code (the "**Bankruptcy Code**") licenses of rights to "intellectual property" as defined in Section 101(35A) of the Bankruptcy Code. The Parties shall retain and may fully exercise all of their respective rights and elections under the Bankruptcy Code. All materials required to be delivered by the non-bankrupt Party under this Agreement (including all manufacturing information) shall be considered to be "embodiments" of such intellectual property for purposes of Section 365(n) of the Bankruptcy Code. Upon the bankruptcy of any Party, the non-bankrupt Party shall further be entitled to a complete duplicate of, or complete access to, any intellectual property licensed to the non-bankrupt Party, and such, if not already in its possession, shall be promptly delivered to the non-bankrupt Party, unless the bankrupt Party elects to continue, and continues, to perform all of its obligations under this Agreement. All written agreements entered into in connection with the Parties' performance under this Agreement from time to time shall be considered agreements "supplementary" to this Agreement for purposes of Section 365(n) of the Bankruptcy Code.

12.4 Merck Termination at Will. At any time after Wave 1 (and receipt by Codexis of the Milestone Payment associated with the Completion of Wave 1 as contemplated by Section 7.3), Merck may terminate this Agreement in its entirety at any time upon providing ninety (90) days' written notice to Codexis at any time and for any reason or for no reason at all. In such event, Merck shall pay to Codexis all reasonable non-cancellable and non-terminable costs incurred by Codexis upon such event of termination. If Merck terminates this Agreement pursuant to this Section 12.4 prior to receipt by Codexis of the Milestone Payment associated with the Completion of Wave 2 as contemplated by Section 7.3, in addition to the provisions of Section 12.6.2, Merck shall pay to Codexis the applicable termination payment set forth in this Section 12.4.

Termination at Will	Termination At Will Payment
At any time after Wave 1, as defined in the Technology Transfer Plan	$8,000,000.00

12.5 Codexis Special Termination Right. In the event that Merck is determined, [***], as a consequence of an audit conducted by Codexis pursuant to Article 8 (each audit that satisfies the requirements of either clause (a) or (b) of this Section 12.5 is referred to herein as a "**Section 12.5 Event**"), to have either underpaid or completely failed to pay the amounts that should have been paid to Codexis such that Merck is required to pay Codexis' out-of-pocket costs of the audit pursuant to Section 8.2.6, Codexis may, [***], terminate this Agreement in its entirety, without a curative period, and regardless of whether Merck can or does cure such failure to pay or underpayment, upon providing thirty (30) days' written notice to Merck. [***].

12.6 Consequences of Termination.

12.6.1 In General. Termination of this Agreement for any reason shall not (a) release either Party from any obligation that has accrued prior to the effective date of such termination; (b) preclude either Party from claiming any other damages, compensation, or relief that it may be entitled to upon such termination; (c) terminate any right to obtain performance of any obligation provided for in this Agreement that shall survive termination; or (d) in any way alter, reduce, diminish, eliminate or expunge either Party's rights set forth in Section 6.2.9, or such Party's right to freely use any Enzymes it owns, post termination. Upon any termination of this Agreement, each Party shall return to the other Party and cease using all Information of such other Party; *provided* that the legal department of each Party may retain one (1) copy of such Information and the Party having received the Information of the disclosing Party shall not be required to destroy any securely stored computer files that contain the disclosing Party's Information created during automatic system back-ups, *provided* that the Information so retained remains subject to the confidentiality and non-use obligations set forth in this Agreement and the computer files are not readily accessible to the receiving Party's employees.

12.6.2 Effects of Termination.

(a) Upon any permitted termination of this Agreement by Codexis pursuant to Section 12.2, 12.3 or 12.5, or termination by Merck pursuant to Section 12.4, (i) the rights and licenses granted to Merck in Sections [***] shall immediately terminate, and Merck shall, within [***] after the effective date of such termination, return or cause to be returned to Codexis the Platform Technology to the extent in tangible form, (ii) [***], and (iii) the rights and licenses granted to Codexis in Sections [***] shall survive. In the event of termination by Codexis pursuant to Section 12.2 for breach by Merck or its Affiliates of its obligations under Section 9.4.3, the licenses granted to Merck pursuant to Section [***] and Section [***] shall immediately terminate, and Merck shall, within [***] after the effective date of such termination, return or cause to be returned to Codexis the Platform Technology to the extent in tangible form.

(b) Upon any permitted termination of this Agreement by Merck pursuant to Section 12.2, [***] all rights and licenses granted to Codexis hereunder shall immediately terminate, and Codexis shall, within [***] after the effective date of such termination return or cause to be returned to Merck all Technology and Information of Merck in tangible form, and all substances or compositions delivered or provided by Merck, as well as any other material provided by Merck in any medium.

(c) Upon any permitted termination of this Agreement by Merck pursuant to Section 12.3 (i) the licenses granted to Merck pursuant to Sections [***] shall survive and all payment and reporting obligations hereunder (including, without limitation, those set forth in Article 7) and records retention and audit rights set forth in Article 8 shall survive; and (ii) all rights and licenses granted to Codexis hereunder shall survive.

12.6.3 Codexis Audit Right on Merck Breach; Termination; Divestment . In the event of termination of this Agreement by Codexis pursuant to Section 12.2, 12.3 or 12.5, or by Merck pursuant to Section 12.4, or if Merck sells, leases, loans, provides or otherwise divests to any Third Party any facility or business unit that practices or otherwise uses any Codexis Core Technology, Codexis Core Technology Improvements or other Technology related to Covered Enzymes or Enzymes, Merck shall provide to Codexis, within ninety (90) days after the effective date of such termination, or within ninety (90) days after the effective date of such divestment, as applicable, a certification signed by a duly authorized executive or non-executive officer of Merck, certifying that all Codexis proprietary materials, information, and technology in custody or control of Merck or sublicensee of Merck, or at the divested facility or business unit, has been destroyed (including, without limitation, all Codexis Software). In addition, Codexis shall have a right to conduct an audit to determine that all Codexis materials, information, and/or technology have been destroyed and that such destruction is complete (the "**Termination and Divestment Audit Right** "). Under the Termination and Divestment Audit Right, Merck shall allow a designee chosen by Codexis and reasonably acceptable to Merck to review documentation, materials, and facilities of Merck as reasonably necessary for such designee to determine whether all Codexis materials, information, and/or technology have been destroyed. Results of such investigation shall be made available to both Merck and Codexis; *provided* that such designee shall disclose to Codexis only its determination of whether all Codexis materials, information, and/or technology has been destroyed. Merck may require such designee to enter into an appropriate written agreement obligating it to be bound by obligations of confidentiality and restrictions on use of such Information that are comparable to the obligations set forth in Article 10. The Termination and Divestment Audit Right shall continue until the earlier of (a) ten (10) years after the effective date of termination of this Agreement by Codexis pursuant to Section 12.2, 12.3 or 12.5, or by Merck pursuant to Section 12.4 or (b) until a designee determines, pursuant to the Codexis' exercise of the Termination and Divestment Audit Right, that all Codexis materials, information, and/or technology has been destroyed. All reasonable expenses arising from the first audit shall be at Codexis' expense, and all subsequent audits, if any, shall be at Merck's expense.

12.7 Survival. Notwithstanding anything to the contrary in this Agreement:

12.7.1 the following provisions shall survive, as well as any other provision which by its terms or by the context thereof is intended to survive, termination of this Agreement: Article 1 (Definitions), Article 6 (Intellectual Property), Article 10 (Confidentiality) (for the time period set forth in Section 10.1), Article 14 (Miscellaneous), and Sections 3.3, 3.4.1, 3.4.2, 3.4.3, 3.4.5, 3.6.2, 9.6, 11.1, 11.2, 11.3, 12.6 and 12.7;

12.7.2 Article 8 (Records Retention and Audit Rights) and Sections 3.1, 3.2, 3.5.6, 7.4, 7.5, 7.6, 7.8, 7.9, 7.10 and 7.11 shall survive termination in accordance with Section 12.6.2;

12.7.3 Section 3.6 shall survive termination solely to the extent that Sections 3.2 and/or 3.5.6 survive termination in accordance with Section 12.6.2; and

12.7.4 Section 7.7 shall survive termination if the Agreement is terminated by Codexis pursuant to Sections 12.2, 12.3 or 12.5 or by Merck pursuant to Section 12.4.

Except as otherwise expressly provided, all other rights, licenses and obligations shall terminate upon termination of this Agreement.

13. DISPUTE RESOLUTION.

13.1 Resolution by Executive Officers. The Parties agree that the procedures set forth in this Article 13 shall be the exclusive mechanism for resolving any dispute, controversy, or claim, which are not Excluded Claims, (each, a "**Dispute**") between the Parties that may arise from time to time pursuant to this Agreement relating to any Party's rights and/or obligations. Except as otherwise provided in this Agreement, in the event of any Dispute between the Parties in connection with this Agreement, the construction hereof, or the rights, duties or liabilities of either Party hereunder, the Parties shall first attempt in good faith to resolve such Dispute by negotiation and consultation between themselves. In the event that such Dispute is not resolved on an informal basis within ten (10) Business Days, either Party may, by written notice to the other Party, refer the Dispute to the executive officers designated by the Parties for attempted resolution. Such officers, or their designees, shall attempt in good faith to promptly resolve such Dispute within thirty (30) Business Days thereafter. In the event that any matter is not resolved under the foregoing provisions, each Party may, at its sole discretion, seek resolution of such matter in accordance with Section 13.2.

13.2 Arbitration. Subject to Section 13.3, any Dispute referred for arbitration shall be finally resolved by binding arbitration before a panel of three (3) arbitrators in accordance with the rules of the American Arbitration Association (**"AAA"**) in effect at the time the proceeding is initiated. If the issues in Dispute involve scientific, technical or commercial matters, then any arbitrator chosen under this Agreement shall have educational training and industry experience sufficient to demonstrate a reasonable level of relevant scientific, technical and commercial knowledge relevant to the subject matter of the Dispute. All proceedings and communications as part of the arbitration shall be in English. Following selection of the third arbitrator, the arbitrators shall use all reasonable efforts to complete the arbitration proceedings and render an award within six (6) months after the last arbitrator is appointed. In any such arbitration, the following additional procedures shall apply:

13.2.1 Rules. The arbitration shall be conducted pursuant to the then-current AAA rules in effect for disputes between U.S. parties on the date of commencement of the arbitration; *provided, however*, that discovery in any arbitration shall be conducted in accordance with the AAA Commercial Arbitration Rules in effect immediately prior to October 1, 2013, for large complex commercial disputes between U.S. based entities.

13.2.2 Panel. Within thirty (30) days after a Party demands arbitration, each Party shall select one (1) arbitrator and the third chosen by the two (2) Party-chosen arbitrators. If either, or both, of Merck or Codexis fails to choose an arbitrator within thirty (30) days after receiving notice of commencement of arbitration or if the two arbitrators fail to choose a third arbitrator within thirty (30) days after their appointment , then either or both Parties shall immediately request that the AAA select the remaining number of arbitrators to be selected, which arbitrator(s) shall have an appropriate background, experience and expertise in the subject matter at issue in the Dispute. The place of arbitration shall be [***], United States of America. The seat of arbitration shall be the State of New York, United States of America (for clarity, the Parties intend this to mean that the procedural rules of the State of New York, United States of America, will apply to any arbitration).

13.2.3 Injunctive Relief; Costs and Expenses. Either Party may apply to the arbitrators for interim injunctive relief until the arbitration decision is rendered or the Dispute is otherwise resolved. Either Party may, without waiving any right or remedy under this Agreement, seek from any court having jurisdiction any injunctive or provisional relief necessary to protect the rights or property of that Party pending resolution of the Dispute pursuant to this Article 13. The arbitrators shall have no authority to award punitive or any other type of damages not measured by a Party's compensatory damages. Each Party will share equally the cost and expenses of the panel selected in Section 13.2.2 and any administrative fees unless in each case the arbitrators agree otherwise, which they are hereby empowered, authorized and instructed to do if they determine that to be fair and appropriate. Each Party shall bear its own costs and expenses and attorneys' fees in connection with any such arbitration; *provided, however,* that the prevailing Party in any such arbitration shall be entitled to recover from the other Party the reasonable attorneys' fees, costs and expenses incurred by such prevailing Party in connection with such arbitration.

