CODEXIS INC
Form S-1/A
August 04, 2008
Table of Contents

As filed with the Securities and Exchange Commission on August 4, 2008

Registration No. 333-150224

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 1

TO

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

CODEXIS, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**8731**	**71-0872999**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

200 Penobscot Drive, Redwood City, CA 94063

(650) 421-8100

(Address, including zip code, and telephone number, including area code, of Registrant s principal executive offices)

Alan Shaw, Ph.D.

President and Chief Executive Officer

Codexis, Inc.

200 Penobscot Drive, Redwood City, CA 94063

(650) 421-8100

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ¨

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

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.

Large accelerated filer ¨ Accelerated filer ¨

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee
Common Stock, $0.0001 par value	$100,000,000	$3,930(2)

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933.
(2) Previously paid.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information contained in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED AUGUST 4, 2008

Shares

Codexis, Inc.

Common Stock

Prior to this offering, there has been no public market for our common stock. We anticipate that the initial public offering price will be between $ and $ per share. We have applied to list our common stock on The Nasdaq Global Market under the symbol CDXS.

We are selling shares of our common stock.

The underwriters have an option to purchase a maximum of additional shares from us to cover over-allotments of shares.

Investing in our common stock involves risks. See Risk Factors beginning on page 9.

	Price to Public	Underwriting Discounts and Commissions	Proceeds to Codexis
Per Share	$	$	$
Total	$	$	$

Delivery of the shares of common stock will be made on or about , 2008.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Credit Suisse **Goldman, Sachs & Co.**

Piper Jaffray

RBC Capital Markets

Thomas Weisel Partners LLC

The date of this prospectus is , 2008.

Table of Contents

Table of Contents

TABLE OF CONTENTS

You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information different from that contained in this prospectus. We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front cover of this prospectus, or such other dates as are stated in this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

Dealer Prospectus Delivery Obligation

Until , 2008 (25 days after commencement of this offering), all dealers that buy, sell, or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information you should consider in making your investment decision. You should read this summary together with the more detailed information, including our financial statements and the related notes, elsewhere in this prospectus. You should carefully consider, among other things, the matters discussed in Risk Factors, before making an investment decision. Unless otherwise indicated herein, Codexis, Inc., Codexis, the Company, we, us and our refer to C Inc. and its subsidiaries.

Our Company

We are a leading developer of proprietary biocatalysts that we believe have the potential to revolutionize chemistry-based manufacturing processes across a variety of industries. Our proprietary biocatalysts include existing biocatalysts that we have optimized and new biocatalysts that we have developed using our technology platform. We have focused our biocatalyst development efforts on large and rapidly growing markets, including pharmaceuticals and biofuels. We have used our technology platform to enable biocatalyst-based commercial scale drug manufacturing processes and delivered biocatalysts and drug products to some of the world s leading pharmaceutical companies. In addition to our commercial success in the pharmaceutical industry, we have a research collaboration with Shell to apply our technology platform to the biofuels market. The commercialization of any products that may be developed through the collaborative research agreement will be at Shell s discretion. We are also pursuing funded collaborations in several other bioindustrial markets, including carbon management, water treatment and chemicals.

Biocatalysts are enzymes or microbes that initiate or accelerate chemical reactions. This process, known as biocatalysis, can enable the production of products used in everyday life. Our proprietary technology platform allows us to rapidly evolve and optimize biocatalysts to perform specific and desired chemical reactions for commercial scale industrial applications. We believe we can use our technology platform to improve industrially relevant characteristics of any biocatalyst, enabling manufacturing processes that are faster, less complex, less capital intensive and lower cost than conventional chemistry-based processes. In addition, we believe that our technology platform can enable the production of products that are currently impossible to produce economically at commercial scale.

Our pharmaceutical customers have included Arch Pharmalabs Limited, Bristol-Myers Squibb Co., Dr. Reddy s Laboratories Ltd., Merck & Co., Inc., Pfizer Inc., Ranbaxy Laboratories Limited, Schering-Plough Corporation and Teva Pharmaceutical Industries Ltd. In 2007, after exceeding targets related to enzyme performance under an initial one-year research agreement, we entered into a new, five-year collaborative research agreement with Equilon Enterprises LLC dba Shell Oil Products US, or Shell, to develop biocatalysts for use in producing biofuels from renewable sources of non-food sustainable plant materials, commonly known as cellulosic biomass. In the year ended December 31, 2007, we generated $25.3 million in revenues from various sources including collaborative research and development funding, product sales and government grants.

The Biocatalysis Opportunity Industry Overview

Many industries, from pharmaceuticals to energy to chemicals, use conventional chemical reactions in manufacturing processes. However, conventional chemistry-based manufacturing often requires highly complex, energy-intensive processes that use extreme environments in terms of temperature and pressure, as well as hazardous reagents to effect chemical reactions. These processes often require equipment that is expensive to build and operate, and frequently generate high volumes of waste, some of which is hazardous to health or the environment, that must be treated, contained and disposed.

Biocatalysts can enable superior alternatives to conventional chemistry in industrial applications. For example, biocatalysts can operate at or near room temperature and pressure and therefore can enable significant cost savings by using less complex manufacturing equipment. Biocatalyst-enabled processes can

Table of Contents

produce the same or higher quality products than conventional chemistry-based manufacturing, while reducing the risks associated with extreme manufacturing environments, without generating nearly the same level of waste.

Despite the potentially significant advantages of biocatalysts, naturally occurring biocatalysts have not achieved their full potential in industrial applications. Naturally occurring biocatalysts often require alteration of their composition in order to perform adequately under industrial manufacturing conditions or at productivity levels that would make their use in commercial scale applications economical. Some companies and researchers have tried to improve the performance of naturally occurring biocatalysts or even produce novel biocatalysts using various other methods and technologies, but to date few have had success. Moreover, for certain industrial applications, there are no known naturally occurring biocatalysts that catalyze the relevant reactions.

Our Approach to Biocatalysis

Our proprietary technology platform has the potential to dramatically transform the commercial and industrial application of biocatalysts. Our platform uses advanced biotechnology methods, bioinformatics and years of accumulated know-how to significantly expedite the process of developing customized enzymes and microbes. In the case of enzymes, we start with a diverse set of genes that encode for variations of an enzyme and recombine, or shuffle, these genes to produce new variants of the enzyme. We then evaluate these new variants to identify enzymes that exhibit improved characteristics under conditions that resemble the desired manufacturing process. ProSAR, our bioinformatics software technology, allows us to identify and quantify the potential value of beneficial mutations and distinguish them from detrimental mutations. The genes that code for improved enzyme variants are put back through this process until a highly efficient enzyme is produced that meets or exceeds targeted performance characteristics. This enzyme can then be incorporated into the actual manufacturing process, where it can reduce or eliminate costly chemical-based steps and the resulting wastes. We have also used our technology platform to improve enzymes in engineered microbes to make fermentation products. We also have a complementary technology for directed evolution of microbes, called Whole Genome Shuffling, that allows us to recombine, or shuffle, the entire genome of two or more cells to produce new variants of the microbe. Our biocatalysts can significantly improve the manufacturing of pharmaceuticals, and we believe that our technology platform may enable us to develop biocatalysts for use in producing advanced biofuels and in providing solutions to other important bioindustrial markets.

Our Target Markets and Solutions

Pharmaceuticals

We initially focused our biocatalyst development efforts on the pharmaceutical industry, before expanding our focus to include biofuels and other bioindustrial opportunities. Over the last several years, pharmaceutical companies that develop branded drugs, which we refer to as innovators, have struggled with declining operating margins resulting in large part from patent expirations for their key products. As a result, innovators are increasingly looking for opportunities to improve their operating margins by reducing their manufacturing costs and outsourcing the manufacturing of active pharmaceutical ingredients, or APIs, and components used in the manufacture of APIs, commonly known as intermediates. The rise in patent expirations has also led to rapid growth of the generics industry. Because generics manufacturers compete primarily on price, these companies are also pursuing opportunities that reduce their manufacturing costs and provide them with access to low cost sources of intermediates and APIs.

Our products and services address the needs of both innovator and generics manufacturers. For example, we have developed four enzymes that enabled significant improvements in the manufacturing process for, and reduced the cost of two key intermediates used in, the production of atorvastatin, which is the API in Lipitor. We supply Pfizer with one of these intermediates, and we supply generic atorvastatin manufacturers with the other intermediate. We are currently developing intermediates or APIs for the generic equivalents of several branded pharmaceutical products including Singulair, Nexium and Crestor. We have also developed tools,

Table of Contents

which we call our Codex Biocatalyst Panels, that allow innovators to screen our biocatalysts across their product pipelines and portfolios to identify desired biocatalytic activity that can then be incorporated into their drug manufacturing processes. In February 2007, Merck became the first customer for this product. Once a useful biocatalyst is identified, either through the use of our Codex Biocatalyst Panels by our customers or our in-house screening services, we can supply that biocatalyst through and to commercial scale, or we can provide further biocatalytic screening and optimization, if needed.

Biofuels

In 2006, we began exploring the application of our technology platform in biofuels. Due to underlying economic, political and environmental concerns surrounding petroleum, the world is seeking renewable alternative fuel solutions. First generation biofuel manufacturers use biocatalysts to produce biofuels such as ethanol and biodiesel at commercial scale. However, these fuels do not provide an optimal solution to the petroleum dependence problem for several reasons. For many of these manufacturers, margins are volatile as costs of key commodity inputs such as corn and natural gas are highly variable, often outpacing changes to ethanol prices. In addition, there are ethical concerns with the diversion of food crops and fertile acreage to fuel production, which has also resulted in higher food and animal feed prices.

We believe that our technology platform may enable the development of biocatalysts that can be used to produce commercially viable non-ethanol biofuel alternatives to petroleum-based fuels from cellulosic biomass. As we work on this long term goal, we also intend to work on the conversion of biomass to sugars, which could also be used for near term opportunities, such as cellulosic ethanol. Shell has the right, but not the obligation, to commercialize any technology that we may develop under the research collaboration. If Shell chooses to commercialize any biofuels products that may be developed through our collaboration, we believe that Shell, which is an affiliate of one of the world s largest distributors of biofuels, has the resources and the infrastructure to commercialize these products on a global scale. We believe that the use of biocatalysts to transform cellulosic biomass into biofuels that have characteristics similar to current petroleum-based gasoline could address the limitations of alcohol-based fuels and could ultimately transform the liquid transportation fuels industry.

Additional Bioindustrial Opportunities

We are pursuing funded collaborations in several other bioindustrial markets, including carbon management, water treatment and chemicals. We believe that our technology platform, together with the knowledge and experience gained from our efforts in the pharmaceutical market and in our biofuels research program, will allow us to capitalize on these opportunities. We will target collaborators that are industry leaders, allowing us to leverage their competitive strengths and resources in pursuit of these opportunities.

Competitive Strengths

Our key competitive strengths are:

Proprietary and Disruptive Technology Platform. Our proprietary platform is potentially disruptive because it addresses the significant limitations of current approaches used to develop biocatalysts and ultimately enables biocatalytic-based processes that have substantial advantages over conventional chemistry. Our technology platform allows us to quickly develop biocatalysts suitable for commercial scale and enables the development of biocatalysts with improved performance characteristics that are rarely present in naturally occurring biocatalysts, and that we believe can enable products currently impossible to produce economically at commercial scale.

Multiple Major Target Markets. We currently use our technology platform to produce biocatalysts that are used at commercial scale in both the generic and innovator pharmaceutical markets. We are working with our collaborator, Shell, to develop biocatalysts for use in producing biofuels from cellulosic biomass sources. We are also pursuing funded collaborations in several other bioindustrial markets, including carbon management, water treatment and chemicals.

Table of Contents

Partnerships with Global Industry Leaders. We believe that our technology platform has been validated through the delivery of drug manufacturing processes or products to numerous leading pharmaceutical companies, including Arch, Merck, Pfizer and Schering-Plough. In biofuels, after an initial one-year research agreement in which we exceeded targets related to enzyme performance, we entered into a new, five-year research collaboration with Shell in 2007.

Capital-Efficient Business Model. We have adopted a business model that leverages our collaborators engineering, manufacturing and commercial expertise, their distribution infrastructure and their ability to fund commercial scale production facilities. If our collaborators choose to utilize our technology to commercialize new products, we believe that this capital-efficient business model will allow us to expand into new markets without having to finance or operate large industrial facilities. During the years ended 2005, 2006 and 2007, we incurred net losses of $11.6 million, $18.7 million and $39.0 million, respectively. We believe that, without our capital-efficient business model, these losses would have been greater.

Diversified and Visible Revenue Base. Our 2007 revenues were derived from the innovator and generic pharmaceuticals and biofuels markets, and consisted primarily of collaborative research and development funding, product sales and government grants. Revenues from our expected sales of generic intermediates and APIs, as well as the revenues that we expect to recognize from our five-year biofuels collaborative research agreement with Shell, should provide a high degree of visibility into our aggregate revenues for the foreseeable future.

Strategy

Our objective is to be the leading provider of optimized biocatalytic solutions across a wide range of industries. Key elements of our strategy are as follows:

Expand into new bioindustrial markets. We believe that we can deploy our technology platform to transform manufacturing processes throughout various bioindustrial markets. We have a research collaboration with Shell to develop biocatalysts for use in producing commercially viable fuels from cellulosic biomass. We intend to leverage our intellectual property developed under this research collaboration to pursue other funded collaborations in non-fuel bioindustrial markets, including carbon management, water treatment and chemicals.

Continue growing our pharmaceutical business. We plan to launch several new intermediates and APIs for the generic equivalents of branded pharmaceutical products, including Singulair, Nexium and Crestor, beginning in late 2008. We will also continue to aggressively market our Codex Biocatalyst Panels to pharmaceutical companies to demonstrate the capabilities of our technology platform in an effort to integrate our products and services earlier and more deeply into drug development and manufacturing processes.

Enter into additional strategic collaborations. We have grown our business by collaborating with market leaders that have funded the development of and application of our technology platform in the pharmaceutical and biofuels markets. We are pursuing additional collaborations that will allow us to continue to leverage our collaborators competitive strengths and financial resources in our target markets.

Continue enhancing our technology platform. We intend to continue to advance our technology platform by expanding our capabilities in microbe development and by increasing the quality of our biocatalyst libraries. Improvements in either of these areas can be applied to the development of new products in our current and target markets.

Further develop our supply chain. We will continue to evaluate whether to invest in our own manufacturing capabilities or to establish long term supply contracts with additional contract manufacturers. We may also opportunistically seek to secure specialty manufacturing assets and

Table of Contents

expand existing relationships for the supply of our enzymes and key pharmaceutical APIs and intermediates.

Expand our business through acquisition of new technologies, products or businesses. We will continue to evaluate opportunities to acquire or license new technologies, products or businesses that complement or expand our capabilities. We may pursue licensing and acquisition opportunities in the carbon management, water treatment and chemical markets as we seek to expand into these markets.

Corporate Information

We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc. In March 2002, we licensed from Maxygen our core enabling technology, which comprises advanced biotechnology methods, bioinformatics and years of accumulated know-how which we use to significantly expedite the process of developing customized enzymes and microbes. In March 2002, we also commenced operations, and in September 2002, we raised our first outside funding from venture capital investors. As of March 31, 2008, Maxygen held approximately 25% of our outstanding common stock, calculated on an as-converted basis. Our principal executive offices are located at 200 Penobscot Drive, Redwood City, CA 94063, and our telephone number is (650) 421-8100. Our website address is www.codexis.com. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be part of this prospectus.

Our logo, Codexis, Codex, Codex Biocatalyst Panel, Bringing Life to Chemistry and other trademarks or service marks of Codexis, Inc. appearing in this prospectus are the property of Codexis, Inc. This prospectus contains additional trade names, trademarks and service marks of other companies. We do not intend our use or display of other companies trade names, trademarks or service marks to imply relationships with, or endorsement or sponsorship of us by, these other companies.

Table of Contents

The Offering

Common stock offered to the public	shares (or shares if the underwriters exercise their over-allotment option in full).
Common stock to be outstanding after this offering	shares (or shares if the underwriters exercise their over-allotment option in full).
Proposed Nasdaq Global Market symbol	CDXS
Use of proceeds	We intend to use the net proceeds from this offering for working capital and other general corporate purposes, including the costs associated with being a public company and improving our internal control over financial reporting. We may also use a portion of the net proceeds to acquire other businesses, products or technologies, including those that would enable us to seek new markets for our existing products, develop new products or increase our ability to manufacture and produce our biocatalysts. However, we do not have agreements or commitments for any specific acquisitions at this time. Please see Use of Proceeds.
Risk factors	See Risk Factors elsewhere in this prospectus for a discussion of factors you should carefully consider before deciding to invest in our common stock.

The number of shares of common stock to be outstanding after this offering is based on 35,805,720 shares outstanding as of March 31, 2008 and excludes:

- 9,820,074 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2008 at a weighted average exercise price of $2.49 per share;
- 491,513 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2008 at a weighted average exercise price of $3.95 per share; and
- shares of common stock reserved for issuance under our 2008 Incentive Award Plan, which will become effective in connection with the consummation of this offering (plus an additional 1,569,360 shares of common stock reserved for future grant or issuance under our 2002 Stock Plan as of March 31, 2008, which shares will be added to the shares to be reserved under our 2008 Incentive Award Plan upon the effectiveness of the 2008 Incentive Award Plan).

Except as otherwise indicated, all information in this prospectus assumes:

- the conversion of all of our outstanding shares of preferred stock into 32,330,100 shares of common stock in connection with the consummation of this offering and the related conversion of all outstanding preferred stock warrants to common stock warrants;
- no exercise of the underwriters over-allotment option; and

the filing of our amended and restated certificate of incorporation, which will occur in connection with the consummation of this offering.

We refer to our Series A, Series B, Series C, Series D and Series E preferred stock collectively as redeemable convertible preferred stock for financial reporting purposes and in the financial tables included in this prospectus, as more fully explained in Note 2 to our consolidated financial statements. In other parts of this prospectus, we refer to our Series A, Series B, Series C, Series D and Series E preferred stock collectively as preferred stock.

Table of Contents

Summary Consolidated Financial Data

The following table sets forth a summary of our historical consolidated financial data for the periods ended or as of the dates indicated. You should read this table together with our consolidated financial statements and the accompanying notes, Selected Consolidated Financial Data and Management s Discussion and Analysis of Financial Condition and Results of Operations appearing elsewhere in this prospectus. The summary consolidated financial data in this section is not intended to replace our consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

The following table also sets forth summary unaudited pro forma and pro forma as adjusted consolidated financial data, which gives effect to the transactions described in the footnotes to the table. The unaudited pro forma and pro forma as adjusted consolidated financial data is presented for informational purposes only and does not purport to represent what our consolidated results of operations or financial position actually would have been had the transactions reflected occurred on the dates indicated or to project our financial condition as of any future date or results of operations for any future period.

	Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Revenues:					
Product	$ 2,265	$ 2,544	$ 11,418	$ 1,456	$ 3,545
Related party collaborative research and development		863	8,481	1,289	3,881
Collaborative research and development	9,363	8,403	4,733	1,882	865
Government grants	156	317	701	77	83
Total revenues	11,784	12,127	25,333	4,704	8,374
Cost and operating expenses:					
Cost of product revenues	2,233	1,806	8,319	1,351	2,887
Research and development	12,839	17,257	35,644	4,763	9,855
Selling, general and administrative	7,891	11,880	19,713	4,036	8,738
Total cost and operating expenses	22,963	30,943	63,676	10,150	21,480
Loss from operations	(11,179)	(18,816)	(38,343)	(5,446)	(13,106)
Interest income	245	742	1,491	368	761
Interest expense and other	(413)	(724)	(2,533)	32	(1,466)
Loss before provision (benefit) for income taxes	(11,347)	(18,798)	(39,385)	(5,046)	(13,811)
Provision (benefit) for income taxes	243	(127)	(408)	50	98
Net loss	$ (11,590)	$ (18,671)	$ (38,977)	$ (5,096)	$ (13,909)
Net loss per share of common stock, basic and diluted(1)	$ (7.69)	$ (10.99)	$ (15.53)	$ (2.72)	$ (4.10)
Shares used in computing net loss per share of common stock, basic and diluted(1)	1,508	1,699	2,510	1,873	3,395
Pro forma net loss per share of common stock, basic and diluted (unaudited)(1)			$ (1.29)		$ (0.37)
Shares used in computing the pro forma net loss per share of common stock, basic and diluted (unaudited)(1)			29,116		35,725

(1) Please see Note 2 of our consolidated financial statements appearing elsewhere in this prospectus for an explanation of the method used to calculate basic and diluted net loss per share of common stock, the pro forma basic and diluted net loss per share of common stock and the number of shares used in the computation of the per share amounts.

Table of Contents

	March 31, 2008		
	Actual	Pro Forma(1) (unaudited)	Pro Forma As Adjusted(2)(3) (unaudited)
	(in thousands)		
Consolidated Balance Sheet Data:			
Cash, cash equivalents and marketable securities	$ 64,912	$ 64,912	
Working capital	42,404	44,664	
Total assets	95,197	95,197	
Preferred stock warrant liability	2,260		
Current and long-term financing obligations	16,889	16,889	
Redeemable convertible preferred stock	132,746		
Stockholders (deficit) equity	(100,139)	34,867	

(1) The pro forma data gives effect to (i) conversion of all of our outstanding shares of redeemable convertible preferred stock into shares of common stock, and (ii) conversion of all of our warrants for redeemable convertible preferred stock into warrants for common stock and the related reclassification of preferred stock warrant liability to stockholders equity upon the completion of this offering.

(2) The pro forma as adjusted balance sheet data gives effect to the sale of shares of common stock in this offering at the initial public offering price of $ per share, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) Each $1.00 increase or decrease in the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus) would increase or decrease, as applicable, our cash, cash equivalents and marketable securities, working capital, total assets and stockholders deficit by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors, as well as the other information in this prospectus, before deciding whether to invest in shares of our common stock. The occurrence of any of the events described below could harm our business, financial condition, results of operations and growth prospects. In such an event, the trading price of our common stock may decline and you may lose all or part of your investment.

Risks Relating to Our Business

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

Our company has been in existence since 2002. Our operations to date have been primarily limited to organizing and staffing our company, developing our technology platform and establishing arrangements with customers, contract manufacturers and collaborators. Consequently, any assessments of our current business and predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history. We have encountered and will continue to encounter risks and difficulties frequently experienced by growing companies in rapidly changing industries. If we do not address these risks successfully, our business will be harmed.

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

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

- our ability to achieve or maintain profitability;
- our ability to manage our growth;
- our ability to remediate a material weakness and implement effective internal controls;
- actions that could cause us to lose our licenses from Maxygen;
- our ability to maintain rights we have under our agreement with Maxygen;
- our relationships with collaborators;
- our dependence on key customers;
- our dependence on a limited number of contract manufacturers of our biocatalysts and suppliers for our pharmaceutical intermediates;
- our ability to develop and successfully commercialize products for the pharmaceuticals market;

our ability to commercialize our technology in the biofuels and other bioindustrial markets;

our ability to develop or obtain commercial scale expression systems for cellulases;

risks associated with the international aspects of our business;

potential issues related to our ability to accurately report our financial results in a timely manner;

our dependence on and the need to attract and retain key personnel, including management;

our ability to prevent the theft or misappropriation of our biocatalysts, the genes that code for our biocatalysts, know-how or technologies;

Table of Contents

our ability to obtain, protect and enforce our intellectual property rights;

our reliance on third parties to enforce patents for which we hold a license;

potential advantages that our competitors may have in securing funding or developing products; and

potential product liability claims, including claims relating to our use of hazardous materials.

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

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

We have incurred net losses since our inception, including losses of $11.6 million, $18.7 million and $39.0 million in 2005, 2006 and 2007, respectively. As of March 31, 2008, we had an accumulated deficit of $108.1 million. We expect to incur losses and negative cash flow from operating activities for the next several years. To date, we have derived a substantial portion of our revenues from research and development agreements with our collaborators and expect to derive a substantial portion of our revenue from these sources for at least the next several years. If we are unable to extend our existing agreements or enter into new agreements upon the expiration or termination of our existing agreements, our revenues could be adversely affected. In addition, some of our collaboration agreements provide for milestone payments and future royalty payments, the payment of which are uncertain as they are dependent on our and our collaborators abilities and willingness to successfully develop and commercialize products. We expect to spend significant amounts to fund the development of additional pharmaceutical and potential bioindustrial products, including biofuels. As a result, we expect that our operating expenses will exceed revenues for the next several years and we do not expect to achieve profitability during that period, if ever. If we fail to achieve profitability, or if the time required to achieve profitability is longer than we anticipate, we may not be able to continue our business. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

If our existing collaboration agreements expire or are terminated, our revenues could be adversely affected.

Our existing collaboration agreements generally have fixed terms and may be terminated under certain conditions. Accordingly, our ability to derive revenue from collaborations following the expiration or termination of these arrangements is uncertain, and will depend in large part on our ability to either extend existing collaborations or enter into new collaborative arrangements. Our ability to do so will, in turn, be largely dependent on our ability to address the needs of current and potential future collaborators.

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

Our business has grown rapidly and we expect this growth to continue. Overall, we have grown from approximately 40 employees at the end of 2002 to approximately 253 employees as of March 31, 2008. Currently we are working simultaneously on multiple projects targeting several markets. Furthermore, we are conducting our business across several countries, including activities in the United States, Singapore, Hungary, Germany and India. These diversified, global operations place increased demands on our limited resources and require us to substantially expand the capabilities of our administrative and operational resources and to attract, train, manage and retain qualified management, technicians, scientists and other personnel. As our operations expand domestically and internationally, we will need to continue to manage multiple locations and additional relationships with various customers, collaborators, suppliers and other third parties. Our ability to manage our operations, growth, and various projects effectively will require us to make additional investment in our infrastructure to continue to improve our operational, financial and management controls and our reporting systems and procedures and to attract and retain sufficient numbers of talented employees, which we may be unable to do. As a result, we may be unable to manage our expenses in the

Table of Contents

future, which may negatively impact our gross margins or operating expenses in any particular quarter. In addition, we may not be able to successfully improve our management information and control systems, including our internal control over financial reporting, to a level necessary to manage our growth and to remediate an existing material weakness in our internal control, and we may discover additional deficiencies in existing systems and controls that we may not be able to remediate in an efficient or timely manner.

We and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. If we fail to remediate this material weakness or are unable to maintain effective internal control over financial reporting in the future, the accuracy and timeliness of our financial reporting may be adversely affected.

In connection with the audit of our consolidated financial statements for 2005, 2006 and 2007, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. The material weakness we identified comprises (i) our lack of policies and procedures, with the associated internal controls, to appropriately address complex, non-routine transactions and (ii) the lack of a sufficient number of qualified personnel to timely account for such transactions in accordance with U.S. generally accepted accounting principles. The evidence of this material weakness included: improper revenue recognition for certain complex revenue arrangements; incorrect application of accounting standards for, and untimely communication of information relating to, certain stock option grants; the failure to identify pre-existing accounting issues and control deficiencies at two acquired companies and the incorrect assessment of fair value of certain acquired tangible assets; the improper recording of cumulative foreign currency translation adjustments, resulting in part from our selection of the incorrect functional currency for a foreign subsidiary; and the lack of effective inventory management processes, primarily relating to the segregation of research and development materials from commercial inventories. The material weakness resulted in the recording of numerous audit adjustments, and significantly delayed our financial statement close process, for the three-year period ended December 31, 2007 and the three-month period ended March 31, 2008.

We have not yet been able to remediate this material weakness. However, we plan to take significant steps intended to address the underlying causes of the material weakness in the immediate future, primarily through the hiring of additional accounting and finance personnel with technical accounting and financial reporting experience, and the development and implementation of formal policies, improved processes and documented procedures. We do not know the specific timeframe needed to remediate all of the control deficiencies underlying this material weakness. In addition, we expect to incur significant incremental costs associated with this remediation, primarily due to the hiring of additional finance and accounting personnel, the retention of third-party experts and contractors, and the procurement, implementation and validation of robust accounting and financial reporting systems. If we fail to enhance our internal controls to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act of 2002, we may be unable to accurately report our financial results, or report them within the timeframes required by law or exchange regulations. We cannot assure you that we will be able to remediate this material weakness in a timely manner, if at all, or that in the future additional material weaknesses or significant deficiencies will not exist or otherwise be discovered, a risk that is significantly increased in light of the complexity of our business and multinational operations, and the emerging need for complex inter-subsidiary transactions. If our efforts to remediate the weakness identified are not successful or if other deficiencies occur, our ability to accurately and timely report our financial position, results of operations or cash flows could be impaired, which could result in late filings of our annual and quarterly reports under the Exchange Act, restatements of our consolidated financial statements, a decline in our stock price, suspension or delisting of our common stock by The Nasdaq Global Market, or other material effects on our business, reputation, results of operations, financial condition or liquidity.

Table of Contents

If we lose our licenses from Maxygen, we may be unable to continue our business.

We have licensed our core enabling intellectual property rights and technology from Maxygen, Inc., or Maxygen, under our March 2002 license agreement with Maxygen, which was subsequently amended in September 2002, October 2002, and August 2006. We rely heavily on this technology, which comprises advanced biotechnology methods, bioinformatics and years of accumulated know-how, to develop the optimized biocatalysts that are central to our business. Under the terms of the license agreement, we are obligated, among other things, to pay Maxygen a significant percentage of certain types of consideration we receive in connection with our biofuels research collaboration with Shell. During 2006 and 2007, as a result of consideration received in connection with this collaboration, we were obligated to pay Maxygen $0.6 million and $7.8 million, respectively. Maxygen has the right to terminate our rights under the agreement with respect to fuels, but not with respect to chemicals or pharmaceuticals, if we breach our royalty obligations to Maxygen and do not cure such breach within 60 days after we receive notice. Maxygen also has the right to terminate our license if we breach any third party agreements under which Maxygen sublicensed rights under the agreement, and fail to cure such breach within the time period specified in such third party agreement. Maxygen also has the right to terminate our license with respect to any family of related patent applications if we fail to pay our share of costs for obtaining and maintaining a patent licensed to us by Maxygen more than three times within any three year period. If the agreement were terminated, then we would lose our rights to utilize the technology and intellectual property covered by that agreement to develop, manufacture and commercialize many of our products. This would have a material adverse impact on our financial condition, results of operations and growth prospects and could prevent us from continuing our business.

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

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

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

Table of Contents

our collaborators become less willing to expend their resources on research and development or commercialization efforts due to general market conditions or other circumstances beyond our control; or

consolidation in our target markets limits the number of potential collaborators.

Additionally, our business could be negatively impacted if any of our collaborators or suppliers undergoes a change of control or were to otherwise assign the provisions of any of our agreements. For example, under our license agreement with Shell, Shell may assign the agreement without our consent in connection with a change of control. If Shell or any of our other collaborators were to assign these agreements to a competitor of ours or to a third party who is not willing to work with us on the same terms or commit the same resources as the current collaborator, our business could be harmed.

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

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

A delay or failure in Shell s performance under the collaborative research agreement or license agreement with us would have a material adverse effect on our business and financial condition. We cannot control Shell s performance or the resources it devotes to our programs. For example, although Shell has agreed to fund a specified number of our full-time employee equivalents in the performance of activities under the collaborative research agreement, Shell has the right under various circumstances to decrease the number of our full-time employee equivalents that it supports. Any such reduction would have a material impact on our revenue and business plan for biofuels. Moreover, disputes may arise between us and Shell, which could delay the programs on which we are working or could prevent us from commercially exploiting our technology platform and any developments resulting from the collaborative research agreement. If that were to occur, we may have to use funds, personnel, equipment, facilities and other resources that we have not budgeted to undertake certain activities on our own. Performance issues, program delay or termination or unbudgeted use of our resources may have a material adverse effect on our business and financial condition. Even if we successfully develop commercially viable technologies, our ability to derive revenues from those technologies will be dependent upon Shell s willingness and ability to commercialize them. Disagreements with Shell could also result in expensive arbitration or litigation, which may not be resolved in our favor. Shell could merge with or be acquired by another company or experience financial or other setbacks unrelated to our research collaboration agreement that could adversely affect us.

We have agreed to work exclusively with Shell until November 2012 in the field of converting cellulosic biomass into fermentable sugars that can be converted into fuels as well as the conversion of these sugars into fuels and related products. However, Shell is not required to work exclusively with us, and could develop or pursue alternative technologies that it decides to use for commercialization purposes instead of the technology developed under our collaborative research agreement with Shell. For example, Shell is currently working with Iogen to develop cellulosic ethanol and CHOREN Industries to develop biodiesels, and it recently announced a collaboration with Virent Energy Systems to develop biogasoline. If Shell does not pursue the commercialization of any cellulosic sugars, biofuels or related products that may be developed under our collaborative research agreement, our exclusive arrangement would prevent us from pursuing these opportunities with others and could place us at a significant competitive disadvantage in the biofuels market.

Table of Contents

We cannot guarantee that our relationship with Shell will continue. Shell can terminate its collaborative research agreement with us after November 1, 2009 for any or no reason by providing us with six months notice, and its license agreement with us for any or no reason by providing us with six months notice. Each party also has the right to terminate the license agreement and the collaborative research agreement in the case of an uncured breach by the other party, and to terminate the collaborative research agreement if that party believes the other party has assigned the collaborative research agreement to a direct competitor of the terminating party. If our collaboration with Shell were to fail, we would likely need to find another collaborator to provide the financial assistance and infrastructure necessary for us to develop and commercialize our products and execute our strategy with respect to biofuels. Failure to maintain this relationship would have a material adverse effect on our business, financial condition and prospects.

Our failure to enter into new collaborations in our target markets could prevent us from developing and commercializing many of our products and achieving or sustaining profitability.

In addition to our existing collaborations, we will need to enter into, maintain and manage additional collaborations in our target markets to continue to grow our business. Because we do not currently and may never possess the resources necessary to independently develop and commercialize all of the potential products that may result from our technologies, the growth and success of our business depends on our ability to continue to enter into, and derive additional revenue from, collaboration agreements to develop and commercialize potential products in our various target markets. If we are unable to enter into additional collaboration agreements on terms satisfactory to us, we may not be able to commercialize our existing and potential products, grow our business, or generate sufficient revenue to support our operations.

We are dependent on a limited number of customers.

Our current revenues are derived from a limited number of key customers. For the year ended December 31, 2007, our top five customers accounted for approximately 65% of our revenues, with Shell and Pfizer accounting for approximately 33% and 13%, respectively. For the three months ended March 31, 2008, our top five customers accounted for approximately 70% of our revenues, with Shell accounting for 46% of our revenues. We expect a limited number of customers to continue to account for a significant portion of our revenues for the foreseeable future. This customer concentration increases the risk of quarterly fluctuations in our revenues and operating results. The loss or reduction of business from one or a combination of our significant customers could adversely affect our revenues, financial condition and results of operations.

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

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

We have historically relied on one Italian contract manufacturer, CPC Biotech srl, or CPC, to manufacture substantially all of our commercial enzymes used in our pharmaceutical business. Our pharmaceutical business, therefore, faces risks of difficulties with, and interruptions in, performance by CPC, the occurrence of which could adversely impact the availability, launch and/or sales of our enzymes in the future. We are in the process of qualifying other contract manufacturers, but we do not have agreements or commitments with such contract manufacturers at this time. The failure of CPC or any other manufacturers that we may use to supply manufactured product on a timely basis or at all, or to manufacture our enzymes or other biocatalysts in compliance with our specifications or applicable quality requirements, or to manufacture our enzymes or other biocatalysts in volumes sufficient to meet demand would adversely affect our ability to achieve development milestones under our collaborations or sell our pharmaceutical products, could harm our relationships with our collaborators or customers and could negatively affect our revenues and operating results.

Table of Contents

We do not currently have a long-term supply contract with CPC or any other contract manufacturers, who are under no obligation to manufacture our enzymes and could elect to discontinue the manufacture of our enzymes at any time and without cause. If CPC does not expand its facilities to match our growing demand or if we are unable to contract with other manufacturers on commercially reasonable terms or at all, we will not have enough capacity to meet our current demand projections. If we require additional manufacturing capacity and are unable to obtain it in sufficient quantity, we may not be able to increase our pharmaceutical sales, or we may be required to make very substantial capital investments to build that capacity or to contract with another manufacturer on terms that may be less favorable than the terms we currently have with CPC. If we choose to build our own additional manufacturing capacity, it could take a year or longer before that facility is able to produce commercial volumes of our biocatalysts. In addition, if we contract with other manufacturers, we may experience delays of several months in qualifying them, which could harm our relationships with our collaborators or customers and could negatively affect our revenues or operating results.

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

We are primarily dependent on contract manufacturers to manufacture our pharmaceutical products.

We currently rely on a small number of collaborators and contract manufacturers to manufacture our pharmaceutical intermediates. For example, our collaborator Arch Pharmalabs Limited, or Arch, supplies us and our customers with intermediates manufactured using our proprietary biocatalysts.

Our pharmaceutical business faces risks of difficulties with, and interruptions in, performance by Arch, the occurrence of which could adversely impact the availability, launch and/or sales of our products in the future. The failure of Arch to supply intermediates on a timely basis or at all, or to manufacture our products in compliance with our specifications or applicable quality requirements, or to manufacture the product in volumes sufficient to meet demand would adversely affect our ability to commercialize our pharmaceutical products and could negatively affect our revenues and operating results. If Arch does not expand its facilities to match our growing demand, or experiences delays related to the construction of new facilities or the expansion of existing facilities, or if we are unable to contract with other suppliers on commercially reasonable terms or at all, we will not have enough capacity to meet our current demand projections.

We intend to use Arch as the primary supplier for our planned launch of APIs. We will rely on Arch to deliver materials on a timely basis and to comply with applicable regulatory requirements, which may include current Good Manufacturing Practices, or cGMP, and will be dependent on Arch to timely manufacture and deliver sufficient quantities of materials produced under cGMP conditions to enable us to bring products to market in a timely manner. Failure by Arch, or any other contract manufacturer that we rely on to manufacture APIs, to comply with applicable regulations could adversely affect the production and commercialization of API products, which could lead to lost sales. We also rely, to a lesser extent, on other contract manufacturers to supply our pharmaceutical intermediates. The failure of these manufacturers to supply intermediates, or to manufacture products in compliance with our specifications or in sufficient volumes, would have similar negative effects on our revenues and operating results.

Table of Contents

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

We plan to launch several new intermediates and APIs for generic drugs in non-regulated markets, and plan to launch these same products in the regulated markets when the patent protection for each branded product expires. This effort is subject to numerous risks, including the following:

- we may be unable to successfully develop the biocatalysts or manufacturing processes for our intermediates and APIs in a timely and cost-effective manner, if at all;
- we may face difficulties in transferring the developed technologies to Arch, or other contract manufacturers that we may use, for commercial scale production;
- Arch, or other contract manufacturers that we may use, may be unable to scale their manufacturing operations to meet the demand for these products and we may be unable to secure additional manufacturing capacity; and
- generics manufacturers may not be willing to purchase these products from us on favorable terms, if at all.

If one or more of these risks were to materialize, our future business, results of operations and financial condition could be materially adversely affected, and we may be unable to grow our business.

We will face numerous risks relating to any pharmaceutical products that we commercialize.

The commercialization of pharmaceutical intermediates and APIs will expose us to a number of risks, including risks related to product liability litigation, unexpected safety or efficacy concerns, product recalls or withdrawals, changes in laws or regulations relating to the generics industry, negative publicity affecting doctor or patient confidence in the products, and pressure from existing or new competitive products. In addition, our existing and potential innovator customers may view us as competitors and be less willing to do business with us. Moreover, we may be subject to claims alleging that our pharmaceutical products violate the patent or other intellectual property rights of third parties, particularly in connection with any generic products on which the patent covering the branded drug is expiring. These claims could give rise to litigation, which may be costly and time-consuming and could divert management s attention. If we are unsuccessful in our defense of any such claims, we may lose our right to develop or manufacture the products, be required to pay monetary damages, or be required to enter into license agreements and pay substantial royalties. The occurrence of any of these events could have a material adverse effect on our business, results of operation, financial condition and cash flows.

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

Our biocatalysts are used in the manufacture of intermediates and APIs which are then used in the manufacture of final pharmaceutical products by our customers who sell branded drugs, which we refer to as innovators. In order to sell these pharmaceutical products in markets that provide effective patent protection, which we refer to as regulated markets, the products must be approved by the FDA in the United States, and similar regulatory bodies in other regulated markets, prior to commercialization. If these customers experience adverse events in their clinical trials, fail to receive regulatory approval for the drugs, or decide for business or other reasons to discontinue their clinical trials or drug development activities, our revenues will be negatively impacted. The process of producing these drugs, and their generic equivalents, is also subject to regulation by the FDA in the United States and equivalent regulatory bodies in other regulated markets. If any pharmaceutical process that uses our biocatalysts does not receive approval by the appropriate regulatory body or if customers decide not to pursue approval, our business could be adversely affected.

Table of Contents

Our business could be adversely affected if customers do not adopt our processes.

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

Moreover, we believe that the lower manufacturing costs enabled by our technology platform is one of the principal reasons pharmaceutical companies have purchased and will continue to purchase our products and processes. If we are unable to maintain the cost advantages provided by our technology platform, customers may be less willing to acquire our products and processes, which would also negatively impact our revenues.

If we fail to fund research in certain areas, we will lose rights to develop products in those areas using technology licensed from Maxygen.

Under our license agreement with Maxygen, we can extend the scope of our license into several additional areas related to hydrogen, coal and natural gas-based fuels if we meet certain funding thresholds for research in those fields by September 2009. If we do not meet the funding requirements in any of those areas, we would lose our rights to use the licensed technology and intellectual property to develop products or pursue collaborations in that area, which could have a material adverse effect on our ability to grow our business and revenues.

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

Under our license agreement with Maxygen, we obtained exclusive rights to manufacture certain types of chemicals for specified purposes within particular fields. Should we desire to work on any chemicals that are outside the scope of these license rights, we may need to seek additional rights from Maxygen. Maxygen has no obligation to grant such rights to us and may choose not to license such rights to us on favorable terms, if at all. If we are unable to obtain rights to those additional areas, we may not be able to develop products or services or pursue collaborations in those areas, which could limit our ability to expand into the chemicals market.

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

We have received grants funded by various agencies of the federal government and foreign governments to complement and enhance our own resources. Funds available under these grants and contracts must be applied by us toward the research and development programs specified by the granting agencies rather than for all our programs generally. Moreover, revenues from such sources are uncertain because these agreements and grants generally have fixed terms and may be terminated, modified or recovered by the granting agency under certain conditions.

We may also be subject to audits by the government agencies as part of routine audits of our activities funded by our government grants. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards. If any of our costs are found to be allocated improperly, the costs may not be reimbursed and any costs already reimbursed for such

Table of Contents

contract may have to be refunded. Accordingly, an audit could result in an adjustment to our revenue and results of operations.

If we are unable to successfully commercialize our technology in biofuels and other bioindustrial markets, our business may fail to generate sufficient revenue, which would adversely affect our operating results.

We expect to derive a significant portion of our future revenue from the development of bioindustrial products, including biocatalysts for the production of biofuels, that we may develop with our collaborators, and by licensing our proprietary technology. In order to develop a viable biofuels business, we will need to demonstrate that we can develop biocatalysts that can be used to produce biofuels from cellulosic biomass. We do not know when we will be able to demonstrate these capabilities, if at all. If we are able to develop this technology, Shell has the right, but not the obligation, to commercialize this technology. If Shell decides to commercialize our technology, Shell will need to build a demonstration facility, design, finance and construct commercial scale biofuel facilities, and operate commercial scale facilities at costs that are competitive with traditional petroleum-based fuels and other alternative fuel technologies that may be developed.

In addition to biofuels, we expect to invest a significant amount of our future research and development efforts in other bioindustrial areas, including carbon management, water treatment and chemicals. We do not currently have any, and may be unable to secure, funded collaborations in these areas. Even if we are able to enter into collaborations in one or more of these areas, we and our collaborators may be unable to develop commercially viable solutions to these problems. Moreover, because we have limited financial and managerial resources, we will be required to prioritize our application of resources to particular development and commercialization efforts. Any resources we expend on one or more of these efforts could be at the expense of other potentially profitable opportunities. If we focus our efforts and resources on one or more of these areas and they do not lead to commercially viable products, our revenues, financial condition and results of operations could be adversely affected.

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

Production and commercialization of cellulosic biofuel products, and other chemicals derived from cellulose, may not be feasible for a variety of reasons. For example, the development of technology for converting sugar into a commercially viable non-ethanol biofuel alternative to petroleum-based fuels is still in its infancy, and we do not know whether this can be done commercially or at all. To date there has been a lack of significant private and government funding for research and development. Furthermore, there have been very few, if any, well-directed research and development public policies emphasizing investment in the research and development of, and providing incentives for the commercialization of, and transition to, biofuels.

Substantial development of infrastructure will be required for the biofuels industry to grow. Areas requiring expansion include, but are not limited to, additional rail capacity, additional storage facilities for biofuels, increases in truck fleets capable of transporting biofuels within localized markets, expansion of refining and blending facilities to handle biofuels, and growth in the fleet of vehicles capable of using biofuels. Substantial investments required for infrastructure changes and expansions may not be made on a timely basis or at all. Any delay or failure in making the changes to or expansion of infrastructure could harm demand or prices for potential biofuel products and impose additional costs that would hinder the commercialization of biofuels.

Currently, we believe that there are no commercial scale cellulosic biofuel production plants in operation in the United States. There can be no assurance that anyone will be able or willing to develop and operate biofuel production plants at commercial scale or that any biofuel facilities can be profitable.

Table of Contents

Additionally, it is likely that different biocatalysts will be required to produce biofuels and other chemicals from cellulosic biomass. Therefore, different biocatalysts may be needed to be developed for use in different geographic locations to convert the biomass available in each locale into sugars that can be used in the production of these biofuels and chemicals. This will make the development of biofuels and other chemicals derived from cellulose more expensive.

Finally, if existing tax credits, subsidies and other incentives in the United States and foreign markets are phased out or reduced, the overall cost of commercialization of cellulosic ethanol will increase.

We will have to develop or acquire rights to a commercial scale expression system for enzymes that convert cellulosic biomass to sugars.

In order to commercialize cellulosic biofuels, we will need access to an expression system that is capable of producing the necessary biocatalysts at commercial scale. Because we do not currently have access or rights to a commercial expression system for enzymes that convert cellulosic biomass to sugars, we will need to buy, license or develop this type of expression system. We may not be able to license the systems on commercially reasonable terms or at all, particularly since Danisco (which purchased Genencor International) and Novozymes are major sources of expression systems and also potential competitors of ours. If we cannot license the system on commercially reasonable terms, we would be required to attempt to develop such a system on our own, which may be difficult, costly and time consuming, in part because of the broad, existing intellectual property rights owned by Danisco, Novozymes and others. We cannot be certain whether we would be successful in developing such a system.

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

Biofuels are anticipated to be marketed as an alternative to petroleum-based fuels. Therefore, if the price of oil falls, any revenues that we generate from biofuel products could decline, and we may be unable to produce products that are a commercially viable alternative to petroleum-based fuels.

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

Our approach to the biofuels and chemical markets may be limited by the scarcity or cost of non-food sustainable biomass sources.

Our approach to the biofuels and chemical markets will be dependent upon the availability and price of the cellulosic biomass which we need to use to produce biofuels and other chemicals derived from cellulose. If the availability of cellulosic biomass decreases or its price increases, this will reduce our potential profit margins, especially if market conditions do not allow us to pass along increased costs to our customers. At certain levels, prices may make these products uneconomical to use and produce.

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

Table of Contents

We face risks associated with our international business.

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

- changes in or interpretations of foreign regulations that may adversely affect our ability to sell our products or repatriate profits to the United States;
- the imposition of tariffs;
- the imposition of limitations on, or increase of, withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;
- the imposition of limitations on genetically-engineered products or processes and the production or sale of those products or processes in foreign countries;
- currency exchange rate fluctuations;
- uncertainties relating to foreign laws and legal proceedings;
- economic or political instability in foreign countries;
- difficulties in staffing and managing foreign operations; and
- the need to comply with a variety of U.S. laws applicable to the conduct of overseas operations, including export control laws and the Foreign Corrupt Practices Act.

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

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

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

- issue additional equity securities which would dilute current stockholders percentage ownership;
- incur substantial debt to fund the acquisitions; or

assume significant liabilities.

Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs, diversion of management s attention from our core businesses, adverse effects on existing business relationships with current and/or prospective collaborators, customers and/or suppliers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. We do not have extensive experience in managing the integration process and we may not be able to successfully integrate any businesses, assets, products, technologies, or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. The integration process could divert management time from focusing on operating our business, result in a decline in employee morale and cause retention issues to arise from changes in compensation, reporting relationships, future prospects or the direction of the business. Acquisitions may also require us to record goodwill and non-amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges, incur amortization expenses related to

Table of Contents

certain intangible assets, and incur large and immediate write-offs and restructuring and other related expenses, all of which could harm our operating results and financial condition. In addition, if we fail in our integration efforts with respect to any of our acquisitions and are unable to efficiently operate as a combined organization, our business and financial condition may be adversely affected.

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

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

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

The loss of any key scientific staff, or the failure to attract or retain other key scientific employees, could prevent us from developing and commercializing our products for our target markets and entering into collaborations or licensing arrangements to execute on our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, particularly in the biofuels area, or due to the competition for, or availability of, personnel with the qualifications or experience necessary for our biofuels business. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our collaborators in a timely fashion or to support our internal research and development programs. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled scientists. Competition for experienced scientists and other technical personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. All of our employees are at-will employees, which means that either the employee or we may terminate their employment at any time.

Our planned activities will require additional expertise in specific industries and areas applicable to the products and processes developed through our technologies or acquired through strategic or other transactions, especially in the new end markets that we seek to penetrate. These activities will require the addition of new personnel, and the development of additional expertise by existing personnel. The inability to acquire these services or to develop this expertise could impair the growth, if any, of our business. Additionally, under our agreements with Shell, we are required to meet certain hiring targets and failure to meet such targets is considered a breach of the agreements, which could give Shell a right to terminate the agreements. Furthermore, we conduct a substantial portion of our generic pharmaceutical business in India

Table of Contents

and believe that to expand our position in the generics market, we will need to employ and retain people who have or can cultivate strong relationships with contract manufacturers and/or customers in India.

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

Our success depends in part on our ability to obtain patents and maintain adequate protection of our intellectual property for our technologies and products and potential products in the United States and other countries. We have adopted a strategy of seeking patent protection in the United States and in foreign countries with respect to certain of the technologies used in or relating to our products and processes. As such, as of July 31, 2008, we owned or had licensed rights to approximately 230 issued patents and approximately 150 pending patent applications in the United States and in various foreign jurisdictions. Of the licensed patents and patent applications, most are owned by Maxygen or the California Institute of Technology and exclusively licensed to us for use in certain fields. As of July 31, 2008, we owned approximately 15 issued patents and approximately 75 pending patent applications in the United States and in various foreign jurisdictions directed to our enabling technologies and to our methods and products used in the production of pharmaceuticals such as atorvastatin, montelukast and azetidinone compounds, and we intend to continue to apply for patents relating to our technologies, methods and products as we deem appropriate.

Numerous patents in our portfolio involve complex legal and factual questions and, therefore, enforceability cannot be predicted with any certainty. Issued patents and patents issuing from pending applications may be challenged, invalidated, or circumvented. Additional uncertainty may result from an inconsistent policy in the United States that has emerged regarding the scope of legal claims allowed in biotechnology patents. Accordingly, we cannot ensure that any of our pending patent applications will result in issued patents, or even if issued, predict the breadth of the claims upheld in our and other companies patents. Given that the degree of future protection for our proprietary rights is uncertain, we cannot ensure that: (i) we were the first to make the inventions covered by each of our pending applications, (ii) we were the first to file patent applications for these inventions, and (iii) the proprietary technologies we develop will be patentable.

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

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

The biotechnology industry is characterized by frequent and extensive litigation regarding patents and other intellectual property rights, and we believe that the various bioindustrial markets will also be characterized by this type of litigation. Many biotechnology companies have employed intellectual property litigation as a way to gain a competitive advantage. Our involvement in litigation, interferences, opposition proceedings or other intellectual property proceedings inside and outside of the United States, to

Table of Contents

defend our intellectual property rights or as a result of alleged infringement of the rights of others, may cause us to spend significant amounts of money. Any potential intellectual property litigation also could force us to do one or more of the following:

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

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

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

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

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

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

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

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

Our core enabling technology is licensed from Maxygen. Under our agreement with Maxygen, Maxygen has the first right to enforce many of the patents that we licensed, particularly those directly related to gene shuffling technology. If Maxygen declines to enforce these patent rights, we can enforce these rights after a delay of up to six months, or Maxygen can deny us the ability to enforce if Maxygen concludes that such

Table of Contents

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

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

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

If we lose key management personnel, it could harm our business.

Our business involves complex, global operations across a variety of markets and requires a management team that is knowledgeable in the many areas in which we operate. The loss of any key members of our management, including our chief executive officer Alan Shaw, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products for our target markets and entering into collaborations or licensing arrangements to execute on our business strategy.

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

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

We face intense competition in the pharmaceuticals market. There are a number of companies who compete with us throughout the various stages of a pharmaceutical product s lifecycle. Many large

Table of Contents

pharmaceutical companies have internal capabilities to develop and manufacture intermediates and APIs. These companies include many of our large innovator and generic pharmaceutical customers, such as Merck, Pfizer and Teva. There are also many large, well-established fine chemical manufacturing companies, such as DSM, BASF and Lonza Group Ltd, that compete to supply pharmaceutical intermediates and APIs to our customers. We also face increasing competition from generic pharmaceutical manufacturers in low cost centers such as India and China.

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

We expect the biofuels industry to be extremely competitive, with competition coming from ethanol producers as well as other providers of alternative and renewable fuels. Significant competitors include companies such as Novozymes, who has partnered with BP p.l.c. to produce biofuels, and Danisco A/S/Genencor, which is marketing cellulases to convert biomass into sugar. DuPont, Iogen Corp., Verenium, Virent Energy Systems, Inc. and Amyris are also attempting to develop non-ethanol biofuels. DuPont has announced plans to develop and market biobutanol in collaboration with BP, and has recently announced a joint venture with Genecor to develop and commercialize a low-cost solution for the production of cellulosic ethanol from non-food sources. In addition, Virent is collaborating with Shell to develop biogasoline directly from sugars. Other potential competitors such as Range Fuels Inc. are focused on developing non-biocatalytic thermochemical processes to convert biomass into fuels. Some or all of these competitors or other competitors, as well as academic, research and government institutions, are developing or may develop technologies for, and are competing or may compete with us in, the production of alternative fuels or biofuels.

We will face competition from a variety of companies focusing on developing biocatalytic routes to chemicals, including DuPont, DSM and Metabolix.

Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to and/or are less expensive than other products on the market. Many of our competitors have substantially greater production, financial, research and development, personnel and marketing resources than we do. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, which could lead to litigation.

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

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

Our future capital requirements may be substantial, particularly as we continue to develop our biocatalysis business and expand our biocatalyst discovery and development process. Although we believe that we have sufficient cash on hand to fund our operations and meet our obligations until we become cash flow positive, our current plans and assumptions may change and our need for additional capital will

Table of Contents

depend on many factors, including the financial success of our pharmaceutical business, whether we are successful in obtaining payments from customers, whether we can enter into additional collaborations, the progress and scope of our collaborative and independent research and development projects performed by our customers and collaborators, the effect of any acquisitions of other businesses or technologies that we may make in the future, whether we decide to develop an internal manufacturing capability, and the filing, prosecution and enforcement of patent claims.

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

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

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

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

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

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

Some of our products and processes are genetically engineered or involve the use of genetically engineered products or genetic engineering technologies. If we and/or our collaborators are not able to overcome the ethical, legal, and social concerns relating to genetic engineering, our products and processes may not be accepted. Any of the risks discussed below could result in expenses, delays, or other

Table of Contents

impediments to our programs or the public acceptance and commercialization of products and processes dependent on our technologies or inventions. Our ability to develop and commercialize one or more of our technologies, products, or processes could be limited by the following factors:

- public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and genetically engineered products and processes, which could influence public acceptance of our technologies, products and processes;

- public attitudes regarding, and potential changes to laws governing ownership of genetic material, which could harm our intellectual property rights with respect to our genetic material and discourage collaborators from supporting, developing, or commercializing our products, processes and technologies; and

- governmental reaction to negative publicity concerning genetically modified organisms, which could result in greater government regulation of genetic research and derivative products.

The subject of genetically modified organisms has received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically altered products.

The biocatalysts that we develop have significantly enhanced characteristics compared to those found in naturally occurring enzymes or microbes. While we produce our biocatalysts only for use in a controlled industrial environment, we do not know what effect, if any, would result if our biocatalysts were released into the natural environment. Any adverse effect resulting from such a release could have a material adverse effect on our business and financial condition, and we may have exposure to liability for any resulting harm.

Stringent laws and required government approvals may be time consuming and costly, and could delay our introduction of products, and changes to existing regulations and policies may present technical, regulatory and economic barriers, all of which may significantly reduce demand for biofuels.

In order to achieve and maintain market acceptance, our biofuels business will need to meet a significant number of regulations and standards, including regulations imposed by the U.S. Department of Transportation, the U.S. Environmental Protection Agency, various state agencies and others. As these regulations and standards evolve, and if new regulations or standards are implemented, we and our collaborators may be required to modify our proposed facilities and processes, or develop and support new facilities or processes, and this will increase our costs. Any failure to comply, or delays in compliance, with the various existing and evolving industry regulations and standards could prevent or delay our production of biofuels and the provision of related services could harm our biofuels business.

The market for biofuels is heavily influenced by foreign, federal, state and local government regulations and policies concerning the petroleum industry. For example, in 2007, the U.S. Congress passed an alternative fuels mandate that calls for 9 billion gallons of liquid transportation fuels sold in 2008 to come from alternative sources, including biofuels, a mandate that grows to 36 billion gallons by 2022. In the U.S. and in a number of other countries, these regulations and policies have been modified in the past and may be modified again in the future. Any reduction in mandated requirements for fuel alternatives and additives to gasoline may cause demand for biofuels to decline and deter investment in the research and development of biofuels. Market uncertainty regarding future policies may also affect our ability to develop new biofuels products or to license our technologies to third parties. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our biofuels business, financial condition and operating results. Our other potential bioindustrials products may be subject to additional regulations.

Table of Contents

We use hazardous materials in our business. Any claims relating to improper handling, storage, or disposal of these materials could be time consuming and costly and could adversely affect our business and results of operations.

Our research and development processes involve the controlled use of hazardous materials, including chemical, radioactive, and biological materials. Our operations also produce hazardous waste products. We cannot eliminate entirely the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state, and local laws and regulations govern the use, manufacture, storage, handling, and disposal of these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. In addition, compliance with applicable environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development, or production efforts.

We may be sued for product liability.

The design, development, manufacture and sale of our products involve an inherent risk of product liability claims and the associated adverse publicity. We could also be named in product liability claims that are brought against our customers that use our products, particularly those customers in the pharmaceutical market. Insurance coverage is expensive and may be difficult to obtain, and may not be available in the future on acceptable terms, or at all. Although we currently maintain product liability insurance for our products in amounts we believe to be commercially reasonable, if the coverage limits of these insurance policies are not adequate, a claim brought against us, whether covered by insurance or not, could have a material adverse effect on our business, results of operations, financial condition and cash flows. In addition, this insurance may not provide adequate coverage against potential losses. If claims or losses exceed our liability insurance coverage, we may go out of business.

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

In general, under Section 382 of the Internal Revenue Code, a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change net operating loss carryforwards, or NOLs, to offset future taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this public offering, our ability to utilize NOLs could be further limited by Section 382 of the Internal Revenue Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Internal Revenue Code. The existing NOLs of some of our subsidiaries currently may be subject to limitations arising from ownership changes prior to, or in connection with, their acquisition by us. Furthermore, our ability to utilize NOLs of companies that we may acquire in the future may be subject to limitations. For these reasons, we may not be able to utilize a material portion of the NOLs reflected on our balance sheet, even if we attain profitability.

Risks Relating to this Offering

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

Provisions in our amended and restated certificate of incorporation and our bylaws, both of which will become effective upon the completion of this offering, may delay or prevent an acquisition of us. Among other things, our amended and restated certificate of incorporation and bylaws will provide for a board of directors which is divided into three classes, with staggered three-year terms and will provide that all stockholder action must be effected at a duly called meeting of the stockholders and not by a consent in

Table of Contents

writing, and will further provide that only our board of directors, the chairman of the board of directors, our chief executive officers or president may call a special meeting of the stockholders. These provisions may also frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management team. Furthermore, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits, with some exceptions, stockholders owning in excess of 15% of our outstanding voting stock from merging or combining with us. Finally, our charter documents establish advanced notice requirements for nominations for election to our board of directors and for proposing matters that can be acted upon at stockholder meetings. Although we believe these provisions together provide for an opportunity to receive higher bids by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer to acquire our company may be considered beneficial by some stockholders.

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

When this offering is completed, our officers, directors and existing stockholders who hold at least 5% of our stock will together control approximately % of our outstanding common stock. As of March 31, 2008, Maxygen, Biomedical Sciences Investment Fund Pte Ltd and Shell owned 25%, 14% and 13% of our outstanding common stock, respectively, as calculated on an as-converted basis. If these officers, directors, and principal stockholders or a group of our principal stockholders act together, they will be able to exert a significant degree of influence over our management and affairs and control matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. The interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. For instance, officers, directors, and principal stockholders, acting together, could cause us to enter into transactions or agreements that we would not otherwise consider. Similarly, this concentration of ownership may have the effect of delaying or preventing a change in control of our company otherwise favored by our other stockholders. This concentration of ownership could depress our stock price.

Our share price may be volatile and you may be unable to sell your shares at or above the offering price.

The initial public offering price for our shares will be determined by negotiations between us and representatives of the underwriters and may not be indicative of prices that will prevail in the trading market. The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- our cash and short-term investment position;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors operating results or changes in their growth rate;
- announcements of technological innovations by us, our collaborators or our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- the entry into, modification or termination of collaborative arrangements;
- additions or losses of customers;

29

Table of Contents

additions or departures of key personnel;

competition from existing products or new products that may emerge;

issuance of new or updated research or reports by securities analysts;

fluctuations in the valuation of companies perceived by investors to be comparable to us;

disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;

changes in laws, regulations and policies applicable to our business and products;

announcement or expectation of additional financing efforts;

sales of our common stock by us or our stockholders;

share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;

general market conditions in our industry; and

general economic and market conditions.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock. If the market price of shares of our common stock after this offering does not exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management s attention from other business concerns, which could seriously harm our business.

A significant portion of our total outstanding shares of common stock is restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. After this offering, we will have outstanding shares of common stock. Of these shares, all of the shares offered under this prospectus will be freely tradable without restriction under the federal securities laws unless purchased by our affiliates, and 35,805,720 shares are currently restricted under securities laws or as a result of lock-up agreements but will be able to be resold after the offering as described in the Shares Eligible for Future Sale section of this prospectus. Moreover, after this offering, holders of an aggregate of 33,124,426 shares of our common stock will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. As of March 31, 2008, our three largest stockholders collectively hold 52% of our outstanding common stock, as calculated on an as-converted basis. If one or more of them were to sell a substantial portion of

the shares they hold, it could cause our stock price to decline.

We also intend to register all shares of common stock that we may issue under our 2008 Incentive Award Plan. Once we register these shares, they can be freely sold in the public market upon issuance and once vested, subject to the 180-day lock-up periods under the lock-up agreements described in the Underwriting section of this prospectus.

Table of Contents

No public market for our common stock currently exists and an active trading market may not develop or be sustained following this offering.

Prior to this offering, there has been no public market for our common stock. An active trading market may not develop following the completion of this offering or, if developed, may not be sustained. The lack of an active market may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair market value of your shares. An inactive market may also impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire other companies or technologies by using our shares as consideration.

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

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

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price will be substantially higher than the tangible book value per share of shares of our common stock based on the total value of our tangible assets less our total liabilities immediately following this offering. Therefore, if you purchase shares of our common stock in this offering, you will experience immediate and substantial dilution of approximately $ per share in the price you pay for shares of our common stock as compared to its tangible book value, assuming an initial public offering price of $ per share. To the extent outstanding options to purchase shares of common stock are exercised, there will be further dilution. For further information on this calculation, see Dilution elsewhere in this prospectus.

We have broad discretion in the use of net proceeds from this offering and may not use them effectively.

Although we currently intend to use the net proceeds from this offering in the manner described in Use of Proceeds elsewhere in this prospectus, we will have broad discretion in the application of the net proceeds. Our failure to apply these funds effectively could affect our ability to continue to develop and sell our products and grow our business, which could cause the value of your investment to decline.

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

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

In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, commencing in 2009,

Table of Contents

we must perform system and process evaluation and testing of our internal control over financial reporting to allow management and our independent registered public accounting firm to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. We may not be able to remediate the material weakness in our internal control over financial reporting prior to the time of this testing. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management time on compliance-related issues. We will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we are unable to remediate the material weakness in our internal control over financial reporting in a timely manner, our stock price could decline, and we could face sanctions, delisting or investigations by The Nasdaq Global Market, or other material effects on our business, reputation, results of operations, financial condition or liquidity.

We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment.

We do not anticipate paying cash dividends in the future. As a result, only appreciation of the price of our common stock will provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock.

Table of Contents

FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve risks and uncertainties. The forward-looking statements are contained principally in the sections entitled Prospectus Summary, Risk Factors, Management s Discussion and Analysis of Financial Condition and Results of Operations and Business. These statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. These risks and uncertainties are contained principally in the section entitled Risk Factors.

Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terms such as may, will, should, could, would, expects, plans, anticipates, believes, estimates, projects, predicts, poten those terms, and similar expressions and comparable terminology intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this prospectus and, except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this prospectus.

This prospectus also contains estimates and other information concerning our current and target markets that are based on industry publications, surveys and forecasts, including those generated by IMS Health, Datamonitor and the U.S. Energy Information Association. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to these estimates and information. These industry publications, surveys and forecasts generally indicate that their information has been obtained from sources believed to be reliable. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in Risk Factors. These and other factors could cause actual results to differ materially from those expressed in these publications, surveys and forecasts.

Table of Contents

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $ million from the sale of shares of common stock offered in this offering, based on an assumed initial public offering price of $ per share (the mid-point of the price range set forth on the cover page of this prospectus) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the net proceeds to us from this offering by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters over-allotment option is exercised in full, we estimate that our net proceeds will be approximately $ million.

We currently intend to use the net proceeds of this offering, together with existing cash and cash equivalents, to fund working capital and other general corporate expenditures, including the costs associated with being a public company and improving our internal control over financial reporting. We estimate that we will use approximately $1 million to $3 million to purchase and implement an enterprise resource planning software system and to hire additional personnel to improve our internal control over financial reporting. We may also use a portion of the net proceeds to acquire other businesses, products or technologies, including those that would enable us to seek new markets for our existing products, develop new products or increase our ability to manufacture and produce our biocatalysts. However, we do not have agreements or commitments for any specific acquisitions at this time.

The expected use of net proceeds of this offering represents our current intentions based upon our present plan and business conditions. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. Accordingly, we will have broad discretion in the application of the net proceeds, and investors will be relying on our judgment regarding the application of the proceeds of this offering.

Until we use the net proceeds of this offering, we intend to invest the net proceeds in short-term, interest-bearing, investment-grade securities. We cannot predict whether the proceeds invested will yield a favorable return.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock, and currently do not plan to declare dividends on shares of our common stock in the foreseeable future. We expect to retain our future earnings, if any, for use in the operation and expansion of our business. In addition, in certain circumstances, we are prohibited by various borrowing arrangements from paying cash dividends without the prior written consent of the lenders. Subject to the foregoing, the payment of cash dividends in the future, if any, will be at the discretion of our board of directors and will depend upon such factors as earnings levels, capital requirements, our overall financial condition and any other factors deemed relevant by our board of directors.