13.2.4 Confidentiality. Except to the extent necessary to confirm an award or decision or as may be required by Applicable Law, or the requirement of any exchange on which a Party's shares are traded, neither Party nor any arbitrator may disclose the existence or results of any arbitration without the prior written consent of both Parties. In no event shall any arbitration be initiated after the date when commencement of a legal or equitable proceeding based on the Dispute would be barred by the applicable New York statute of limitations.

13.2.5 Breach of the Agreement. In the event of a Dispute involving the alleged breach of this Agreement (including, without limitation, whether a Party has satisfied its diligence obligations hereunder), (a) neither Party may terminate this Agreement under Section 12.2 until resolution of the Dispute pursuant to this Article 13 and (b) if the arbitrators render a decision that a breach of this Agreement has occurred, the arbitrators shall have no authority to modify the right of the non-breaching Party to terminate this Agreement in accordance with Section 12.2**.**

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

13.2.6 Performance. Any disputed performance or suspended performance pending the resolution of a Dispute that the arbitrators determine to be required to be performed by a Party shall be completed within a reasonable time period following the final decision of the arbitrators.

13.2.7 Binding Decision. The decision of the arbitrators shall be the sole, exclusive and binding remedy between the Parties regarding the determination of all Disputes presented. The arbitrators shall prepare and deliver to the Parties a written, reasoned opinion conferring their decision. Judgment on the award so rendered may be entered in any court having competent jurisdiction thereof. Any monetary payment to be made by a Party pursuant to a decision of the arbitrators shall be made in Dollars, free of any tax or other deduction.

13.3 [***]. Notwithstanding anything in this Agreement to the contrary, any and all issues regarding (a) [***], (b) [***], or (c) any other [***], shall be [***]. This Section 13.3 shall not be construed to [***].

14. MISCELLANEOUS.

14.1 Regulatory Responsibilities and Costs. As between the Parties, Merck shall prepare, file, maintain and own all Regulatory Filings and related submissions with respect to all Therapeutic Products and shall bear the cost of such preparation, filing, maintenance and ownership. As between the Parties, Merck shall be solely responsible for communicating with the FDA and/or any other Regulatory Authority in any country or jurisdiction regarding all Therapeutic Products.

14.2 Commercialization Responsibilities and Costs. As between the Parties, Merck shall be solely responsible for all commercialization activities relating to Therapeutic Products, at Merck's sole cost and expense, and shall have sole decision-making authority with respect to the foregoing. Merck shall conduct all commercialization activities under this Agreement in compliance with all Applicable Law. For clarity, nothing in this Agreement shall require Merck to develop or commercialize any minimum number of Therapeutic Products or limit the number of Therapeutic Products that Merck may develop or commercialize.

14.3 Party Employees. Notwithstanding anything to the contrary under this Agreement, under no circumstance would any employee, contractor, contingent worker or consultant of a Party be considered an employee, contractor, contingent worker or consultant of the other Party. The Party who sends any employee, contractor, contingent worker or consultant to work at the other Party's premises shall assume all liability for such employees, contractors, contingent workers or consultants working at the other Party's premises and shall procure that its employees, contractors, contingent workers or consultants comply with all security, health and safety and other policies applicable to occupiers of the hosting Party's premises.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

14.4 Non-Solicitation. During the period beginning on the Effective Date and ending on the date that is [***] (the "**Non-Solicitation Period**"), neither Party shall directly or indirectly, solicit, hire, employ or attempt to solicit, hire or employ any person acting in a scientific role who is or was an employee or contractor of the other Party or such other Party's Affiliates during the Non-Solicitation Period, or in any other way directly or indirectly seek to solicit, induce, bring about, influence, promote, facilitate, or encourage any such individual to work for such Party; *provided* that the foregoing shall not restrict a Party or its Affiliates from advertising employment opportunities in any manner that does not directly target the other Party or its Affiliates or from hiring or employing any person who responds to such generalized public advertisements.

14.5 Severability. If any one or more of the provisions contained in this Agreement is held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby, unless the absence of the invalidated provision(s) adversely affects the substantive rights of the Parties. The Parties shall in such an instance use reasonable efforts to replace the invalid, illegal or unenforceable provision(s) with valid, legal and enforceable provision (s) which, insofar as practical, implement the purposes of this Agreement.

14.6 Notices. All notices which are required or permitted hereunder shall be in writing and sufficient if delivered personally, sent by facsimile (and promptly confirmed by personal delivery, registered or certified mail or overnight courier), sent by nationally-recognized overnight courier or sent by registered or certified mail, postage prepaid, return receipt requested, addressed as follows:

if to Codexis, to: Codexis, Inc.

200 Penobscot Drive

Redwood City, CA 94063

Attention: [***]

Fax: [***]

Email: [***]

and: Codexis, Inc.

200 Penobscot Drive

Redwood City, CA 94063

Attention: [***]

Telephone: [***]

Fax: [***]

Email: [***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

if to Merck, to: Merck Sharp & Dohme Corp.

One Merck Drive

P.O. Box 100, WS3A-65

Whitehouse Station, NJ 08889-0100

Attention: [***]

Facsimile No.: [***]

and Merck Sharp & Dohme Corp.

2000 Galloping Hill Road

Kenilworth, NJ 07033

Attention: [***]

Facsimile: [***]

or to such other address(es) as the Party to whom notice is to be given may have furnished to the other Party in writing in accordance herewith. Any such notice shall be deemed to have been given: (a) when delivered if personally delivered or sent by facsimile on a business day (or if delivered or sent on a non-business day, then on the next business day); (b) on the business day after dispatch if sent by nationally-recognized overnight courier; or (c) on the fifth (5th) business day following the date of mailing, if sent by mail.

14.7 Force Majeure. Except for the payment of money, neither Party shall be held liable to the other Party nor be deemed to have defaulted under or breached this Agreement for failure or delay in performing any obligation under this Agreement to the extent such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party, potentially including, but not limited to, embargoes, war, acts of war (whether war be declared or not), acts of terrorism, insurrections, riots, civil commotions, strikes, lockouts or other labor disturbances, fire, floods, or other acts of God, or acts, omissions or delays in acting by any governmental authority or the other Party. The affected Party shall notify the other Party of such force majeure circumstances as soon as reasonably practical, and shall promptly undertake Commercially Reasonable Efforts to cure such force majeure circumstances.

14.8 Assignment. Except as provided in this Section 14.8, this Agreement may not be assigned or otherwise transferred, nor may any right or obligation hereunder be assigned or transferred, by either Party without the consent of the other Party; *provided, however*, that either Party may, without such consent, assign this Agreement and its rights and obligations hereunder, in whole or in part, to an Affiliate or in connection with the transfer or sale of all or substantially all of its assets related to the subject matter of this Agreement, or in the event of its merger or consolidation or change in control or similar transaction. This Agreement shall inure to the benefit of and be binding on the Parties' successors and assigns. Any attempted assignment not in accordance with this Section 14.8 shall be void. Any permitted assignee shall assume all assigned obligations of its assignor under this Agreement.

14.9 Waivers and Modifications. The waiver by either Party hereto of any right hereunder, or of any failure of the other Party to perform, or of any breach by the other Party, shall not

be deemed a waiver of any other right hereunder or of any other breach by or failure of such other Party whether of a similar nature or otherwise. No waiver, modification, release or amendment of any obligation under or provision of this Agreement shall be valid or effective unless in writing and signed by both Parties.

14.10 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York and the patent laws of the United States without reference to any rules of conflict of laws or renvoi, and excludes (a) the United Nations Convention on Contracts for the International Sales of Goods; (b) the 1974 Convention on the Limitation Period in the International Sale of Goods (the "**1974 Convention**"); (c) the Protocol amending the 1974 Convention, done at Vienna April 11, 1980; and (d) the Uniform Computer Information Transactions Act; *provided, however*, that with respect to matters involving the enforcement, validity or scope of Intellectual Property Rights, the laws of the applicable country shall apply.

14.11 Independent Contractors. It is expressly agreed that Codexis and Merck shall be independent contractors and that the relationship between the two Parties shall not constitute a partnership, joint venture or agency. Neither Codexis nor Merck shall have the authority to make any statements, representations or commitments of any kind, or to take any action, which shall be binding on the other Party, without the prior written consent of the other Party.

14.12 Entire Agreement. This Agreement, together with the Exhibits hereto, contains the entire understanding of the Parties with respect to the subject matter hereof. Any other express or implied agreements and understandings, negotiations, writings and commitments, either oral or written, in respect to the subject matter hereof are superseded by the terms of this Agreement. The Exhibits to this Agreement are incorporated herein by reference and shall be deemed a part of this Agreement. This Agreement may be amended, or any term hereof modified, only by a written instrument duly executed by authorized representative(s) of both Parties hereto. Notwithstanding anything to the contrary in the foregoing, and subject to Section 10.6 hereof, the Confidential Disclosure Agreement shall remain in full force and effect with respect to the subject matter thereof and information disclosed thereunder.

14.13 Counterparts. This Agreement may be signed in any number of counterparts (facsimile and electronic transmission included), each of which shall be deemed an original, but all of which shall constitute one and the same instrument. After facsimile or electronic transmission, the parties agree to execute and exchange documents with original signatures.

14.14 Waiver of Rule of Construction. Each Party has had the opportunity to consult with counsel in connection with the review, drafting and negotiation of this Agreement. Accordingly, the rule of construction that any ambiguity in this Agreement shall be construed against the drafting Party shall not apply.

14.15 Certain Conventions. Any reference in this Agreement to an Article, Section, subsection, paragraph, clause, Exhibit shall be deemed to be a reference to an Article, Section, subsection, paragraph, clause, or Exhibit, of or to, as the case may be, this Agreement, unless otherwise indicated. Unless the context of this Agreement otherwise requires, (a) words of any gender include each

other gender, (b) words such as "herein", "hereof", and "hereunder" refer to this Agreement as a whole and not merely to the particular provision in which such words appear, (c) words using the singular shall include the plural, and vice versa.

14.16 Headings. The captions to the several Articles, Sections and subsections hereof are not a part of this Agreement, but are merely for convenience to assist in locating and reading the several Articles and Sections hereof.

14.17 Cumulative Remedies. No remedy referred to in this Agreement is intended to be exclusive, but each shall be cumulative and in addition to any other remedy referred to in this Agreement or otherwise available under law.

14.18 References. Unless the context requires otherwise, (a) any definition of or reference to any agreement, instrument or other document herein shall be construed as referring to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein or therein), (b) any reference to Applicable Law herein shall be construed as referring to such Applicable Law as from time to time enacted, repealed or amended, and (c) any reference herein to any Person shall be construed to include the Person's successors and assigns.

14.19 Ethical Business Practices.

14.19.1 Codexis acknowledges that Merck's corporate policy requires that Merck's business must be conducted within the letter and spirit of the law. By signing this Agreement, Codexis agrees to conduct the services contemplated herein in a manner which is consistent with both law and good business ethics.

14.19.2 Codexis warrants that [***]. Codexis shall not make any payment, either directly or indirectly, of money or other assets, including but not limited to the compensation Codexis derives from this Agreement (hereinafter collectively referred as a **"Payment"**), to government or political party officials, officials of international public organizations, candidates for public office, or representatives of other businesses or persons acting on behalf of any of the foregoing (hereinafter collectively referred as **"Officials"**) where such Payment would constitute violation of any law. In addition regardless of legality, Codexis shall make no Payment either directly or indirectly to Officials if such Payment is for the purpose of influencing decisions or actions with respect to the subject matter of this Agreement.

14.19.3 Codexis acknowledges that no employee of Merck or its Affiliates shall have authority to give any direction, either written or oral, relating to the making of any commitment by Codexis or its agents to any Third Party in violation of terms of this or any other provisions of this Agreement.

14.19.4 Codexis certifies to Merck that as of the date of this Agreement [***]. After the execution of this Agreement, Codexis shall [***].

14.19.5 [***].

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[Signature Page Follows]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

IN WITNESS WHEREOF, the Parties have caused this Platform Technology Transfer and License Agreement to be executed by their respective duly authorized officers as of the Effective Date.

Codexis, Inc.	**Merck Sharp & Dohme Corp.**
By: /s/ John Nicols	By: /s/ Iain Dukes
Name: John Nicols	Name: Iain Dukes, D. Phil
Title: President and CEO	Title: Senior Vice President

Exhibit 1.19

Codexis Core Patents

Attached.