Table of Contents

CAPITALIZATION

The following table sets forth our cash, cash equivalents and short-term investments and our capitalization as of March 31, 2008:

- on an actual basis;
- on a pro forma basis to reflect:
  - the filing of a restated certificate of incorporation to authorize shares of common stock and shares of undesignated preferred stock;
  - the conversion of all of our outstanding shares of preferred stock into 32,330,100 shares of common stock and the related conversion of all outstanding preferred stock warrants to common stock warrants;
  - the reclassification of the preferred stock warrant liability to stockholders equity upon the completion of this offering; and
- on a pro forma as adjusted basis to reflect the pro forma adjustments described above and our receipt of the estimated net proceeds from this offering, based on an assumed initial public offering of shares at a price of $ per share (the mid-point of the price range set forth on the cover page of this prospectus) and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read this table together with Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the related notes appearing elsewhere in this prospectus.

	Actual	Pro Forma	Pro Forma As Adjusted
		(unaudited)	
	(in thousands, except share data)		
Cash, cash equivalents and marketable securities	$ 64,912	$ 64,912	$
Long-term debt, net of current portion	$ 11,726	$ 11,726	$
Redeemable convertible preferred stock warrant liabilities	2,260		
Redeemable convertible preferred stock, $0.0001 par value; 33,204,886 shares authorized, 32,269,494 shares issued and outstanding, actual; no shares authorized, no shares issued and outstanding, pro forma; no shares authorized, no shares issued and outstanding, pro forma as adjusted	132,746		
Stockholders equity (deficit):			
Common stock, $0.0001 par value; 62,000,000 shares authorized; 3,475,620 issued and outstanding, actual; 35,805,720 shares issued and outstanding, pro forma shares issued and outstanding, pro forma as adjusted		4	
Additional paid-in-capital	7,025	142,027	
Accumulated other comprehensive income	937	937	

Accumulated deficit	(108,101)	(108,101)	
Total stockholders equity deficit	(100,139)	34,867	
Total capitalization	$ 46,593	$ 46,593	$

Table of Contents

Each $1.00 increase or decrease in the assumed initial public offering price of $ per share (the mid-point of the price range set forth on the cover page of this prospectus) would increase or decrease, as applicable, our cash, cash equivalents and marketable securities, working capital, total assets and stockholders deficit by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The number of shares of common stock shown as issued and outstanding in the table is based on the number of shares of our common stock outstanding as of March 31, 2008 and excludes:

- 9,820,074 shares of common stock issuable upon the exercise of options outstanding as of March 31, 2008 at a weighted average exercise price of $2.49 per share;

- 491,513 shares of common stock issuable upon the exercise of warrants outstanding as of March 31, 2008 at a weighted average exercise price of $3.95 per share; and

- shares of our common stock reserved for future issuance under our 2008 Incentive Award Plan, which will become effective in connection with the consummation of this offering (including 1,569,360 shares of common stock reserved for future grant or issuance under our 2002 Stock Plan, which shares will be added to the shares to be reserved under our 2008 Incentive Award Plan upon the effectiveness of the 2008 Incentive Award Plan).

Table of Contents

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock after this offering.

Our pro forma net tangible book value at March 31, 2008 was $28.5 million, or $0.75 per share of common stock. Pro forma net tangible book value per share represents total tangible assets less total liabilities (which includes the reclassification of preferred stock warrant liability into additional paid-in capital upon the conversion to common stock of preferred stock underlying warrants), divided by the number of outstanding shares of common stock on March 31, 2008, after giving effect to the conversion of all outstanding shares of preferred stock into shares of common stock as if the conversion occurred on March 31, 2008, and assuming the exercise of options to purchase up to 1,840,845 shares of common stock which our officers, directors and beneficial owners of more than 5% of our outstanding common stock have a right to acquire within 60 days of March 31, 2008, at a weighted average exercise price of $1.13. Our pro forma as adjusted net tangible book value at March 31, 2008, after giving effect to the sale of shares of common stock in this offering at an assumed initial public offering price of $ per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses, would have been approximately $ million, or $ per share. This represents an immediate increase in pro forma as adjusted net tangible book value of $ per share to existing stockholders and an immediate dilution of $ per share to new investors, or approximately % of the assumed initial public offering price of $ per share. The following table illustrates this per share dilution:

Assumed initial public offering price per share		$
Pro forma net tangible book value per share at March 31, 2008	$ 0.75	
Increase in pro forma net tangible book value per share attributable to this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors		$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) our pro forma as adjusted net tangible book value by $ million, the pro forma as adjusted net tangible book value per share by $ per share and the dilution in the pro forma net tangible book value to new investors in this offering by $ per share, assuming the number of shares offered by us, as set forth on the cover pages of this prospectus, remains the same and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The following table shows, as of March 31, 2008, the number of shares of common stock purchased from us, the total consideration paid to us and the average price paid per share by existing stockholders and by new investors purchasing common stock in this offering at an assumed initial public offering price of $ per share, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New investors					
Total		100.0%	$	100.0%	$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) total consideration paid by new investors, total consideration paid by all stockholders and the average price per share paid by all stockholders by $, $ and $, respectively,

Table of Contents

assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting the underwriting discount and estimated offering expenses payable by us.

The discussion and tables in this section regarding dilution are based on 37,646,565 shares of common stock issued and outstanding as of March 31, 2008 which reflects (i) the automatic conversion of all of our preferred stock into an aggregate of 32,330,100 shares of our common stock, (ii) includes the 1,840,845 shares of common stock which our officers, directors and beneficial owners of more than 5% of our outstanding common stock have a right to acquire within 60 days of March 31, 2008 and (iii) excludes:

- shares of common stock issuable upon the exercise of 7,979,229 options outstanding at a weighted average exercise price of $2.80 per share;
- shares of common stock issuable upon exercise of 491,513 warrants outstanding at a weighted average exercise price of $3.95 per share; and
- shares of common stock reserved for issuance under our 2008 Incentive Award Plan, which will become effective upon the completion of this offering (plus an additional 1,569,360 shares of common stock reserved for future grant or issuance under our 2002 Stock Plan as of March 31, 2008, which shares will be added to the shares to be reserved under our 2008 Incentive Award Plan upon the effectiveness of the 2008 Incentive Award Plan).

If the underwriters exercise their over-allotment option in full, the following will occur:

- the number of shares of our common stock held by existing stockholders would decrease to approximately % of the total number of shares of our common stock outstanding after this offering; and
- the number of shares of our common stock held by new investors would increase to approximately % of the total number of shares of our common stock outstanding after this offering.

To the extent that outstanding options or warrants are exercised, you will experience further dilution. If all of our outstanding options and warrants were exercised, our pro forma net tangible book value as of March 31, 2008 would have been $52.8 million, or $1.14 per share, and the pro forma, as adjusted net tangible book value after this offering would have been $ million, or $ per share, causing dilution to new investors of $ per share.

In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

Table of Contents

SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read together with our consolidated financial statements and accompanying notes and Management s Discussion and Analysis of Financial Condition and Results of Operations appearing elsewhere in this prospectus. The selected consolidated financial data in this section is not intended to replace our consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

We derived the statements of operations data for 2005, 2006 and 2007 and the balance sheet data as of December 31, 2006 and 2007 from our audited consolidated financial statements appearing elsewhere in this prospectus. The statement of operations data for 2003 and 2004 and the balance sheet data as of December 31, 2003, 2004 and 2005 have been derived from our audited consolidated financial statements not included in this prospectus. The statements of operations data for the three months ended March 31, 2007 and 2008 and the balance sheet data as of March 31, 2008 is derived from our unaudited consolidated financial statements appearing elsewhere in this prospectus.

	Years Ended December 31,					Three Months Ended March 31,	
	2003	2004	2005	2006	2007	2007	2008
						(unaudited)	
	(in thousands, except per share data)						
Consolidated Statements of Operations Data:							
Revenues:							
Product	$	$	$ 2,265	$ 2,544	$ 11,418	$ 1,456	$ 3,545
Related party collaborative research and development				863	8,481	1,289	3,881
Collaborative research and development	8,442	4,873	9,363	8,403	4,733	1,882	865
Government grants			156	317	701	77	83
Total revenues	8,442	4,873	11,784	12,127	25,333	4,704	8,374
Cost and operating expenses:							
Cost of product revenues			2,233	1,806	8,319	1,351	2,887
Research and development	12,658	12,891	12,839	17,257	35,644	4,763	9,855
Selling, general and administrative	3,053	5,187	7,891	11,880	19,713	4,036	8,738
Total cost and operating expenses	15,711	18,078	22,963	30,943	63,676	10,150	21,480
Loss from operations	(7,269)	(13,205)	(11,179)	(18,816)	(38,343)	(5,446)	(13,106)
Interest income	301	240	245	742	1,491	368	761
Interest expense and other		(128)	(413)	(724)	(2,533)	32	(1,466)
Loss before provision (benefit) for income taxes	(6,968)	(13,093)	(11,347)	(18,798)	(39,385)	(5,046)	(13,811)
Provision (benefit) for income taxes			243	(127)	(408)	50	98
Net loss	(6,968)	(13,093)	(11,590)	(18,671)	(38,977)	(5,096)	(13,909)
Accretion of redeemable convertible preferred stock(1)	(1,250)	(1,250)					
Net loss attributable to common stockholders	$ (8,218)	$ (14,343)	$ (11,590)	$ (18,671)	$ (38,977)	$ (5,096)	$ (13,909)
Net loss attributable to common stockholders per share of common stock, basic and diluted(2)	$ (8.22)	$ (13.38)	$ (7.69)	$ (10.99)	$ (15.53)	$ (2.72)	$ (4.10)
Shares used in computing net loss per share of common stock, basic and diluted(2)	1,000	1,072	1,508	1,699	2,510	1,873	3,395
Pro forma net loss per share of common stock, basic and diluted (unaudited)(2)					$ (1.29)		$ (0.37)

Shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)(2)	29,116	35,725

Table of Contents

(1) During 2003 and 2004, we recorded accretion to increase the preferred stock to its redemption value due to the voting majority held by a certain stockholder which could effect a liquidation of the preferred stock, pursuant to EITF Topic D-98. In 2005, the probability of the liquidation of the preferred stock was reduced and accordingly we no longer recorded the related accretion subsequent to December 31, 2004.

(2) Please see Note 2 of our consolidated financial statements appearing elsewhere in this prospectus for an explanation of the method used to calculate basic and diluted net loss per share of common stock, the pro forma basic and diluted net loss per share of common stock and the number of shares used in the computation of the per share amounts.

			December 31,			March 31,
	2003	2004	2005	2006	2007	2008
			(in thousands)			
Consolidated Balance Sheet Data:						
Cash, cash equivalents and marketable securities	$ 11,380	$ 16,734	$ 7,005	$ 32,246	$ 84,070	$ 64,912
Working capital	10,682	12,837	2,781	22,722	58,919	42,404
Total assets	20,298	23,276	21,380	46,659	113,541	95,197
Current and long-term financing obligations		2,306	4,017	4,073	17,407	16,889
Redeemable convertible preferred stock	26,529	27,779	37,750	77,513	132,746	132,746
Total stockholders deficit	(8,665)	(12,984)	(34,774)	(52,766)	(87,468)	(100,139)

Table of Contents

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 our consolidated financial statements and related notes that appear elsewhere in this prospectus. In addition to historical financial information, the following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those discussed below. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this prospectus, particularly in Risk Factors.

Overview

We are a leading developer of proprietary biocatalysts that we believe have the potential to revolutionize chemistry-based manufacturing processes across a variety of industries. Our proprietary biocatalysts include existing biocatalysts that we have optimized and new biocatalysts that we have developed using our technology platform. Biocatalysts are enzymes or microbes that initiate or accelerate chemical reactions. This process, known as biocatalysis, can enable the production of products used in everyday life. Our proprietary technology platform allows us to rapidly evolve and optimize biocatalysts to perform specific and desired chemical reactions for commercial scale industrial applications. We believe we can use our technology platform to improve industrially relevant characteristics of any biocatalyst, enabling manufacturing processes that are faster, less complex, less capital intensive and lower cost than conventional chemistry-based processes. In addition, we believe that our technology platform can enable the production of products that are currently impossible to produce economically at commercial scale.

We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc. In March 2002, we licensed from Maxygen our core enabling technology, which comprises advanced biotechnology methods, bioinformatics and years of accumulated know-how which we use to significantly expedite the process of developing customized enzymes and microbes. In March 2002, we also commenced operations, and from 2002 until 2005, our operations focused on organizing and staffing our company and developing our technology platform. During this period, we funded our activities principally from the proceeds of a venture capital equity financing in 2002 and a strategic equity investment by our collaborator Pfizer, Inc. in 2004. We also relied on borrowings under our financing arrangements and revenues from numerous research and development collaborations, including those with Bristol-Myers Squibb Company, Cargill, Inc., Chevron Corporation, Eli Lilly and Company, Hercules, Inc., Lonza AG, Matrix Pharmaceuticals Inc., Merck & Co., Inc., Novozymes A/S, Pfizer, Rio Tinto Group, Royal DSM N.V., Sandoz International GmbH, and Schering-Plough Corporation. In 2005, we recognized our first revenue from the sales of products. Since 2005, we have continued to generate revenue, to enter into collaborations in the pharmaceuticals market, and began our research collaboration with Equilon Enterprises LLC dba Shell Oil Products US, or Shell, in the biofuels market.

To date, we have generated revenues primarily from collaborative research and development funding, sales of our products and government grants. Our total revenue has grown significantly, rising five-fold over the last four years, and more than doubling over the last two years, from $12.1 million in 2006 to $25.3 million in 2007. In the three months ended March 31, 2008, our total revenue grew to $8.4 million from $4.7 million for the comparable period in 2007, which represents a 78% increase. Most of our revenue since inception has been derived from collaborative research and development arrangements, which accounted for 80%, 76% and 52% of our revenues in 2005, 2006 and 2007, respectively, and 67% and 57% of our revenues in the three months ended March 31, 2007 and 2008, respectively. Our product sales have grown over five-fold over the last three years, from $2.3 million in 2005 to $11.4 million in 2007. Notwithstanding our revenue growth, we have continued to experience significant losses as we have invested heavily in our own product pipeline, research and development capacity for our collaborations, and administrative infrastructure in connection with growth in our business. As of March 31, 2008, we had

an accumulated deficit of $108.1 million. We incurred net losses of $11.6 million, $18.7 million and $39.0 million in 2005, 2006 and 2007, respectively, and net losses of $5.1 million and $13.9 million in the three months ended March 31, 2007 and 2008, respectively. In light of the growth in market acceptance of our products and services to date, we currently intend to increase our investment in research and development and the related expense, such that we do not expect to achieve profitability prior to 2010.

We initially targeted the pharmaceutical industry as the first market for our products and services. In this market, we have historically entered into collaborations, which have involved complex service and intellectual property agreements under which we research and develop optimized biocatalysts for innovators in connection with their drug development efforts. In these collaborations, we typically receive up-front payments, milestone payments, payments based upon the number of full-time employee equivalents, or FTEs, engaged in related research and development activities and licensing fees and royalties.

Our pharmaceutical product offerings include biocatalysts, pharmaceutical intermediates and Codex Biocatalyst Panels. Our pharmaceutical customers incorporate our biocatalysts into the manufacturing processes used to produce their drugs. Our intermediates are complex chemical substances that have been manufactured by, or on behalf of, us using our biocatalysts. Drug manufacturers use intermediates to produce the active pharmaceutical ingredients, or APIs, used in their drugs. We believe that major pharmaceutical manufacturers are increasingly willing to outsource portions of their own internal manufacturing and to purchase intermediates that are difficult or expensive to manufacture. Codex Biocatalyst Panels are plates embedded with genetically diverse variants of our proprietary biocatalysts, which allow our customers to screen our biocatalysts at their facilities and evaluate whether a biocatalyst produces a desired activity that is applicable to a particular pharmaceutical manufacturing process. We view Codex Biocatalyst Panels, which we began selling in 2007, as a way to build early and broad awareness of the power and utility of our technology platform, and we plan to increase our efforts to expand Codex Biocatalyst Panels sales.

Our pharmaceutical service offerings include screening and optimization services. We use our screening services to test our customers pharmaceutical materials against our existing libraries of biocatalysts to determine whether our biocatalysts produce detectible activity. We use our optimization services to optimize desired biocatalysts identified through our screening services and our customers use of Codex Biocatalyst Panels. These services, in turn, can lead to sales of biocatalysts to our pharmaceutical customers.

We provide our biocatalysts, Codex Biocatalyst Panels, screening and optimization services and intermediates to our innovator customers and provide intermediates to our generics customers. We plan to launch several new intermediates and APIs in non-regulated markets for purchase by manufacturers of generic forms of drugs and intend to sell these same intermediates and APIs for use in the regulated markets when the patent protection for each product expires. We sell our products primarily to generics manufacturers through our small direct sales and business development force in the United States, United Kingdom and Germany.

In the biofuels market, we entered into a research agreement with Shell in 2006. The goal of this initial research collaboration was to develop biocatalysts to break down sustainable non-food cellulosic biomass. In connection with this collaboration, we received up-front payments, research and development service payments and a milestone payment.

Based on the success of this initial collaboration, in 2007, we entered into a new, expanded multiyear research collaboration with Shell. We received an up-front fee and are currently receiving FTE payments under this collaboration. This up-front fee is refundable under certain conditions, such as a change in control in which we are acquired by a competitor of Shell. This refundability lapses ratably over a five-year period beginning on November 1, 2007, on a straight-line basis. We are eligible for milestone payments upon the achievement of certain technical goals beginning in 2009, as well as additional milestones in each of the subsequent years of the agreement. We will also be eligible for royalty payments if Shell produces fuel products at commercial scale that are manufactured using our intellectual property or intellectual property that was developed by us and Shell under the research collaboration.

Table of Contents

Under the terms of our license agreement with Maxygen, we are obligated to pay Maxygen a significant portion of certain types of consideration we receive in connection with our biofuels research collaboration with Shell. The actual fees payable to Maxygen will depend on the amount, timing and type of consideration we receive, including payments from the sale of our equity securities and payments in connection with the research and development and/or sale of fuel products made with a biocatalyst developed using the licensed technology. In the case of consideration received from the sale of our equity securities to Shell, we are obligated to pay Maxygen a significant portion of any excess paid above $3.97 per share, the price per share of our Series D preferred stock. With regard to FTE funding, we are only obligated to pay Maxygen to the extent the consideration received exceeds specified amounts which were based on historical FTE rates we charged to our pharmaceutical collaborators. In connection with all consideration received from Shell relating to our biofuels research collaboration, we were obligated to pay Maxygen $0.6 million and $7.8 million in 2006 and 2007, respectively, and $0.1 million in the three months ended March 31, 2008. During 2007, amounts owed to Maxygen in connection with Shell s FTE funding were less than 5% of the total FTE payments we received from Shell.

Our strategy for collaborative arrangements is to retain substantial participation in the future economic value of our technology while receiving current cash payments to offset research and development costs and working capital needs. These agreements are complex and have multiple elements that cover a variety of present and future activities. In addition, certain elements of these agreements are intrinsically difficult to separate and treat as separate units for accounting purposes, especially exclusivity payments. Consequently, we expect to recognize these exclusivity payments over the term of the exclusivity period.

We rely heavily on contract manufacturing organizations, or CMOs, to manufacture our biocatalysts and intermediates at commercial scale. Arch Pharmalabs Limited, or Arch, of Mumbai, India manufactures all of our commercialized drug products for sale to generic API manufacturers. Historically, we have relied upon CPC Biotech, srl, or CPC, of Naples, Italy to provide all of our commercial scale enzyme production for use by our innovator collaborators in their internal manufacturing as well as by us for the manufacture of our own intermediates. We are in the process of qualifying other contract manufacturers, but we do not have agreements or commitments with such contract manufacturers at this time. We have recently established a subsidiary in Hungary to manufacture certain microbes at commercial scale, but that capability will not be fully operational until 2009, at the earliest.

We intend to maintain a capital-efficient business model, so we actively seek CMOs who are willing to invest in capital equipment to manufacture our products at commercial scale. As a result, we are heavily dependent on the availability of manufacturing capacity at, and the reliability of, our CMOs. We also pursue collaborations with industry leaders that allow us to leverage our collaborators engineering, manufacturing and commercial expertise, their distribution infrastructure and their ability to fund commercial-scale production facilities. We believe that, if our collaborators choose to utilize our technology to commercialize new products, this capital-efficient business model will allow us to expand into new markets without having to finance or operate large industrial facilities.

In addition to our organic growth, we have expanded through the acquisition of technologies and of businesses. In February 2005, we acquired Jülich Fine Chemicals GmbH in Jülich, Germany, and have operated it as a wholly-owned subsidiary since then. In July 2007, we acquired BioCatalytics, Inc. in Pasadena, California. Prior to our acquisition of these businesses, both had been engaged in the sale of research enzymes and services for the pharmaceutical and fine chemical industries.

Revenue, Cost of Product Revenues

Revenue

Our revenues comprise collaborative research and development revenues, product revenues and government grants.

Collaborative research and development revenues include license, access and exclusivity fees, FTE payments, milestones, royalties, and optimization and screening fees. We report our collaborative

Table of Contents

research and development revenues under two categories, the first consisting of revenues from related parties who own more than 10% of our outstanding capital stock and the second from all other collaborators. Related party collaborative research and development revenues consisted of revenues from Shell in 2006 and 2007, and for the three months ended March 31, 2008.

Product revenues consist of sales of biocatalysts, intermediates and Codex Biocatalyst Panels.

Government grants consist of payments from government entities. The terms of these grants generally provide us with cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Historically, we have received government grants from Germany and the United States and expect to receive additional grants from other governments in the future.

Cost of Product Revenue

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

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects as well as partner-funded collaborative research and development activities. These costs include license and royalty fees payable to Maxygen for consideration that we receive in connection with our biofuels collaboration, our direct and research-related overhead expenses, which include salaries and other personnel-related expenses, facility costs, supplies, depreciation of facilities, and laboratory equipment, as well as research consultants and the cost of funding research at universities and other research institutions, and are expensed as incurred. License and royalty fees payable to Maxygen may fluctuate depending on the timing and type of consideration received from Shell in connection with our biofuels research collaboration. Costs to acquire technologies that are utilized in research and development and that have no alternative future use are expensed when incurred. Our research and development efforts devoted to our internal product and process development projects increased significantly in 2007 as compared to 2006, from 31 projects in 2006 to 46 in 2007. Our internal research and development projects are typically completed in 12 to 24 months, and generally the costs associated with any single internal project during these periods were not material.

As more fully described in Note 2 of the accompanying financial statements, we do not track fully burdened research and development costs by project. Fully burdened research and development costs include all costs noted above as research and development expenses plus an allocation of certain overhead expenses that were incurred to support the research and development project, such as project accounting and administration. We do not believe that measurement of fully burdened research and development costs would provide meaningful data to our management that would affect operational decisions, so the cost of tracking such data would outweigh any potential benefit.

However, we do estimate, based on FTE efforts, the percentage of research and development efforts (as measured in hours incurred, which approximates costs) undertaken for projects funded by our collaborative partners and government grants and projects funded by us. To approximate research and development expenses by funded category, the number of hours expended in each category has been divided by the total number of hours expended on all categories of research and development with the resulting fractions then multiplied by the total cost of research and development effort, with the products then added to project-specific external costs. In the case where a collaborative partner is sharing the research and development costs, the expenses for that project are allocated proportionately between the collaborative projects funded by third parties and internal projects. We do not have any obligation to repay research and development funds provided by our collaborative partners under any circumstances, including

Table of Contents

in connection with failures to meet milestones or occurrences of negative research outcomes. We believe that presenting our research and development expenses in these categories will provide our investors with meaningful information on how our resources are being used.

The following table presents our approximate research and development expenses by funding category (in thousands):

	Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
Collaborative research and development(1)	$ 5,610	$ 4,150	$ 10,920	$ 740	$ 1,749
Grants	88	25	384	32	4
Internal projects	7,141	13,082	24,340	3,991	8,102
Total research and development expenses	$ 12,839	$ 17,257	$ 35,644	$ 4,763	$ 9,855

(1) Research and development expenses related to collaborative projects funded by third parties are less than the reported revenues due to the amortization of non-refundable up-front payments.

Selling, General and Administrative Expenses

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

Critical Accounting Policies and Estimates

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

The critical accounting policies requiring estimates, assumptions, and judgments that we believe have the most significant impact on our consolidated financial statements are described below.

Revenue Recognition

We follow the revenue recognition criteria outlined in the Securities and Exchange Commission, or SEC, Staff Accounting Bulletin, or SAB, No. 104, *Revenue Recognition in Financial Statements*, and Emerging Issues Task Force, or EITF, Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*, or EITF 00-21. When evaluating multiple element arrangements, we consider whether the components of each arrangement represent separate units of accounting as defined in EITF 00-21. Application of the standard requires subjective determinations and requires management to make judgments about the fair values of each individual element and whether it is separable from other aspects of the contractual relationship. Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer, and whether there is objective and reliable evidence of the fair value of the undelivered items. Consideration received is allocated among the separate units of accounting based on their respective fair values. Applicable revenue recognition criteria are then applied to each of the units.

Table of Contents

Revenue is recognized when the four basic revenue recognition criteria are met: (1) persuasive evidence of an arrangement exists; (2) products have been delivered, transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectibility is reasonably assured.

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

For each source of collaborative research and development revenues, product revenues and grant revenues, we apply the above revenue recognition criteria in the following manner:

Up-front payments received in connection with collaborative research and development agreements, including license fees and exclusivity fees, are deferred upon receipt and recognized as revenue over the periods specified in the agreement.

Revenue related to FTE services is recognized as research services are performed over the related performance periods for each contract. Under these agreements, we are required to perform research and development activities. The payments received under each agreement are not refundable and are based on a contractual reimbursement rate per FTE working on the project. When up-front payments are combined with FTE services in a single unit of accounting, we recognize the up-front payments using the proportionate performance method of revenue recognition based upon the actual amount of research and development labor hours incurred relative to the amount of the total expected labor hours to be incurred by us, up to the amount of cash received. In cases where the planned levels of research services fluctuate substantially over the research term, we are required to make estimates of the total hours required to perform our obligations.

Revenues related to milestones that are determined to be substantive and at risk are generally recognized upon achievement of the incentive milestone event and when collectibility is reasonably assured. Milestone payments are triggered either by the results of our research efforts or by events external to us, such as our collaboration partner achieving a revenue target. Fees associated with milestones for which performance was not at risk at the inception of the arrangement or that are determined not to be substantive are included in a separate unit of accounting within the arrangement, or if the EITF 00-21 criteria to account for each element have not been met, to the single unit of accounting within the arrangement.

Revenues related to royalties based on product sales or cost savings of our customers are recorded as revenue as reported to us by the customer and when collectible. Royalties are generally reported in the quarter following the underlying sales or cost savings realized.

Product revenues are recognized once passage of title and risk of loss has occurred and contractually specified acceptance criteria have been met, provided all other revenue recognition criteria have been met.

Revenues from government grants are recognized in the period during which the related costs are incurred, provided that the conditions under which the government grants were provided have been met and we have only perfunctory obligations outstanding.

Stock-Based Compensation

Prior to January 1, 2006, we accounted for stock-based employee compensation arrangements using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*, or APB 25, and related interpretations, and complied with the disclosure-only provisions of Statement of Financial Accounting Standard, or SFAS, No. 123, *Accounting for Stock-Based*

Table of Contents

Compensation, or SFAS 123, as amended by SFAS No. 148, *Accounting for Stock-Based Compensation, Transition and Disclosure, an amendment to SFAS Statement No. 123*, or SFAS 148. Under APB 25, compensation expense for employees is based on the intrinsic value of the option, determined as the excess, if any, of the fair value of the common stock over the exercise price of the option on the date of grant. Historically, our stock options have been granted with exercise prices at or above the estimated fair value of our common stock on the date of grant. Accordingly, no stock-based employee compensation expense was recorded under APB 25 during 2005.

Effective January 1, 2006, we adopted SFAS No. 123(R), *Share-Based Payment*, or SFAS 123(R), which requires compensation expense related to share-based transactions, including the awarding of employee stock options, to be measured and recognized in the financial statements based on the estimated fair value of the awards granted. SFAS 123(R) revises SFAS 123, as amended, and supersedes APB 25. We adopted SFAS 123(R) using the prospective transition method, as options granted prior to January 1, 2006 were measured using the minimum value method for the pro forma disclosures previously required by SFAS 123. In accordance with the prospective transition method, we continued to account for non-vested employee share-based awards outstanding at the date of adoption using the intrinsic value method in accordance with APB 25. All awards granted, modified or settled after the SFAS 123(R) adoption date have been accounted for using the measurement, recognition and attribution provisions of SFAS 123(R).

The adoption of SFAS 123(R) increased loss before provision for income taxes and net loss for the year ended December 31, 2006 by approximately $32,000 each, and increased net loss per share of common stock by $0.02. We are using the straight-line method to allocate stock-based compensation expense to reporting periods subsequent to the adoption of SFAS 123(R).

We account for stock options issued to non-employees in accordance with the provisions of SFAS 123(R) and EITF Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, or EITF 96-18. In accordance with SFAS 123(R) and EITF 96-18, stock options issued to non-employees are accounted for at their estimated fair value determined using the Black-Scholes option-pricing model. The fair value of the options granted to non-employees is remeasured as they vest, and the resulting increase in value, if any, is recognized as expense during the period the related services are rendered.

Table of Contents

In connection with determining the fair value of warrants to purchase our preferred stock under the provisions of the Financial Accounting Standards Board, or FASB, Staff Position FAS No. 150-5, *Issuer s Accounting under Statement No. 150 for Freestanding Warrants and Other Similar Instruments on Shares that are Redeemable*, or FSP 150-5, we reassessed the fair value of the common stock with respect to options granted between January 1, 2007 through July 17, 2007. Based upon the reassessed fair value of our common stock, we determined the intrinsic value of our stock options and the related stock compensation expense under SFAS 123(R), and determined that at each option grant date during this period, the fair value of our common stock was less than the relevant exercise prices of the stock options granted. The following table summarizes the options granted from January 1, 2007 through the date of this prospectus with their exercise prices, the reassessed fair values for purposes of SFAS 123(R) compensation expense, and the intrinsic value per share:

Date of Issuance	Number of Shares Subject to Options Granted	Exercise Price per Share	Reassessed Fair Value of Common Stock per Share	Intrinsic Value
January 26, 2007	1,719,800	$ 1.63	$ 1.41	$ (0.22)
February 26, 2007	5,000	1.63	1.41	(0.22)
April 16, 2007	40,000	1.63	1.46	(0.17)
April 19, 2007	415,600	1.63	1.46	(0.17)
June 19, 2007	652,100	1.63	1.30	(0.33)
July 17, 2007	133,000	1.63	1.27	(0.36)
August 28, 2007	1,263,175	4.47	4.47	
September 24, 2007	10,000	4.47	4.47	
October 25, 2007	864,550	4.57	4.57	
December 11, 2007	183,600	5.79	5.79	
January 29, 2008	1,095,550	7.00	6.25	(0.75)
May 22, 2008	250,000	7.90	7.90	
	6,632,375			

Significant Factors, Assumptions and Methodologies Used in Determining Fair Value

Under SFAS No. 123(R), we estimated the fair value of our stock option grants on or after January 1, 2006 using the Black-Scholes option-pricing model. The estimated expected term, as well as the estimated volatility rate, were calculated based on selected companies in similar markets, due to a lack of historical information regarding the volatility of our stock price and expected term of the options. We will continue to analyze the historical stock price volatility and expected term assumptions as more historical data for our common stock becomes available. The risk-free rate assumption was based on U.S. treasury instruments whose terms were consistent with the terms of our stock options. The expected dividend assumption was based on our history and expectation of dividend payouts. The fair value of the stock options granted was based on the following assumptions:

	Years ended December 31,		Three months ended March 31,	
	2006	2007	2007	2008
Weighted average expected term (years)	6.1	6.0	N/A	6.0
Weighted average expected volatility	65.0%	48.0%	N/A	57.0%
Range of risk-free rates	4.2%	4.3%	N/A	3.1%
Expected dividend yields	0.0%	0.0%	N/A	0.0%

As a result of our Black-Scholes fair value calculations and the allocation of value to the vesting periods using the straight-line vesting attribution method, we recognized a total $0.1 million in stock-based

48

Table of Contents

compensation expense during 2006, of which $32,000 was attributable to employee stock options and $32,000 was attributable to non-employee stock options. Furthermore, $0.1 million was recorded as a selling, general and administrative expense while $3,000 was recorded as a research and development expense. We recognized a total of $1.3 million in stock-based compensation expense during 2007, of which $1.0 million was attributable to employee stock options and $0.3 million was attributable to non-employee stock options. Furthermore, $0.8 million was recorded as a selling, general and administrative expense while $0.5 million was recorded as a research and development expense. In the three months ended March 31, 2007, we recognized a total of $35,000 in stock-based compensation expense, of which $10,000 was attributable to employee stock options and $25,000 was attributable to non-employee stock options. Of this total amount, $32,000 was recorded as a selling, general and administrative expense, while $3,000 was recorded as a research and development expense. In the three months ended March 31, 2008, we recognized a total of $0.7 million in stock-based compensation expense, of which $0.6 million was attributable to employee stock options and $0.1 million was attributable to non-employee stock options. Of this total amount, $0.4 million was recorded as a selling, general and administrative expense, while $0.3 million was recorded as a research and development expense.

Common Stock Valuations

The fair values of the common stock underlying stock options granted during 2005, 2006 and 2007, and the three months ended March 31, 2008 were estimated by the board of directors with input from management based upon several factors, including progress and milestones attained in our business, projected sales and earnings for multiple future periods, and the probabilities of various financing and liquidation events, including winding up and dissolution. In determining the fair market value of our common stock as of the date of each option grant, our board of directors made a reasonable estimate of the then current value of our common stock. In the absence of a public trading market for our common stock, our board of directors was required to estimate the fair value of our common stock. Our board of directors considered numerous objective and subjective factors in determining the fair value of our common stock at each option grant date, including but not limited to the following factors: (i) prices of preferred stock issued by us primarily to outside investors in arm s-length transactions, and the rights, preferences and privileges of the preferred stock relative to the common stock, (ii) our performance and the status of research and product development efforts, (iii) our stage of development and business strategy and (iv) the likelihood of achieving a liquidity event for the shares of common stock underlying these stock options, such as an initial public offering or sale of Codexis, given then-prevailing market conditions.