EXHIBIT 1.19

CODEXIS CORE PATENTS							
Country	**Application Title**	**Application Status**	**Application Number**	**Filing Date**	**Publication Number**	**Patent Number**	**Issue Date**
US	COMBINED AUTOMATED PARALLEL SYNTHESIS OF POLYNUCLEOTIDE VARIANTS	Granted	12/562,988	09/18/2009	US-2010-0093560A1	8383346	02/26/2013
CN	METHOD OF SYNTHESIZING POLYNUCLEOTIDE VARIANTS	Granted	200980122093.2	12/13/2010	102066561	200980122093.2	09/25/2013
CA	METHOD OF SYNTHESIZING POLYNUCLEOTIDE VARIANTS	Granted	2,726,850	12/02/2010	2726850	2726850	06/02/2015
EP	METHOD OF SYNTHESIZING POLYNUCLEOTIDE VARIANTS	Allowed	9763625.2	11/29/2010	2285958		
IN	METHOD OF SYNTHESIZING POLYNUCLEOTIDE VARIANTS	Published	8090/CHEN/2010	12/13/2010	8090/CHENP/2010A		
SG	METHOD OF SYNTHESIZING POLYNUCLEOTIDE VARIANTS	Granted	201009215-3	12/13/2010		167342	05/31/2013
CA	COMBINED AUTOMATED PARALLEL SYNTHESIS OF POLYNUCLEOTIDE VARIANTS	Allowed	2763017	11/21/2011	2763017		
CN	COMBINED AUTOMATED PARALLEL SYNTHESIS OF POLYNUCLEOTIDE VARIANTS	Granted	200980159766.1	12/08/2011	102803489	ZL200980159766.1	01/28/2015
EP	COMBINED AUTOMATED PARALLEL SYNTHESIS OF POLYNUCLEOTIDE VARIANTS	Published	9845944.9	12/05/2011	2451951		
IN	COMBINED AUTOMATED PARALLEL SYNTHESIS OF POLYNUCLEOTIDE VARIANTS	Published	9101/CHENP/2011	12/07/2011	9101/CHENP/2011 A		
US	COMBINED AUTOMATED PARALLEL SYNTHESIS OF POLYNUCLEOTIDE VARIANTS	Published	14/505209	10/02/2014	20150024971		
US	METHOD OF SELECTING AN OPTIMIZED, DIVERSE POPULATION OF VARIANTS	Granted	12/867429	08/12/2010	US20110029468	8504498	08/06/2013

CODEXIS CORE PATENTS							
EP	METHOD OF SELECTING AN OPTIMIZED, DIVERSE POPULATION OF VARIANTS	Published	9710859.1	02/12/2009	2250595		
EP	METHOD OF GENERATING AN OPTIMIZED, DIVERSE POPULATION OF VARIANTS	Published	9710490.5	02/12/2009	2250594		
US	METHOD OF GENERATING AN OPTIMIZED, DIVERSE POPULATION OF VARIANTS	Granted	12/867433	10/21/2010	2011-0034342	8768871	07/01/2014
US	METHOD OF GENERATING AN OPTIMIZED, DIVERSE POPULATION OF VARIANTS	Published	14/281421	05/19/2014	2014/0256557		
EP	REDUCED CODON MUTAGENESIS	Published	10817881.5	03/30/2012	2478137		
US	PROTEIN VARIANT GENERATION BY REGION SHUFFLING	Published	13/577,651	08/07/2012	2014/0005057		
EP	PROTEIN VARIANT GENERATION BY REGION SHUFFLING	Published	12803889.0	12/12/2013	2726651		
US	GENE SHUFFLING METHODS	Published	14/385060	09/12/2014	20150050658		
EP	GENE SHUFFLING METHODS	Published	13760490.6	10/14/2014	2825647		
US	METHODS, SYSTEMS, AND SOFTWARE FOR IDENTIFYING BIO-MOLECULES WITH INTERACTING COMPONENTS	Published	14/167709	01/29/2014	20140214391		
WO	METHODS, SYSTEMS, AND SOFTWARE FOR IDENTIFYING BIO-MOLECULES WITH INTERACTING COMPONENTS	Published	PCT/US2014/013666	01/29/2014	WO2014120819		
US	STRUCTURE BASED PREDICTIVE MODELING	Published	14/498881	09/26/2014	20150134315		
WO	STRUCTURE BASED PREDICTIVE MODELING	Published	PCT/US2014/057900	09/26/2014	WO2015048573		
US	AUTOMATED SCREENING OF ENZYME VARIANTS	Published	14/498864	09/26/2014	20150133307		

CODEXIS CORE PATENTS							
WO	AUTOMATED SCREENING OF ENZYME VARIANTS	Published	PCT/US2014/057899	09/26/2014	WO2015048572		
US	METHODS, SYSTEMS, AND SOFTWARE FOR IDENTIFYING BIO-MOLECULES USING MODELS OF MULTIPLICATIVE FORM	Published	14/167713	01/29/2014	20140221216		
WO	METHODS, SYSTEMS, AND SOFTWARE FOR IDENTIFYING BIO-MOLECULES USING MODELS OF MULTIPLICATIVE FORM	Published	PCT/US2014/013668	01/29/2014	WO2014120821		

Exhibit 1.20

Codexis Core Technology

The enzyme optimization process starts by identifying genes that code for enzymes known to have the general type of catalytic reactivity for a desired chemical reaction. Typically, we identify gene sequences in published databases and then synthesize candidate genes having those sequences. Using a variety of biotechnology tools, we diversify these genes by introducing mutations, giving rise to changes in the enzymes for which they encode. The methods for diversifying these genes, and types of diversity being tested, often vary over the course of an enzyme optimization program. For finding initial diversity, methods typically include random mutagenesis and site-directed (included structure-guided) mutagenesis. We also test mutational variations that distinguish related enzymes among different organisms. Once we have identified potentially beneficial mutations, we test combinations of these mutations in libraries made using our proprietary gene recombination methodologies, gene shuffling and multiplexed gene SOEing, or Splicing by Overlap Extension.

With our proprietary gene shuffling methodology, we generate libraries of genes that have random combinations of the mutations we are testing. The pool of genes is used to transform host cells, which entails introducing the various genes, one by one, into host cells. These cells are then segregated and grown into colonies. Cells from individual colonies are cultured in high throughput to produce the enzyme encoded by the shuffled gene in those cells. The enzymes are then screened in high throughput using test conditions relevant to the desired process. The screening results identify individual shuffled genes that produce improved enzymes having combinations of beneficial mutations and weed out enzymes having detrimental ones. Using different test conditions and/or different analytical methods, we can identify variant enzymes that exhibit various improved performance characteristics, such as stability, activity and selectivity, under conditions relevant to the desired chemical process.

In the next step in our optimization process, we use our proprietary software tool, ProSAR™, to analyze protein sequence-activity relationships. ProSAR™ aids in identifying specific gene and enzyme mutations that are beneficial, neutral or detrimental with respect to the desired performance characteristics. Earlier directed evolution methods did not separately evaluate individual mutations in libraries of variants which carry multiple mutations, where beneficial and detrimental performance characteristics may be mixed in an individual gene or enzyme. Capitalizing on the advent of inexpensive gene sequencing, we are able to determine which particular mutations are present in the genes and proteins we have screened. Our ProSAR™ bioinformatics software relates the screening results to the mutations and ranks the individual mutations with regard to their degree of benefit or detriment, relative to whichever process parameter(s) the screening tested. Using that information, we can bias the pool of mutational diversity in the next iteration to further the accumulation of beneficial diversity and cancel out detrimental diversity in the individual genes in the resulting shuffled library. The ProSAR™ results also help us develop ideas about new diversity to test. ProSAR™, combined with efficient gene synthesis and high quality library generation methods, has led to a significant increase in the efficiency and speed of enzyme improvement and optimization.

In another step of our optimization process, we take the best variants we have identified and prepare enough of each to test in the desired chemical process at laboratory scale, for in-process confirmation. This optimization routine is done iteratively, typically adding new diversity to the pool in each iteration. The gene that codes for the best performing enzyme in one iteration is used as the starting gene for the next iteration of shuffling and screening. As the enzymes improve over these iterations, the screening conditions are made increasingly more stringent. In this way, enzymes are rapidly optimized until all in-process performance requirements have been achieved and the economic objectives for the desired process have been met.

Multiplexed gene SOEing is our proprietary methodology for rapidly generating gene variants. Using multiplexed gene SOEing, we rapidly generate collections of individual gene variants that have predetermined, as opposed to random, combinations of mutations we are testing. It is based on a biotechnology technique, which we refer to as SOEing, generally used to make a hybrid, or spliced, gene from fragments of two genes and/or to introduce a specific mutation into a splice between fragments of one gene. We have automated the process to make robotically, in parallel, one hundred to several hundred variants, each with a predetermined combination of the mutations we are testing. The variants are introduced into host cells, and the encoded enzyme is produced and screened in high throughput, as described above.

Using multiplexed gene SOEing, we can test many mutations and combinations thereof in parallel, and because the mutation incorporation is controlled and predetermined before screening, as opposed to random incorporation and selection after screening, the resulting data set can be more optimal for ProSAR™ analysis.

We believe using multiplexed gene SOEing to survey many mutations quickly, followed by ProSAR™-driven shuffling of beneficial mutations, is a particularly effective approach, providing rapid gains in enzyme performance.

Exhibit 1.25

Codexis Enzyme Patents

Attached.

EXHIBIT 1.25

CODEXIS ENZYME PATENTS							
Country	**Application Title**	**Application Status**	**Application Number**	**Filing Date**	**Publication Number**	**Patent Number**	**Issue Date**
US	TRANSAMINASE POLYPEPTIDES	Granted	12/684,864	01/08/2010	20100209981A1	8470564	06/25/2013
EP	TRANSAMINASE POLYPEPTIDES	Published	10729606.3	01/08/2010	2385983		
SG	TRANSAMINASE POLYPEPTIDES	Granted	201104947-5	07/06/2011	172891	172891	11/26/2014
IN	TRANSAMINASE POLYPEPTIDES	Published	5648/CHENP/2011	08/04/2011	5648/CHENP/2011		
IL	TRANSAMINASE POLYPEPTIDES	Pending	213950	07/06/2011			
CN	TRANSAMINASE POLYPEPTIDES	Granted	201080010926.9	01/08/2010	102341494	ZL201080010926.9	10/15/2014
US	TRANSAMINASE POLYPEPTIDES	Granted	13/920,902	06/18/2013	2013/0266994A1	9029106	05/12/2015
US	TRANSAMINASE POLYPEPTIDES	Pending	14/684916	04/13/2015			
US	TRANSAMINASE BIOCATALYSTS	Granted	12/714,397	02/26/2010	20100285541A1	8293507	10/23/2012
CN	TRANSAMINASE BIOCATALYSTS	Granted	201080017312.3	10/19/2011	102405281	102405281	05/13/2015
EP	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	2401366	12/18/2013
IN	TRANSAMINASE BIOCATALYSTS	Published	6857/CHENP/2011	09/22/2011	6857/CHENP/2011		
SG	TRANSAMINASE BIOCATALYSTS	Granted	201106064-7	02/26/2010	173815	173815	11/15/2013
JP	TRANSAMINASE BIOCATALYSTS	Granted	2011-552209	08/23/2011	2012-519004	5707344	03/06/2015
US	TRANSAMINASE BIOCATALYSTS	Granted	13/604,323	09/05/2012	20120329108A1	8889380	11/18/2014
DE	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	202010012539.4	12/18/2013
FR	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	2401366	12/18/2013
ES	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	2401366	12/18/2013
CH	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	2401366	12/18/2013
GB	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	2401366	12/18/2013
IE	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	2401366	12/18/2013
IT	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	2401366	12/18/2013
NL	TRANSAMINASE BIOCATALYSTS	Granted	10746948.8	09/26/2011	2401366	2401366	12/18/2013
JP	TRANSAMINASE BIOCATALYSTS	Pending	2014-186102	09/12/2014			