All stock options were granted with exercise prices at or above the then-current fair market value of our common stock as determined by our board of directors. Although, as described below, some of those values have been reassessed in connection with the preparation of our audited consolidated financial statements, we believe that the determinations of the value of our common stock were fair and reasonable at the time they were made. The board of directors utilized methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* (AICPA Practice Guide).

For our contemporaneous and retrospective valuations performed between December 2006 and January 2008, the board of directors used the probability-weighted expected return method, or the PWERM, which is consistent with the allocation methods outlined in the AICPA Practice Guide. The PWERM analyzes the returns afforded to common equity holders under multiple future scenarios. Under the PWERM, share value is based upon the probability-weighted present value of expected future net cash flows (distributions to shareholders), considering each of the possible future events and giving consideration for the rights and preferences of each share class. The PWERM requires a five step process: (i) for each possible future event, standard valuation methodologies, such as the application of revenue and earnings multiples from a relevant peer group, are used to estimate a range of future distribution values

Table of Contents

over a range of event dates; (ii) for each combination of value and date, the value is allocated between the share classes; (iii) the expected return for each class is then discounted back to the present; (iv) the probability for each possible event is estimated; and (v) the probability-weighted return, expressed in terms of a per-share value, is determined for each class. Although this method is complex to implement, the board of directors believes that this method s forward-looking analysis of potential future outcomes makes it the most suitable for this analysis.

The PWERM-derived fair value calculated at each valuation date was then allocated to the shares of redeemable and/or convertible preferred stock, warrants to purchase shares of preferred stock, and common stock, using a contingent claim methodology. This methodology treats the various components of our capital structure as a series of call options on the proceeds expected from the sale of the company or the liquidation of our assets at some future date. The anticipated timing of a liquidity event utilized in these valuations was based on the then-current plans and estimates of our board of directors and management regarding the likely success of an initial public offering. Estimates of the volatility of our stock were based on the limited information available on the volatility of the capital stock of comparable publicly-traded companies.

We granted stock options with exercise prices between $1.63 and $5.79 per share during 2007. In connection with the preparation of our 2007 consolidated financial statements, we also performed retrospective valuations of our common stock solely for the purpose of determining the liability associated with outstanding warrants to purchase our preferred stock as of March 31, 2007 and June 30, 2007. The estimated fair value of our common stock resulted in valuations between $1.41 and $5.79 per share during 2007. No single event caused the valuation of our common stock to increase or decrease from January 2007 to December 2007; rather it has been a combination of the following factors that led to the initial decrease and subsequent increase in the fair value of the underlying common stock:

January to June 2007: In February 2007, we introduced our Codex Biocatalyst Panels and Merck became the first customer for this product. In April 2007, we hired a Vice President and General Counsel, a key executive position. The fair value of our common stock as of March 30, 2007 was estimated at $1.46 per share and as of June 30, 2007, it was reassessed to be $1.27. The fair value of our common stock decreased during this period because our cash resources decreased significantly, which outweighed other increases in the value of our business.

July 2007 to August 2007: In July 2007, we acquired BioCatalytics, Inc., which produces custom and off-the-shelf enzymes used in chemical process manufacturing. On July 17, 2007, the fair value of our common stock was estimated to be unchanged from the $1.27 per share estimate as of June 30, 2007. As a result, we valued the common stock consideration issued in the BioCatalytics acquisition at $1.27 per share.

Between July 17, 2007 and August 28, 2007, a number of achievements significantly increased the fair value of our common stock. We negotiated and substantially finalized a $15 million loan agreement with General Electric Capital Corporation and Oxford Finance Corporation to be used as short-term capital to sustain operations. We also began discussions with Shell and other potential investors regarding a Series E preferred stock financing, in which we expected to raise over $40.0 million at a price per share of $8.50. We also received indications from Shell that they were interested in entering into a second research collaboration relating to biofuels and commenced negotiations, although we had not yet settled on the material terms of the research collaboration. In addition, we began discussions regarding an initial public offering of our common stock in August 2007. As a result of these achievements, on August 28, 2007, the fair value of our common stock was estimated to be $4.47.

September 2007 to December 2007: During this period we entered into the $15 million loan agreement with General Electric Capital Corporation and Oxford Finance Corporation. It was also during this period that the amended and restated collaborative research agreement with Shell began to take shape,

although several material terms remained under negotiation until the agreement was finalized in November 2007. We continued discussions regarding an initial public offering of our common stock, and, for purposes of PWERM calculations, we deemed the probability of an IPO to have significantly increased.

In October 2007, we closed a round of preferred equity financing, led by Shell, which raised approximately $55 million. During this period, we also introduced four new Codex Biocatalyst Panels which further bolstered our business prospects and expanded on the success of the first panel introduced in February 2007. In October 2007, we announced the opening of our newest research facility located in Singapore. During this period, even though significant losses were recognized for 2007, revenues increased by nearly 109% from 2006 to 2007. However, operating expenses also increased significantly by approximately 90% from 2006. The fair value of our common stock as of October 25, 2007 and December 11, 2007 was estimated to be $4.57 per share and $5.79 per share, respectively, which were the values used for accounting purposes and for common stock option grants made contemporaneously with those dates.

January 2008: In January 2008, we appointed a new President for Codexis Pharmaceuticals, opened a new European facility in Hungary, and introduced a new product. Also, our board of directors selected investment banks to act as managing underwriters for a potential initial public offering of our stock. As a result of these events, on January 31, 2008, the estimated fair value of our common stock increased to $6.26 per share.

April 2008 to May 2008: In April 2008, we filed a registration statement on Form S-1 with the SEC for a potential initial public offering of our common stock. As a result, on May 22, 2008, the estimated fair value of our common stock increased to $7.90 per share.

Estimation of Fair Value of Warrants to Purchase Preferred Stock

Our outstanding warrants to purchase shares of our preferred stock are subject to the requirements in FSP 150-5, which require us to classify these warrants as current liabilities and to adjust the value of these warrants to their fair value at the end of each reporting period. Warrants issued in connection with debt arrangements resulted in an aggregate expense attributable to an increase of $156,000 and $1.3 million in the fair value of the warrant liability due to quarter-end remeasurements was recognized as interest expense and other in the consolidated statements of operations during 2006 and 2007, respectively, and ($0.1) million and $0.8 million during the three months ended March 31, 2007 and 2008, respectively. Upon the closing of this initial public offering and the conversion of the underlying preferred stock to common stock, all outstanding warrants to purchase shares of preferred stock will automatically convert to warrants to purchase shares of our common stock and, as a result, will no longer be subject to FSP 150-5. The then-current aggregate fair value of these warrants will be reclassified from liabilities to additional paid-in capital, a component of stockholders equity, and we will cease to record any related periodic fair value adjustments. Accordingly, we estimated the fair value of these warrants on an as-if converted basis at the respective balance sheet dates based on the estimated fair value of the underlying common stock at the valuation measurement date, the remaining contractual term of the warrant, risk-free interest rates and expected dividends on and expected volatility of the price of the underlying common stock. In the case of a warrant, in which certain terms were variable and based on the outcome of future events, we estimated the probability of each possible outcome and weighted the pricing model accordingly. These estimates, especially the market value of the underlying common stock, the probability of future outcomes and the expected volatility, are highly judgmental and could differ materially in the future.

Impairment of Goodwill and Intangible Assets and Other Long-lived Assets

We assess impairment of long-lived assets, including goodwill, in accordance with SFAS No. 144, *Impairment of Long-Lived Assets,* on at least an annual basis and test long-lived assets for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the

Table of Contents

market price of the asset; 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 asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; or current expectation that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life.

Recoverability is assessed based on the sum of the undiscounted cash flows expected to result from the use and the eventual disposal of the asset. An impairment loss is recognized in the consolidated statements of operations when the carrying amount is not recoverable and exceeds fair value, which is determined on a discounted cash flow basis.

We make estimates and judgments about future undiscounted cash flows and fair value. Although our cash flow forecasts are based on assumptions that are consistent with our plans, there is significant exercise of judgment involved in determining the cash flows attributable to a long-lived asset over its estimated remaining useful life. Our estimates of anticipated future cash flows could be reduced significantly in the future. As a result, the carrying amount of our long-lived assets could be reduced through impairment charges in the future. Changes in estimated future cash flows could also result in a shortening of estimated useful life of long-lived assets including intangibles for depreciation and amortization purposes.

Net Operating Loss and Tax Credit Carryforwards

As of December 31, 2007, we had federal and state net operating loss carryforwards of $58.3 million and $55.3 million, respectively. We also had federal and state tax credit carryforwards of $1.0 million and $1.0 million, respectively. The aggregate federal and state net operating loss will begin to expire in 2013, if not utilized. The federal tax credit carryforward will expire at various dates beginning in 2022, if not utilized. The state tax credit carryforwards do not expire. As of December 31, 2007, we had foreign net operating loss carryforwards of $4.6 million, which do not expire.

Under the Internal Revenue Code, substantial changes in our ownership, including as a result of this offering or prior equity financings subsequent to our incorporation by Maxygen, may limit, or may have already limited, the amount of future taxable income which may be offset by available net operating loss and tax credit carryforwards. We could have an annual limitation on the amount of our taxable income which may be offset by net operating loss and tax credit carryforwards in future years. The annual limitation may result in the expiration of net operating losses and credits before utilization. In any event, utilization of our net operating loss and tax credit carryforwards depends upon our having taxable income.

Effective January 1, 2007, we adopted FIN No. 48, *Accounting for Uncertainties in Income Taxes*, an interpretation of SFAS No. 109, *Accounting for Income Taxes*, or FIN 48. FIN 48 prescribes a comprehensive model for how companies should recognize, measure, present and disclose in their financial statements uncertain tax positions taken or expected to be taken on a tax return. Under FIN 48, tax positions must initially be recognized in the financial statements when it is more likely than not the position will be sustained upon examination by the tax authorities. Such tax positions must initially and subsequently be measured as the largest amount of tax benefit that has a greater than 50% likelihood of being realized upon ultimate settlement with the tax authority assuming full knowledge of the position and relevant facts. Upon adoption, there was no adjustment to accumulated deficit as all of our deferred tax assets were subject to a valuation allowance. As a result of the implementation of FIN 48, we recognized a $0.1 million increase in the liability for unrecognized tax benefits, which was accounted for as a $0.1 million adjustment to deferred tax assets (fully offset by a valuation allowance). We recognize interest and penalties in income tax expense. Total interest and penalties recognized in the consolidated statement of operations and balance sheet was $49,000. The total unrecognized tax benefits, that, if recognized, would impact our effective tax rate is $0.3 million. We are not subject to examination by U.S. federal or state tax authorities for years before 2002 and foreign tax authorities for years before 2006.

Table of Contents

Results of Operations

Three Months Ended March 31, 2007 and 2008

The following table shows the amounts and percentage relationships of the listed items from our consolidated statements of operations for the periods presented, showing period-over-period changes (in thousands, except for percentages).

	Three months ended March 31,		Increase/ (Decrease)	% Increase/ Decrease
	2007	2008		
Revenues:				
Product	$ 1,456	$ 3,545	$ 2,089	143%
Related party collaborative research and development	1,289	3,881	2,592	201%
Collaborative research and development	1,882	865	(1,017)	(54)%
Grants	77	83	6	8%
Total revenues	4,704	8,374	3,670	78%
Cost and operating expenses:				
Cost of product revenues	1,351	2,887	1,536	114%
Research and development	4,763	9,855	5,092	107%
Selling, general and administrative	4,036	8,738	4,702	117%
Total cost and operating expenses	10,150	21,480	11,330	112%
Loss from operations	(5,446)	(13,106)	(7,660)	141%
Interest income	368	761	393	107%
Interest expense and other	32	(1,466)	(1,498)	NM
Loss before provision (benefit) for income taxes	(5,046)	(13,811)	(8,765)	174%
Provision for income taxes	50	98	48	96%
Net loss	$ (5,096)	$ (13,909)	$ (8,813)	173%

Revenues. Revenues increased $3.7 million, or 78%, from $4.7 million in the three months ended March 31, 2007 to $8.4 million in the three months ended March 31, 2008, due primarily to increases in revenues from related party collaborative research and development projects and product sales.

Product revenues increased $2.1 million, or 143%, from $1.5 million in the three months ended March 31, 2007 to $3.6 million in the three months ended March 31, 2008. This increase was primarily due to a $1.2 million increase in sales of our ATS-8 intermediate product to Indian manufacturers of generic atorvastatin, a $0.9 million increase in sales of our enzyme products, and a $0.4 million increase in sales of our other biocatalyst and intermediate products.

Related party collaborative research and development revenues increased $2.6 million, or 201%, from $1.3 million in the three months ended March 31, 2007 to $3.9 million in the three months ended March 31, 2008. This increase was due to the expanded research collaboration with Shell.

Collaborative research and development revenues decreased $1.0 million, or 54%, from $1.9 million in the three months ended March 31, 2007 to $0.9 million in the three months ended March 31, 2008. This decrease was primarily due to the reallocation of our research resources to related party collaborative research and development projects.

Government grant revenues increased $6,000, or 8%, from $77,000 in the three months ended March 31, 2007 to $83,000 in the three months ended March 31, 2008.

53

Table of Contents

Our top five customers accounted for 79% and 70% of our revenues in the three months ended March 31, 2007 and 2008, respectively. In the three months ended March 31, 2007, Shell accounted for 27% of our revenues and Pfizer accounted for 26% of our revenues. In the three months ended March 31, 2008, Shell accounted for 46% of our revenues and Pfizer accounted for 1% of our revenues.

Customers in the Americas accounted for 69% and 60% of our revenues, and customers outside the Americas accounted for 31% and 40% of our revenues, in the three months ended March 31, 2007 and 2008, respectively. Revenues for the three months ended March 31, 2007 and 2008 by geography were as follows (in thousands, except percentages):

	Three months ended March 31,		Increase/ (Decrease)	% Increase/ Decrease
	2007	2008		
Americas	$ 3,225	$ 5,056	$ 1,831	57%
Europe	804	1,677	873	109%
Asia	675	1,641	966	143%
International	1,479	3,318	1,839	124%
Total	$ 4,704	$ 8,374	$ 3,670	78%

Cost of Product Revenues. Cost of product revenues was $1.4 million for the three months ended March 31, 2007, compared to $2.9 million in the three months ended March 31, 2008, an increase of $1.5 million. The increase was primarily attributable to the increase in product sales, an increase in amortization of intangible assets and an inventory fair value adjustment related to our acquisition of BioCatalytics, Inc. Cost of product revenues as a percentage of product revenues decreased 11% from 93% in the three months ended March 31, 2007 to 81% in the three months ended March 31, 2008 due to higher margin product sales to former customers of BioCatalytics following the July 2007 acquisition of BioCatalytics and the introduction of Codex Biocatalyst Panels during 2007.

Research and Development. Research and development expenses were $4.8 million in the three months ended March 31, 2007, compared to $9.9 million in the three months ended March 31, 2008, an increase of $5.1 million. The increase was primarily due to increased compensation (including stock-based compensation) and benefits of $3.0 million attributable to an increase in employee headcount in our research and development functions. Also reflecting increased research and development expenses were higher expenses incurred for lab supplies, outside services and consultants of $0.8 million, plus higher occupancy related costs of $0.5 million and depreciation and amortization expense of $0.3 million. Travel and training expenses also increased by $0.1 million as our research functions expanded in Europe and Asia. Royalty expense increased by $0.1 million attributable to an increase in fees payable to Maxygen in connection with the research collaboration with Shell. Research and development expenses included stock-based compensation expense of $3,000 and $0.3 million during the three months ended March 31, 2007 and 2008, respectively.

Selling, General and Administrative. Selling, general and administrative expenses were $4.0 million for the three months ended March 31, 2007, compared to $8.7 million for the three months ended March 31, 2008, an increase of $4.7 million or 117%. The increase was primarily due to increased compensation (including stock-based compensation) of $1.4 million, attributable to higher employee headcount and higher fair value of the options granted in late 2007. We incurred higher costs for consultants and outside advisory services of $1.5 million as we prepared to become a public company, including consulting costs associated with preparation for compliance with the Sarbanes-Oxley Act of 2002. We also incurred higher professional fees of $1.2 million primarily for legal fees of $0.6 million connected with securing our patents and intellectual property and $0.6 million for accounting and audit fees connected with finalizing our audited financial statements for 2007 and earlier periods. Expenses related to travel and recruiting increased by $0.3 million. Selling, general and administrative expenses included

Table of Contents

stock-based compensation expense of $32,000 and $0.4 million during the three months ended March 31, 2007 and 2008, respectively.

Interest Income. Interest income was $0.4 million in the three months ended March 31, 2007 compared to $0.8 million in the three months ended March 31, 2008, an increase of $0.4 million, or 107%. The increase resulted from higher average cash and investment balances on hand during the first quarter of 2008 compared to the first quarter of 2007. These higher cash and investment balances resulted from cash received in November 2007, following the issuance of our Series E preferred stock, as well as from the $20.0 million up-front payment received from Shell when we entered into our new five-year research collaboration.

Interest Expense and Other. Interest expense and other was $32,000 in the three months ended March 31, 2007, compared to $1.5 million in the three months ended March 31, 2008. Interest expense and other in the three months ended March 31, 2008 included the increase in the fair value of our preferred stock warrants of $0.8 million, and higher interest expense due to the debt obligation with General Electric Capital Corporation and Oxford Finance Corporation undertaken in late 2007. Interest expense and other in the three months ended March 31, 2007 included the decrease in the fair value of the preferred stock warrants of $0.1 million.

Provision (benefit) for Income Taxes. The tax provision for the three months ended March 31, 2007 and 2008 primarily consisted of foreign taxes withheld at source on royalties earned overseas and other taxes attributable to foreign operations.

Years Ended December 31, 2006 and 2007

The following table shows the amounts and percentage relationships of the listed items from our consolidated statements of operations for the periods presented, showing period-over-period changes (in thousands, except percentages).

	2006	2007	Increase/ (Decrease)	% Increase/ (Decrease)
Revenues:				
Product	$ 2,544	$ 11,418	$ 8,874	349%
Related party collaborative research and development	863	8,481	7,618	883%
Collaborative research and development	8,403	4,733	(3,670)	(44)%
Government grants	317	701	384	121%
Total revenues	12,127	25,333	13,206	109%
Cost and operating expenses:				
Cost of product revenues	1,806	8,319	6,513	361%
Research and development	17,257	35,644	18,387	107%
Selling, general and administrative	11,880	19,713	7,833	66%
Total cost and operating expenses	30,943	63,676	32,733	106%
Loss from operations	(18,816)	(38,343)	(19,527)	104%
Interest income	742	1,491	749	101%
Interest expense and other	(724)	(2,533)	(1,809)	250%
Loss before provision (benefit) for income taxes	(18,798)	(39,385)	(20,587)	110%
Provision (benefit) for income taxes	(127)	(408)	(281)	221%
Net loss	$ (18,671)	$ (38,977)	$ (20,306)	108%

Table of Contents

Revenues. From 2006 to 2007, revenues increased $13.2 million, or 109%, from $12.1 million to $25.3 million due primarily to increases in revenues from collaborative research and development projects and product sales.

Product revenues increased $8.9 million, or 349% from $2.5 million to $11.4 million in 2006 and 2007, respectively. This increase was primarily due to a $4.2 million increase in sales of our ATS-8 intermediate to Indian manufacturers of generic atorvastatin, $0.1 million in sales of our new Codex Biocatalyst Panels, $1.7 million of additional sales from our new BioCatalytics subsidiary, and a $2.9 million increase in sales of our other biocatalyst and intermediate products.

Related party collaborative research and development revenues increased $7.6 million, or 883%, from $0.9 million to $8.5 million in 2006 and 2007, respectively. This increase was primarily due to the expanded research collaboration with Shell that represented a $7.6 million increase over the prior year.

Collaborative research and development revenues decreased $3.7 million, or 44%, from $8.4 million to $4.7 million in 2006 and 2007, respectively. This decrease was primarily due to the reallocation of our research resources to related party collaborative research and development projects.

Government grant revenues increased $0.4 million, or 121%, from $0.3 million to $0.7 million in 2006 and 2007, respectively. This increase was due to a $0.3 million grant received from the National Institutes of Health and an additional $0.1 million grant received from the German government.

Our top five customers accounted for 71% and 65% of total revenues for 2006 and 2007, respectively. In 2006, Pfizer accounted for 36% of our revenues and Schering-Plough accounted for 11% of our revenues. In 2007, Shell accounted for 33% of our revenues and Pfizer accounted for 13% of our revenues.

Customers in the Americas accounted for 65% and 59% of revenues, and customers outside the Americas accounted for 35% and 41% of revenues, in 2006 and 2007, respectively. Revenues for 2006 and 2007 by geography were as follows (in thousands, except for percentages):

	2006	2007	Increase/ (Decrease)	% Increase/ Decrease
Americas	$ 7,933	$ 15,010	$ 7,077	89%
Europe	2,491	4,005	1,514	61%
Asia	1,703	6,318	4,615	271%
International	4,194	10,323	6,129	146%
Total	$ 12,127	$ 25,333	$ 13,206	109%

Cost of Product Revenues. Cost of product revenues was $1.8 million for 2006 compared to $8.3 million in 2007, an increase of $6.5 million. The increase was primarily attributable to the increase in product sales of $6.0 million, an increase in amortization of intangible assets of $0.1 million and an inventory fair value adjustment related to our BioCatalytics acquisition of $0.2 million. Cost of product revenues as a percentage of product revenues increased 2% from 2006 to 2007 from 71% to 73% due to higher margin product sales to former BioCatalytics customers since July 2007 and the introduction of Codex Biocatalyst Panels during 2007.

Research and Development. Research and development expenses were $17.3 million in 2006 compared to $35.6 million in 2007, an increase of $18.3 million. The increase was primarily due to increased royalty costs of $7.3 million due to Maxygen in connection with amounts received from Shell relating to our biofuels research collaboration, increased compensation (including stock-based compensation), and benefit, hiring and training costs of $6.8 million attributable to an increase in employee headcount in our research and development functions. Also reflecting this increased research activity were the expenses incurred for lab supplies, outside services and consultants of $2.2 million, plus higher occupancy related costs of $0.9 million and depreciation and amortization expense of $0.4 million. Travel

Table of Contents

and relocation expenses were also higher by $0.8 million as our research functions expanded in Europe and Asia. Professional and advisory fees also increased by $0.6 million. Included in the above amounts were $3.5 million of additional research and development expenses that we incurred after opening our new research facility in Singapore in October 2007. Research and development expenses included stock-based compensation expense of $0 and $0.5 million during 2006 and 2007, respectively.

Selling, General and Administrative. Selling, general and administrative expenses were $11.9 million for 2006, compared to $19.7 million for 2007, an increase of $7.8 million or 66%. The increase was primarily due to increased compensation including stock-based compensation of $2.8 million attributable to higher employee headcount. We incurred higher costs for consultants and outside advisory services of $1.5 million as we prepared to become a public company, including consulting costs associated with preparation for Sarbanes-Oxley compliance. We also incurred higher professional fees of $1.0 million in 2007 mainly for legal costs connected with negotiating our collaboration agreements and other contracts during the year. Expenses related to promotional marketing materials and travel increased $0.6 million. Selling, general and administrative expenses included stock-based compensation expense of $0.1 million and $0.8 million during 2006 and 2007, respectively.

Interest Income. Interest income was $0.7 million in 2006 compared to $1.5 million in 2007, an increase of $0.7 million, or 101%. The increase resulted from the higher average cash and investment balances on hand during 2007 compared to 2006. These higher cash and investment balances resulted from cash received in connection with the issuance of the Series E preferred stock, as well as from the $20.0 million up-front payment made by Shell when we entered into our new five-year research collaboration.

Interest Expense and Other. Interest expense and other was $0.7 million in 2006, compared to $2.5 million in 2007. Interest expense and other in 2007 included the increase in the fair value of our Series D preferred stock warrants, which resulted in $1.3 million of expense, interest expense on our outstanding financing obligations, and losses from foreign currency transactions.

Provision (benefit) for Income Taxes. The tax benefit for 2006 and 2007, respectively, primarily consisted of foreign tax withheld at source on royalties earned overseas and other taxes attributable to foreign operations.

Table of Contents

Years Ended December 31, 2005 and 2006

The following table shows the amounts and the percentage relationships of the listed items from our consolidated statements of operations for the periods presented, showing period-over-period changes (in thousands).

	2005	2006	Increase/ (Decrease)	% Increase/ (Decrease)
Revenues:				
Product	$ 2,265	$ 2,544	$ 279	12%
Related party collaborative research and development		863	863	NM
Collaborative research and development	9,363	8,403	(960)	(10)%
Government grants	156	317	161	103%
Total revenue	11,784	12,127	343	3%
Cost and operating expenses:				
Cost of product revenues	2,233	1,806	(427)	(19)%
Research and development	12,839	17,257	4,418	34%
Selling, general and administrative	7,891	11,880	3,989	51%
Total cost and operating expenses	22,963	30,943	7,980	35%
Loss from operations	(11,179)	(18,816)	(7,637)	68%
Interest income	245	742	497	203%
Interest expense and other	(413)	(724)	(311)	75%
Loss before provision (benefit) for income taxes	(11,347)	(18,798)	(7,451)	66%
Provision (benefit) for income taxes	243	(127)	(370)	(152)%
Net loss	$ (11,590)	$ (18,671)	$ (7,081)	61%

Revenues. Revenues increased $0.3 million, or 3%, from $11.8 million to $12.1 million in 2005 and 2006, respectively.

Product revenues increased $0.3 million, or 12%, from $2.3 million to $2.5 million in 2005 and 2006, respectively. This increase was primarily due to an increase in sales from Jülich.

Related party collaborative research and development revenues increased from $0 to $0.9 million, due to our entering into a research collaboration with Shell in 2006.

Collaborative research and development revenues decreased $1.0 million, or 10%, from $9.4 million to $8.4 million in 2005 and 2006, respectively. This decrease was primarily due to the termination of a collaboration in early 2006.

Government grant revenues increased $161,000, or 103%, from $156,000 to $317,000 in 2005 and 2006. This increase was due to an increase in a grant from the German government received in 2006.

Our top five customers accounted for 70% and 71% of total revenues for 2005 and 2006, respectively. In 2005, Pfizer accounted for 34% of our revenues and Cargill accounted for 17% of our revenues. In 2006, Pfizer accounted for 36% of our revenues and Schering-Plough accounted for 11% of our revenues.

Table of Contents

Customers in the Americas accounted for 56% and 65% of revenues, and customers outside the Americas accounted for 44% and 35% of revenues, in 2005 and 2006, respectively. Revenues for 2005 and 2006 by geography were as follows (in thousands, except for percentages):

	2005	2006	Increase/ (Decrease)	% Increase/ Decrease
Americas	6,547	7,933	1,386	21%
Europe	3,268	2,491	(777)	(24)%
Asia	1,969	1,703	(266)	(14)%
International	5,237	4,194	(1,043)	(20)%
Total	11,784	12,127	343	3%

Cost of Product Revenues. Cost of product revenues was $2.2 million for 2005 compared to $1.8 million in 2006, a decrease of $0.4 million. This decrease resulted from recognition of a $0.1 million inventory fair value step up related to our Jülich acquisition in 2005 and lower cost of product in our Jülich subsidiary. Cost of product revenues as a percentage of product revenues decreased 28% from 2005 to 2006, from 99% to 71%, due to higher margin product sales to the Jülich customer base and net sales recognition in India for approximately $0.2 million of net revenue with no corresponding cost of product revenue.

Research and Development. Research and development expenses were $12.8 million for 2005, compared to $17.3 million in 2006, an increase of $4.4 million or 34%. The increase was primarily due to higher compensation and employee benefit costs of $2.7 million reflecting increased headcount in research and development functions. Additionally, there were increased royalty costs of $0.6 million paid to Maxygen in connection with amounts received from Shell relating to our biofuels research collaboration. Moreover, spending on lab equipment increased by $0.6 million also corresponding with the increased research activity in 2006. Stock-based compensation expense included in research and development was immaterial in both 2005 and 2006.

Selling, General and Administrative. Selling, general and administrative expenses were $7.9 million in 2005, compared to $11.9 million in 2006, an increase of $4.0 million or 51%. The increase was primarily due to higher compensation (including stock-based compensation) and hiring costs of $1.9 million attributable to increased staffing levels in sales and administrative functions, higher equipment costs of $0.2 million and higher travel costs of $0.2 million as our operations grew to include European facilities. Professional fees were also higher by $0.5 million as we incurred greater costs in connection with negotiating certain contracts. Selling, general and administrative expenses included stock-based compensation expense of $0.1 million in both 2005 and 2006.

Interest Income. Interest income was $0.2 million in 2005 compared to $0.7 million in 2006, an increase of $0.5 million or 203%. The increase resulted from the higher average cash and investment balances on hand during 2006 compared to 2005. These higher cash and investment balances resulted from cash received in connection with the issuance of our Series D preferred stock in August and October of 2006.

Interest Expense and Other. Interest expense and other was $0.4 million in 2005, compared to $0.7 million in 2006. This increase was due to the higher interest expense incurred in 2006 reflecting the increased debt carried in 2006 compared to 2005.

Provision (benefit) for Income Taxes. The tax provision for 2005 consisted primarily of foreign tax withheld at source on royalties received from overseas and other taxes attributable to foreign operations. The tax benefit in 2006 is due to fewer taxes withheld on royalties and the benefit recorded for a higher loss in Germany.

Table of Contents

Liquidity and Capital Resources

Since inception, we have funded our operations to date primarily through the sale of equity securities, borrowings under financing arrangements, collaborative research and development revenues, product sales and government grants. As of March 31, 2008, our cash, cash equivalents and marketable securities totaled $64.9 million.

Operating Activities

We have historically experienced negative cash flow from operations as we continue to invest in our infrastructure and our technology platform, and expand our business. Our cash flows from operations will continue to be affected principally by the extent to which we spend on increasing personnel, primarily in research and development, in order to grow our business. The timing of hiring of skilled research and development personnel in particular affects cash flows as there is a lag between the hiring of research and development personnel and the generation of collaboration or product revenues and cash flows from those personnel. Our primary source of cash flows from operating activities is cash receipts from our customers. Our largest uses of cash from operating activities are for employee related expenditures, rent payments, inventory purchases to support our revenue growth and non-payroll research and development costs, which include payments made to Maxygen in connection with our biofuels research collaboration with Shell.

Our operating activities used cash in the amount of $17.8 million in the three months ended March 31, 2008, primarily due to net loss of $13.9 million, a decrease in accrued royalty payable of $7.6 million, an increase in our inventories of $0.8 million, an increase in our prepaid expenses and other assets of $1.5 million, partially offset by a decrease in accounts receivable of $2.1 million and an increase in accrued liabilities of $2.6 million. These changes resulted primarily from the significant growth in our business, the timing of shipments and payments in connection with the preparation for our initial public offering, the payment of a royalty amount due to Maxygen in connection with the Shell agreements signed in November 2007, and efforts to manage and monitor the balances of trade receivables. We also had non-cash charges of $2.6 million, comprised primarily of $0.8 million in depreciation and amortization on property and equipment, $0.8 million related to the increase in the fair value of the preferred stock warrants during the period, $0.7 million in stock-based compensation expense and $0.2 million in amortization of intangible assets and deferred costs.

Our operating activities used cash in the amount of $7.4 million in the three months ended March 31, 2007, primarily due to our net loss of $5.1 million and an increase in accounts receivable of $1.3 million, partially offset by an increase in accrued liabilities of $1.0 million. We also had non-cash charges of $0.5 million, comprised primarily of $0.4 million in depreciation and amortization on property and equipment, $0.2 million in amortization of intangible assets and deferred costs and a credit of $0.1 million related to the decrease in the fair value of the preferred stock warrants during the period.

Our operating activities used cash in the amount of $6.1 million in 2007, primarily due to our net loss of $39.0 million and an increase in accounts receivable of $3.1 million, partially offset by an increase in deferred revenues of $16.4 million, an increase in accounts payable and accrued liabilities of $14.2 million and a decrease of $0.9 million in prepaids and other assets. These changes resulted primarily from the significant growth in our business, the timing of shipments and payments to vendors, our efforts to manage and monitor the balances of trade receivables and the increase in deferred revenues due to the timing of revenue recognition under our revenue recognition policy. We also had non-cash charges of $6.6 million, comprised primarily of $2.1 million in depreciation and amortization on property and equipment, $1.2 million in amortization of intangible assets and deferred costs, $1.3 million in stock-based compensation expense, $1.3 million related to the increase in the fair value of the preferred stock warrants during the period, and $0.5 million for preferred stock issued in exchange for services.

Our operating activities used cash in the amount of $13.3 million in 2006, primarily due to our net loss of $18.7 million, partially offset by an increase in our accounts payable and accrued liabilities of

Table of Contents

$2.3 million. These changes resulted primarily from the growth in our business and the timing of payments to our vendors. We also had non-cash charges of $2.7 million, comprised primarily of $1.8 million in depreciation on property and equipment, $0.7 million in amortization of intangible assets and a beneficial conversion feature related to the preferred stock warrant issued in connection with convertible debt.

Our operating activities used cash in the amount of $4.4 million in 2005, primarily due to our net loss of $11.6 million and an increase in accounts receivable of $2.5 million due to our growth in our business, partially offset by an increase in deferred revenues of $4.1 million due to the increase in shipments to customers late in the year, and a net increase in accounts payable and accrued liabilities of $2.3 million. We also had non-cash charges for depreciation and amortization expense of $2.5 million.

Investing Activities

In the three months ended March 31, 2008, our investing activities used cash of $8.7 million, primarily for the purchase of $11.4 million of marketable securities, $1.1 million of capital expenditures and a $0.1 million increase in restricted cash, partially offset by the proceeds received from the sale of $3.8 million of marketable securities. These capital expenditures consisted primarily of computer and test equipment purchases.

In the three months ended March 31, 2007, our investing activities used cash of $12.3 million, primarily for the purchase of marketable securities of $11.5 million and the purchase of $0.7 million of property and equipment. These capital expenditures consisted primarily of lab equipment and leasehold improvements.

Our investing activities used cash of $39.2 million in 2007, primarily from net purchases of marketable securities of $28.5 million, the purchase of property and equipment of $8.2 million to support the growth in our business, the $1.3 million increase in restricted cash and net payments of $1.2 million for the BioCatalytics acquisition. Restricted cash comprises deposits securing letters of credit, primarily those associated with our facility leases. The capital expenditures consisted primarily of laboratory equipment, computer and test equipment, and software purchases.