CODEXIS ENZYME PATENTS							
US	TRANSAMINASE BIOCATALYSTS	Allowed	14/518143	10/20/2014	20150037869		
CN	KETOREDUCTASE-MEDIATED STEREOSELECTIVE ROUTE TO ALPHA CHLOROALCOHOLS	Granted	201080027481.5	12/20/2011	102482648	ZL201080027481.5	12/10/2014
EP	KETOREDUCTASE-MEDIATED STEREOSELECTIVE ROUTE TO ALPHA CHLOROALCOHOLS	Published	10797576.5	12/22/2011	2446025		
IN	KETOREDUCTASE-MEDIATED STEREOSELECTIVE ROUTE TO ALPHA CHLOROALCOHOLS	Pending	9363/CHENP/2011	12/21/2011			
SG	KETOREDUCTASE-MEDIATED STEREOSELECTIVE ROUTE TO ALPHA CHLOROALCOHOLS	Granted	201109538-7	12/21/2011	177331	177331	08/11/2014
US	KETOREDUCTASE-MEDIATED STEREOSELECTIVE ROUTE TO ALPHA CHLOROALCOHOLS	Granted	13/378,618	12/15/2011	20120190086A1	8796002	08/05/2014
US	KETOREDUCTASE-MEDIATED STEREOSELECTIVE ROUTE TO ALPHA CHLOROALCOHOLS	Granted	14/313465	06/24/2014	20140308732	9029112	05/12/2015
US	KETOREDUCTASE-MEDIATED STEREOSELECTIVE ROUTE TO ALPHA CHLOROALCOHOLS	Pending	14/697262	04/27/2015			
EP	KETOREDUCTASE POLYPEPTIDES FOR THE PREPARATION OF PHENYLEPHRINE	Published	10810597.4	03/15/2012	2467473		
IN	KETOREDUCTASE POLYPEPTIDES FOR THE PREPARATION OF PHENYLEPHRINE	Published		03/15/2012	2372/CHENP/2012 A		
US	KETOREDUCTASE POLYPEPTIDES FOR THE PREPARATION OF PHENYLEPHRINE	Allowed	13/390,677	02/15/2012	20120149073		
SG	KETOREDUCTASE POLYPEPTIDES FOR THE PREPARATION OF PHENYLEPHRINE	Published	201201086-4	02/16/2012	178456		
SG	KETOREDUCTASE POLYPEPTIDES FOR THE PREPARATION OF PHENYLEPHRINE	Published	10201405022P	08/19/2014	10201405022P		

CODEXIS ENZYME PATENTS							
US	KETOREDUCTASE POLYPEPTIDES FOR THE PREPARATION OF PHENYLEPHRINE	Pending	14/755056	06/30/2015			
CN	TRANSAMINASE REACTIONS	Allowed	201080027740.4	12/21/2011	102597226		
EP	TRANSAMINASE REACTIONS	Published	10797544.3	12/22/2011	2446026		
IN	TRANSAMINASE REACTIONS	Published	9683/CHENP/2011	12/22/2011	9683/CHENP/2011		
SG	TRANSAMINASE REACTIONS	Published	201109536-1	12/21/2011	177329		
US	TRANSAMINASE REACTIONS	Granted	13/378,963	04/09/2012	20120190085A1	8921079	12/30/2014
IL	TRANSAMINASE REACTIONS	Pending	216099	11/02/2011			
US	TRANSAMINASE REACTIONS	Published	14/547339	11/19/2014	20150079640		
US	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	12/490,190	06/23/2009	20100063300A1	8178333	05/15/2012
CN	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	200980133157.9	06/23/2009	102131813	ZL200980133157.9	07/30/2014
SG	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	201009300-3	06/23/2009		167392	08/15/2013
EP	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	2307419	11/06/2013
IN	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Published	397/CHENP/2011	01/19/2011	397/CHENP/2011 A		
US	STEREOMERICALLY PURE FUSED BICYLIC PROLINE COMPOUNDS USEFUL FOR PREPARING HEPATITIS C PROTEASE INHIBITORS	Granted	13/294,930	11/11/2011	20120130087	8859784	10/14/2014

CODEXIS ENZYME PATENTS							
US	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	13/436,506	03/30/2012	20120244581	8574876	11/05/2013
FR	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	2307419	11/06/2013
DE	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	602009019988.9	11/06/2013
IE	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	2307419	11/06/2013
IT	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	2307419	11/06/2013
NL	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	2307419	11/06/2013
ES	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	2307419	11/06/2013
CH	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	2307419	11/06/2013
GB	BIOCATALYTIC PROCESSES FOR THE PREPARATION OF SUBSTANTIALLY STEREOMERICALLY PURE FUSED BICYCLIC PROLINE COMPOUNDS	Granted	9798485.0	06/23/2009	2307419	2307419	11/06/2013
US	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	12/545,761	08/21/2009	20100055751A1	8288131	10/16/2012

CODEXIS ENZYME PATENTS							
US	POLYNUCLEOTIEDES ENCODING ENGINEERED KETOREDUCTASE POLYPEPTIDES	Granted	13/610,723	09/11/2012	20130005018A1	8455230	06/04/2013
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF A 3-ARYL-3-HYDROXYPROPANAMINE FROM A 3-ARYL-3-KETOPROPANAMINE	Granted	12/549,154	08/27/2009	US2010-0151534-A1	8426178	04/23/2013
EP	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF A 3-ARYL-3-HYDROXYPROPANAMINE FROM A 3-ARYL-3-KETOPROPANAMINE	Allowed	9810573.7	08/27/2009	2329013		
IN	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF A 3-ARYL-3-HYDROXYPROPANAMINE FROM A 3-ARYL-3-KETOPROPANAMINE	Published	2014/CHENP/2011	03/22/2011	2014/CHENP/2011 A		
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF A 3-ARYL-3-HYDROXYPROPANAMINE FROM A 3-ARYL-3-KETOPROPANAMINE	Granted	13/796985	03/12/2013	US-2013-0177962-A1	8673607	03/18/2014
US	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOLYL]-4PHENYL1,3-OXAZOLIDIN-2-ONE	Granted	12/545,034	08/20/2009	20100062499A1	8273554	09/25/2012
CN	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	200980141486.8	04/19/2011	102186972	ZL200980141486.8	08/20/2014

CODEXIS ENZYME PATENTS							
SG	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	201101090-7	02/16/2011		168980	08/19/2014
EP	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	9810477.1	03/29/2011	2329014	2329014	10/22/2014
IN	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Published	2000/CHENP/2011	03/22/2011	2000/CHENP/2011		
US	POLYNUCLEOTIDES ENCODING RECOMBINANT KETOREDUCTASE POLYPEPTIDES	Granted	13/590,882	08/21/2012	20120322136A1	8415126	04/09/2013
US	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOLYL]-4PHENYL1,3-OXAZOLIDIN-2-ONE	Granted	13/764596	02/11/2013	US-2013-0210098-A1	8956840	02/17/2015
SG	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Published	10201404330V	07/23/2014	10201404330V		
FR	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	9810477.1	03/29/2011	2329014	2329014	10/22/2014

CODEXIS ENZYME PATENTS							
DE	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	9810477.1	03/29/2011	2329014	602009027373.6	10/22/2014
HU	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	9810477.1	03/29/2011	2329014	2329014	10/22/2014
NL	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	9810477.1	03/29/2011	2329014	2329014	10/22/2014
SI	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	9810477.1	03/29/2011	2329014	2329014	10/22/2014
CH	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	9810477.1	03/29/2011	2329014	2329014	10/22/2014
GB	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (4S)-3-[(5S)-5(4-FLUOROPHENYL)-5-HYDROXYPENTANOYL]-4PHENYL-1,3-OXAZOLIDIN-2-ONE	Granted	9810477.1	03/29/2011	2329014	2329014	10/22/2014
US	KETOREDUCTASE POLYPEPTIDES	Allowed	14/606127	01/27/2015	20150132806		
US	ENONE REDUCTASES	Granted	12/646,907	12/23/2009	20100190218A1	8329438	12/11/2012
EP	ENONE REDUCTASES	Granted	9835878.1	12/23/2009	2382308	2382308	03/04/2015

CODEXIS ENZYME PATENTS							
IN	ENONE REDUCTASES	Published	4505/CHENP/2011	12/23/2009	4505/CHENP/2011		
SG	ENONE REDUCTASES	Granted	201104630-7	12/23/2009	172783	172783	09/03/2014
US	ENONE REDUCTASES	Granted	13/658,582	10/23/2012	US/2013-0115663-A1	8883475	11/11/2014
US	ENONE REDUCTASES	Allowed	14/504558	10/02/2014	20150031095		
FR	ENONE REDUCTASES	Granted	9835878.1	12/23/2009	2382308	2382308	03/04/2015
DE	ENONE REDUCTASES	Granted	9835878.1	12/23/2009	2382308	602009029867.4	03/04/2015
IE	ENONE REDUCTASES	Granted	9835878.1	12/23/2009	2382308	2382308	03/04/2015
NL	ENONE REDUCTASES	Granted	9835878.1	12/23/2009	2382308	2382308	03/04/2015
CH	ENONE REDUCTASES	Granted	9835878.1	12/23/2009	2382308	2382308	03/04/2015
GB	ENONE REDUCTASES	Granted	9835878.1	12/23/2009	2382308	2382308	03/04/2015
US	ENONE REDUCTASES	Pending	14/800306	07/15/2015			
US	RECOMBINANT HALOHYDRIN DEHALOGENASE POLYPEPTIDES	Granted	12/642,586	12/18/2009	US2010-0173372A1	8187856	05/29/2012
IN	RECOMBINANT HALOHYDRIN DEHALOGENASE POLYPEPTIDES	Published	5068/CHENP/2011	12/18/2009	5068/CHENP/2011A		
US	RECOMBINANT HALOHYDRIN DEHALOGENASE POLYPEPTIDES	Granted	13/452,328	04/20/2012	20120220002	8580555	11/12/2013
US	PENICILLIN G ACYLASES	Granted	12/615,139	11/09/2009	US-2010-0143968-A1	8247192	08/21/2012
US	PENICILLIN G ACYLASES	Granted	13/542,835	07/06/2012	20120270282A1	8569013	10/29/2013
US	NITRILASE BIOCATALYSTS	Granted	13/381,155	12/28/2011	20120142063	8614081	12/24/2013
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF 3-ARYL-3-HYDROXYPROPANAMINE FROM A 3-ARYL-3-KETOPROPANAMINE	Granted	12/549,293	08/27/2009	US2010-0173369A1	8288141	10/16/2012
US	POLYNUCLEOTIDES ENCODING ENGINEERED KETOREDUCTASE POLYPEPTIDES	Granted	13/610,166	09/11/2012	20130005017A1	8877475	11/04/2014
US	POLYNUCLEOTIDES ENCODING ENGINEERED KETOREDUCTASE POLYPEPTIDES	Published	14/503578	10/01/2014	20150031094		

CODEXIS ENZYME PATENTS							
CN	SYNTHESIS OF PRAZOLE COMPOUNDS	Granted	201080054980.3	06/04/2012	102884178	201080054980.3	12/03/2014
EP	SYNTHESIS OF PRAZOLE COMPOUNDS	Published	10836590.9	07/05/2012	2510089		
IN	SYNTHESIS OF PRAZOLE COMPOUNDS	Published	5934/CHENP/2012	07/05/2012	5934/CHENP/2012		
SG	SYNTHESIS OF PRAZOLE COMPOUNDS	Granted	201204152-1	06/06/2012	181535	181535	01/22/2015
US	SYNTHESIS OF PRAZOLE COMPOUNDS	Granted	13/514,750	06/08/2012	20130017580A1	8895271	11/25/2014
US	SYNTHESIS OF PRAZOLE COMPOUNDS	Published	14/528708	10/30/2014	20150056668		
EP	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Granted	11778262.3	12/03/2012	2566497	2566497	07/29/2015
IN	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Published	10077/CHENP/2012	11/30/2012	10077/CHENP/2012		
US	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Granted	13/695,856	11/02/2012	US20130052699	9040262	05/26/2015
US	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Pending	14/692964	04/22/2015			
DE	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Granted	11778262.3	12/03/2012	2566497	2566497	07/29/2015
FR	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Granted	11778262.3	12/03/2012	2566497	2566497	07/29/2015
GB	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Granted	11778262.3	12/03/2012	2566497	2566497	07/29/2015
IE	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Granted	11778262.3	12/03/2012	2566497	2566497	07/29/2015
HU	BIOCATALYSTS FOR EZETIMIBE SYNTHESIS	Granted	11778262.3	12/03/2012	2566497	2566497	07/29/2015
US	PROCESSES USING AMINO ACID DEHYDROGENASES AND KETOREDUCTASE-BASED COFACTOR REGENERATING SYSTEM	Granted	13/577,772	10/16/2012	2013/0029385	9080192	07/14/2015