Our investing activities provided cash of $0.2 million in 2006, primarily from proceeds of sale of marketable securities of $1.5 million, partially offset by the purchase of property and equipment of $1.1 million and the increase in restricted cash of $0.2 million. These capital expenditures consisted primarily of computer and test equipment and software purchases.

Our investing activities provided cash of $3.4 million in 2005 primarily due to the net sale of marketable securities of $9.8 million which were partially offset by the net payments of $4.1 million made in connection with our acquisition of Jülich and purchases of property, plant and equipment of $2.0 million to support growth in our business. The capital expenditures consisted primarily of computer and test equipment and software purchases.

Financing Activities

In the three months ended March 31, 2008, our financing activities used $0.6 million in cash, primarily for the $0.7 million in principal payments on our financing obligations, partially offset by $0.1 million in receipts from the exercise of employee stock options.

In the three months ended March 31, 2007, our financing activities used $0.2 million in cash, primarily for the $0.3 million in principal payments on our financing obligations, partially offset by $83,000 received from the exercise of employee stock options.

Our financing activities provided cash of $68.4 million in 2007. The primary source of these funds was the issuance and sale of approximately 6.1 million shares of Series E preferred stock and the exercise of warrants to purchase approximately 0.4 million shares of Series D preferred stock, for an aggregate net consideration of $54.8 million from various investors. We also borrowed a net amount of $14.7 million

Table of Contents

under a new loan and security agreement with General Electric Capital Corporation and Oxford Finance Corporation, which commenced in September 2007. The loan and security agreement provides for $15.0 million in borrowings, and is secured by certain assets and bears interest at 9.4% per annum. The loan is to be repaid over 42 months, from the date of funding, through monthly cash payments of principal and interest following six months of interest only payments. The loan and security agreement contains financial and non-financial covenants. During the three months ended March 31, 2008, we obtained from the lenders a waiver of default for our failure to timely deliver monthly financials, compliance certificates and capitalization tables which we had been obligated to provide to the lender in January, February and March 2008.

Through our subsidiary, Jülich Fine Chemicals GmbH, we have two lines of credit denominated in euros with a German bank for purchases of equipment and working capital. The two lines of credit provide a maximum facility of $359,000, of which $217,000 was outstanding as of December 31, 2007. During the three months ended March 31, 2008, we repaid the amounts outstanding under these credit lines.

Our financing activities provided cash of $39.7 million in 2006 mostly through the issuance of 10.1 million shares of Series D preferred stock for a net amount of $35.5 million, and $4.2 million from a bridge financing agreement. The balance from the bridge financing plus accrued interest thereon was converted into shares of Series D preferred stock in August 2006.

Our financing activities provided cash of $1.0 million in 2005, principally from net borrowings under new and existing credit facilities.

Contractual Obligations and Commitments

The following summarizes the future commitments arising from our contractual obligations at December 31, 2007 (in thousands):

	Total	2008	2009	2010	2011	2012 and beyond
Loans payable(1)	$ 21,316	$ 6,098	$ 6,255	$ 5,980	$ 2,983	$
Lines of credit	217	217				
Capital leases(1)	165	80	67	18		
Operating leases	11,723	2,591	3,064	2,943	1,553	1,572
Total	$ 33,421	$ 8,986	$ 9,386	$ 8,941	$ 4,536	$ 1,572

(1) Amounts include interest on obligations

The table above reflects only payment obligations that are fixed and determinable. Our commitments for operating leases primarily relates to our leased facilities in Redwood City, California, and Jülich, Germany.

Off-Balance Sheet Arrangements

As of March 31, 2008, we have no off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K as promulgated by the SEC.

Recent Accounting Pronouncements

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities including an amendment of FASB Statement No. 115*, or SFAS 159. This statement permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. This statement also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. This statement does not affect any existing accounting literature that requires certain assets and liabilities to be carried at fair value. This statement

Table of Contents

does not establish requirements for recognizing and measuring dividend income, interest income or interest expense. SFAS 159 is effective for periods beginning after November 15, 2008. We are currently reviewing this new standard to determine the effects, if any, on our consolidated results of operations or financial position.

In December 2007, the FASB ratified EITF Issue No. 07-1, *Accounting for Collaborative Agreements*, or EITF 07-1, which defines collaborative agreements as contractual arrangements that involve a joint operating activity. These arrangements involve two or more parties who are both active participants in the activity and that are exposed to significant risks and rewards dependent on the commercial success of the activity. EITF 07-1 provides that a company should report the effects of adoption as a change in accounting principle through retrospective application to all periods. Furthermore, it requires the parties to determine who is the principal party of the arrangement, and therefore which party must report the revenues and expenses under the collaboration, as well as specific additional disclosures in the parties financial statements. EITF 07-1 is effective for periods beginning after December 15, 2008. We are currently evaluating the impact the adoption of EITF 07-1 will have on our consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations*, or SFAS 141(R). SFAS 141R establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any noncontrolling interest in the acquiree and the goodwill acquired. SFAS 141(R) also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. This statement is effective for periods beginning after December 15, 2008. We are currently evaluating the potential impact of the adoption of SFAS 141(R) on our consolidated financial position, results of operations or cash flows.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements*, or SFAS 160. SFAS 160 establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, the amount of consolidated net income attributable to the parent and to the noncontrolling interest, changes in a parent s ownership interest, and the valuation of retained noncontrolling equity investments when a subsidiary is deconsolidated. SFAS 160 also establishes disclosure requirements that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. This statement is effective for periods beginning after December 15, 2008. As we currently only have wholly-owned subsidiaries, we expect that the adoption of SFAS 160 will not have an impact on our consolidated financial statements.

During the three months ended March 31, 2008, we adopted the following accounting standards:

In June 2007, the FASB ratified EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities*, or EITF 07-3. EITF 07-3 provides clarification surrounding the accounting for nonrefundable research and development advance payments, whereby such payments should be recorded as an asset when the advance payment is made and recognized as an expense when the research and development activities are performed. We adopted EITF 07-3 effective January 1, 2008 and are required to report the effects of applying EITF 07-3 prospectively for new contracts entered into after that effective date of EITF 07-3. The adoption of Issue No. 07-03 did not have an impact on our results of operations or financial position.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*, or SFAS 157. SFAS 157 defines fair value, establishes a framework for measuring fair value and expands disclosure of fair value measurements. SFAS 157 applies under other accounting pronouncements that require or permit fair value measurements and accordingly, does not require any new fair value measurements. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, except that under FASB Staff Position 157-2, Effective Date of FASB Statement No. 157 , companies are allowed to

Table of Contents

delay the effective dates of SFAS 157 for non-financial assets and non-financial liabilities that are not recognized or disclosed at fair value on a recurring basis until fiscal years beginning after November 15, 2008. Effective January 1, 2008, we adopted the provisions of SFAS 157 for all financial assets and liabilities and measures its required financial assets and liabilities at fair value. We elected to delay the adoption of SFAS 157 for such non-financial assets and non-financial liabilities. (See also Note 6 of the Notes to our Consolidated Financial Statements).

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Sensitivity

We had unrestricted cash, cash equivalents and marketable securities totaling $32.2 million, $84.1 million and $64.9 million at December 31, 2006, December 31, 2007, and March 31, 2008, respectively. These amounts were invested primarily in money market funds, commercial paper, corporate debt obligations, asset-backed securities, and U.S. government debt securities and are held for working capital purposes. We do not enter into investments for trading or speculative purposes. We believe we do not have material exposure to changes in the fair value as a result of changes in interest rates. Declines in interest rates, however, will reduce future investment income. If overall interest rates fell by 10% in 2007, our interest income would have declined approximately $137,000, assuming consistent investment levels.

Our loan and security agreement with General Electric Capital Corporation and Oxford Finance Corporation provides for a fixed rate of interest, and therefore is not subject to fluctuations in market interest rates.

Foreign Currency Risk

Our operations include manufacturing and sales activities in the United States, Germany and India, as well as research activities in countries outside the United States, including Singapore and Europe. As we expand internationally, our results of operations and cash flows will become increasingly subject to fluctuations due to changes in foreign currency exchange rates. For example, we operate a research facility in Singapore at which we purchase materials for that facility and pay our employees at that facility in Singapore dollars. In addition, we purchase products for resale in the United States from foreign companies and have agreed to pay them in currencies other than the U.S. dollar. As a result, our expenses and cash flows are subject to fluctuations due to changes in foreign currency exchange rates. In periods when the U.S. dollar declines in value as compared to the foreign currencies in which we incur expenses, our foreign-currency based expenses increase when translated into U.S. dollars. Although it is possible to do so, we have not hedged our foreign currency since the exposure has not been material to our historical operating results. Although substantially all of our sales are denominated in U.S. dollars, future fluctuations in the value of the U.S. dollar may affect the price competitiveness of our products outside the U.S. The effect of a 10% adverse change in exchange rates on foreign denominated receivables as of December 31, 2007, would have been a $0.3 million foreign exchange loss recognized as a component of interest and other expenses of our consolidated statement of operations. We may consider hedging our foreign currency as we continue to expand internationally.

Controls and Procedures

In connection with the audit of our consolidated financial statements for 2005, 2006 and 2007, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company s annual or interim financial statements will not be prevented or detected on a timely basis.

The material weakness comprises (i) our lack of policies and procedures, with the associated internal controls, to appropriately address complex, non-routine transactions and (ii) the lack of a sufficient number

Table of Contents

of qualified personnel to timely account for such transactions in accordance with U.S. generally accepted accounting principles.

We identified the following issues during the audit, which collectively gave rise to the conclusion that we had an underlying material weakness:

- we had inadequate policies to address the increasingly complex revenue arrangements that we enter into, which resulted in our improper assessment of the applicability of gross versus net accounting in two complex transactions;

- while we had fairly valued our common stock for purposes of establishing exercise prices for stock options throughout the audited periods, we did not correctly and timely identify all data required to properly evaluate the accounting impact of stock option grants made to employees and consultants and did not recognize all requirements under applicable accounting standards;

- in connection with two acquisitions, we did not identify pre-existing accounting issues and control deficiencies at the acquired companies and failed to conduct a post-acquisition integration process that effectively standardized reporting or identified these pre-existing issues, and we failed to identify and correct an erroneous pre-acquisition assessment of the fair value of tangible assets, including equipment and inventory;

- we improperly recorded foreign currency cumulative translation adjustments, resulting in part from our selection of the incorrect functional currency for one of our foreign subsidiaries; and

- we did not have in place an effective inventory management process with adequate controls over management of inventory quantities and valuation, which primarily related to the segregation of research and development materials from commercial inventories.

These deficiencies in the design and operation of our internal controls resulted in the recording of numerous audit adjustments, and significantly delayed our financial statement close process, for the three year period ended December 31, 2007. We have not yet been able to remediate this material weakness. However, we have taken initial remediation steps including hiring technical accounting and SEC reporting managers in 2008 as well as contracting with a technical accounting advisory firm. We plan to take significant additional steps intended to remediate this material weakness, primarily through the hiring of additional accounting and finance personnel, and the development and implementation of formal policies, improved processes and documented procedures. We cannot currently estimate the specific time frame needed to remediate this material weakness. In addition, we expect to incur significant incremental costs associated with this remediation, primarily due to the hiring of additional accounting and finance personnel, the retention of third-party experts and contractors, and the procurement, implementation and validation of robust accounting and financial reporting systems. If we fail to enhance our internal control over financial reporting to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act, we may be unable to accurately report our financial results, or report them within the timeframes required by law or exchange regulations. We will be required to meet the requirements of Section 404 of the Sarbanes-Oxley Act beginning with our fiscal year ending December 31, 2009. The remedial actions that we plan to take will be subject to continued management review, supported by confirmation and testing, as well as audit committee oversight. While we expect to remediate this material weakness, we cannot assure you that we will be able to do so in a timely manner, if at all, or that in the future additional material weaknesses or significant deficiencies will not exist or otherwise be discovered, which could impair our ability to report our financial position, results of operations or cash flows in an accurate or timely manner.

Table of Contents

BUSINESS

Company Overview

We are a leading developer of proprietary biocatalysts that we believe have the potential to revolutionize chemistry-based manufacturing processes across a variety of industries. Our proprietary biocatalysts include existing biocatalysts that we have optimized and new biocatalysts that we have developed using our technology platform. We have already demonstrated commercial success in the pharmaceutical industry, and we currently have a research collaboration with Shell to apply our technology platform to the biofuels market. We are pursuing funded collaborations in several other bioindustrial markets, including carbon management, water treatment and chemicals.

Biocatalysts are enzymes or microbes that initiate or accelerate chemical reactions. This process, known as biocatalysis, can enable the production of products used in everyday life. Our proprietary technology platform allows us to rapidly evolve and optimize biocatalysts to perform specific and desired chemical reactions for commercial scale industrial applications.

We have focused our biocatalyst development efforts on large and rapidly growing markets, including pharmaceuticals and biofuels. We have enabled biocatalyst-based commercial scale drug manufacturing processes and delivered biocatalysts and drug products to some of the world s leading pharmaceutical companies. Our pharmaceutical customers have included Arch Pharmalabs Limited, Bristol-Myers Squibb Co., Dr. Reddy s Laboratories Ltd., Merck & Co., Inc., Pfizer Inc., Ranbaxy Laboratories Limited, Schering-Plough Corporation and Teva Pharmaceutical Industries Ltd. In 2007, after exceeding targets related to enzyme performance under an initial one-year research agreement, we entered into a new, five-year collaborative research agreement with Shell to develop biocatalysts for use in producing biofuels from renewable sources of sustainable non-food plant materials, commonly known as cellulosic biomass.

Our management team has decades of operating experience and technical expertise across several different industries, including the pharmaceutical and bioindustrial markets. Our investors include leading global companies in several different markets, including Shell, Chevron Corporation, Pfizer and The General Electric Company.

We were incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc. In March 2002, we licensed our core enabling technology from Maxygen and commenced operations. In September 2002, we raised our first outside funding from venture capital investors. As of March 31, 2008, Maxygen held approximately 25% of our outstanding common stock, calculated on an as-converted basis.

The Biocatalysis Opportunity Industry Overview

Biocatalysts have the potential to revolutionize conventional chemistry-based manufacturing processes across a variety of industries. Many industries, from pharmaceuticals to energy to chemicals, use manufacturing processes dependent upon conventional chemical reactions. Biocatalysts can enable superior manufacturing process alternatives to conventional chemistry-based approaches.

While conventional chemistry dominates manufacturing today, this approach has several drawbacks. Conventional chemistry-based manufacturing often requires highly complex, energy-intensive processes that use extreme environments in terms of temperature and pressure, as well as hazardous reagents to effect chemical reactions. These processes often require equipment that is expensive to build and operate, and frequently generate high volumes of waste, some of it hazardous to health and the environment, that must be treated, contained and disposed of. Biocatalyst enabled manufacturing processes are able to address a number of these drawbacks of conventional chemistry-based manufacturing. For example, biocatalysts can

Table of Contents

operate at or near room temperature and pressure and often use manufacturing equipment that is less complex and less expensive to build and operate. Biocatalyst-enabled processes can produce the same or higher quality products than conventional chemistry-based manufacturing, while reducing the risks associated with extreme manufacturing environments without generating nearly the same level of waste.

Despite their potentially significant advantages, naturally occurring biocatalysts have not achieved their full potential in industrial applications. Naturally occurring biocatalysts are often not stable enough to be used in industrial settings, where conditions may differ significantly from those in the biocatalysts natural environments. The activity and productivity of these biocatalysts is also often too limited to be cost- be treated, contained and disposed of. Biocatalyst enabled manufacturing processes are able to address a number of these drawbacks of conventional chemistry-based manufacturing. For example, biocatalysts can operate at or near room temperature and pressure and often use manufacturing equipment that is less complex and less expensive to build and operate. Biocatalyst-enabled processes can produce the same or higher quality products than conventional chemistry-based manufacturing, while reducing the risks associated with extreme manufacturing environments without generating nearly the same level of waste.

Despite their potentially significant advantages, naturally occurring biocatalysts have not achieved their full potential in industrial applications. Naturally occurring biocatalysts are often not stable enough to be used in industrial settings, where conditions may differ significantly from those in the biocatalysts natural environments. The activity and productivity of these biocatalysts is also often too limited to be cost- effective in commercial scale manufacturing. In addition, the activity of natural biocatalysts are typically inhibited by the end product of the reactions they facilitate. This characteristic of natural biocatalysts, which is referred to as product inhibition, results in limited product yields in industrial settings. Moreover, for certain industrial applications there are no known naturally occurring biocatalysts that catalyze the relevant reaction.

Because of these limitations, naturally occurring biocatalysts often require alteration of their composition in order to perform adequately under industrial manufacturing conditions or at productivity levels that would make their use in commercial scale applications economical. Some companies and researchers have tried to improve the performance of naturally occurring biocatalysts or even produce novel biocatalysts by directing their evolution through biotechnology techniques such as the random mutation of genes in an effort to randomly find a biocatalyst having the desired characteristics. However, these early biotechnology techniques have had only limited success. For example, many of these techniques do not identify and remove mutations that exhibit undesirable characteristics. The end result is an evolved biocatalyst that may have some desired characteristics, but may also have undesirable characteristics. As a result, we believe there is a significant opportunity for novel technologies that address the limitations of naturally occurring biocatalysts as well as the limitations of other biotechnology techniques.

Our Approach to Biocatalysis

Our proprietary technology platform has the potential to dramatically transform the commercial and industrial application of biocatalysts. We believe we can use our technology platform to improve industrially relevant characteristics of any biocatalyst, including reduced product inhibition and improved stability, activity, product yield, and tolerance to industrial conditions. In addition, we can develop and optimize biocatalysts much more quickly than alternative approaches. Perhaps most importantly, we believe that our technology platform can enable the production of products that are currently impossible to produce economically at commercial scale.

Our proprietary technology platform uses advanced biotechnology methods, bioinformatics and years of accumulated know-how to significantly expedite the process of developing optimized biocatalysts. Key components of our technology platform include:

Gene shuffling we use our gene shuffling technology to manipulate the genetic code for a biocatalyst to obtain improved industrially relevant characteristics. Starting with a diverse set of

Table of Contents

genes with various characteristics, we recombine, or shuffle, these gene sequences to produce new variants of the enzyme.

Whole Genome Shuffling we use Whole Genome Shuffling to manipulate the genome of a microbe to obtain improved industrially relevant characteristics. Starting with mutational variants of the microbe, we recombine, or shuffle their genomes, to produce new microbe variants. We use protoplast fusion, which fuses two or more cells into one cell, followed by regeneration of normal cells, causing shuffling of their genomes.

High-throughput screening methods we evaluate our biocatalyst libraries of mutated genes or microbes produced by gene shuffling and identify variant biocatalysts that exhibit improved characteristics under conditions that resemble the desired manufacturing process. These improved variants can then be put through the process, and new mutations can be tested, until a highly efficient biocatalyst is produced that meets or exceeds targeted performance characteristics.

ProSAR we use bioinformatic software tools that allow us to quantify the effect of specific mutations in an improved biocatalyst variant. The ability of ProSAR to identify and quantify the potential value of beneficial mutations alongside detrimental mutations is, we believe, a distinguishing factor of our technology platform.

Experience and accumulated knowledge we have significant experience and accumulated knowledge in applying all of these methods and tools, which we believe significantly enhances our technology advantage.

In the pharmaceutical market, we believe our technology platform has significantly improved commercial scale drug manufacturing processes. We have produced and delivered products to both innovator pharmaceutical manufacturers, who produce patented drugs, and generic pharmaceutical companies. These customers have used our processes and products to reduce their costs, simplify their production processes, decrease their environmental impact and increase their efficiency and product yield.

For example, we have developed four enzymes that enabled significant improvements in the manufacturing process for a key intermediate used in the production of atorvastatin, which is the active pharmaceutical ingredient, or API, in Lipitor, the world s best-selling prescription drug. Manufacturers have historically used a complex, expensive, capital intensive and hazardous chemistry-based process to produce this key intermediate, called ATS-8. As a result, they have long sought alternate ways to make the drug, including through enzymes. However, none of the naturally occurring enzymes that we tested showed the required activity and stability necessary to manufacture ATS-8. Using our technology platform, we were able to significantly improve the activity and stability of a number of these naturally occurring enzymes. In one case, we increased the performance of one of these enzymes, which previously showed less than 1% of the required activity and stability, to improve the performance of the biocatalytic reaction by approximately 4,000 times. With the improved enzymes, we were able to replace several steps in the conventional manufacturing process. While one of those steps required temperatures below at least -70 degrees Celsius, our process runs at or near room temperature and eliminates the need for expensive and energy intensive cryogenic equipment. Our process also greatly reduces the waste generated by the conventional chemistry-based processes and generates a biodegradable waste from two of the steps. In addition, the conventional chemistry-based process produces an impurity that is costly to eliminate, and which reduces valuable product yield. Our process, on the other hand, produces products with a purity level that eliminates the need for the purification step, resulting in additional cost savings and higher product yields. In 2006, we received a Presidential Green Chemistry Challenge Award from the United States Environmental Protection Agency for our development of two biocatalytic steps for ATS-8.

More recently, we have begun to explore the potential of our technology platform in the biofuels market with Shell. In 2007, after exceeding targets related to enzyme performance under an initial one-year research agreement, we entered into a five-year collaborative research agreement with Shell to develop

Table of Contents

biocatalysts for use in producing biofuels from renewable sources of sustainable non-food plant materials, commonly known as cellulosic biomass. We believe that there may be significant commercial opportunities for us to pursue funded collaborations in several other bioindustrial markets, including in carbon management, water treatment and chemicals.

Competitive Strengths

Our key competitive strengths are:

Proprietary and Disruptive Technology Platform. Our proprietary technology platform uses advanced biotechnology tools, bioinformatics and years of accumulated know-how to rapidly and systematically develop biocatalysts optimized for commercial scale industrial applications. Our technology platform is potentially disruptive, because it:

- often provides substantial advantages over conventional chemistry, enabling processes that are less complex, expensive, capital-intensive and hazardous, and more efficient in terms of energy, materials use and product yield;
- has substantial advantages over processes using naturally occurring biocatalysts, allowing us to quickly develop biocatalysts which are stable and generate the desired activity and product yields at commercial scale; and
- enables the development of optimized biocatalysts with improved performance characteristics that are rarely present in naturally occurring biocatalysts or other currently available technologies, and that we believe can enable products currently impossible to produce economically at commercial scale, potentially including the production of a commercially viable non-ethanol biofuel alternative to petroleum-based fuels.

Multiple Major Target Markets. We believe we can apply our technology platform to exploit significant commercial opportunities in a number of major and growing markets. We currently use our technology platform to produce biocatalysts that are used at commercial scale in both the generic and innovator pharmaceutical markets. We are working with Shell to develop biocatalysts for use in producing biofuels from cellulosic biomass sources. We also are pursuing funded collaborations in several other bioindustrial markets, including carbon management, water treatment and chemicals.

Partnerships with Global Industry Leaders. We believe that our strategic collaborations and partnerships with leading pharmaceutical companies validate our technology platform, and will enable us to maximize the potential of our technology. We have delivered drug manufacturing processes, or products that we have made with them, to leading manufacturers of branded pharmaceuticals, including Merck, Pfizer and Schering-Plough, and generic pharmaceutical companies, including Arch. In biofuels, after an initial one-year research agreement in which we exceeded targets related to enzyme performance, we entered into a new, five-year collaborative research agreement with Shell, an affiliate company of one of the leading global energy companies and one of the world s largest distributors of biofuels, to develop biocatalysts for use in producing commercially viable fuels made from cellulosic biomass.

Capital-Efficient Business Model. We have adopted a business model that leverages our collaborators engineering, manufacturing and commercial expertise, their distribution infrastructure and their ability to fund commercial scale production facilities. In the pharmaceuticals market, we are working with Arch, a leading independent producer of intermediates and generic APIs in India, where they manufacture intermediates produced using our proprietary biocatalysts for sale in the generic marketplace. In our biofuels research collaboration with Shell, we are developing biocatalysts that can be used to produce fuels from cellulosic biomass. If we are successful in these efforts and Shell decides to commercialize biofuels products resulting from our research collaboration, we will need to rely on Shell to design and build the production facilities to scale the technology to commercial volumes, and distribute the

Table of Contents

final fuel product through its worldwide distribution system. If our collaborators choose to utilize our technology to commercialize new products, this capital-efficient business model will allow us to expand into new markets without having to finance or operate large industrial facilities. This model also allows us to focus our efforts on what we do best: applying our proprietary technology platform to new opportunities.

Diversified and Visible Revenue Base. Our revenue stream is diversified across various industries, which should mitigate our exposure to cyclical downturns or regional fluctuations in any one market. Our 2007 revenues were derived from the innovator and generic pharmaceuticals and biofuels markets, and consisted primarily of collaborative research and development revenues, product sales and government grants, which are separately identified in our consolidated statements of operations. Revenues from our expected sales of generic intermediates and APIs, as well as the revenues that we expect to recognize from our five-year biofuels collaborative research agreement with Shell, should provide a high degree of visibility into our aggregate revenues for the foreseeable future. We intend to further diversify our revenue by pursuing funded collaborations in other bioindustrial markets, such as carbon management, water treatment and chemicals.

Strategy

Our objective is to be the leading provider of optimized biocatalytic solutions across a wide range of industries. Key elements of our strategy are as follows:

Expand into new bioindustrial markets. We believe that we can deploy our technology platform to transform manufacturing processes throughout various bioindustrial markets. We have a research collaboration with Shell to develop biocatalysts for use in producing commercially viable fuels from cellulosic biomass. We will have the right to use the intellectual property developed in this collaboration in all fields other than fuels and related products. We intend to leverage our intellectual property developed under this research collaboration to pursue other funded collaborations in several other bioindustrial markets, including carbon management, water treatment and chemicals.

Continue growing our pharmaceutical business. Beginning in late 2008, we plan to launch several new intermediates and APIs for the generic equivalents of branded pharmaceutical products including Singulair, Nexium and Crestor. We will also continue to aggressively market our Codex Biocatalyst Panels to pharmaceutical companies to demonstrate the capabilities of our technology platform in an effort to integrate our products and services earlier and more deeply into drug development and manufacturing processes.

Enter into additional strategic collaborations. We have grown our business by collaborating with market leaders that have helped fund the development and application of our technology platform in the pharmaceutical and biofuels markets. Our collaborators have provided us access to marketplace expertise, industrial infrastructure, engineering capabilities and capital resources. We are pursuing additional collaborations that will allow us to continue to leverage our collaborators competitive strengths and financial resources in our target markets.

Continue enhancing our technology platform. We intend to continue to advance our technology platform by continued investment in our research and development capabilities. To date, our most significant advances have come in the area of our gene shuffling technology for enzyme applications. We are expanding our capabilities in microbe development by metabolic engineering, synthetic biology and Whole Genome Shuffling. We also intend to further increase the quality of our biocatalyst libraries to allow us to more rapidly identify products with desired characteristics. Improvements in either of these areas can be applied in the development of new products in our current and target markets.

Further develop our supply chain. To increase our biocatalyst manufacturing capacity and establish secondary supply sources, we will continue to evaluate whether to invest in our own manufacturing capabilities or to establish long term supply contracts with additional contract manufacturers. We may also opportunistically seek to secure specialty manufacturing assets and expand existing relationships for the supply of our enzymes and key pharmaceutical APIs and intermediates.

Table of Contents

Expand our business through acquisition of new technologies, products or businesses. In the past, we have expanded our business by acquiring companies with synergistic business plans and licensing new technology. For example, we acquired Jülich Fine Chemicals in 2005 and BioCatalytics in 2007, and we licensed technology from the California Institute of Technology and from the University of California at Los Angeles. We will continue to evaluate opportunities to acquire or license new technologies, products or businesses that complement or expand our capabilities. We may pursue licensing and acquisition opportunities in the carbon management, water treatment and chemical markets as we seek to expand into these markets.

Pharmaceutical Market Opportunity

Industry Overview

The pharmaceutical industry represents a significant market opportunity for us. In 2006, according to IMS Health, global spending on prescription drugs exceeded $600 billion. The pharmaceutical market can be divided into two categories: patent-protected, or branded drugs, and generic drugs which are not patent protected. We refer to companies that focus on the research, development and commercialization of branded drugs as innovators.

Both innovator and generic companies are under significant pressure to reduce manufacturing costs. In the regulated markets, or markets that provide effective patent protection, innovators enjoy a period of premium pricing protected by their patents and have historically been less concerned about their manufacturing costs. As a result, innovators often implement expensive, inefficient manufacturing processes early in the lifecycles of their products, only to find later that costs become more critical as operating margins decrease across their product portfolios. Once an innovator s patents in a regulated market expire, generic drugs can enter the market, and pricing rapidly drops to a small fraction of the innovator s branded pricing. The number of products losing patent protection has grown rapidly over the last decade. According to Datamonitor, generic competition is expected to eliminate $63 billion from top innovators U.S. sales between 2007 and 2012 as more than three dozen drugs lose patent protection. While the generic companies have benefited from patent expirations, these companies compete primarily on price, and therefore low cost manufacturing processes are critical to their success. Prior to the expiration of patents, there are also substantial opportunities for generic manufacturers in countries that do not provide the same level of patent protection as regulated markets, which we refer to as the non-regulated markets. While these markets represent huge opportunities for generics companies, competition and the need for access to low-cost sources of intermediates and APIs are intense. Increasing pressures on innovator profitability and intense cost competition among generics manufacturers present opportunities for companies that can lower drug production costs.

Opportunities in the Innovator Market

As noted above, innovators are increasingly looking for opportunities to reduce their manufacturing costs and improve their operating margins. One cost-saving trend among innovators is outsourcing the manufacture of their APIs, as well as pharmaceutical intermediates to be converted to APIs. In addition, innovators have also invested in new technologies to improve their manufacturing productivity and efficiency. We expect the demand for products and services that reduce manufacturing costs for products at all stages of the drug lifecycle, from preclinical and clinical development through commercial scale manufacturing, will continue to increase.

Another strategy innovators can use to reduce manufacturing costs is to adopt processes that obviate the need for costly purification of their intermediates or APIs. The chemical structure of many small molecule drugs has two or more configurations, which are mirror-image arrangements of the same number and type of atoms that are not superimposable, similar to a person s left and right hands. While the two or more configurations have the same chemical structures, there can be differences in their therapeutic safety and efficacy profiles. For example, one form of thalidomide is efficacious and safe, but the other causes horrible

Table of Contents

birth defects. To avoid developing a drug containing enantiomers with detrimental effects, pharmaceutical companies are increasingly seeking to introduce new drugs containing only the desired enantiomer. The production of the pure configurations via conventional chemistry-based processes is rarely possible. These processes typically require late-stage purification steps that reduce product yield and can significantly increase costs. Because of the high costs associated with these purification steps, significant opportunities exist for alternatives that can produce pure configurations using more efficient and less costly methods.

Opportunities in the Generics Market

Generics manufacturers are also increasingly pursuing opportunities to reduce their manufacturing costs. The rise in patent expirations, as well as support by some governments for lower-cost alternatives to branded drugs, have led to strong growth in the generics industry in the regulated markets. According to IMS Health, patients currently fill over 60% of prescriptions in the United States with generic drugs. However, because generics manufacturers compete primarily on price, they are even more cost sensitive than innovators. Lower manufacturing costs for intermediates and APIs is the key factor that helps generics companies compete and win market share.

Prior to the expiration of patents on a branded drug, generics manufacturers also have significant opportunities to commercialize the generic equivalents of branded drugs in the non-regulated markets. Innovators typically do not sell their products in the non-regulated markets, because those countries either have economies that cannot support branded drug pricing or have legal systems that do not provide effective patent protection. As a result, these markets are dominated by generic products. Non-regulated countries represent some of the fastest growing pharmaceutical markets in the world. While these markets represent huge opportunities for generics companies, competition and the need for access to low-cost sources of intermediates and API is intense.

Our Solution for the Pharmaceutical Market

Our technology platform enables us to add value throughout the pharmaceutical drug lifecycle, for both innovator and generic pharmaceutical manufacturers, by improving the efficiency and productivity of manufacturing processes. We optimize and use biocatalysts that perform chemical transformations at a lower cost with more direct and clean transformations than is possible with conventional chemical reactions or naturally occurring biocatalysts.

Our technology platform allows our pharmaceutical customers to reduce their manufacturing costs by eliminating the need for late-stage purification in existing production processes, and eliminating the need for complex manufacturing equipment for drug products that have yet to reach the commercial stage. By reducing manufacturing costs, we allow innovators to increase their margins during the important period when a drug has patent protection, and we allow generics manufacturers to compete more effectively on price. We achieve these results in a number of ways, including:

- reducing the use of raw materials and intermediate products;
- performing reactions at or near room temperature and pressure;
- using water as a primary solvent;
- eliminating the need for certain costly manufacturing equipment;
- reducing energy requirements; and
- eliminating hazardous inputs and harmful emission by-products.

In addition, our technology platform may allow our innovator pharmaceutical customers to bring some drugs to market more rapidly increasing the useful commercial life of a patented drug after regulatory approval. We also enable our customers to improve product purity in a much more

cost effective manner than is possible with traditional chemical synthesis.

Table of Contents

Products and Services

The pharmaceutical industry product lifecycle begins with the discovery of new chemical entities and continues through preclinical and clinical development, product launch and, ultimately, patent expiration and the transition from branded to generic products. During this lifecycle, the production process for a product evolves from the preclinical development stage, when manufacturers are focused more on speed to market and safety and efficacy than cost, to the production of small batches for clinical trials, and finally to commercial scale manufacturing.

Our products and services enable us to add value throughout the drug lifecycle, from preclinical development to clinical development and commercialization. The following chart summarizes our product and service offerings and indicates the stages of the product lifecycle in which our offerings are used:

Product or Service	Preclinical Development	Clinical Development	Commercial Scale Manufacturing
Codex Biocatalyst Panels	ü	ü	
Biocatalyst Screening Services	ü	ü	
Biocatalyst Optimization Services	ü	ü	ü
Biocatalysts	ü	ü	ü
Intermediates		ü	ü

Codex Biocatalyst Panels. We sell Codex Biocatalyst Panels to customers who are engaged in preclinical and clinical drug development to allow them to screen and identify possible biocatalytic manufacturing processes for their drug candidates. Our Codex Biocatalyst Panels are plates embedded with genetically diverse variants of our proprietary biocatalysts, which allow our customers to determine whether a biocatalyst produces a desired activity that is applicable to a particular process.

Our Codex Biocatalyst Panels:

- allow innovators to rapidly and inexpensively screen and identify possible biocatalytic manufacturing processes for many of their drug candidates in-house, without the risks of disclosing the composition of their proprietary molecules before they have received patent protection; and

- generate data that we can use to rapidly optimize biocatalysts for a particular reaction, if necessary, reducing the time required to generate a manufacturing process capable of supporting clinical trials with inexpensively produced, pure drugs.

We believe that our Codex Biocatalyst Panels will help build early and broad awareness of the power and utility of our technology platform, and will lead to further sales of our biocatalyst optimization services and biocatalysts. If our customers incorporate a biocatalytic manufacturing process early in a product s lifecycle, they can reduce their manufacturing costs throughout that lifecycle, and we can increase our potential revenue if our technology is used throughout the lifecycle of the product. For example, Merck, a leading pharmaceutical innovator, was the first customer for our Codex Biocatalyst Panels and, while conventional manufacturing process development for clinical supplies can require months, Merck used our Codex Biocatalyst Panels to move from initial screening to generating the first kilogram quantities of biocatalyst in a matter of weeks. After determining that biocatalysts in our panels showed initial activity against their product pipeline and portfolio, Merck purchased biocatalyst optimization services and biocatalysts from us.

Biocatalyst screening services. If a customers prefers, rather than subscribing to our Codex Biocatalyst Panels to use for their own screening, they can send us their materials to test against our existing libraries of biocatalysts. If we detect desired activity in a specific biocatalyst, we can supply the customer with this biocatalyst or perform optimization services to improve the performance of the biocatalyst.

Table of Contents

Our screening services:

- allow innovators to rapidly and inexpensively screen and identify possible biocatalytic manufacturing processes through access to our extensive biocatalyst libraries; and
- generate data that we can use to rapidly optimize biocatalysts for a particular reaction, if necessary, reducing the time required to generate a manufacturing process capable of supporting clinical trials with inexpensively produced, pure drugs.

We have provided screening services to numerous innovator and generic pharmaceutical manufacturers.

Biocatalyst optimization services. We work with our innovator customers during preclinical and clinical development to customize proprietary biocatalysts, resulting in optimized biocatalysts that have been evolved specifically to perform a desired process according to a highly selective set of specifications.

Our biocatalyst optimization services:

- allow innovators to improve the manufacturing process as their drug candidates progress through preclinical and clinical development, deferring or reducing the need for significant manufacturing investment until the likelihood of commercial success is more certain; and
- enable manufacturing processes that are highly efficient, inexpensive, require relatively little energy, reduce the need for hazardous reagents, and reduce waste. For example, our activities with Pfizer have included developing an optimized biocatalytic manufacturing process for a key intermediate that eliminates three chemical steps.

Once an innovator uses our processes in later stages of the manufacturing process for its Phase III clinical trials, it must continue to use the same process for commercial launch unless it receives approval from the U.S. Food and Drug Administration, or FDA, to change its manufacturing process, which is typically cost- and risk-prohibitive. Accordingly, once an innovator incorporates our products or processes into a product in Phase III clinical trials, if it receives FDA approval and is launched, we expect to enjoy relatively predictable and significant revenue for the patent life of the approved drug.

Biocatalysts. We supply varying quantities of our proprietary biocatalysts to pharmaceutical companies, from small to moderate quantities while they are optimizing their production processes, to larger quantities during later-stage clinical development and commercial scale drug production. For example, we have supplied Merck with enzymes for the manufacture of several intermediates for drug candidates at various stages of clinical development.

Our biocatalysts:

- enable innovators to manufacture products more efficiently during preclinical and clinical development using optimized biocatalytic processes, with relatively low investment;
- eliminate the need for innovators to invest in the development of complex chemical synthesis routes during the development stage;
- allow innovators to achieve higher product purity during the development stage prior to investing in expensive late-stage clinical trials;
- reduce the risk of adverse effects arising from impurities; and

allow the removal of entire steps from synthetic chemical production routes during commercial scale production, reducing raw material costs, energy requirements and the need for capital expenditures.

Intermediates and APIs. We can supply intermediates and APIs to our customers throughout the drug lifecycle.

Our supply of intermediates have the following uses and benefits:

lowers capital investment for innovators through outsourcing of manufacturing; and

Table of Contents

provides a source of less expensive, more pure products to innovator and generics manufacturers.

In the innovator market, we are preparing to supply Pfizer with significant quantities of an intermediate in the scale-up and manufacture of a product candidate for upcoming clinical trials.

We also develop and, in partnership with Arch, manufacture and sell generic intermediates in the non-regulated markets. Our biocatalysts enable us to reduce our manufacturing costs, which enables us to compete on price, a top priority in the generics market. Our generics product portfolio and pipeline includes intermediates and APIs for infectious disease, cardiovascular and central nervous system indications, with expansion planned to a number of other therapeutic categories. For example, we developed a novel process for the manufacture of two key intermediates in the production of atorvastatin. We plan to sell this intermediate to manufacturers who will market the generic version of Lipitor in the United States and Europe once the composition of matter patents for Lipitor expire in those markets.

We have a well-developed product selection process for identifying high-volume intermediates and APIs for the generics market that we believe will enjoy the most dramatic cost savings from the application of our technology platform. This selection process is a cross-disciplinary effort, involving input from personnel in our research, marketing and operations departments, which has allowed us to establish a robust pipeline of generic intermediates and APIs. Starting in 2008, we plan to launch several new intermediates and APIs in non-regulated markets for purchase by manufacturers of generic forms of drugs, whose branded equivalents are extremely profitable in the regulated markets. We plan to launch these same intermediates and APIs in the regulated markets when the patent protection for each branded equivalent drug product expires. To help increase our product pipeline, we established in 2008 a research and development center in Hungary for microbe improvement and fermentation development. We expect that this enhanced capability will allow us to launch new pharmaceutical products through fermentation, such as antibiotics.

The following table is a representative list of some of the products for which we sell or plan to sell generic intermediates or APIs:

Generic Name	Brand Name	Indication	Our Product	Non-regulated Market Launch Date	Expected Regulated Market Launch Date
atorvastatin	Lipitor	lowers cholesterol	intermediate	2006	2012
levetiracetam	Keppra	anti-seizure	API	2008*	2010
duloxetine	Cymbalta	anti-depressant	API	2008*	2013
montelukast	Singulair	asthma/allergies	intermediate	2008*	2013
esomeprazole	Nexium	ulcers	API	2009*	2015
rosuvastatin	Crestor	lowers cholesterol	API	2009*	2015

(*) Expected launch date.

Biofuels Market Opportunity

Industry Overview Need for Petroleum Replacement

The world currently depends on petroleum to help fuel growth, both in the transportation market and as a key ingredient in many everyday products. However, underlying economic, political and environmental concerns surrounding petroleum have increased the desire to find renewable alternatives to this limited commodity.

Table of Contents

Demand for petroleum is increasing. The United States, Europe and Japan have historically been the major consumers of petroleum. Developing economies such as India and China are all experiencing tremendous levels of economic growth. China and India alone last year saw GDP growth rates estimated at 11.4% and 8.5%, respectively. This economic growth has created new sources of demand for petroleum. Since 1998, China, India and the Middle East accounted for 51% of the global oil demand growth, with the United States, Europe and Japan only accounting for 16% of global growth over the same period.

Dependence on imported petroleum. According to the U.S. Energy Information Association, or EIA, in 2006, the top five net oil exporting countries in the world were Saudi Arabia, Russia, the United Arab Emirates, Norway and Iran. The political and economic instability in some of these countries and their surrounding regions adds further uncertainty to the supply of oil. As a result, countries that have been net importers of oil are beginning to pursue approaches that provide for greater independence from these suppliers.

New petroleum reserves more expensive to develop. The cost to replace known reserves is increasing significantly. Petroleum companies are now developing fields in the deep waters of the Gulf of Mexico and in the tar sands in Canada that previously would have not been economically attractive to exploit.

Rising petroleum prices. Worldwide petroleum prices in dollars have risen 242% over the last five years, from $29.03 per barrel at the beginning of January 2003, to $99.32 per barrel at the end of March 2008, according to the EIA. Inflation-adjusted prices for petroleum have recently reached a new record, exceeding the prices reached in the 1973 oil crisis.

Limited supply of petroleum. Growth in demand for petroleum has outpaced growth in supply. The supply growth has come mostly from non-OPEC producing countries, in particular Russia. However, this growth is expected to flatten. While OPEC producing countries may have the reserves, political instability in these regions has hindered their ability to increase production levels as well.

Environmental concerns. Environmental concerns over the by-products of petroleum consumption, including greenhouse gas emissions, have led to a global search for environmentally friendly solutions to the world s growing fuel needs.

Industry Challenges and Opportunities

According to the EIA, of the 86 million barrels per day of global petroleum demand in 2006, approximately 45% was refined into gasoline for use in automobiles. There is enormous potential to replace a substantial portion of petroleum-based liquid transportation fuels with high-quality, energy-rich fuels produced through biocatalytic transformation of renewable carbon sources. For instance, in 2007, the U.S. Congress passed an alternative fuels mandate that calls for 9 billion gallons of liquid transportation fuels sold in 2008 to come from alternative sources, including biofuels, a mandate that grows to 36 billion gallons by 2022. First generation biofuels manufacturers use biocatalysts to produce biofuels such as ethanol and biodiesel at commercial scale. However, these fuels do not provide an optimal solution to the petroleum dependence problem for a number of reasons, including:

high exposure to rising commodity and energy prices;

increases in food and animal feed prices resulting from the diversion of food crops, such as corn and soybeans, to fuel production;

ethical issues associated with diverting food crops and fertile acreage to fuel production; and

energy inefficiency of production, due to the large amount of fertilizer, labor and equipment required to grow food crops and the energy required to produce biofuels from food crops.

76

Table of Contents

Because of the limitations of first generation biofuels, many companies are now working to make fuels from cellulosic biomass rather than from commercial food crops. Cellulosic biomass is found in virtually all plant material, including sustainable non-food crops such as switch grass and wood chips, and agricultural plant wastes such as corn stover and sugar cane bagasse. Cellulosic biomass is comprised of, among other things, cellulose and hemi-cellulose, which are long chains of five and six carbon sugars that are linked together. To access these sugars, biofuels producers break apart cellulosic materials such as wood chips or grasses through a variety of processes that help to expose the hemicelluloses and cellulose to agents that break them down. Once exposed, these long chains can be broken down into individual sugar units which can be transformed into fuels.

While fuels produced from cellulosic biomass would represent significant advances over first generation biofuels, there have been several challenges in their development. These challenges include converting cellulose and hemicellulose into sugar, which is a more complicated process than converting corn starch and sugarcane into sugar. Solving those challenges will require cellulosic biofuels manufacturers to develop innovative, robust biocatalysts that will have greater product yield and be more cost efficient, and will react quickly and sustainably under optimal conditions. To date, no companies have successfully done this economically and at commercial scale.

Even if effective methods to produce ethanol and biodiesel from cellulosic biomass are found, these methods will not be able to overcome all of the limitations of ethanol and biodiesel, including:

- engine and fuel system modifications that may be required to utilize biofuels in ground and air transportation;
- the limited energy content of ethanol, which has only about 70% of the energy content of a gallon of gasoline, resulting in lower miles per gallon; and
- the inability to use existing gasoline distribution infrastructure to transport and dispense high concentration ethanol.

We believe that the use of biocatalysis to transform cellulosic biomass into biofuels with performance characteristics similar to current petroleum-based gasoline could address the limitations of alcohol-based fuels and could ultimately transform the liquid transportation fuels industry.

Our Solutions for the Biofuels Market

We believe that our technology platform may enable the development of biocatalysts that can be used to produce commercially viable non-ethanol biofuel alternatives to petroleum-based fuels from cellulosic biomass. As we work on this long term goal, we also intend to work on the conversion of biomass to sugars, which could be used for near term opportunities such as cellulosic ethanol.

Leveraging the knowledge and expertise we have gained through our success in the pharmaceutical market, we believe that our technology platform will enable the development of a manufacturing process for cellulosic biofuels that:

- minimizes the costs associated with next generation biofuels by eliminating exposure to volatile commodity prices;
- does not rely on diverting food resources for the production of biofuels;
- uses biomass that can be grown on acreage that is not suitable for the production of food;
- increases the speed at which biomass is converted into biofuels;

increases the product yield of biofuels produced from cellulosic biomass;

provides producers with more flexibility in designing processes to convert cellulosic biomass to biofuels, thereby reducing the costs associated with designing and running production facilities; and

Table of Contents

enables the production of new types of cellulosic biofuels that could be alternatives to petroleum-based fuels rather than supplements to them.

In November 2006, we entered into an initial research agreement with Shell, an affiliate company of one of the leading global energy companies and one of the world s largest distributors of biofuels. After exceeding the targets related to enzyme performance of this initial project, we entered into a new, five-year collaborative research agreement in November 2007. During the term of this collaborative research agreement, we will work exclusively with Shell on the conversion of cellulosic biomass into fuels.

Under the terms of our collaborative research agreement, we own all intellectual property developed under the research collaboration and have granted Shell exclusive license rights to use the intellectual property in the manufacture of fuels and related products. We retain all rights to use the intellectual property developed in the research collaboration in all areas outside of the collaboration. If Shell commercializes fuels, or related products that result from this research collaboration, we will receive production-based royalties.

Our research collaboration is focused on the development of biocatalysts for use in producing commercially viable fuels from cellulosic biomass, which Shell will have the right, but not the obligation, to commercialize. We are not aware of any naturally occurring biocatalysts that enable the commercial manufacture of cellulosic biofuels. Therefore, we are using our technology platform to try to develop novel enzymes that will economically enable the conversion of cellulosic biomass to sugar and microbes that will enable the conversion of sugars into optimal biofuels, going beyond alcohols and their limitations. If we produce these biocatalysts, we will work to improve their characteristics and the economics of the process. Ultimately, we believe we can use our technology platform to develop a suite of biocatalysts robust enough to convert a wide variety of biomass sources found throughout the world into fuels.

If Shell chooses to commercialize any biofuels products developed through our collaboration, we believe that Shell has the resources and the infrastructure to commercialize the products that we may develop on a global scale. If this were to occur, the combination of our technology platform with Shell s global manufacturing and distribution network could provide a complete field to wheels solution, from securing reliable sources of cellulosic biomass, to converting that biomass into biofuels, to delivery and distribution of refined biofuels to consumers at the pump.

Additional Bioindustrial Opportunities

We are pursuing funded collaborations in several other bioindustrial markets, including carbon management, water treatment and chemicals. We believe that our technology platform, together with the knowledge and experience gained from our efforts in the pharmaceutical market and in our biofuels research program, will allow us to capitalize on these opportunities. We will target collaborators that are industry leaders, allowing us to leverage their competitive strengths and resources in pursuit of these opportunities.

Carbon management

According to the EIA, the global emission level of carbon dioxide is projected to rise from 27 billion metric tons in 2004 to 34 billion metric tons in 2015 and 43 billion metric tons in 2030. Of the approximately six billion tons of carbon dioxide generated by the United States alone each year, approximately 39% is produced by the electric power industry. Furthermore, the share of global carbon dioxide emissions by the electric power industry could potentially increase in the future as growing demand for power increases alongside an exponentially growing population. By 2030, the EIA estimates, China and India will account for 31% of the world s carbon dioxide emissions, driven largely by their use of coal in generating electricity. As such, the need for an environmentally viable method to manage carbon dioxide emissions represents a significant opportunity.

Table of Contents

We are exploring opportunities to apply our technology platform to the management of carbon dioxide emissions from point sources such as coal-fired power plants. It may be possible, for example, to combine biocatalytic solutions to separate carbon dioxide from other exhaust gases and direct them to separate sequestration mechanisms.

Water Treatment

Water treatment is another example of a potential major market opportunity for novel biocatalytic solutions. According to a United Nations study published in March 2007, approximately 80% of all diseases in the developing world are caused by unsafe water and poor sanitation. In addition, many industrial manufacturing operations generate large quantities of waste water, which must be treated in order to avoid contamination of our fresh water resources and our oceans. There are many sources and types of water pollution, and when different types of pollution mix together it presents complex and challenging remediation problems downstream.

The market for biocatalysis in water treatment is in a very early stage of development. However, new interest in biocatalytic water treatment has been sparked in part by concerns about possible chemical contamination of drinking water from industrial and other sources. For example, a U.S. government report released in 2006 examined the potential of biocatalysts in the treatment of groundwater and drinking water in both civilian and military applications (including the removal of hazardous industrial chemicals, and chemical and biological warfare agents). The report concluded that biocatalyst-embedded water filters held significant promise for the treatment of agents, pesticides, or other chemical contaminants in drinking water systems, as well as for the decontamination of pipes and other equipment with contaminant residue.

Chemicals

There are also significant market opportunities in the chemical industry for companies that can help reduce or eliminate petroleum dependency, as well as costly and wasteful manufacturing processes. According to the EIA, in 2006, approximately 18% of each barrel of crude petroleum were used as the raw starting material for chemicals used in a variety of products, including carpets, upholstery, food packaging, vitamins, preservatives, paints, adhesives, inks, aspirin and a multitude of plastics and rubbers.

We believe that fermentable sugars produced from cellulosic biomass will serve as an alternate source of carbon for use in the manufacture of many chemicals. This potential market may provide an opportunity to leverage our funded work with Shell into a separate business in the non-fuels chemicals industry. In addition, our technology platform could be applied to develop biocatalytic pathways for the conversion of sugar or other feedstocks, rather than petroleum-derived hydrocarbons, into commercially important chemicals. To pursue certain opportunities in the chemicals market, we will need to license from Maxygen additional rights to apply gene shuffling technology in that market.

Strategic Collaborations

Our strategic collaborations allow us to expand into new markets and to service our existing customers, while operating our business with maximum capital efficiency. By collaborating with companies such as Arch and Shell, we are able to leverage both our technology platform and our collaborators strengths in production and distribution. This allows us to focus our capital on key areas such as research and development.

Arch

Arch Pharmalabs Limited, or Arch, of Mumbai, India manufactures intermediates produced using our biocatalytic processes for sale in the generic marketplace. Arch has extensive expertise in chemical process development and scale-up, and is a leading producer of intermediates and generic APIs in India.

Table of Contents

In October 2005, we entered into a technology transfer and supply agreement with Arch. Under the terms of the agreement, Arch agreed to manufacture and supply ATS-8 for us and on our behalf. We granted to Arch, under certain of our patent rights and technology, a non-exclusive, royalty-free license, with no right to grant sublicense rights, solely to manufacture ATS-8 for and on behalf of us. We also agreed to transfer technology that is necessary or useful for the manufacture of ATS-8. Arch also agreed to purchase exclusively from us quantities of certain of our enzymes and an earlier intermediate, used in the production of ATS-8, known as ATS-5, sufficient to enable Arch to fulfill our orders for ATS-8. Subsequently, we transferred our ATS-5 related technology to Arch for the sole purposes of manufacturing ATS-5 for our resale to Pfizer and others and for Arch s use in the manufacture of ATS-8 manufactured for us and on our behalf. In 2006, we broadened our relationship with Arch by entering into an enzyme license and supply agreement, a supply agreement and a master services agreement with Arch.

Under our enzyme license and supply agreement with Arch, Arch agreed to pay us certain material transfer fees in exchange for transfer of enzymes and ATS-5 to Arch. Under the supply agreement, we agreed to pay certain manufacturing costs as well as a percentage of the profits we earn on our sales of ATS-8. Additionally, we agreed to pay Arch certain transfer fees in exchange for the transfer of ATS-8 and ATS-5 by Arch to us or on our behalf. We also agreed to pay Arch up to $1.5 million for certain chemical process and manufacturing method development services as Arch delivers them over the course of the master services agreement. Under our enzyme license and supply agreement with Arch, we retain rights to all intellectual property in our technology and enzymes, and Arch has assigned to us all rights in any inventions developed by Arch solely or jointly with us or with a third party prior to or during the term of the agreement that relate to our technology, our enzymes and ATS-8.

We can terminate our enzyme license and supply agreement Arch for any or no reason by providing Arch with six months written notice. Each party also has the right to terminate the agreement in the case of a breach by the other party if such breach is uncured within 45 days, and we can terminate these agreements immediately in the case of a breach by Arch of certain covenants contained in these agreements. The master services agreement will expire on August 1, 2010, and may be terminated by us for any or no reason by providing Arch with 60 days notice, or by either party in the case of a breach by the other party if such breach is uncured within 60 days.

Shell

We collaborate with Shell to develop commercially viable fuels from cellulosic biomass. If Shell decides to commercialize any biofuel products developed through our collaborative research agreement, we believe that, as an affiliate company of one of the leading global energy companies and one of the world s largest distributors of biofuels, Shell has the resources and infrastructure to commercialize the technologies that we may develop on a global scale.

In November 2006, we entered into a research agreement with Shell. After exceeding targets related to enzyme performance under that agreement, we entered into a new collaboration under a five year amended and restated collaborative research agreement in November 2007. Under the terms of the amended and restated agreement, we agreed to use our proprietary technology platform to discover and develop biocatalysts for use in converting cellulosic biomass into biofuels and related products. We received an up-front payment of $20 million upon signing the amended and restated collaborative research agreement. We have agreed to work exclusively with Shell until November 2012 in the field of converting cellulosic biomass into fermentable sugars that can be converted into fuels and related products. However, Shell is not required to work exclusively with us, and could develop or pursue alternative technologies that it decides to use for commercialization purposes instead of the technology developed under our research collaboration. This up-front fee is refundable under certain conditions, such as a change in control in which we are acquired by a competitor of Shell. This refundability lapses ratably over a five-year period beginning November 1, 2007 on a straight-line basis.

Table of Contents

We agreed to devote to the research collaboration a number of our FTEs to be funded by Shell which will grow over time. Beginning in August 2008, Shell can elect to reduce the number of funded FTEs under certain conditions, although the number of FTEs it can reduce is limited until November 2009. We are also eligible for milestone payments upon the achievement of certain technical goals beginning in 2009, as well as additional milestones in each of the subsequent years of the agreement.

Shell purchased approximately $3.0 million of our Series D preferred stock in November 2006 and approximately $30.5 million of our Series E preferred stock in November 2007. In addition, in November 2007, Shell exercised a warrant issued in November 2006 to purchase 428,571 shares of our Series D preferred stock for $3.0 million.

Shell can terminate the amended and restated collaborative research agreement after November 1, 2009, for any or no reason by providing us with six months notice. We will have the right to terminate the amended and restated collaborative research agreement upon 90 days notice if Shell decides to fund less than a certain number of our FTEs in the performance of activities under the amended and restated collaborative research agreement. Each party also has the right to terminate the amended and restated collaborative research agreement in the case of a breach by the other party if such breach is uncured within 60 days. Each party also can terminate the amended and restated collaborative research agreement if such party believes the other party has assigned the amended and restated collaborative research agreement to a direct competitor of such party in the field of converting biomass into fermentable sugars that can be converted into fuels and related products.

Under our agreements with Shell, we retain rights to all intellectual property in our technology. While we will own all rights in any inventions arising under the research activities conducted under the amended and restated collaborative research agreement, Shell will have an exclusive license to these inventions. If we acquire technology from third parties for the purpose of these research activities, we will own the intellectual property while Shell will be granted an exclusive license in the field of use for the research and commercial use, with a right to sub-license.

In November 2006, we also entered into a license agreement with Shell, which was amended and restated on November 1, 2007. Under the terms of the amended and restated license agreement, we granted to Shell, a worldwide, exclusive, royalty-bearing license, including the right to grant sublicenses, to manufacture, have manufactured, use, sell, offer for sale and import any product covered by our patents or which utilizes our technology for use in the field of converting biomass into biofuels and related products. The patents and technology licensed included our then existing patent rights and technology and patent rights and technology developed or acquired during performance of the research agreement, in each case related to converting biomass into biofuels and related products. We additionally granted Shell royalty-free licenses which allow Shell to manufacture or have manufactured biocatalysts developed under the research agreement solely for the purposes of using such biocatalysts in the manufacture of products for use in the field of converting biomass into biofuels and related products, such licenses to be used only in accordance with the royalty-bearing license described above. These royalty-free licenses are (I) an exclusive license under the patents and technology related to converting biomass into biofuels and related products and developed or acquired by during performance of the research agreement and (II) a non-exclusive license to patents and technology controlled by us that are necessary or useful for converting biomass into biofuels and related products.

Shell will pay us a royalty per gallon with respect to certain fuel products. The applicable fuel products are those products which are covered by patents or utilize technology related to converting biomass into biofuels and related products that were either developed or acquired during performance of the research agreement or are controlled by us and necessary or useful for such purpose. With respect to biomass converted into sugars, Shell agreed to pay us a royalty per gallon of fuel product made from those sugars. With respect to sugars converted into fuel, Shell agreed to pay us a separate royalty per gallon of fuel product. The amounts of such royalties depend on whether the product is an intermediate in conversion of biomass into liquid fuel or fuel additive or a lubricant, or is a liquid fuel or fuel additive or a lubricant.

Table of Contents

Shell can terminate the amended and restated license agreement for any or no reason by providing us with six months notice. Each party also has the right to terminate the amended and restated license agreement in the case of a breach by the other party if such breach is uncured within 60 days. The duration of the license agreement differs for each of the fields of use covered by the license agreement, but for each field of use it continues until the later of (i) twenty (20) years after the first sale of product licensed under the agreement in the field of use or (ii) expiration of the last to expire patents covering products licensed under the agreement in the field of use that were either developed or acquired during performance of the research agreement or are controlled by us and necessary or useful for such purpose.

Technology

We are innovators in the directed evolution of enzymes and microbes to enable industrial biocatalytic reactions and fermentations via enzyme engineering, metabolic pathway engineering and fermentation microbe improvement. Our technology platform has enabled commercially viable products and processes for the manufacture of pharmaceutical intermediates, and we are in the process of applying our technology platform in connection with the development of biofuels.

Our approach to developing commercially viable biocatalytic processes begins by conceptually designing the most economical manufacturing process for a targeted product. We then develop optimized biocatalysts to enable that design, using our directed evolution technology, including screening and validating biocatalysts under relevant conditions. Typical design criteria include stability in the desired reaction conditions, biocatalyst activity and productivity (yield), ease of product isolation, product purity and cost. Previous approaches to biocatalytic process development typically involved designing and engineering around shortcomings of available enzymes, involving, for example, enzyme immobilization (for stability and/or reuse), special equipment and costly product isolation and purification methods. We circumvent the need for such costly process design features by optimizing the biocatalyst for fitness in the desired process environment. As a result, we enable and develop cost-efficient processes that typically are relatively simple to run in conventional manufacturing equipment. This also allows for the efficient technical transfer of our process to our manufacturing partners.

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

Enzyme Optimization Overview

The enzyme optimization process starts by identifying genes that code for enzymes known to have the desired type of chemical reactivity for a desired 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 such genes, and types of diversity being tested, often vary over the course of a biocatalyst optimization program. For finding initial diversity, methods typically include random mutagenesis and site-directed mutagenesis. We also test mutational variations that distinguish closely related enzymes among different organisms. Once we have identified potentially beneficial mutations, we test combinations of these mutations in libraries made using one or more of our gene shuffling methodologies. Shuffling, which recombines genes, allows us to rapidly combine beneficial mutations in the individual genes in the shuffled library, and isolate and discard

detrimental mutations. Using high throughput enzyme production and screening methods, we produce and evaluate libraries of recombined enzymes and identify variant enzymes that exhibit improved performance characteristics, such as stability, activity and selectivity, under conditions that resemble those of the desired process.

The next step in our optimization process involves our software tool, protein sequencing activity register, which we call ProSAR, which we initially licensed from Maxygen and have further customized to our specific needs. ProSAR aids in the identification of specific gene and enzyme mutations responsible for beneficial, neutral or detrimental performance characteristics. Earlier directed evolution methods did not separately evaluate individual mutations in libraries of variants resulting from multiple mutations. Our ProSAR bioinformatics tools, 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.

For enzyme applications, the best variants identified in testing are manufactured for confirmation in the desired chemical process at laboratory scale. The gene that codes for the best performing enzyme is then used as the starting gene for a next round of shuffling and screening. Biocatalysts are rapidly optimized until the desired performance characteristics have been achieved and the economic objectives for the desired process have been met.

Codex Biocatalyst Panels

Our Codex Biocatalyst Panels were initially developed to speed our own internal process for identifying enzymes with desired characteristics for further optimization. Each Codex Biocatalyst Panel is comprised of enzyme variants that catalyze one type of reaction. We assemble, on one or more microtiter plates, variants of a parent enzyme that we have developed for stability in industrial environments and diversified for activity over a variety of suitable chemical structures. Then, either we or our innovator pharmaceutical customers can use the Codex Biocatalyst Panels to screen a new chemical structure against the assembled variants to rapidly identify variants that react with the new chemical structure. For some new structures, a variant on the panel could enable production of the desired product. We can also analyze the data from the panel screen using ProSAR techniques to identify the mutations that are beneficial for the reaction of the new structure and further optimize the enzyme as needed using the enzyme optimization techniques described above.

Microbe Optimization using Gene Shuffling

For fermentation microbes, we enhance metabolic pathways by using gene shuffling to improve one or more enzymes in a series of reactions that make a desired product. We optimize the enzyme as described above using either *in vitro* or *in vivo* screening. For fermentation applications, the microbes containing the improved gene(s) are directly evaluated in laboratory scale fermenters.

The metabolic pathway may naturally exist in the microbe, but productivity or selectivity improvements are needed to economically produce more of the desired natural product. In one example, our scientists, while we were still an operating division of Maxygen, used our gene shuffling technology to improve the selectivity of the fermentation organism that Pfizer uses to make doramectin, a veterinary drug. Optimization of a key gene by gene shuffling resulted in reduced production of what was previously a major by-product, and increased the yield of the desired product, providing for a simpler process to isolate the product from the by-product.

We can also produce a new metabolic pathway to produce a desired product using our gene shuffling technology in combination with synthetic biology, a type of metabolic engineering in which new genes are introduced into a microbe. For example, DSM inserted two genes from other organisms into a Penicillium fungus to create a new metabolic pathway to an intermediate called 7-ADCA, which is the central building block of a type of antibiotic called semi-synthetic cephalosporins. Previously, four wasteful conventional

Table of Contents

chemical steps were needed to convert a penicillin molecule made by the Penicillium into 7-ADCA. Our scientists, while we were still an operating division of Maxygen, used our gene shuffling technology to improve the characteristics of both inserted enzymes to provide adequate productivity to enable an economically practical fermentation to produce 7-ADCA eliminating the four wasteful conventional chemical steps, at lower cost, with less energy than the conventional chemical process. This enabled DSM to build a new fermentation plant that produces 7-ADCA.

We expect to use our gene shuffling technology to optimize microbes in connection with our efforts to develop biofuels through our biofuels research collaboration.

Microbe Optimization using Whole Genome Shuffling

In addition to our gene optimization technology for enzymes, we have another complimentary technology in our platform for directed evolution of fermentation microbes called Whole Genome Shuffling. Whole Genome Shuffling allows us to improve the performance of a fermentation microbe by shuffling unidentified mutations in unidentified genes across the genome. We start with a diversity of mutational variants of a fermentation organism, generated by conventional means such as random mutagenesis. Our Whole Genome Shuffling involves introducing the entire genome of two or more such cells into a single cell, in which the genetic machinery of the combined cell recombines, or shuffles, the genomes. In one method, this is accomplished by protoplast fusion, in which the cell walls are removed to leave the cells contents contained only by their cell membranes. The cell membranes of these protoplasts in the diverse population are induced to fuse together into fusants containing the genome of two or more of the parent cells. From these fusants, we regenerate normal cells, each with one copy of a hybridized genome. Microbial colonies are then grown and screened for their performance in the fermentative production of the desired product. This process can be repeated, including with the introduction of new mutations, until the desired performance in the fermentation process is achieved. One of our collaborators is operating a fermentation process for a generic pharmaceutical product using microbes we developed by Whole Genome Shuffling. We expect to use our Whole Genome Shuffling technology in connection with the development of biocatalysts for use in producing biofuels through our biofuels research collaboration.

License Agreement with Maxygen

In March 2002, we licensed from Maxygen our core enabling technology, which comprises advanced biotechnology methods, bioinformatics and years of accumulated know-how, which we use to significantly expedite the process of developing customized enzymes and microbes. The license agreement was amended in September 2002, October 2002 and August 2006.

Under the terms of this license agreement, Maxygen granted us a worldwide, exclusive, license, with a right to sublicense, under certain Maxygen intellectual property related to the use of shuffling technology in a variety of fields of use. This license includes the right to develop, make, have made, use, import, have imported, offer for sale, sell, otherwise commercialize or distribute biocatalysts for the manufacture of generic and branded pharmaceuticals, certain classes of chemicals and certain applications related to energy and biofuels. Under the license agreement, Maxygen also provided us with certain biological materials to facilitate use of the gene shuffling technology. We can use the licensed Maxygen shuffling technology in a wide variety of organisms including algae, bacteria, cyanobacteria, fungi and yeasts, but we are restricted from using the technology in land plants. Our license is exclusive with respect to bacteria, yeast and fungi, but is nonexclusive with respect to algae and cyanobacteria. The Maxygen license extends for the lifetime of the patents included in the Maxygen intellectual property plus an additional 50 years for any know-how or materials included in the license agreement, unless earlier terminated.

The license agreement also specifically excludes us from certain activities. Under the terms of this license agreement, we cannot utilize the licensed Maxygen shuffling technology for drug discovery or for the manufacture of protein-based therapeutics, such as antibodies.

Table of Contents

Our license from Maxygen can be extended to several additional fields, including applications related to hydrogen, coal and natural gas, provided that we, or a collaborator, meet certain threshold levels of research funding related to such fields of use. We are also able to negotiate rights to commodity or fine chemicals that are not currently included in the license agreement.