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IN	PROCESSES USING AMINO ACID DEHYDROGENASES AND KETOREDUCTASE-BASED COFACTOR REGENERATING SYSTEM	Published	7740/CHENP/2012	09/07/2012	7740/CHENP/2012		
US	PROCESSES USING AMINO ACID DEHYDROGENASES AND KETOREDUCTASE-BASED COFACTOR REGENERATING SYSTEM	Pending	14/742215	06/17/2015			
SG	STRUCTURE-ACTIVITY RELATIONSHIPS	Published	201200817-3	02/12/2001	178753		
US	STRUCTURE-ACTIVITY RELATIONSHIPS	Published	13/757554	02/01/2013	2013/0165341		
US	STRUCTURE-ACTIVITY RELATIONSHIPS	Published	14/662541	03/19/2015	2015/0191767		
CN	KETOREDUCTASES AND USES THEREOF	Granted	200880004582.3	02/08/2008	CN 101627116A	ZL2008 8 0004582.3	07/10/2013
SG	KETOREDUCTASES AND USES THEREOF	Granted	200904674-9	02/08/2008		154045	03/30/2012
KR	KETOREDUCTASES AND USES THEREOF	Granted	10-2009-7016084	02/08/2008		1502634	03/09/2015
US	KETOREDUCTASES AND USES THEREOF	Granted	12/028,780	02/08/2008	2008/0318295	7820421	10/26/2010
EP	KETOREDUCTASES AND USES THEREOF	Granted	8725329.0	02/08/2008	2115130	2115130	08/03/2011
IL	KETOREDUCTASES AND USES THEREOF	Pending	199399	02/08/2008			
JP	KETOREDUCTASES AND USES THEREOF	Published	2009-549110	02/08/2008	2010-517574		
US	KETOREDUCTASES AND USES THEREOF	Granted	12/881,734	09/14/2010	2011/0165670A1	8071347	12/06/2011
CH	KETOREDUCTASES AND USES THEREOF	Granted	8725329.0	02/08/2008	2115130	2115130	08/03/2011
DE	KETOREDUCTASES AND USES THEREOF	Granted	8725329.0	02/08/2008	2115130	2115130	08/03/2011
FR	KETOREDUCTASES AND USES THEREOF	Granted	8725329.0	02/08/2008	2115130	2115130	08/03/2011

CODEXIS ENZYME PATENTS							
GB	KETOREDUCTASES AND USES THEREOF	Granted	8725329.0	02/08/2008	2115130	2115130	08/03/2011
IE	KETOREDUCTASES AND USES THEREOF	Granted	8725329.0	02/08/2008	2115130	2115130	08/03/2011
NL	KETOREDUCTASES AND USES THEREOF	Granted	8725329.0	02/08/2008	2115130	2115130	08/03/2011
US	KETOREDUCTASES AND USES THEREOF	Granted	13/290,773	11/07/2011	2012/0178142	8415127	04/09/2013
US	KETOREDUCTASES AND USES THEREOF	Granted	13/793158	03/11/2013	2013/0196408	8980605	03/17/2015
JP	ALCOHOL DEHYDROGENASE FOR THE STEREOSELECTIVE PRODUCTION OF HYDROXY COMPOUNDS	Granted	2007-526267	06/04/2005		5042831	07/20/2012
DE	ALCOHOL DEHYDROGENASE FOR THE STEREOSELECTIVE PRODUCTION OF HYDROXY COMPOUNDS	Granted	102004029112.8	06/11/2004		1763577	10/06/2010
EP	ALCOHOL DEHYDROGENASE FOR THE STEREOSELECTIVE PRODUCTION OF HYDROXY COMPOUNDS	Granted	5756002.1	06/04/2005	1763577	1763577	10/06/2010
US	ALCOHOL DEHYDROGENASE FOR THE STEREOSELECTIVE PRODUCTION OF HYDROXY COMPOUNDS	Granted	11/629,000	12/08/2006	2009/0162893	7,943,356	05/17/2011
GB	ALCOHOL DEHYDROGENASE FOR THE STEREOSELECTIVE PRODUCTION OF HYDROXY COMPOUNDS	Granted	5756002.1	06/04/2005	1763577	1763577	10/06/2010
IT	ALCOHOL DEHYDROGENASE FOR THE STEREOSELECTIVE PRODUCTION OF HYDROXY COMPOUNDS	Granted	5756002.1	06/04/2005	1763577	1763577	10/06/2010
AT	ALCOHOL DEHYDROGENASE FOR THE STEREOSELECTIVE PRODUCTION OF HYDROXY COMPOUNDS	Granted	5756002.1	06/04/2005	1763577	1763577	10/06/2010

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FR	ALCOHOL DEHYDROGENASE FOR THE STEREOSELECTIVE PRODUCTION OF HYDROXY COMPOUNDS	Granted	5756002.1	06/04/2005	1763577	1763577	10/06/2010
SG	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	201000745-8	08/24/2008		159008	09/14/2012
IN	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Pending	1624/CHENP/2010	08/24/2008			
EP	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	8798570.1	08/24/2008	2195443	2195443	01/07/2015
CN	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	200880104011.7	08/24/2008	101784669	ZL200880104011.7	02/18/2015
US	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	12/197,286	08/24/2008	2009/0093031	7977078	07/12/2011
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	13/110,789	05/18/2011	2011/0217754	8,227,229	07/24/2012
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	13/525,048	06/15/2012	2012/0276599A1	8962285	02/24/2015
DE	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	8798570.1	08/24/2008	2195443	602008036257.4	01/07/2015
FR	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	8798570.1	08/24/2008	2195443	2195443	01/07/2015

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IE	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	8798570.1	08/24/2008	2195443	2195443	01/07/2015
NL	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	8798570.1	08/24/2008	2195443	2195443	01/07/2015
CH	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	8798570.1	08/24/2008	2195443	2195443	01/07/2015
GB	KETOREDUCTASE POLYPEPTIDES FOR THE STEREOSELECTIVE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Granted	8798570.1	08/24/2008	2195443	2195443	01/07/2015
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF (R)-3-HYDROXYTHIOLANE	Published	14/597996	01/15/2015	2015/0125910		
CN	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	200880115770.3	09/13/2008	101855342	ZL 2008 8 0115770.3	07/10/2013
JP	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Published	2010-525057	09/13/2008	2010-538657		
US	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	12/210,195	09/13/2008	2009/0191605	8748143	06/10/2014
IN	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Pending	2039/CHENP/2010	09/13/2008			
SG	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	201001576-6	09/13/2008		159828	04/13/2012
EP	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	8830789.7	09/13/2008	2198018	2198018	11/20/2013

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KR	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Pending	10-2010-7007675	09/13/2008			
US	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	13/682,600	11/20/2012	2013/0078692	8512973	08/20/2013
US	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	13/970284	08/19/2013	2013/0344552	8852909	10/07/2014
DE	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	8830789.7	09/13/2008	2198018	602008028883.8	11/20/2013
FR	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	8830789.7	09/13/2008	2198018	2198018	11/20/2013
CH	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	8830789.7	09/13/2008	2198018	2198018	11/20/2013
GB	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	8830789.7	09/13/2008	2198018	2198018	11/20/2013
IE	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	8830789.7	09/13/2008	2198018	2198018	11/20/2013
NL	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Granted	8830789.7	09/13/2008	2198018	2198018	11/20/2013
US	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Published	14/501416	09/30/2014	2015/0017695		
JP	KETOREDUCTASE POLYPEPTIDES FOR THE REDUCTION OF ACETOPHENONES	Published	2015-21874	02/06/2015	2015-91269		
SG	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	201001902-4	09/28/2008		160022	07/31/2013
US	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	12/240,986	09/29/2008	2009/0155863	8088610	01/03/2012

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CN	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	200880118039.6	09/28/2008	101889081	ZL200880118039.6	06/18/2014
EP	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	8833139.2	09/28/2008	2203557	2203557	02/29/2012
IN	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Pending	2378/CHENP/2010	09/28/2008			
IL	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	204331	09/28/2008		204331	07/31/2013
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF (S,3)-METHYL2-(3-(3-(2(7-CHLOROQUINOLIN-2-YL)VINYL)PHENYL)-3-HYDROXYPROPYL)BENZOATE	Granted	13/329,986	12/19/2011	2012/0184000	8617853	12/31/2013
DE	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	8833139.2	09/28/2008	2203557	2203557	02/29/2012
IE	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	8833139.2	09/28/2008	2203557	2203557	02/29/2012
NL	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	8833139.2	09/28/2008	2203557	2203557	02/29/2012
CH	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	8833139.2	09/28/2008	2203557	2203557	02/29/2012
GB	KETOREDUCTASE POLYPEPTIDES AND USES THEREOF	Granted	8833139.2	09/28/2008	2203557	2203557	02/29/2012
EP	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF ARMODAFINIL	Published	11846568.1	07/14/2013	2649187		
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US	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF ARMODAFINIL	Published	13/992,138	06/06/2013	2013-0260426A1		
EP	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (S)-3-(1-AMINOETHYL)-PHENOL	Published	11796441.1	12/17/2012	2582799		
IN	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (S)-3-(1-AMINOETHYL)-PHENOL	Published	267/CHENP/2013	01/11/2013	267/CHENP/2013		

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

CODEXIS ENZYME PATENTS							
US	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (S)-3-(1-AMINOETHYL)-PHENOL	Granted	13/704507	12/14/2012	20130089898A1	8852900	10/07/2014
US	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (S)-3-(1-AMINOETHYL)-PHENOL	Granted	14/463332	08/19/2014	20140356944	8932838	01/13/2015
EP	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (1R,2R)-2-(3,4-DIMETHOXYPHENETHOXY)CYCLOHEXANAMINE	Granted	11818555.2	04/29/2013	2606139	2606139	07/15/2015

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

IN	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (1R,2R)-2-(3,4-DIMETHOXYPHENETHOXY)CYCLOHEXANAMINE	Published	2013/CHENP/2013	03/13/2013	2013/CHENP/2013		
US	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (1R,2R)-2-(3,4-DIMETHOXYPHENETHOXY)CYCLOHEXANAMINE	Granted	13/817295	03/12/2013	US-2013-0164794-A1	8932836	01/13/2015
DE	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (1R,2R)-2-(3,4-DIMETHOXYPHENETHOXY)CYCLOHEXANAMINE	Granted	11818555.2	04/29/2013	2606139	2606139	07/15/2015
FR	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (1R,2R)-2-(3,4-DIMETHOXYPHENETHOXY)CYCLOHEXANAMINE	Granted	11818555.2	04/29/2013	2606139	2606139	07/15/2015
GB	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (1R,2R)-2-(3,4-DIMETHOXYPHENETHOXY)CYCLOHEXANAMINE	Granted	11818555.2	04/29/2013	2606139	2606139	07/15/2015
IE	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF (1R,2R)-2-(3,4-DIMETHOXYPHENETHOXY)CYCLOHEXANAMINE	Granted	11818555.2	04/29/2013	2606139	2606139	07/15/2015
SG	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	201001989-1	10/01/2008		160517	05/05/2014
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	12/243,968	10/01/2008	US2009/0162909	7883879	02/08/2011
EP	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	2205727	06/24/2015
IL	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	204379	10/01/2008		204379	10/01/2014
JP	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	2010-527257	10/01/2008		5646328	11/14/2014
IN	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Pending	2450/CHENP/2010	10/01/2008			
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	12/977,825	12/23/2010	20110159567A1	8257952	09/04/2012
US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	13/569,900	08/08/2012	20130034895	8470572	06/25/2013

US	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	13/925096	06/24/2013	2014/0057330	8980606	03/17/2015
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FR	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	2205727	06/24/2015
DE	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	602008038717.8	06/24/2015
HU	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	2205727	06/24/2015
IT	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	2205727	06/24/2015
NL	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	2205727	06/24/2015
SI	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	2205727	06/24/2015
ES	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	2205727	06/24/2015
GB	KETOREDUCTASE POLYPEPTIDES FOR THE PRODUCTION OF AZETIDINONE	Granted	8836133.2	10/01/2008	2205727	2205727	06/24/2015
EP	BIOCATALYTIC PROCESS FOR PREPARING ESLICARBAZEPINE AND ANALOGS THEREOF	Published	12771861.7	11/06/2013	2697662		

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

IN	BIOCATALYTIC PROCESS FOR PREPARING ESLICARBAZEPINE AND ANALOGS THEREOF	Published	7967/CHENP/2013	10/01/2013	7967/CHENP/2013		
US	BIOCATALYTIC PROCESS FOR PREPARING ESLICARBAZEPINE AND ANALOGS THEREOF	Allowed	14/110964	12/05/2013	20140199735		
[***]	[***]	[***]	[***]	[***]			
US	BIOCATALYSTS AND METHODS FOR HYDROXYLATION OF CHEMICAL COMPOUNDS	Published	14/399034	11/05/2014	20150118719		
CN	BIOCATALYSTS AND METHODS FOR HYDROXYLATION OF CHEMICAL COMPOUNDS	Published	2013800362951	01/07/2015	104428412		
EP	BIOCATALYSTS AND METHODS FOR HYDROXYLATION OF CHEMICAL COMPOUNDS	Published	13788385.6	12/08/2014	2847327		
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EP	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF SUBSTITUTED LACTAMS	Published	12769209.3	03/31/2014	2753640		
US	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF SUBSTITUTED LACTAMS	Allowed	14/342713	03/04/2014	2014/0342412		
CN	BIOCATALYSTS AND METHODS FOR THE SYNTHESIS OF SUBSTITUTED LACTAMS	Published	2012800547455	05/07/2014	103998461		
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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

CN	BIOCATALYSTS FOR THE PREPARATION OF HYDROXY SUBSTITUTED CARBAMATES	Published	2012800673299	07/17/2014	CN104053771		
EP	BIOCATALYSTS FOR THE PREPARATION OF HYDROXY SUBSTITUTED CARBAMATES	Published	12795954.2	06/06/2014	2780448		
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US	BIOCATALYSTS FOR THE PREPARATION OF HYDROXY SUBSTITUTED CARBAMATES	Allowed	14/357964	05/13/2014	20140322769		
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CN	BIOCATALYSTS AND METHODS FOR SYNTHESIZING DERIVATIVES OF TRYPTAMINE AND TRYPTAMINE ANALOGS	Published	2013800265947	11/21/2014	104508126		
EP	BIOCATALYSTS AND METHODS FOR SYNTHESIZING DERIVATIVES OF TRYPTAMINE AND TRYPTAMINE ANALOGS	Published	13765270.7	10/23/2014	2828385		
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US	BIOCATALYSTS AND METHODS FOR SYNTHESIZING DERIVATIVES OF TRYPTAMINE AND TRYPTAMINE ANALOGS	Allowed	14/386082	09/18/2014	20150072383		
US	ENGINEERED IMINE REDUCTASES AND METHODS FOR THE REDUCTIVE AMINATION OF KETONE AND AMINE COMPOUNDS	Published	13/890944	05/09/2013	20130302859A1		
EP	ENGINEERED IMINE REDUCTASES AND METHODS FOR THE REDUCTIVE AMINATION OF KETONE AND AMINE COMPOUNDS	Published	13724127.9	12/08/2014	2847214		
CN	ENGINEERED IMINE REDUCTASES AND METHODS FOR THE REDUCTIVE AMINATION OF KETONE AND AMINE COMPOUNDS	Published	2013800370394	01/12/2015	104428313		
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WO	ENGINEERED TRANSAMINASE POLYPEPTIDES FOR INDUSTRIAL BIOCATALYSIS	Published	PCT/US2014/018005	02/24/2014	WO2014/133960		
US	ENGINEERED IMINE REDUCTASES AND METHODS FOR THE REDUCTIVE AMINATION OF KETONE AND AMINE COMPOUNDS	Published	14/539690	11/12/2014	20150132807		
WO	ENGINEERED IMINE REDUCTASES AND METHODS FOR THE REDUCTIVE AMINATION OF KETONE AND AMINE COMPOUNDS	Published	PCT/US2014/065259	11/12/2014	WO2015/073555		
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IN	IMPROVED KETOREDUCTASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	514/CHENP/2006	08/11/2004		239120	03/09/2010

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

SG	IMPROVED KETOREDUCTASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	200600860-1	08/11/2004		119648	12/31/2008
US	KETOREDUCTASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	10/916,311	08/11/2004	20060195947A1	7629157	12/08/2009
US	KETOREDUCTASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	12/576,195	10/08/2009	20100028972A1	7833767	11/16/2010
EP	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	3785237.3	08/11/2003	1537222	1537222	03/09/2011
US	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	11/502,745	08/10/2006	20070161094A1	7807423	10/05/2010
US	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES AND VICINAL CYANO, HYDROXY SUBSTITUTED CARBOXYLIC ACID ESTERS	Granted	10/782,258	02/18/2004	US 2004-0214297 A1	7132267	11/07/2006
US	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	10/639,159	08/11/2003	US 2004-0137585 A1	7125693	10/24/2006
IN	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYR1C ACID DERIVATIVES	Granted	158/CHENP/2005	08/11/2003		220964	06/11/2008
SG	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	2005007634-8	08/11/2003		109875	08/31/2007
SG	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-RYDROXYBUTYRIC ACID DERIVATIVES AND VICINAL CYANO, HYDROXY SUBSTITUTED CARBOXYLIC ACID ESTERS	Granted	200600847-8	02/18/2004		119636	02/29/2008
JP	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	2004-528083	08/11/2003	2005-535330	4578240	09/03/2010
HK	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	5108017.7	08/11/2003		HK1074059	09/09/2011

FR	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	3785237.3	08/11/2003	1537222	1537222	03/09/2011
DE	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	3785237.3	08/11/2003	1537222	1537222	03/09/2011
IE	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	3785237.3	08/11/2003	1537222	1537222	03/09/2011
NL	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	3785237.3	08/11/2003	1537222	1537222	03/09/2011
GB	ENZYMATIC PROCESSES FOR THE PRODUCTION OF 4-SUBSTITUTED 3-HYDROXYBUTYRIC ACID DERIVATIVES	Granted	3785237.3	08/11/2003	1537222	1537222	03/09/2011
SG	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	200600859-3	08/11/2004		119647	02/27/2009
US	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	12/790,784	05/28/2010	US20100304459	7939309	05/10/2011
IN	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	521/CHENP/2006	08/11/2004		239922	04/09/2010
AU	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	2004288134	08/11/2004		2004288134	04/01/2010
US	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	10/915,927	08/11/2004	20050095619A1	7816111	10/19/2010
EP	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	4816807.4	08/11/2004	1660648	1660648	10/09/2013
FR	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	4816807.4	08/11/2004	1660648	1660648	10/09/2013
DE	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	4816807.4	08/11/2004	1660648	602004043547.3	10/09/2013

IE	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	4816807.4	08/11/2004	1660648	1660648	10/09/2013
NL	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	4816807.4	08/11/2004	1660648	1660648	10/09/2013
CH	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	4816807.4	08/11/2004	1660648	1660648	10/09/2013
GB	IMPROVED GLUCOSE DEHYDROGENASE POLYPEPTIDES AND RELATED POLYNUCLEOTIDES	Granted	4816807.4	08/11/2004	1660648	1660648	10/09/2013
US	HALOHYDRIN DEHALOGENASES AND RELATED POLYNUCLEOTIDES	Granted	12/573,824	10/05/2009	US2010-0167345A1	8101395	01/24/2012
US	HALOHYDRIN DEHALOGENASES AND RELATED POLYNUCLEOTIDES	Granted	10/917,179	08/11/2004	20050153417A1	7824898	11/02/2010
IN	IMPROVED HALOHYDRIN DEHALOGENASES AND RELATED POLYNUCLEOTIDES	Granted	519/CHENP/2006	08/11/2004		239852	04/06/2010
SG	IMPROVED HALOHYDRIN DEHALOGENASES AND RELATED POLYNUCLEOTIDES	Granted	200808477-4	11/14/2008	148180	148180	01/30/2014
US	IMPROVED HALOHYDRIN DEHALOGENASES AND RELATED POLYNUCLEOTIDES	Granted	11/266,747	11/02/2005	20060099700A1	7588928	09/15/2009
US	IMPROVED HALOHYDRIN DEHALOGENASES AND RELATED POLYNUCLEOTIDES	Granted	11/067,323	02/23/2005	US 2005-0272064 A1	7541171	06/02/2009
US	IMPROVED HALOHYDRIN DEHALOGENASES AND RELATED POLYNUCLEOTIDES	Granted	12/505,374	07/17/2009	20090298125A1	8252554	08/28/2012
US	HALOHYDRIN DEHALOGENASES AND RELATED POLYNUCLEOTIDES	Granted	13/349,514	01/12/2012	US20120208259A1	8535910	09/17/2013
US	ALANINE 2,3-AMINOMUTASES AND RELATED POLYNUCLEOTIDES	Granted	11/919,271	03/20/2009	20100099143A1	7790432	09/07/2010
IN	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Pending	2322/CHENP/2009	10/01/2007			

SG	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Granted	200901677-5	10/01/2010		150849	01/30/2014
EP	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Granted	7843631.8	10/01/2007	2066788	2066788	07/23/2014
CN	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Allowed	200780036841.6	10/01/2007	101528917		
US	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Granted	11/865696	10/01/2007	248539	7879585	02/01/2011
US	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Granted	12/978,022	12/23/2010	US20110195465A1	8273547	09/25/2012
US	POLYNUCLEOTIDES ENCODING KETOREDUCTASES FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Granted	13/571,248	08/09/2012	20130040364	8617864	12/31/2013
FR	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Granted	7843631.8	10/01/2007	2066788	2066788	07/23/2014
DE	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Granted	7843631.8	10/01/2007	2066788	602007037820.6	07/23/2014
GB	COMPOSITIONS AND METHODS FOR PRODUCING STEREOISOMERICALLY PURE STATINS AND SYNTHETIC INTERMEDIATES THEREFOR	Granted	7843631.8	10/01/2007	2066788	2066788	07/23/2014
US	ENZYMATIC CONVERSION OF EPDXIDES	Granted	11/833,933	08/03/2007	US2008/0220485	7695942	04/13/2010

Exhibit 1.29

Codexis Mayflower Patents

Attached.

EXHIBIT 1.29

CODEXIS MAYFLOWER PATENTS							
Country	**Application Title**	**Application Status**	**Application Number**	**Filing Date**	**Publication Number**	**Patent Number**	**Issue Date**
US	EVOLVING CELLULAR DNA UPTAKE BY RECURSIVE SEQUENCE RECOMBINATION	GRANTED	08/792409	02/03/1997		6096548	08/01/2000
US	EVOLVING CELLULAR DNA UPTAKE BY RECURSIVE SEQUENCE RECOMBINATION	GRANTED	09/430927	11/01/1999		6358742	03/19/2002
US	METHOD FOR PRODUCING POLYNUCLEOTIDES WITH DESIRED PROPERTIES	GRANTED	09/333762	06/15/1999		6337186	01/08/2002
US	HIGH THROUGHPUT MASS SPECTROMETRY	GRANTED	09/502,283	02/11/2000		7384387	06/10/2008
US	METHODS OF MAKING CHARACTER STRINGS, POLYNUCLEOTIDES & POLYPEPTIDES HAVING DESIRED CHARACTERISTICS	GRANTED	11/339090	01/24/2006	142950	7620502	11/17/2009
US	METHODS OF MAKING CHARACTER STRINGS, POLYNUCLEOTIDES & POLYPEPTIDES HAVING DESIRED CHARACTERISTICS	GRANTED	11/975638	10/18/2007	50782	7853410	12/14/2010
US	METHODS OF MAKING CHARACTER STRINGS, POLYNUCLEOTIDES & POLYPEPTIDES HAVING DESIRED CHARACTERISTICS	GRANTED	12/557463	09/10/2009	56385	7957912	06/07/2011