Under the terms of our license agreement, we are obligated, among other things, to pay Maxygen a significant portion of consideration we receive in connection with the development and commercialization of energy products using the licensed technology. Specifically, we will owe Maxygen fees in connection with consideration we receive in the form of (1) upfront option and/or license fees, (2) milestone payments, (3) payments from the sale of our equity securities and (4) payments in connection with the commercialization of energy products made with a biocatalyst developed using the licensed technology. The actual fees payable to Maxygen will depend on the amount, timing and type of consideration we receive. In the case of consideration received from the sale of our equity securities, we are obligated to pay Maxygen a significant portion of any excess paid above $3.97 per share, the price per share of our Series D preferred stock. With regard to FTE funding, we are only obligated to pay Maxygen to the extent the consideration received exceeds specified amounts which were based on historical FTE rates we charged our pharmaceutical collaborators. We are also obligated to reimburse up to 20% of the costs incurred by Maxygen related to the prosecution and maintenance of the patents licensed from Maxygen. Further, in the event that any subsidiary or affiliate of ours develops and/or sells any energy applications using the Maxygen technology, we are obligated to transfer to Maxygen a percentage of the value of the subsidiary or affiliate that is attributable to the Maxygen technology and give Maxygen an option to acquire a percentage of the other consideration that we invest in such affiliate or subsidiary.

Maxygen granted Novo Nordisk A/S certain rights under its intellectual property on September 17, 1997. This grant was later amended and these rights were later assigned by Novo Nordisk to Novozymes A/S and by Maxygen to us. Under this license, Maxygen granted exclusive rights to Novozymes that are outside the field of use licensed to us by Maxygen. Maxygen also granted certain rights to Novozymes co-exclusively in other fields that could overlap with certain fields we are pursuing under our license, including biofuels. At a minimum, we enjoy co-exclusive rights in such fields and have sufficient rights for our collaborations and partnerships. Novozymes did not receive a license to all of the rights we are using in biofuels applications and which we believe are critical to pursuing such applications.

In exchange for this license, we issued a total of 999,000 shares of common stock and six million shares of Series A preferred stock to Maxygen. As of March 31, 2008, Maxygen owned approximately 25% of our outstanding common stock calculated on an as-converted basis.

Intellectual Property

Our success depends in large part on our proprietary products and technology under which we seek protection from patent, copyright, trademark and trade secret laws. Such protection is also maintained using confidential disclosure agreements. Protection of our technologies is important for us to offer our customers and partners proprietary services and products unavailable from our competitors, and to exclude our competitors from practicing technology that we have developed or exclusively in-licensed. For example, in the generic pharmaceutical area, proprietary protection, through patent, trade secret or other protection of our enzymes and methods of producing a pharmaceutical product is important for us and our customers to maintain a lower cost production advantage over competitors. Likewise, our ability to supply innovator pharmaceutical manufacturers depends on our ability to supply proprietary enzymes or methods for making pharmaceutical intermediates or APIs that are not available from our competitors. If competitors in our industry have access to the same technology, our competitive position may be adversely affected. As of July 31, 2008, we owned or had licensed rights to approximately 230 issued patents and approximately 150 pending patent applications in the United States and in various foreign jurisdictions. Of the licensed patents and patent applications, most are owned by Maxygen or the California Institute of Technology and exclusively licensed to us for use in certain fields. These in-licensed patents and patent

Table of Contents

applications cover both enabling technologies, as well as patents covering products or methods of producing products, and our licenses to such patents allow us to freely practice the licensed inventions, subject only to the terms of those licenses. The issued patents covering the fundamental shuffling technologies have terms ending as late as 2019. As of July 31, 2008, we owned approximately 15 issued patents and approximately 60 pending patent applications in the United States and in various foreign jurisdictions directed to our enabling technologies and to our methods and products used in the production of pharmaceuticals such as atorvastatin, montelukast and azetidinone compounds. Our U.S. issued patents directed to our enabling technologies have terms that expire from year 2021 to 2024. We continue to file new patent applications, for which terms generally extend 20 years from the filing date in the United States, as provided under 35 U.S.C. § 154.

We will continue to file and prosecute patent applications and maintain trade secrets as is consistent with our business plan in an ongoing effort to protect our intellectual property. It is possible that our current patents, or patents which we may later acquire, may be successfully challenged or invalidated in whole or in part. It is also possible that we may not obtain issued patents from our pending patent applications or other inventions we seek to protect. We sometimes permit certain intellectual property to lapse or go abandoned under appropriate circumstances. Due to uncertainties inherent in prosecuting patent applications, sometimes patent applications are rejected and we subsequently abandon them. It is also possible that we may develop proprietary products or technologies in the future that are not patentable or that the patents of others will limit or altogether preclude our ability to do business. In addition, any patent issued to us may provide us with little or no competitive advantage, in which case we may abandon such patent or license it to another entity.

Our registered and pending U.S. trademarks include Codexis, Codex, Codex Biocatalyst Panel, and Bringing Life to Chemistry. The Codexis and Codexis design marks have been registered or are pending in selected foreign countries.

Our means of protecting our proprietary rights may not be adequate and our competitors may independently develop technology or products that are similar to ours or that compete with ours. Patent, trademark, and trade secret laws afford only limited protection for our technology platform and products. The laws of many countries do not protect our proprietary rights to as great an extent as do the laws of the United States. Despite our efforts to protect our proprietary rights, unauthorized parties have in the past attempted, and may in the future attempt, to operate under aspects of our intellectual property or products or to obtain and use information that we regard as proprietary. Third parties may also design around our proprietary rights, which may render our protected technology and products less valuable, if the design around is favorably received in the marketplace. In addition, if any of our products or technology is covered by third-party patents or other intellectual property rights, we could be subject to various legal actions. We cannot assure you that our technology platform and products do not infringe patents held by others or that they will not in the future.

Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement, invalidity, misappropriation, or other claims. Any such litigation could result in substantial costs and diversion of our resources. Moreover, any settlement of or adverse judgment resulting from such litigation could require us to obtain a license to continue to make, use or sell the products or technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology.

Competition

Overview

We are a leader in the field of directed molecular evolution of biocatalysts. We are aware that other companies, including Verenium (previously Diversa), DSM, and DuPont, have alternative methods for

obtaining and generating genetic diversity or use mutagenesis techniques to produce genetic diversity. Academic institutions such as the California Institute of Technology, the Max Planck Institute and the Center for Fundamental and Applied Molecular Evolution (FAME), a jointly sponsored initiative between Emory University and Georgia Institute of Technology, are also working in this field. This field is highly competitive and companies and academic and research institutions are actively seeking to develop technologies that could be competitive with our technologies.

We are aware that other companies, organizations and persons have described technologies that appear to have some similarities to our patented proprietary technologies. In addition, academic institutions are also working in this field. Technological developments by others may result in our products and technologies, as well as products developed by our customers using our biocatalysts, becoming obsolete. We monitor publications and patents that relate to directed molecular evolution to be aware of developments in the field and evaluate appropriate courses of action in relation to these developments.

Many of our competitors have substantially greater manufacturing, financial, research and development, personnel and marketing resources than we do. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, which could lead to litigation.

We also face differing forms of competition in our various markets, as set forth below:

Pharmaceuticals

Our primary competitors in the pharmaceutical market are companies using conventional, non-biocatalytic processes to manufacture pharmaceutical intermediates and APIs that compete in the marketplace with our biocatalytically manufactured products. The market for the manufacture and supply of APIs and intermediates is large with many established players. These companies include many of our large innovator and generic pharmaceutical customers, such as Merck, Pfizer, and Teva, who have significant internal research and development efforts directed at developing processes to manufacture APIs and intermediates. The processes used by these companies include classical conventional organic chemistry reactions, chemo catalysis reactions catalyzed by chemical catalysts, or biocatalytic routes using commercially available enzymes, or combinations thereof. Our manufacturing processes must compete with these internally developed routes. Additionally, there are many large well-established fine chemical manufacturing companies that compete to supply pharmaceutical intermediate and APIs to our customers, such as DSM, BASF and Lonza. Finally, we face increasing competition from generic pharmaceutical manufacturers in low cost centers such as India and China.

In addition to competition from companies manufacturing APIs and intermediates, we face competition from companies that sell biocatalysts for use in the pharmaceutical market. The market for supplying biocatalysts for use in pharmaceutical manufacturing is quite fragmented. There is competition from large industrial enzyme companies, such as Novozymes and Amano, whose industrial enzymes (for detergents, for example) are occasionally used in pharmaceutical processes. There is also competition in this area is from several small European companies with relatively limited product offerings comprised primarily of naturally occurring biocatalysts. In addition to these biocatalyst supply companies, there is a separate group of small companies, also predominately in Europe, that offer biocatalyst optimization services.

We believe that the principal advantages of our biocatalyst products in the pharmaceutical market are the breadth of our product offerings and the performance characteristics of our biocatalysts including, for example, activity, stability, and activity on a range of substrates, when compared to traditional chemistry-

Table of Contents

based manufacturing processes naturally occurring biocatalysts. We believe that our directed evolution technology provides substantially superior results, in shorter time frames, than companies offering competing biocatalyst development services.

Bioindustrials

There is increasing interest and activity in the bioindustrial market directed towards developing bio-based manufacturing processes for products that have traditionally been derived from fossil fuel sources, such as transportation fuels and chemicals.

Currently, most biofuels being produced at commercial scale are ethanol derived from sugar and starch food sources, such as sugar cane and corn, and biodiesel produced from vegetable oils, such as soy oil. These markets are well-established with multiple companies, such as The Archer Daniels Midland Company, Cargill and a number of smaller companies producing ethanol in the United States.

Many established companies, such as Novozymes, who has partnered with BP p.l.c. to produce biofuels, Danisco/Genencor, which is marketing cellulases to convert biomass into sugar, Iogen and Verenium, are actively developing biocatalysts to convert cellulosic biomass into fermentable sugars, the first step in the production of many biofuels. Additionally, Genencor recently announced a joint venture with DuPont to develop and commercialize a low-cost solution for the production of cellulosic ethanol from non-food sources. Although no company is currently converting cellulosic biomass into fermentable sugars at commercial scale, many of our competitors have been active in this area for many years, have invested significant resources in this effort, and have extensive patent portfolios regarding the relevant biocatalysts and related processes. In addition, several companies are focused on developing non-biocatalytic, thermochemical processes to convert biomass into fermentable sugars. Our routes from cellulosic biomass to fermentable sugars will need to be cost-competitive with all of these alternative sources and routes.

There are also many companies active in the area of producing non-ethanol biofuels from fermentable sugars. For example, DuPont has announced plans to develop and market biobutanol in collaboration with BP, while other companies such as Amyris are working on biocatalytic routes to a commercially viable non-ethanol biofuel alternative to petroleum-based fuels. Virent Energy Systems and Shell also recently announced a joint collaboration to develop biogasoline directly from sugars. Other potential competitors such as Range Fuels Inc. are focused on developing non-biocatalytic thermochemical processes to convert biomass into fuels. New companies are being founded in this area at an increasing rate. Many of these companies are actively developing and applying for intellectual property rights, including patent rights, in this space.

Our ability to remain competitive in this area will depend on our ongoing technical success in identifying and developing novel biocatalytic routes to fuel products that are cost-competitive not only with other biofuels but with petroleum-based fuels. Several of our competitors, including Amyris, utilize synthetic biology techniques to develop their products. Because these techniques have been in the public domain for many years, we are able to use these techniques together with our gene and genome directed evolution technologies. We believe that one of our principal advantages, particularly in the bioindustrial space, is that our directed evolution technology may enable us to develop new, more efficient and therefore more cost-effective biocatalysts and processes in less time than our competitors.

We will face competition from a variety of companies focusing on developing biocatalytic routes to chemicals, including DuPont, DSM and Metabolix.

Operations

We conduct substantial operations outside of the United States. Please see Note 14 of our consolidated financial statements appearing elsewhere in this prospectus for a description of our revenues and long-lived assets outside of the United States. We have facilities located throughout the world, including in Redwood

Table of Contents

City, California; Pasadena, California; Jülich, Germany; Singapore; and Hungary. As of March 31, 2008, we employed 253 people worldwide, with 173 of our employees located in Redwood City, California.

Our corporate headquarters is located in Redwood City, California and provides general administrative support to our business and is the center of our manufacturing and research and development operations. We expect most of our biofuels research to occur in Redwood City. In 2007, we established a research and development capability in Singapore to reduce our pharmaceutical research and development costs and to take advantage of the highly educated and skilled labor force in Singapore. In 2008, we established our Hungary facilities to create a research and development center for microbial biocatalyst improvement and fermentation development and to reduce our research and development costs. Similar to Singapore, Hungary also has a highly educated and skilled work force. Our facilities in Hungary will pursue opportunities in both our pharmaceutical and bioindustrial markets. Our facilities in Jülich, Germany and Pasadena, California perform research and development and small-scale manufacturing operations for our pharmaceutical business.

Our research and development operations include efforts directed towards biocatalyst evolution, bioprocess development, cellular engineering, biocatalyst screening, metabolites, strain improvement and fermentation development. We conduct enzyme evolution, enzyme production development, microbial bioprocess development, cellular engineering and microbial evolution primarily at our corporate headquarters in Redwood City. We also conduct biocatalyst enzyme evolution research in Redwood City and Singapore. Our facility in Hungary collaborates with our Redwood City facility in research and development activities relating to microbe improvement and is our center for fermentation development. Our Pasadena site conducts our research and development activities in enzyme screening, metabolites, and enzymes. For more information on our research and development expenses, including expenses funded by our collaborative partners, see Management s Discussion and Analysis of Financial Condition and Results of Operations Revenue, Cost of Product Revenues Research and Development Expenses included elsewhere in this prospectus.

Our primary manufacturing operations are located in Redwood City, Pasadena and Jülich. However, we have limited internal manufacturing capacity and expect to rely on third-party manufacturers for commercial production of our enzymes for the foreseeable future. Our in-house manufacturing is dedicated to producing both our Codex Biocatalyst Panels and enzymes for use by our customers in pilot scale production. We also supply initial commercial quantities of enzymes for use by our collaborators to produce pharmaceutical intermediates and manufacture enzymes that we sell. We produce enzymes primarily at our Redwood City headquarters, although we manufacture some enzyme products in our Pasadena location. Finally, we manufacture small quantities of chemicals, using our enzymes at our facility in Germany.

Historically, we have relied upon an Italian contract manufacturer, CPC Biotech srl, or CPC, to manufacture substantially all of the commercial enzymes used in our pharmaceutical business. We are in the process of qualifying other contract manufacturers, but we do not have agreements or commitments with such contract manufacturers at this time. We also rely on Arch, headquartered in Badlapur, India, to manufacture our pharmaceutical intermediates as well as to provide sales support for these products in India. In addition, we contract with other technical suppliers in the United Kingdom, Germany, Slovakia and India.

We continue to evaluate whether to develop internal capabilities to manufacture biocatalysts at commercial scale. Among the factors we consider are the costs associated with developing and maintaining such capabilities, the time required to develop such capabilities, potential locations for manufacturing sites, including proximity to existing customers, taxes associated with manufacturing activities and local incentives.

Table of Contents

Facilities

Our corporate headquarters are located in Redwood City, California, where we occupy approximately 87,000 square feet of office and laboratory space. The term of the lease expires in January 2011 for one part of our facilities, in May 2012 for another part and March 2013 for the third part. We have one option to extend the lease for an additional term of five years for each part, provided that we provide notice to the landlord at least nine months prior to the expiration of the initial term of the lease for each part. We believe that the facilities that we currently lease are adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth.

In Pasadena, California, we occupy approximately 9,832 square feet of office and laboratory space. The term of the lease expires in February 2011. We have an option to extend the lease for an additional term of one year. We believe that the facilities that we currently lease in Pasadena are adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth.

In Jülich, Germany, we occupy approximately 600 square meters of office and laboratory space. The term of the lease expires in September 2013. We believe that the facilities that we currently lease in Germany are adequate for our needs for the immediate future and that, should it be needed, the current space can be expanded and additional space can be leased to accommodate any future growth.

In Singapore, we occupy approximately 1,867 square meters of office and laboratory space within Singapore Science Park III. The term of the lease expires in July 2010. We have an option to extend the lease for an additional term of three years. We believe that the facilities that we currently lease in Singapore are adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth.

We do not currently have a lease for the facilities that we are using for our operation in Hungary. We do not anticipate having difficulty leasing suitable research and development facilities to accommodate our expected growth in Hungary.

Employees

As of March 31, 2008, we employed 253 full-time employees. Of the full-time employees, 146 were engaged in research and development, 52 were engaged in manufacturing and operations, and 55 were engaged in general and administrative activities. We plan to continue to expand our research and development activities. To support this growth, we will need to expand managerial, research and development, operations, finance and other functions. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Legal Proceedings

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

Table of Contents

MANAGEMENT

Executive Officers and Directors

The following table sets forth certain information about our executive officers and directors, as of March 31, 2008.

Name	Age	Position
Alan Shaw	45	President and Chief Executive Officer, Director
Robert S. Breuil	46	Senior Vice President, Finance and Chief Financial Officer
Nicholas Green	43	President, Pharmaceuticals
John Grate	55	Chief Technology Officer and Senior Vice President, Technology and Innovation
Douglas T. Sheehy	41	Vice President, General Counsel and Secretary
David Walshaw	47	Vice President, Operations
Thomas R. Baruch(1) (2) (3)	69	Chairman, Board of Directors
Russell J. Howard	57	Director
Bernard J. Kelley(1) (2)	66	Director
Bruce Pasternack(1) (3)	60	Director
William P. Rothwell	54	Director
Dennis P. Wolf(2) (3)	55	Director

(1) Member of the Compensation Committee.

(2) Member of the Audit Committee.

(3) Member of the Nominating and Corporate Governance Committee.

Alan Shaw, Ph.D. has served as President of Codexis since inception and Chief Executive Officer since 2002. He has been a member of our board of directors since 2002. Prior to Codexis, Dr. Shaw was Head of New Business Development for Clariant and Managing Director for Lancaster Synthesis and prior to Clariant s acquisition of BTP plc, Chief Operating Officer of Archimica, the pharmaceutical chemicals division of BTP plc. From 1994 to 1999, he was with Chiroscience Group plc, most recently as Managing Director of the pharmaceutical services unit, Chirotech Technology Limited, and a member of the board of directors of Chiroscience Ltd. Earlier in his career, Dr. Shaw held various scientific and management positions for over 15 years at Imperial Chemical Industries PLC (ICI)/Zeneca. Dr. Shaw serves on the board of directors of BIO, the biotechnology industry trade association, and is past chair of the BIO Industrial and Environmental Section. He holds a B.S. in chemistry from Teesside University, England and a Ph.D., in chemistry from the University of Durham, England. Dr. Shaw is a Fellow of the Royal Society of Chemistry (FRSC, C.Chem.) and the Chartered Institute of Marketing (FCIM, Chartered Marketer).

Robert S. Breuil has served as Senior Vice President, Finance and Chief Financial Officer of Codexis since January 2006. Prior to Codexis, Mr. Breuil was Chief Financial Officer and Vice President, Corporate Development for Aerogen, Inc. from 2002 to 2005. Prior to Aerogen, Mr. Breuil held a number of senior financial management positions at ALZA Corporation from 1994 to 2002, most recently as Controller of ALZA Pharmaceuticals. He served on active duty as an aviator with the U.S. Navy from 1983 to 1991 and retired as a Commander from the U.S. Naval Reserve in 2000. He holds a B.S. in electrical engineering from the U.S. Naval Academy and an M.B.A. from the Stanford University Graduate School of Business.

91

Table of Contents

Nicholas Green has served as President, Pharmaceuticals of Codexis since January 2008. Prior to Codexis, Mr. Green was Chief Executive Officer and Managing Director for Shasun Pharma Solutions, Ltd. From 2003 to 2006, he was President and Chief Executive Officer for Rhodia Pharma Solutions. He has also held operating management positions with chemical and life sciences companies including Clariant Life Sciences, NIPA Biocides and Hodgson Chemicals. He holds a B.S. in chemistry from London University, Queen Mary College, and an M.B.A. from Huddersfield University.

John Grate, Ph.D., has served as Chief Technology Officer and Senior Vice President, Technology and Innovation of Codexis since December 2007. From July 2005 to December 2007, Dr. Grate served as Senior Vice President, Research and Development, and Chief Technology Officer of Codexis, and from September 2002 to July 2005, Dr. Grate served as the Vice President Research and Development and Chief Technology Officer. Prior to his employment with Codexis, Dr. Grate was an independent consultant and a member of Codexis Industrial Advisory Board. Previously, Dr. Grate held various R&D leadership positions in his 20 years at Catalytica, Inc. He was founding Vice President of Research and Development for the subsidiary Catalytica Pharmaceuticals, Inc. until its acquisition by Royal DSM N.V. in early 2001. Dr. Grate is a registered U.S. Patent Agent. He holds a B.S. in chemistry from Miami University (Ohio) and a Ph.D., in chemistry from the University of California, San Diego.

Douglas T. Sheehy has served as Vice President, General Counsel and Secretary of Codexis since April 2007. Prior to Codexis, Mr. Sheehy spent five years at CV Therapeutics, Inc. in various positions, most recently as Executive Director, Legal Corporate Law. Prior to that, Mr. Sheehy spent six years as an attorney with the law firms of Gunderson Dettmer LLP and Brobeck Phleger & Harrison LLP. Mr. Sheehy holds a B.A. in history from Dartmouth College and a J.D. from American University.

David Walshaw has served as Vice President, Operations of Codexis since January 2006. From January 2005 to January 2006, Mr. Walshaw served as our Director of Operations, and from June 2004 to January 2005, Mr. Walshaw served as our Head of Manufacturing & Supply Chain Management. Prior to joining Codexis, Mr. Walshaw held a variety of positions at Avecia, most recently as General Manager of Avecia s Early Phase Development business. Mr. Walshaw is a graduate of the Royal Society of Chemistry (GRSC) from Huddersfield University.

Thomas R. Baruch has served as a director of Codexis since 2002. Mr. Baruch is the founder and a managing director of CMEA Ventures, a venture capital firm that was established in 1989 as an affiliated fund of New Enterprise Associates. Mr. Baruch is currently on the board of directors of one public company, Entropic Communications, Inc. and several private companies, including Cnano, Inc., Intermolecular, Inc. and Wildcat Discovery Technologies, Inc. Before starting CMEA Ventures, Mr. Baruch was a founder and chief executive officer of Microwave Technology, Inc., a semiconductor manufacturer. Prior to his employment with Microwave Technology, Inc., Mr. Baruch managed a dedicated venture fund at Exxon Corp, and was president of the Exxon Materials Division. Earlier in his career, Mr. Baruch worked as a patent attorney. He is a registered patent attorney and is also a member of the board of trustees of Rensselaer Polytechnic Institute and the board of trustees of the Berkeley Institute of Synthetic Biology. Mr. Baruch holds a B.S. in engineering from Rensselaer Polytechnic Institute and a J.D. from Capital University.

Russell J. Howard, Ph.D., has served as a director of Codexis since inception. Dr. Howard has served as the chief executive officer and a director of Maxygen, Inc since June 1998. From August 1994 to June 1991, Dr. Howard was the President and Scientific Director of Affymax Research Institute. He holds a B.S. in chemistry and biochemistry, a B.S. in biochemistry (Hons.) and a Ph.D. in biochemistry from the University of Melbourne.

Bernard J. Kelley has served as a director of Codexis since April 2004. From 1993 to 2002, Mr. Kelley was the President of the Merck Manufacturing Division, a division of Merck & Co., Inc., and he served as a

Table of Contents

member of the Merck Management Committee from 1995 to 2002. Mr. Kelley currently serves on the board of directors, compensation and audit committees of MAP Pharmaceuticals, Inc., a biotechnology company, and previously served on the board of directors of Aegis Analytical Corporation, an enterprise software company, from 2004 to 2006. He holds a B.S. in engineering from the U.S. Naval Academy.

Bruce Pasternack has served as a director of Codexis since August 2007. Mr. Pasternack is currently a venture partner of CMEA Ventures. From June 2005 to May 2007, Mr. Pasternack served as the President and Chief Executive Officer of Special Olympics, Inc. Prior to his employment with Special Olympics, Inc., Mr. Pasternack spent more than 28 years at Booz Allen Hamilton Inc., where his last position was Senior Vice President and Managing Partner of its San Francisco office. From 1973 to 1976, he served as Associate Administrator for Policy and Programs at the Federal Energy Administration, and Staff Director of the President s Energy Resources Council. From 1968 to 1972, he was a systems engineer at General Electric. Mr. Pasternack is a director of Quantum Corporation, BEA Systems, Inc. and Symyx Technologies, Inc., and a member of the board of trustees of The Cooper Union, and has previously served on the board of directors of the Special Olympics, Inc. He holds a B.E. from The Cooper Union and an M.S.E. from the University of Pennsylvania.

William P. Rothwell, Ph.D., has served as a director of Codexis since December 2007. Dr. Rothwell is Vice President of Innovation and Chemicals Technology for Shell Global Solutions (US) Inc., an affiliate of Royal Dutch Shell plc. He joined an affiliate of Shell in 1980 and was appointed to the position of General Manager of Shell Chemicals global ethylene oxide/glycols business in 2002. He was chairman of the board of Ethylene Glycols (Singapore) Private Limited, a seventy percent Shell-owned joint venture, from 2002 to late 2006. He is also a director of Shell Global Solutions (US) Inc. He holds undergraduate degrees in mathematics and chemistry from Michigan State University and a Ph.D. in physical chemistry from the Massachusetts Institute of Technology.

Dennis P. Wolf has served as a director of Codexis since December 2007. Mr. Wolf most recently served as Executive Vice President and CFO of MySQL AB. Prior to MySQL, Mr. Wolf held financial management positions for public high technology companies including Apple Computer, Inc., Centigram Communications, Inc., Credence Systems Corporation, Omnicell, Inc., Redback Networks Inc. and Sun Microsystems, Inc. Mr. Wolf is a director of Avanex Corporation and Quantum Corporation, and has been a director and chair of the audit committee for public companies including Komag, Inc., and Vitria Technology, Inc. He holds a B.A. from the University of Colorado and an M.B.A. from the University of Denver.

Board Composition

Our board of directors may establish the authorized number of directors from time to time by resolution. Eight directors are authorized and we currently have seven directors, of which three are designated by the current holders of our preferred stock, three are designated by the current holders of our preferred and common stock, and one also serves as our Chief Executive Officer. Each of the members of our board of directors, except Alan Shaw and Russell Howard, is an independent director as defined under the applicable rules and regulations of the Securities and Exchange Commission, or the SEC, and The Nasdaq Stock Market. Dr. Howard has indicated that he will resign from our board of directors in connection with the consummation of this offering.

Under the terms of our amended and restated certificate of incorporation and the voting agreement among us and the holders of our preferred stock, the members of our board of directors are to be designated as follows: Equilon Enterprises LLC dba Shell Oil Products US, or Shell, Biomedical Sciences Investment Fund Pte Ltd, CMEA Ventures Life Sciences 2000, L.P., Pequot Private Equity Fund III, L.P. and Maxygen, Inc., each have the right to designate one member; one member shall be our Chief Executive Officer; and the remainder shall be designated with the consent of the parties holding a majority of the outstanding common and preferred stock. Upon the consummation of this offering, all of these provisions will terminate, except that for a ten-year period Shell will have the right to designate one board member for

Table of Contents

so long as: Shell holds at least 50% of the total number of shares of common stock issued upon conversion of the preferred stock purchased by Shell, and at least 5% of our fully diluted number of shares of common stock outstanding, and the collaborative research agreement between us and Shell has not expired or been terminated. The designee of Shell will be subject to the reasonable approval of a majority of the members of the board of directors other than the Shell representative.

In accordance with our amended and restated certificate of incorporation to take effect following the completion of this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. After the completion of this offering, our directors will be divided among the three classes as follows:

- the Class I directors will be , and , and their terms will expire at the annual meeting of stockholders to be held in 2009;
- the Class II directors will be , and , and their terms will expire at the annual meeting of stockholders to be held in 2010; and
- the Class III directors will be , and , and their terms will expire at the annual meeting of stockholders to be held in 2011.

Our amended and restated certificate of incorporation will provide that the authorized number of directors may be changed only by resolution of the board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consists of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change of control at our company.

Board Committees

Our board of directors has the following committees: an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Our audit committee oversees our corporate accounting and financial reporting process. Among other matters, the audit committee appoints the independent registered public accounting firm; evaluates the independent registered public accounting firm s qualifications, independence and performance; determines the engagement of the independent registered public accounting firm; reviews and approves the scope of the annual audit and the audit fee; discusses with management and the independent registered public accounting firm the results of the annual audit and the review of our quarterly consolidated financial statements; approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent registered public accounting firm on our engagement team as required by law; reviews our consolidated financial statements and our management s discussion and analysis of financial condition and results of operations to be included in our annual and quarterly reports to be filed with the SEC, reviews our critical accounting policies and estimates; and annually reviews the audit committee charter and the committee s performance. The current members of our audit committee are Thomas Baruch, Bernard Kelley and Dennis Wolf. Dennis Wolf serves as the chairman of the committee. All members of our audit committee meet the requirements for financial literacy under the applicable rules and regulations of the SEC and The Nasdaq Stock Market. Our board of directors has determined that Dennis Wolf is an audit committee financial expert as defined

Table of Contents

under the applicable rules of the SEC and has the requisite financial sophistication as defined under the applicable rules and regulations of The Nasdaq Stock Market. Each of the members of our audit committee, except Thomas Baruch, qualifies as an independent director under the applicable rules and regulations of the SEC and The Nasdaq Stock Market relating to audit committee independence. Within one year from the date of effectiveness of our initial public offering registration statement, our board of directors intends to replace Mr. Baruch as a member of our audit committee with a person who will meet these heightened independence standards. The audit committee operates under a written charter that satisfies the applicable standards of the SEC and The Nasdaq Stock Market.

Compensation Committee

Our compensation committee reviews and recommends policies relating to compensation and benefits of our officers and employees. The compensation committee reviews and approves corporate goals and objectives relevant to compensation of our Chief Executive Officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives, and sets the compensation of these officers based on such evaluations. The compensation committee also recommends to our board of directors the issuance of stock options and other awards under our stock plans. The compensation committee will review and evaluate, at least annually, the performance of the compensation committee and its members, including compliance of the compensation committee with its charter. The current members of our compensation committee are Thomas Baruch, Bernard Kelley and Bruce Pasternack. Bruce Pasternack serves as the chairman of the committee. Each of the members of our compensation committee is an independent or outside director under the applicable rules and regulations of the SEC, The Nasdaq Stock Market and the Internal Revenue Code of 1986, as amended relating to Compensation Committee independence. The compensation committee operates under a written charter.

Nominating and Corporate Governance Committee

The nominating and corporate governance committee is responsible for making recommendations to our board of directors regarding candidates for directorships and the size and composition of our board of directors. In addition, the nominating and corporate governance committee is responsible for overseeing our corporate governance policies and reporting and making recommendations to our board of directors concerning governance matters. The current members of our nominating and corporate governance committee are Thomas Baruch, Bruce Pasternack and Dennis Wolf. Thomas Baruch serves as the chairman of the committee. Each of the members of our nominating and corporate governance committee is an independent director under the applicable rules and regulations of the SEC and The Nasdaq Stock Market relating to nominating and corporate governance committee independence. The nominating and corporate governance committee operates under a written charter.

There are no family relationships among any of our directors or executive officers.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee has at any time during the prior three years been an officer or employee of ours. None of our executive officers currently serves or in the prior three years has served as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Code of Business Conduct and Ethics

We will adopt a code of business conduct and ethics that applies to all of our employees, officers and directors, including those officers responsible for financial reporting. The code of business conduct and ethics will be available on our website at www.codexis.com. We expect that any amendments to the code, or any waivers of its requirements, will be disclosed on our website.

Table of Contents

Director Compensation

In June 2007, our board of directors adopted an Independent Director Compensation Plan pursuant to which those directors designated as independent directors by the board of directors for purposes of the Independent Director Compensation Plan, prior to the consummation of this offering and as contemplated by the Plan, are entitled to receive an annual cash retainer of $35,000, paid in semi-annual installments beginning June 30, 2007, and the reimbursement of any actual out-of-pocket expenses. In addition, the Independent Director Compensation Plan provides for the grant of an annual option to purchase 25,000 shares of our common stock, to be granted at the first board of directors meeting of each year, beginning in 2008. These options vest as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option shall vest monthly thereafter until all shares are vested, subject to the continued service of the director on the board of directors. During the fiscal year ended December 31, 2007, Mr. Kelley, Mr. Pasternack and Mr. Wolf were the only directors designated as independent directors by our board of directors for purposes of the Independent Director Compensation Plan.

On January 26, 2007, we granted Mr. Kelley an option to purchase 25,000 shares of our common stock, which vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and as to 1/48th of the shares subject to the option on each monthly anniversary thereafter. On June 19, 2007, we granted Mr. Kelley an option to purchase 7,500 shares of our common stock, which option was fully vested as of the date of grant.

On January 29, 2008, we granted Mr. Kelley an option to purchase 25,000 shares of our common stock, which vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and as to 1/48th of the shares subject to the option on each monthly anniversary thereafter.

On August 28, 2007, Mr. Pasternack was appointed to our board of directors. In connection with his appointment, Mr. Pasternack received an option to purchase 25,000 shares of our common stock, which vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and as to 1/48th of the shares subject to the option on each monthly anniversary thereafter.

On January 29, 2008, we granted Mr. Pasternack an option to purchase 25,000 shares of our common stock, which vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and as to 1/48th of the shares subject to the option on each monthly anniversary thereafter.

On December 11, 2007, Mr. Wolf was appointed to our board of directors. In connection with his appointment, Mr. Wolf received an option to purchase 25,000 shares of our common stock, which vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and as to 1/48th of the shares subject to the option on each monthly anniversary thereafter.

On January 29, 2008, we granted Mr. Wolf an option to purchase 25,000 shares of our common stock, which vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and as to 1/48th of the shares subject to the option on each monthly anniversary thereafter.

Following the completion of this offering, each non-employee director shall receive an annual cash retainer of $ per year. Such directors shall also receive an additional annual cash retainer of $ per year for being a member of our compensation committee, except that the chairperson of our compensation committee shall receive an additional annual cash retainer of $ per year. Non-employee directors shall also receive an additional annual cash retainer of $ per year for being a member of our nominating and corporate governance committee, except that the chairperson of our nominating and corporate governance committee shall receive an additional annual cash retainer of

Table of Contents

$ per year. Non-employee directors shall also receive an additional annual cash retainer of $ per year for being a member of our audit committee, except that the chairperson of our audit committee shall receive an additional annual cash retainer of $ per year.