CODEXIS MAYFLOWER PATENTS							
US	METHODS OF MAKING CHARACTER STRINGS, POLYNUCLEOTIDES & POLYPEPTIDES HAVING DESIRED CHARACTERISTICS	GRANTED	11/982405	10/31/2007	318795	7904249	03/08/2011
US	METHODS OF MAKING CHARACTER STRINGS, POLYNUCLEOTIDES & POLYPEPTIDES HAVING DESIRED CHARACTERISTICS	GRANTED	09/618579	07/18/2000		7024312	04/04/2006
US	METHODS OF MAKING CHARACTER STRINGS, POLYNUCLEOTIDES & POLYPEPTIDES HAVING DESIRED CHARACTERISTICS	GRANTED	09/539486	03/30/2000		7058515	06/06/2006
US	METHODS OF MAKING CHARACTER STRINGS, POLYNUCLEOTIDES & POLYPEPTIDES HAVING DESIRED CHARACTERISTICS	GRANTED	09/494282	01/18/2000	183934	6917882	07/12/2005
US	METHODS OF MAKING CHARACTER STRINGS, POLYNUCLEOTIDES & POLYPEPTIDES HAVING DESIRED CHARACTERISTICS	GRANTED	11/075231	03/07/2005	191688	7421347	09/02/2008
US	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	09/626929	07/27/2000		6319714	11/20/2001
GB	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	909923.5	01/18/2000	1072010	1072010	04/21/2010
US	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	09/694863	10/23/2000		6521453	02/18/2003
US	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	11/987555	11/30/2007	171668	8029988	10/04/2011
US	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	12/557829	09/11/2009	184627	8058001	11/15/2011

CODEXIS MAYFLOWER PATENTS							
CA	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	2320697	01/18/2000	2320697	2320697	11/18/2014
US	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	09/626595	07/27/2000		6479652	11/12/2002
EP	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	909923.5	01/18/2000	1072010	1072010	04/21/2010
EP	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	ALLOWED	10075153.6	01/18/2000	2253704		
BE	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	909923.5	01/18/2000	1072010	1072010	04/21/2010
DK	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	909923.5	01/18/2000	1072010	1072010	04/21/2010
FR	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	909923.5	01/18/2000	1072010	1072010	04/21/2010
DE	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	909923.5	01/18/2000	1072010	1072010	04/21/2010
NL	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	909923.5	01/18/2000	1072010	1072010	04/21/2010
CH	OLIGONUCLEOTIDE MEDIATED NUCLEIC ACID RECOMBINATION	GRANTED	909923.5	01/18/2000	1072010	1072010	04/21/2010
US	RECOMBINATION OF INSERTION MODIFIED NUCLEIC ACIDS	GRANTED	09/723520	11/27/2000		6413745	07/02/2002
US	RECOMBINATION OF INSERTION MODIFIED NUCLEIC ACIDS	GRANTED	09/723473	11/27/2000		6358740	03/19/2002
US	RECOMBINATION OF INSERTION MODIFIED NUCLEIC ACIDS	GRANTED	09/517933	03/03/2000		6365377	04/02/2002
US	OPTIMIZATION OF CROSSOVER POINTS FOR DIRECTED EVOLUTION	GRANTED	12/557434	09/10/2009	70192	8108150	01/31/2012
US	OPTIMIZATION OF CROSSOVER POINTS FOR DIRECTED EVOLUTION	GRANTED	11/818237	06/12/2007	20397	8224580	07/17/2012

CODEXIS MAYFLOWER PATENTS							
US	OPTIMIZATION OF CROSSOVER POINTS FOR DIRECTED EVOLUTION	GRANTED	10/386903	03/10/2003	198988	7620500	11/17/2009
EP	OPTIMIZATION OF CROSSOVER POINTS FOR DIRECTED EVOLUTION	PUBLISHED	3711540.9	03/10/2003	1488335		
US	INTEGRATED SYSTEMS AND METHODS FOR DIVERSITY GENERATION AND SCREENING	GRANTED	11/677505	02/21/2007	15116	8014961	09/06/2011
US	INTEGRATED SYSTEMS AND METHODS FOR DIVERSITY GENERATION AND SCREENING	GRANTED	10/154936	05/23/2002	54383	7462469	12/09/2008
US	METHODS OF POPULATING DATA STRUCTURES FOR USE IN EVOLUTIONARY SIMULATIONS	GRANTED	12/557746	09/11/2009	241640	8170806	05/01/2012
US	METHODS OF POPULATING DATA STRUCTURES FOR USE IN EVOLUTIONARY SIMULATIONS	GRANTED	11/973805	10/09/2007	40045	7873499	01/18/2011
US	METHODS OF POPULATING DATA STRUCTURES FOR USE IN EVOLUTIONARY SIMULATIONS	GRANTED	11/210239	08/22/2005	47611	7430477	09/30/2008
US	METHODS OF POPULATING DATA STRUCTURES FOR USE IN EVOLUTIONARY SIMULATIONS	GRANTED	09/495668	02/01/2000	32010	6961664	11/01/2005
CA	METHODS OF POPULATING DATA STRUCTURES FOR USE IN EVOLUTIONARY SIMULATIONS	GRANTED	2337949	01/18/2000	2337949	2337949	03/15/2011
US	METHODS OF POPULATING DATA STRUCTURES FOR USE IN EVOLUTIONARY SIMULATIONS	GRANTED	13/434261	03/29/2012	20120252684A1	8589085	11/19/2013
US	METHOD AND SYSTEM USING SYSTEMATICALLY VARIED DATA LIBRARIES	GRANTED	10/225564	08/20/2002		7873477	01/18/2011

CODEXIS MAYFLOWER PATENTS							
US	METHOD AND APPARATUS FOR PREFERREED CODON DETERMINING SIMULATIONS	GRANTED	10/232770	08/30/2002		7702464	04/20/2010
US	METHOD AND APPARATUS FOR PREFERREED CODON DETERMINING SIMULATIONS	GRANTED	13/229228	09/09/2011		8457903	06/04/2013
EP	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181057.0	09/28/2010	2390803	2390803	11/20/2013
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	PUBLISHED	12/979,637	12/28/2010	20110161265		
JP	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	2003-573522	03/03/2003		5319865	07/19/2013
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	11/981577	10/30/2007	133143	7751986	07/06/2010
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	11/706034	02/12/2007	239364	7747393	06/29/2010
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	11/429628	05/05/2006	205003	8849575	09/30/2014
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10/629351	07/29/2003	161796	7747391	06/29/2010
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10/379378	03/03/2003	72245	7783428	08/24/2010
EP	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	5779687.2	06/21/2005	1761879	1761879	08/14/2013

CODEXIS MAYFLOWER PATENTS							
EP	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
EP	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
BE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	5779687.2	06/21/2005	1761879	1761879	08/14/2013
FR	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	5779687.2	06/21/2005	1761879	1761879	08/14/2013
GB	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	5779687.2	06/21/2005	1761879	1761879	08/14/2013
DE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	5779687.2	06/21/2005	1761879	1761879	08/14/2013
DK	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	5779687.2	06/21/2005	1761879	1761879	08/14/2013
BE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181057.0	09/28/2010	2390803	2390803	11/20/2013
GB	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181057.0	09/28/2010	2390803	2390803	11/20/2013
DE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181057.0	09/28/2010	2390803	2390803	11/20/2013
NL	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181057.0	09/28/2010	2390803	2390803	11/20/2013

CODEXIS MAYFLOWER PATENTS							
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	PUBLISHED	14/256692	04/18/2014	2014/0249035		
FR	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181057.0	09/28/2010	2390803	2390803	11/20/2013
CH	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181057.0	09/28/2010	2390803	2390803	11/20/2013
DK	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181057.0	09/28/2010	2390803	2390803	11/20/2013
CH	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	5779687.2	06/21/2005	1761879	1761879	08/14/2013
NL	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	5779687.2	06/21/2005	1761879	1761879	08/14/2013
SE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
DK	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
FR	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
IE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
NL	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014

CODEXIS MAYFLOWER PATENTS							
BE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
DE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	60346889.6	10/15/2014
HU	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
IT	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
CH	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
GB	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	3743748.0	03/03/2003	1493027	1493027	10/15/2014
DK	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
HU	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
IE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
IT	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
CH	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014

CODEXIS MAYFLOWER PATENTS							
GB	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	PUBLISHED	14/536242	11/07/2014	20150065357		
DE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	60347028.9	11/19/2014
BE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
FR	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
NL	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
SE	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	10181000.0	09/28/2010	2278509	2278509	11/19/2014
US	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	GRANTED	11/981578	10/30/2007	132416	8762066	06/24/2014
EP	METHODS, SYSTEMS AND SOFTWARE FOR IDENTIFYING FUNCTIONAL BIOMOLECULES	ALLOWED	10181159.4	09/28/2010	2315145		

Exhibit 1.38

Designated Lab

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 1.60

In-License Agreements

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 1.63

In-Licensed Patents

Attached.

EXHIBIT 1.63

IN-LICENSED PATENTS							
Country	Application Title	Application Status	Application No.	Filing Date	Publication No.	Pat. No.	Issue Date
[***]	[***]	[***]	[***]	[***]	[***]	[***]	[***]
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EXHIBIT 1.63

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CODEXIS CONFIDENTIAL INFORMATION

[***]	[***]	[***]	[***]	[***]		[***]	[***]
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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 1.97

Restricted Enzyme List

Attached.

EXHIBIT 1.97

RESTRICTED ENZYME LIST—Listed by Panel/Kit

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Exhibit 1.103

Technology Transfer Plan

Attached.

Technology Transfer Plan

Establishment of Codexis CodeEvolver® Directed Evolution Technology at Merck

Execution Version

CODEXIS CONFIDENTIAL INFORMATION

1. EXECUTIVE SUMMARY

The scope of this Plan is the full implementation of Codexis' biocatalyst screening and CodeEvolver® directed evolution technology within Merck, Sharp & Dohme Corp. ("MERCK") in order to augment MERCK's capabilities in cost efficient development and manufacture of MERCK Developed APIs. The complete transfer of Codexis Platform Technology to MERCK will be accomplished across the following two Waves:

Wave 1: Transfer of [***] to MERCK.

Wave 2: Enabling MERCK to practice the Platform Technology comprising:

a. Set-up of the Designated Lab; including access to the Codexis Software.
b. [***] in Codexis labs in Redwood City, CA ("RWC") [***]
c. [***] in the Designated Lab [***]
d. Training at Redwood City, CA in [***].

Codexis and MERCK will establish dedicated training Teams to facilitate the Technology Transfer. Codexis Team will include personnel for [***].

Likewise, dedicated MERCK Team will: (a) shadow Codexis Team and then conduct a Technology Transfer Project at MERCK, (b) set up and deploy equipment in MERCK's Designated Lab, and (c) provide general program management support. [***].

2. TECHNOLOGY TRANSFER PROGRAM SCOPE

2.1 WAVE 1: TRANSFER OF CODEXIS SCREENING CAPABILITIES TO MERCK

[***]

[***]

[***]

- **[***]**
    1. [***]
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    3. [***]
    4. [***]
    5. [***]

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2.2 WAVE 2: ENABLING MERCK TO PRACTICE PLATFORM TECHNOLOGY

[***]

[***]

1) [***]

2) [***]

3) [***]

4) [***]

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

[***]

- **[***]**
    1. [***]
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        - [***]
    3. [***]

2. EVOLUTION PROGRAM

See Section 4.1 of Agreement. Evolution Programs must conclude within [***] from the Effective Date but shall not be considered part of Technology Transfer. Completion and/or success of Evolution Programs is not a condition to the Completion of Wave 1 or the Completion of Wave 2.

INDICATIVE GANTT CHART

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

3. Personnel competency requirements

Codexis will provide the following competencies to support successful technology transfer:

- [***]
- [***]
- [***]
- [***]
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APPENDIX I - TRANSFER OF MATERIALS (WAVE 1)

[***]

1) [***]:

A) [***]

Platform	Short Name	# of 96-well Plates per Panel	# of Enzymes per Kit	Format	Quantity Provided
[***]	[***]	[***]	[***]	[***]	[***]
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B) [***]:

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

2) [***]

Platform	Short Name	Format	Number of Enzymes	Quantity Provided
[***]	[***]	[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]
[***]		[***]	[***]	[***]
[***]	[***]	[***]	[***]	[***]

3) [***]

Platform	Short Name	Format
[***]	[***]	[***]
[***]		[***]
[***]		[***]
[***]		[***]

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

APPENDIX II – EQUIPMENT LIST

Principal Equipment
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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

APPENDIX III – CODEXIS SOFTWARE LIST

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

APPENDIX IV- PROTOCOLS AND SOP LIST

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 3.4.2
Limitations on Codexis Mayflower Patents

Merck shall have no right under the Codexis Mayflower Patents with respect to:

(a) the making, having made, using and selling of reagents, instruments and services for the diagnostics and research supply markets, only as follows: (a) clinical and diagnostic tests, including those conducted to identify genetic disease predisposition, genetic or other disease conditions, and infectious or pathogenic agents, as well as those conducted for other medical, agricultural or veterinary purposes; (b) tests for analytical/bioanalytical purposes, including those conducted for biomedical, chemical, or medical research or treatment purposes, for environmental purposes, and for forensic purposes, including paternity, maternity or identity tests; and (c) sequencing and sequence analysis of nucleic acids or other biological polymers for any purposes; but excluding (i) the use of a reagent, other than a nucleic acid array, that specifically binds to selected cells, organs or tissue, and that is sold for medical use in procedures to image selected cells, organs or tissue, which procedure is carried out inside the body of an animal or human, and that requires FDA approval, and (ii) the sale of products and performance of services requiring a license under the In-Licensed Patents, to identify compounds that bind to receptors for use as pharmaceuticals;

(b) any (i) amino acid (including any natural, synthetic, modified or other amino acid analogue) chain that is a human or humanized protein, or any variant, homology, derivative, mutant or fragment thereof, and (ii) any molecule described in subsection (i) that is conjugated or otherwise coupled to any other molecule, in each of cases (i) and (ii) expressly including (iii)(A) any amino acid (including any natural, synthetic, modified or other amino acid analogue) chain that is a cytotoxic T lymphocyte associated antigen 4 or any variant, homolog, derivative, mutant or fragment thereof, and (B) any molecule described in subsection (iii)(A) that is conjugated or otherwise coupled to any other molecule, and (iv)(A) any amino acid (including any natural, synthetic, modified or other amino acid analogue) chain that is a human or animal protein or any variant, homolog, derivative, mutant or fragment of the foregoing, and (B) any molecule described in subsection (iv)(A) that is conjugated or otherwise coupled to any other molecule, and any pharmaceutical products that contain any of the foregoing as an ingredient;

(c) any formulation containing one or more antigens (or a nucleic acid sequence encoding an Antigen) in the form of (a) an infectious agent (e.g., bacteria, viruses, parasite, protozoa) whether live, attenuated or dead, (b) protein(s), (c) nucleic acid(s), (d) cells, spores and vectors (i.e., viruses or virus-like particles, liposomes, beads or other substrates for Antigen presentation), (e) fragments of any of the foregoing, or (f) a combination of any of the preceding, which formulation is administered or is intended to be administered to induce an Antigen-Specific Response in the human or animal recipient to at least one such antigen for the prevention of the onset of, or treatment of, a disease state, symptom or condition in humans or animals caused by an infectious agent; where “Antigen” means a molecule (e.g., protein, nucleic acid, polypeptide, peptide, carbohydrate, glycoprotein, glycolipid or any combination of the foregoing) that is produced naturally by, or is derived in whole or in part from, an infectious agent (e.g., bacteria, viruses, parasite, protozoa) that produces an Antigen-Specific Response to such molecule in a human or animal recipient (but excluding any molecule that is derived from, in whole or in part, any human gene or protein); and “Antigen-Specific Response” means an immune state resulting from the modulation of activity (i.e., an

increase, decrease or qualitatively different activity) or one or more lymphoid cells (e.g., B cells, NK cells, T cells or professional antigen-presenting cells, such as monocytes, macrophages, Langerhans cells, dendritic cells) following the administration of a stimulus, where such immune state is induced in a human or animal recipient to an Antigen that is specifically directed to the subject Antigen;

(d) the development, production and/or sale of any and all polypeptides more than twelve (12) amino acids in length, and the development of organisms and vectors (including without limitation plant vectors and plant hosts) for the expression of such polypeptides, in the areas of (a) processes for textile or garment production, (b) processes for the production of leather, (c) cleaning processes or cleaning products, (d) starch processing, (e) food production processes, (f) animal feed processing, (g) personal care processes, excluding pharmaceutical products and oral, topical and intravaginal medications, (g) the processing of wood, paper, pulp and derived lignin and cellulose, (i) oil drilling, (j) dyestuffs and dyeing processes, (k) electronics industry waste water treatment, (l) detoxification of pesticides, chemical weapons and biological weapons, (m) utilization of industrial waste or co-products to generate energy, compost or industrial raw materials including fermentable substrates for e.g. citric acid production from agricultural waste, (n) polymer production, modification or processing of polymers (tetramers of higher) from monomers (including polymers made by addition of dimers or trimers for reactions proceeding to completion in the same reactor), and the enzymatic modification of chemically synthesized polymers, (o) waste water treatment, sewage sludge treatment or cleanup of contaminated soil, (p) synthesis of fuels including bio-diesel and hydrogen, and (q) bioremediation of water, soil and municipal waste, including without limitation biological waste, sewage and sludge (including without limitation biological waste treatment and cleaning of sewer and drain pipes).

(e) any and all human or humanized granulocyte-colony stimulating factor (G-CSF) protein, or any and all variants, derivatives, mutants or fragments thereof, and any and all pharmaceutical products that contain any of the foregoing.

Exhibit 3.4.4

Third Party Enzyme Supplier(s)

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 4.2

Statement of Work Form

Attached.

STATEMENT OF WORK NO. ____

Codexis, Inc. ("Codexis")
200 Penobscot Dr.
Redwood City, CA 94063

_____("Merck")
_____
_____

This Statement of Work No. (this "Statement of Work"), effective as of _____ (the "Statement of Work Effective Date") is made by and between Merck and Codexis and is subject to the terms and conditions of the Platform Technology Transfer and License Agreement dated as of _____, 2015 ("Platform Technology Transfer and License Agreement"), to which this Statement of Work is attached and incorporated therein.

I. [***]

[***]

[***]

[***]

II. [***]

[***]

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[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

III. [***]

[***]

IV. [***]

[***]

V. [***]

[***]

VI. [***]

[***]

The Parties have executed this Statement of Work by their respective duly authorized representatives on the dates identified below but the Statement of Work shall become effective as of the Statement of Work Effective Date.

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

CODEXIS, INC. _____

By: _____ By: _____

Name: _____ Name: _____

Title: _____ Title: _____

Date: __ Date: _____

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 4.3

Approved Subcontractors

[***]

[***] Certain information in this document has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Exhibit 10.5.1

Press Release

Attached.

Execution Version

CODEXIS®
WE ARE BIOCATALYSIS™

Codexis Announces CodeEvolver Technology Transfer and License Agreement with Merck

Codexis to Receive $5 Million in Upfront Payment

Codexis to Hold Conference Call on [Day/Date] at [xx:xx a.m./p.m.] Eastern Time

REDWOOD CITY, Calif. (August XX, 2015) – Codexis, Inc. (NASDAQ: CDXS), a leading developer of biocatalysts for the pharmaceutical and fine chemical industries, announces the signing of a CodeEvolver® platform technology license agreement with Merck, known as MSD outside the United States and Canada, through a subsidiary. This transaction marks the second CodeEvolver licensing agreement between Codexis and a major pharmaceutical company and advances the technology's business model of multiple sources of revenue.

Under the terms of the agreement, Codexis has granted Merck a non-exclusive license to use Codexis' proprietary CodeEvolver protein engineering platform technology to develop novel enzymes for use in the manufacture of Merck's pharmaceutical products. Upon completion of the technology transfer a Codexis' CodeEvolver protein engineering platform will be located at a Merck research site.

Codexis is eligible to receive up to $18 million over approximately the next 15 to 24 months, $5 million of which will be paid upon the signing of this agreement and an additional $13 million subject to the satisfactory completion of certain technology transfer milestones. Codexis will also be eligible to receive payments of up to maximum of $15 million for each pharmaceutical ingredient (API) using novel enzymes developed by Merck using the CodeEvolver technology and used for commercial manufacturing purposes.

"This licensing transaction builds upon our productive eight-year relationship with Merck and further validates the ability of CodeEvolver to effectively and cost-efficiently improve certain manufacturing processes," stated John Nicols, President and CEO of Codexis. "We view licensing agreements involving our CodeEvolver technology such as this one with Merck as an attractive component of our business model. It allows us to monetize our core technology, while continuing to provide services and supply products to customers under our traditional business model."

Execution Version

“This technology transfer and licensing agreement builds upon our long standing collaboration in biocatalysis with Codexis,” said Rich Tillyer, senior vice president, and head of Global Chemistry, Merck Research Laboratories. “Increased access to the CodeEvolver technology positions Merck to potentially expand upon the use of enzymes in its pharmaceutical manufacturing processes.”

Conference Call

Codexis will hold a conference call on [day/date/time] to discuss this announcement and answer questions. The conference call dial-in numbers are [phone number] for domestic callers and [phone number] for international callers, and passcode [code]. A live webcast of the call will be available on the Investors section of www.codexis.com.

A recording of the call will be available for 48 hours beginning approximately two hours after the completion of the call by dialing [phone number] for domestic callers or [phone number] for international callers. Please use the passcode [code] to access the replay. A webcast replay will be available on the Investors section of www.codexis.com for 30 days, beginning approximately two hours after the completion of the call.

About CodeEvolver® Protein Engineering Platform Technology

CodeEvolver is Codexis’ proprietary protein engineering platform, which enables rapid development of custom-designed enzymes that are highly optimized for efficient manufacturing processes. The CodeEvolver platform is comprised of proprietary methods for the optimization of proteins through the design and generation of diverse genetic libraries, automated screening techniques, algorithms for the interpretation of screening data and predictive modelling. The Codexis CodeEvolver platform technology is covered by more than 150 issued patents and pending patent applications worldwide.

About Codexis, Inc.

Codexis, Inc. is a leading protein engineering company that applies its technology to the development of biocatalysts for commercial manufacture of pharmaceuticals and fine chemicals. Codexis’ proven technology enables implementation of biocatalytic solutions to meet customer needs for rapid, cost-effective and sustainable manufacturing. For more information, see www.codexis.com.

Forward-Looking Statements

This press release contains forward-looking statements relating to Codexis’ expectation that it will receive up to $18 million over approximately the next 15 to 24 months under the agreement, the potential for Codexis to receive product-related payments of up to $15 million for each Merck-developed API that is manufactured using one or more enzymes that have been developed using the CodeEvolver protein engineering platform technology, and the establishment of a protein engineering lab at a designated Merck research site. You should not place undue reliance on these forward-looking statements because

they involve known and unknown risks, uncertainties and other factors that are, in some cases, beyond Codexis' control and that could materially affect actual results. Factors that could materially affect actual results include Codexis' dependence on its collaborators; Codexis' dependence on a limited number of products and customers; potential adverse effects to Codexis' business if its customers' pharmaceutical products are not received well in the markets; Codexis' ability to retain key personnel; Codexis' reliance on customers to provide timely information in order for Codexis to report its financial results in an accurate and timely fashion; Codexis' ability to compete may decline if it loses some of its intellectual property rights; third party claims that Codexis infringes third party intellectual property rights; and Codexis could face increased competition if third parties misappropriate Codexis biocatalysts. Additional factors that could materially affect actual results can be found in Codexis' Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 6, 2015, including under the caption "Risk Factors," and in Codexis' Quarterly Report on Form 10-Q filed with the SEC on May 7, 2015. Codexis expressly disclaims any intent or obligation to update these forward-looking statements, except as required by law.

Contact:

Investors
LHA
Jody Cain, 310-691-7100
jcain@lhai.com

Notch Communications
Kate Whelan, +46 (0)70 238 11 49
Kate.whelan@notchcommunications.co.uk

# # #

Execution Version

Exhibit 31.1

CERTIFICATION

I, John 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 5, 2015

/s/ John Nicols

John Nicols

President and Chief Executive Officer
(principal executive officer)

Exhibit 31.2

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 5, 2015

/s/ Gordon Sangster

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

Exhibit 32.1

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

In connection with the Quarterly Report of Codexis, Inc. (the "Company") on Form 10-Q for the fiscal quarter ended September 30, 2015, as filed with the Securities and Exchange Commission (the "Report"), John 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 5, 2015

/s/ John Nicols

John 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)