The following table sets forth information regarding compensation earned by our non-employee directors during the fiscal year ended December 31, 2007.

Name	Fees Earned or Paid in Cash	Option Awards (1)	Total
Thomas R. Baruch	$	$	$
Russell J. Howard			
Bernard J. Kelley	35,000	13,097	48,097
Bruce Pasternack	12,082	4,901	16,983
William P. Rothwell			
Dennis P. Wolf	1,918	984	2,902

(1) Amount reflects the total compensation expense for the year ended December 31, 2007 calculated in accordance with Statement of Financial Accounting Standard No. 123(R), Share-Based Payment, or SFAS No. 123(R). The valuation assumptions used in determining such amounts are described in Note 11 to our financial statements included in this prospectus. The grant date fair value of Mr. Kelley s option to purchase 25,000 shares of our common stock granted on January 26, 2007 is $15,733, the grant date fair value of Mr. Kelley s option to purchase 7,500 shares of our common stock granted on June 19, 2007 is $4,638, the grant date fair value of Mr. Pasternack s option to purchase 25,000 shares of our common stock granted on August 28, 2007 is $59,215 and the grant date fair value of Mr. Wolf s option to purchase 25,000 shares of our common stock granted on December 11, 2007 is $68,707, in each case, as computed in accordance with SFAS No. 123(R) using the valuation assumptions set forth in Note 11 to our financial statements included in this prospectus. As of December 31, 2007, Mr. Kelley had outstanding option awards to purchase an aggregate of 57,500 shares and each of Mr. Pasternack and Mr. Wolf had outstanding option awards to purchase an aggregate of 25,000 shares.

Executive Compensation

Compensation Discussion and Analysis

Our executive compensation program is designed to attract talented individuals to lead, manage and operate all aspects of our business and reward and retain those individuals who continue to meet our high expectations over time. Our executive compensation program combines short- and long-term components, cash and equity, and fixed and contingent payments in the amounts and proportions that we believe are most appropriate to incentivize and reward our executive officers for achieving our objectives. Our executive compensation program also is intended to make us competitive in our industry, where there is considerable competition for talented executives.

Our named executive officers for 2007 were Alan Shaw, Ph.D., President and Chief Executive Officer; Robert S. Breuil, Senior Vice President, Finance and Chief Financial Officer; John Grate, Ph.D., Chief Technical Officer and Senior Vice President, Technology and Innovation; Douglas T. Sheehy, Vice President, General Counsel and Secretary; and David Walshaw, Vice President, Operations.

Objectives and Philosophy of Our Executive Compensation Program

Our compensation program for our named executive officers is designed to achieve the following objectives:

attract, engage and retain individuals of superior ability, experience and managerial talent enabling us to be an employer of choice in our highly-competitive and dynamic industry;

Table of Contents

motivate and reward executives whose knowledge, skills and performance ensure our continued success;

encourage and inspire our executives to achieve key corporate performance objectives by linking base salary increases and incentive award opportunities to the achievement of individual and company-wide short and long term goals; and

align the interests of our executives and stockholders by motivating executives to increase stockholder value, by providing a significant portion of total compensation opportunities for our executive officers in the form of direct ownership in our company through stock options and other equity awards.

Components of Our Executive Compensation Program

The components of our executive compensation program consist primarily of base salary, annual cash incentive bonus, equity awards and broad-based benefits programs. We combine short-term compensation components (such as base salaries and annual cash incentive bonuses) and long-term compensation components (such as equity incentive compensation) to provide an overall compensation structure that is designed to both attract and retain key executives as well as provide incentive for the achievement of short- and long-term corporate objectives.

The compensation committee of our board of directors is responsible for evaluating and administering our compensation programs and practices for our executive officers. Our compensation committee uses its judgment and experience and the recommendations of the Chief Executive Officer to determine the appropriate mix of short- and long-term compensation elements for each named executive officer. Short- and long-term compensation elements are balanced to encourage each executive officer to use his or her time and talents to accomplish both our short- and long-term corporate objectives. Our Chief Executive Officer, Chief Financial Officer, General Counsel and Vice President of Human Resources each attend our compensation committee meetings to provide input on factors that may influence our compensation committee members considerations of compensation programs and individual compensation, including individual performance, financial, legal and compensation parity considerations. Each such executive officer is not present at the meetings at the time that his or her own compensation is being reviewed by the committee. Our compensation committee analyzes each of the primary elements of our compensation program to ensure that our executives overall compensation is competitive with executive officers in similar positions at comparable companies in our labor market and to ensure internal compensation parity among our executive officers. Our compensation committee recommends and our board of directors approves equity incentive compensation for our employees, including our executive officers.

Our compensation committee determines compensation for our executive officers, including our named executive officers, in large part based upon our financial resources, as well as competitive market data. With regard to annual base salaries and annual cash incentive bonus opportunity targets for 2007, we referenced publicly available compensation data and comprehensive compensation data from the 2006 Radford Biotechnology Survey, focusing upon companies with between 50 and 149 employees. This Radford Biotechnology Peer Group includes the following companies:

454 Life Sciences
Acadia Pharmaceuticals, Inc.
Acorda Therapeutics, Inc.
Acusphere, Inc.
Adeza Biomedical Corp. (acquired by Cytyc Corp.)
Affymax, Inc.
Alexza Pharmaceuticals, Inc.
Alk-Abello A/S
Allen Institute for Brain Science
Allos Therapeutics, Inc.
Alnylam Pharmaceuticals, Inc.
Alphavax, Inc.
Altus Pharmaceuticals Inc.
Ambit Biosciences
Amicus Therapeutics Inc.
Anadys Pharmaceuticals, Inc.
Anesiva, Inc.
Angiotech Pharmaceutical, Inc.

Anika Therapeutics, Inc.
Aradigm Corporation
Archemix Corp.
Ariad Pharmaceuticals, Inc.
Artes Medical, Inc.
ARYX Therapeutics, Inc.
Aspen Medical Products, Inc.

Table of Contents

AtheroGenics, Inc.
AVANIR Pharmaceuticals
AVANT Immunotherapeutics, Inc.
Avecia Biotechnology Inc.
AVEO Pharmaceuticals, Inc.
AVI Biopharma, Inc.
Axcan Pharma
Barrier Therapeutics, Inc.
BattelleCRO
BioCryst Pharmaceuticals, Inc.
BioForm Medical, Inc.
BioNumerik Pharmaceuticals, Inc.
Cell Therapeutics, Inc.
Cerus Corporation
ChemoCentryx, Inc.
Cirrus Pharmaceuticals, Inc.
Coley Pharmaceutical Group, Inc.
CollaGenex Pharmaceuticals, Inc.
Columbia Laboratories, Inc.
CombinatoRx
Conceptus, Inc.
Conor Medsystems, LLC
Corus Pharma Inc.
CoTherix, Inc.
CTI Clinical Trial and Consulting Services
Curis, Inc.
Cytogen Corporation
Cytokinetics, Incorporated
Cytori Therapeutics, Inc.
Depomed, Inc.
diaDexus, Inc.
Discovery Laboratories, Inc.
DURECT Corporation
Dusa Pharmaceuticals, Inc.
Dyax Corp.
Dynavax Technologies Corporation
EPIX Pharmaceuticals
Favrille, Inc.
Fibrogen, Inc.
FivePrime Therapeutics, Inc.
Fluidigm Corporation
Genelabs Technologies, Inc.
Genomic Health, Inc.
Genta Incorporated
Genvec, Inc.
Geron Corporation
Globeimmune, Inc.
GPC Biotech AG
GTC Biotherapeutics, Inc.
HemCon Medical Technologies, Inc.
Hollis-Eden Pharmaceuticals, Inc.
Icagen, Inc.
Idaho Technology Inc.
Immunicon Corporation
In Vitro Technologies
Infinity Pharmaceuticals, Inc.
Ingenuity Systems, Inc.
Inotek Pharmaceuticals Corporation

Insmed Incorporated
Introgen Therapeutics, Inc.
Inverness Medical Innovations, Inc.
Iomai Corporation
IsoTis, Inc.
JM Hyde Consulting, Inc.
Johnson Matthey Pharma Services
Kalypsys, Inc.
Kirkegaard & Perry Laboratories, Inc. (KPL)
Kosan Biosciences Incorporated
Kyowa Pharmaceutical, Inc.
La Jolla Pharmaceutical Company
Laureate Pharma, Inc.
Lineberry Research Associates (acquired by Constella Group)
MacroGenics, Inc.
Maxygen, Inc.
Mayne Pharma (USA) (acquired by Hospira, Inc.)
MiddleBrook Pharmaceuticals, Inc. (formerly Advances Pharmaceutical)
Merrimack Pharmaceuticals, Inc.
Metabasis Therapeutics, Inc.
Metabolex, Inc.
Momenta Pharmaceuticals, Inc.
Myogen
NEOPHARM, Inc.
Neose Technologies, Inc.
Neuropace, Inc.
Northstar Neuroscience, Inc.
Novacea, Inc.
Novavax, Inc.
Novozymes A/S
Nuvelo, Inc.
Onyx Pharmaceuticals, Inc.
Organogenesis, Inc.
Ovation Pharmaceuticals, Inc.
Palatin Technologies, Inc.
Paratek Pharmaceuticals, Inc.
Penwest Pharmaceuticals Co.
Peregrine Pharmaceuticals, Inc.
Perlegen Sciences, Inc.
Pharmacopeia, Inc.
Pharmacyclics, Inc.
Pharsight Corporation
Plexxikon Inc.
Portola Pharmaceuticals, Inc.
PR Pharmaceuticals, Inc.
Praecis Pharmaceutical Incorporated
Prologue Research, International, Inc.
PTC Therapeutics, Inc.
Raven Biotechnologies, Inc.
RenaMed Biologics, Inc.
Renovis, Inc.
Replidyne, Inc.
Rinat Neuroscience Corporation
Sangamo BioSciences, Inc.
Sangart, Inc.
Santen Pharmaceutical Co., Ltd.
Savient Pharmaceuticals, Inc.
Schering-Plough Biopharma
SCYNEXIS, Inc.

99

Table of Contents

Seattle Genetics, Inc.
Senomyx, Inc.
Sequenom, Inc.
SGX Pharmaceuticals, Inc.
Sigma-Tau Pharmaceuticals, Inc.
Sirna Therapeutics, Inc.
Skyepharma PLC
Solexa, Inc.
Sunesis Pharmaceuticals, Inc.
SuperGen, Inc.
Synta Pharmaceuticals Corp.
Targacept, Inc.
TargeGen, Inc.
Tercica, Inc.
Therion Biologics Corporation
Third Wave Technologies, Inc.
Threshold Pharmaceuticals, Inc.
Titan Pharmaceuticals, Inc.
Transgenomic, Inc.
Trimeris, Inc.
Trubion Pharmaceuticals, Inc.
Unigene Laboratories, Inc.
U.S. Genomics, Inc.
Vermillion, Inc. (formerly Ciphergen Biosystem)
Virxsys Corporation
Vitae Pharmaceuticals, Inc.
Vivus, Inc.
World Heart Corporation
XDX Inc.
Xencor, Inc.
Xenogen Corporation
Xenoport, Inc.
ZARS Pharma, Inc.

With regard to annual base salaries and annual cash incentive bonus opportunity targets for 2008, we referenced publicly available compensation data and comprehensive compensation data from the 2007 Radford Global Life Sciences Survey, focusing upon the 48 biotechnology and pharmaceutical companies in Northern California with revenues of less than $100 million and fewer than 500 employees. The Radford Global Life Sciences Peer Group includes the following companies:

Affymax, Inc.
Agraquest, Inc.
Alexza Pharmaceuticals, Inc.
Amyris Biotechnologies, Inc.
Anesiva, Inc.
Aradigm Corporation
ARYX Therapeutics, Inc.
BioMarin Pharmaceutical, Inc.
Cell Genesys, Inc.
Cerus Corporation
Cytokinetics, Inc.
Depomed, Inc.
diaDexus, Inc.

Dow Pharmaceutical Sciences, Inc.
DURECT Corporation
Dynavax Technologies Corporation
FivePrime Therapeutics, Inc.
Genelabs Technologies, Inc.
Genomic Health, Inc.
Geron Corporation
Ingenuity Systems, Inc.
InterMune, Inc.
Jazz Pharmaceuticals, Inc.
Kosan Biosciences Incorporated
Maxygen, Inc.
Metabolex, Inc.
Monterey Bay Aquarium Research Institute
Novacea, Inc.
Nuvelo, Inc.
Onyx Pharmaceuticals, Inc.
Perlegen Sciences, Inc.
Pharmacyclics, Inc.
Pharsight Corporation
Plexxicon Inc.
Questcor Pharmaceuticals, Inc.
Raven Biotechnologies, Inc.
Renovis, Inc.
Rigel Pharmaceuticals, Inc.
Sangamo BioSciences, Inc.
Stem Cells, Inc.
Sunesis Pharmaceuticals, Inc.
SuperGen, Inc.
Tercica, Inc.
Theravance, Inc.
Threshold Pharmaceuticals, Inc.
VaxGen, Inc.
Xenoport, Inc.
XOMA(US) LLC

Table of Contents

Our compensation committee also considered data from Compensia, Inc., an executive compensation advisory services firm with respect to our equity incentive compensation. From Compensia, we obtained data on recently public life science companies and we provided Compensia information on certain of our business peers. The Compensia Peer Group included the following companies:

- Accentia BioPharmaceuticals, Inc.
- Achillion Pharmaceuticals, Inc.
- Acorda Therapeutics, Inc.
- Adams Respiratory Therapeutics, Inc.
- Alexza Pharmaceuticals, Inc.
- Allion Healthcare, Inc.
- Altus Pharmaceuticals Inc.
- Amicus Therapeutics Inc.
- Biodel Inc.
- Coley Pharmaceutical Group, Inc.
- Cytokinetics, Inc.
- Dyadic International, Inc.
- Genomic Health, Inc.
- Hansen Medical, Inc.
- Helicos BioSciences Corporation
- Insulet Corporation
- Jazz Pharmaceuticals, Inc.
- Luna Innovations, Inc.
- Maxygen, Inc.
- Metabolix, Inc.
- NeurogesX, Inc.
- NUCRYST Pharmaceuticals Corp.
- Oculus Innovative Sciences, Inc.
- Optimer Pharmaceuticals, Inc.
- Orexigen Therapeutics, Inc.
- Pharmasset, Inc.
- Response Genetics, Inc.
- SGX Pharmaceuticals, Inc.
- Sirtris Pharmaceuticals, Inc.
- Sunesis Pharmaceuticals, Inc.
- Symyx Technologies, Inc.
- Thermage, Inc.
- Threshold Pharmaceuticals, Inc.
- TomoTherapy Incorporated (acquired by Indevsus Pharmaceuticals, Inc.)
- Valera Pharmaceuticals, Inc.
- Verenium Corporation
- ViaCell, Inc.
- Volcano Corporation
- XenoPort, Inc.

In 2007, we retained Compensia to conduct a review of our stock option grant competitiveness and practices, and to propose to our compensation committee an appropriate equity strategy for our company based on the Compensia Peer Group. Our compensation committee adopted Compensia s proposal for equity grants, as described further below in the section entitled Equity Incentive Compensation.

In 2007, we analyzed the employee benefit programs we offer, including medical, prescription, dental, vision, employee assistance, life and accident insurance and disability programs using a report provided to us by ABD Insurance and Financial Services which acts as our broker for employee benefit programs. The report examined the employee benefit programs offered by technology and biotechnology companies having between 200 and 749 employees that participated in a survey, which, working with our broker, we determined represents our peer group. The

majority of companies (52%) are located in Northern California and 11% in Southern California. The remaining companies are distributed geographically as follows: Pacific Northwest, 6%, Mountain States, 2%, Southwest, 7%, Central/Midwest, 2%, Northeast, 10%, Mid-Atlantic, 5%, and Southeast, 5%. For 2007, the Benefits Peer Group consisted of the following companies:

Actel Corporation
Adaptec, Inc.
Advanced Energy Industries, Inc.
Advent Software, Inc.
Aeroflex Colorado Springs, Inc.
Akrion, Inc.
Alphatec Spine, Inc.
Anritsu Corporation
Applied Signal Technology, Inc,.
ArcSight, Inc.
Arris Group, Inc.
ArthroCare Corporation
ASM America, Inc.
Atheros Communications, Inc.
ATMI, Inc.
Blue Coat Systems, Inc.
Bookham Technology, Inc.
Borland Software Corporation
Caliper Life Sciences, Inc.
Calix Corporation
Cascade Microtech, Inc.
Cholestech Corporation
Cirrus Logic, Inc.
Clinimetrics Research Associates, Inc.
Cognex Corporation
Corbis Corporation
CV Therapeutics, Inc.
CyberSource Corporation
Data Exchange Corporation
Datalogic, Inc. (formerly PSC)
Delta Products Corporation
Digene, Inc.
Digimarc Corporation
Dionex Corporation
Diversa, Inc.

Table of Contents

Dolby Laboratories, Inc.
Dot Hill Systems Corporation
Echelon Corporation
Electro Scientific Industries, Inc.
EMD Serono, Inc.
Emulex Corporation
Enterasys Networks, Inc.
Enzon, Inc.
Epri, Inc.
Equinix, Inc.
Exelixis, Inc.
Exponent, Inc.
Extreme Networks, Inc.
Foundry Networks, Inc.
FP International, Inc.
GSI Group, Inc.
Harmonic, Inc.
Hitachi Computer Prod-Ok, Inc.
Hitachi High Technologies America, Inc.
Hospira, Inc.
Impac Medical Systems, Inc.
Intermune, Inc.
Intervoice, Inc.
Intevac, Inc.
ISIS Pharmaceuticals, Inc.
LeapFrog Enterprises, Inc.
Lexicon Pharmaceuticals, Inc.
Lightbridge, Inc.
Mannkind Corporation
Monogram Biosciences, Inc.
Monster Cable Products, Inc.
Monterey Bay Aquarium Research
MSC Software Corporation
Nabi Biopharmaceuticals, Inc.
Nastech Pharmaceutical, Inc.
Nektar Therapeutics Corporation
Network General, Inc.
Neurocrine Biosciences, Inc.
Nikon Precision, Inc.
Noblis, Inc.
Novo Nordisk Delivery Technologies, Inc.
Oki Data, Inc.
Omnicell, Inc.
Open Text Corporation
Openwave, Inc.
Opsware, Inc.
Pay By Touch (dba Solidus Networks, Inc.)
Pharmion Corporation
Pillar Data Systems, Inc.
Planar Systems, Inc.
Plantronics, Inc.
Power Integrations, Inc.
Promega Corporation
Radisys Corporation
Renesas Technology America Corporation
Risk Management Solutions, Inc.
Samsung Information Systems, Inc.
Samsung Telecom America, Inc.

Serena Software, Inc.
Shutterfly, Inc.
Silicon Image, Inc.
Silicon Laboratories, Inc.
SiRF Technology, Inc.
Skillsoft Corporation
Standard Microsystems Corporation
Stratus Technologies, Inc.
Sumtotal Systems, Inc.
Symmetricom, Inc.
Symyx Technologies, Inc.
Toppan Photomasks, Inc.
Toshiba America Business Solutions, Inc.
Ubisoft, Inc.
Ultratech, Inc.
Ventana Medical Systems, Inc.
Vishay - Siliconix, Inc.
Watchguard Technologies, Inc.
Webtrends, Inc.
Xoma Corporation
Xyratex International, Inc.
Zantaz, Inc.
Zoran Corporation
Zymogenetics, Inc.

We believe that the practices of the companies in the Radford Biotechnology Peer Group, the Radford Global Life Sciences Peer Group, the Benefits Peer Group and the Compensia Peer Group provide us with appropriate compensation benchmarks because many of these companies have similar organizational structures and tend to compete with us for executives.

Our compensation committee has adopted a market-competitive compensation philosophy, which targets keeping the base salaries and annual cash incentive bonus opportunity approximately equal to the 50th percentile of such compensation at the companies within the Radford Biotechnology Peer Group with respect to 2007 annual base salary and individual target bonus percentages, the Radford Global Life Sciences Peer Group with respect to 2008 annual base salary and individual target bonus percentages, and the Compensia Peer Group with respect to equity incentive compensation. For employee benefits, we target compensation at the 75th percentile of such compensation at the companies within our peer group, comprised of technology and biotechnology companies in the 2007 Radford Benefits Exchange Report with between 200 and 749 employees. We target a higher percentile for employee benefits because we believe that superior benefits make us an attractive employer within all levels of the workforce. We work within the general framework of this market-competitive philosophy to determine each component of an executive s compensation package based on numerous factors, including:

- the demand for the particular skill sets we need within the marketplace;

Table of Contents

performance goals and other expectations for the position and the individual;

the individual s background and relevant expertise, including training and prior relevant work experience;

the individual s role with us and the compensation paid to similar persons in the peer group of companies that we review; and

comparison to other executives within our company having similar levels of expertise and experience.

During 2007, our compensation committee reviewed all aspects of our executive compensation program, including base salaries, annual cash incentive bonus and equity compensation targets for each of our executive officers. To ensure that top talent could be retained and attracted, in 2007 the compensation committee approved adjustments to each aspect of our executive compensation program to reflect competitive pressures and ensure internal equity among executives with similar levels of responsibility and authority.

Each of the primary elements of our executive compensation program is discussed in more detail below. While we have identified particular compensation objectives that each element of executive compensation serves, our compensation programs are designed to be flexible and complementary and to collectively serve all of the executive compensation objectives described above. Accordingly, whether or not specifically mentioned below, we believe that, as a part of our overall executive compensation policy, each individual element of our executive compensation program, to a greater or lesser extent, serves each of our objectives as set forth above.

Annual Cash Compensation

Base Salary

For 2007, base salaries were set at levels which were intended to be competitive with similar positions at companies in the Radford Biotechnology Peer Group. The base salaries of all executive officers are reviewed annually and adjusted to reflect individual roles and performance, and the competitive market. Our compensation committee also reviews each executive s annual base salary in comparison with other executives who are at the same level at our company and seeks parity among executives with similar levels of responsibility and authority. Our compensation committee believes that a competitive base salary is a necessary element of any compensation program designed to attract and retain talented and experienced executives. We also believe that competitive base salaries can motivate and reward executives for their overall performance.

In December 2006, our compensation committee considered base salary market data at the 50th percentile for companies in the Radford Biotechnology Peer Group and approved an increase of between five and ten percent in the base salaries for 2007 for Dr. Shaw, Mr. Breuil, Dr. Grate and Mr. Walshaw, as set forth in the following table, based on market data and strong individual and corporate performance during 2006. Dr. Shaw and Mr. Walshaw received a larger salary increase than other executive officers based upon their extraordinary individual contributions to our company in 2006. Mr. Sheehy s base salary was approved by our compensation committee in April 2007, upon the commencement of his employment. The following table sets forth the base salaries for 2007 for each of our named executive officers and the amount such salary increased over 2006 for each of Dr. Shaw, Mr. Breuil, Dr. Grate and Mr. Walshaw:

Name of Executive Officer	Increase	2007 Base Salary Rate
Alan Shaw, Ph.D.	10%	$ 385,000
Robert S. Breuil	5	288,750
John Grate, Ph.D.	5	252,000
Douglas T. Sheehy		220,000
David Walshaw	10	220,000

Table of Contents

In January 2008, our compensation committee considered base salary market data at the 50th percentile for companies in the Radford Global Life Sciences Peer Group to determine the market competitiveness of our executive officer base salary compensation. The analysis revealed that base salaries for all of our named executive officers, except Mr. Breuil, were significantly below the 50th percentile of companies in the Radford Global Life Sciences Peer Group. Therefore, our compensation committee approved an increase of between nine and eighteen percent in the base salaries for 2008 for each of our named executive officers, as set forth in the table below. In 2008, all of our named executive officers except Mr. Breuil remain below the 50th percentile, ranging between $15,000 and $59,000 below the 50th percentile of companies in the Radford Global Life Sciences Peer Group. Our compensation committee determined these base salary amounts to be appropriate in light of the stage of our company and the total compensation of each of the named executive officers, including annual cash incentive bonus opportunity and equity incentive compensation. Our compensation committee approved a base salary for Mr. Breuil which is $18,000 above the 50th percentile of the companies in the Radford Global Life Sciences Peer Group, reflecting his significant individual contributions to our company during 2007 and the critical nature of his skills and expertise for our company at our stage of development. Other than Mr. Breuil, the differences in the base salary increases for our executive officers was attributable to the amount by which the executive s 2007 base salary was below the 50th percentile of the companies in the Radford Global Life Sciences Peer Group and the adjustments to the executive s annual cash incentive opportunities that is described below under the heading Annual Cash Incentive Bonuses. Each named executive officer s 2008 base salary and the percentage salary increase in 2008 is listed in the table below.

Name of Executive Officer	Increase	2008 Base Salary Rate
Alan Shaw, Ph.D.	10%	$ 425,000
Robert S. Breuil	11	320,000
John Grate, Ph.D.	9	275,000
Douglas T. Sheehy	18	260,000
David Walshaw	14	250,000

Annual Cash Incentive Bonuses

Our compensation philosophy with respect to annual cash incentive bonuses is consistent with our overall compensation program philosophy. The annual cash incentive bonus is directed at tying individual compensation to both corporate and individual performance while maintaining market-competitive compensation. Performance, as measured against individual and corporate goals, affects the level of bonus payment.

Annual Cash Incentive Bonuses for 2007

In August 2007, our compensation committee ratified the 2007 Executive Incentive Compensation Plan under which each of our named executive officers was eligible to receive a cash bonus for performance in 2007. The amount of each executive s bonus was determined equally based on corporate performance and individual performance, in each case, as measured against targets set by our compensation committee. Our compensation committee equally weighted each component to encourage executives to strive for individual excellence while maintaining focus on the teamwork necessary for the company s financial success.

Table of Contents

The corporate performance component of the bonus is measured based upon our company s achievement of financial goals established by our compensation committee. For 2007, our compensation committee established equally weighted goals related to net revenue, contribution margin (revenue less cost of goods) and year-end cash (book value of unrestricted cash and securities). The table below sets forth the threshold and target levels related to the corporate performance component for 2007.

Metric	Threshold	Target
Net Revenue	$ 22.5 million	$ 25 million
Contribution Margin	$ 15.3 million	$ 17 million
Year-End Cash	$ 20.7 million	$ 23 million

The individual performance component of the bonus is measured by our Chief Executive Officer s, or in the case of our Chief Executive Officer s performance, our compensation committee s, assessment of the overall performance of each of our executives using individual goals established for each executive by our compensation committee. These individual goals, and the target bonus amounts, are established based on our Chief Executive Officer s and our compensation committee s evaluation of each executive s position within the company, the corporate goals over which that executive has control or influence and the market practices of the companies in the Radford Biotechnology Peer Group for 2007 annual cash incentive bonuses. Individual performance goals are set to be difficult to achieve and require above what our compensation committee has determined to be average performance in order to meet the minimum standard. Examples of individual performance goals for 2007 for our named executive officers include designing and implementing corporate processes and controls in preparation for our initial public offering, delivering certain products for launch, supporting company financings, and securing strategic collaborators for pharmaceutical and biofuels projects. Since our Chief Executive Officer, or with respect to our Chief Executive Officer s performance, our compensation committee, assesses the overall performance of the executive, an executive s performance with respect to any one performance goal may not have a material impact on the individual s assessed achievement level. Instead, the achievement level is determined by assessing whether a majority of performance goals were met or exceeded and is subject to upward and downward discretion by the Chief Executive Officer or compensation committee.

Under the 2007 Executive Incentive Compensation Plan, no bonus was payable if our company achieved less than 90% of any single corporate performance goal. No bonus was payable with respect to the individual performance component if our Chief Executive Officer, or with respect to our Chief Executive Officer s performance, our compensation committee, determined that an executive did not achieve a majority of the executive s individual performance goals. For the corporate performance component, the percentage of each executive s target bonus paid directly correlates to the assessed performance at levels between 90% and 120%. For the individual performance component, the percentage of each executive s target bonus paid directly correlates to the individual s assessed performance at levels of at least 90%. Under the 2007 Executive Incentive Compensation Plan, our Chief Executive Officer, or with respect to our Chief Executive Officer s performance, our compensation committee, had the discretion to determine the individual performance level with no maximum limit. The formula for the bonus paid to each of our named executive officers, except our Chief Executive Officer, is as follows:

Bonus = (Base Salary x % target x corporate performance x 50%) +
(Base Salary x % target x individual performance x 50%)

For example, for fiscal year 2007, Mr. Walshaw s base salary was $220,000, his bonus target was set at 30% of his base salary, his individual performance level was determined to be 150% and our corporate performance was determined to be 120%. To calculate Mr. Walshaw s 2007 bonus we apply the above formula as follows:

$89,100 = ($220,000 x 30% x 120% x 50%) +

($220,000 x 30% x 150% x 50%)

Table of Contents

With respect to the calculation of our Chief Executive Officer s bonus, our compensation committee determined that his bonus should be based solely upon his achievement of individual performance goals, which were the same as the three corporate performance goals relating to net revenue, contribution margin and year-end cash. Our compensation committee believes that our corporate performance is indicative of our CEO s overall performance. Our compensation committee may exercise its discretion to provide him with an individual performance factor that is greater than the corporate performance factor used in the calculation of the other named executive officers bonus calculations since the corporate performance factor is capped at 120%. The formula for the bonus paid to our Chief Executive Officer is as follows:

Bonus = (Base Salary x % target x individual performance)

In April 2007, the compensation committee approved the individual bonus targets, as a percentage of 2007 base salary, set forth in the following table for each of our named executive officers using data from the Radford Biotechnology Peer Group and anecdotal evidence regarding executive compensation, such as the experience of individual members of our compensation committee in setting bonus targets at other companies and the bonus targets requested by potential executives as part of negotiations over salary and other compensation. Differences in the level of bonus opportunity were set to directly correlate to the named executive officer s role and responsibilities for our company. In January 2008, our Chief Executive Officer and with respect to our Chief Executive Officer s performance, our compensation committee, determined the individual performance factor for each of our named executive officers, ranging from 120% to 150%, with differences between executives caused by the amount by which individual performance exceeded expectations. The corporate performance factor for 2007 was 120% based on the company s overachievement of each of the net revenue, contribution margin and year-end cash goals. Based on his strong performance during 2007, our compensation committee waived the pro-ration of Mr. Sheehy s annual cash incentive bonus that otherwise would have applied based on his April 2, 2007 hire date. However, to reflect his start date in April 2007, our compensation committee reduced his individual performance factor to 120%. Our named executive officers received the following annual cash incentive bonus payments for 2007:

Name of Executive Officer	2007 Bonus Target (as % of 2007 Base Salary)	2007 Individual Performance Factor	2007 Annual Cash Incentive Bonus Payment
Alan Shaw, Ph.D.	45%	150%	$ 259,875
Robert S. Breuil	35	145	133,908
John Grate, Ph.D.	35	140	114,660
Douglas T. Sheehy	30	120	79,200
David Walshaw	30	150	89,100

Annual Cash Incentive Bonuses for 2008

In 2008, our compensation committee considered annual cash incentive bonus data for companies in the Radford Global Life Sciences Peer Group to evaluate the competitiveness of our annual cash incentive bonus compensation for our named executive officers. The analysis revealed that our 2007 annual cash incentive bonus compensation targets were below the 50th percentile of the companies in the Radford Global Life Sciences Peer Group for Dr. Shaw and Mr. Breuil. Our compensation committee approved the increase in bonus target percentages for 2008 to enable us to be at the 50th percentile of the Radford Global Life Sciences Peer Group with respect to annual cash incentive bonus targets for Dr. Shaw and Mr. Breuil, and increased Dr. Grate s annual cash incentive target to increase his total compensation opportunity to a more market-competitive level and to maintain internal compensation parity. Our compensation committee did not adjust the annual cash incentive bonus targets for Mr. Sheehy and Mr. Walshaw since each was already at the 50th percentile of the companies in the Radford Global Life Sciences Peer Group and each received significant base salary increases as described above under the heading Annual Cash

Table of Contents

Compensation Base Salary. The table below sets forth the annual cash incentive bonus target for each of our named executive officers.

Name of Executive Officer	2008 Bonus Target (as % of 2008 Base Salary)
Alan Shaw, Ph.D.	50%
Robert S. Breuil	40
John Grate, Ph.D.	40
Douglas T. Sheehy	30
David Walshaw	30

In March 2008, our compensation committee approved the 2008 Executive Incentive Compensation Plan under which each of our named executive officers is eligible to receive a cash bonus for performance in 2008. The amount of each executive s bonus is determined based upon corporate and individual performance, in each case, as measured against targets set by our compensation committee.

Under the 2008 Executive Incentive Compensation Plan, the corporate performance component of the bonus is measured based upon our company s achievement of three equally weighted financial goals established by our compensation committee, relating to net revenue, contribution margin (revenue less cost of goods) and year-end cash (book value of unrestricted cash and securities).

The individual performance component of the bonus is measured by our Chief Executive Officer s, or in the case of our Chief Executive Officer s performance, our compensation committee s, assessment of the overall performance of each of our executives using individual goals established for each executive by our compensation committee. These individual goals, and the target bonus amounts, are established based on our Chief Executive Officer s and our compensation committee s evaluation of each executive s position within the company, the corporate goals over which that executive has control or influence and the market practices of the companies in the Radford Global Life Sciences Peer Group. Individual performance goals are set to be difficult to achieve and require above what our compensation committee has determined to be average performance in order to meet the minimum standard. Achievement against the goals set by the compensation committee is determined by assessing whether a majority of performance targets were met or exceeded and is subject to upward and downward discretion by the Chief Executive Officer or compensation committee.

Under the 2008 Executive Incentive Compensation Plan, no bonus is payable if our company achieves less than 80% of any single corporate performance goal, or if the executive s achievement of his individual goals is less than 90%. The maximum corporate performance component achievement level is 120%, and there is a direct correlation between actual achievement and the corporate performance factor. Similarly, the maximum individual performance component achievement level is 150%, with a direct correlation between individual achievement and the individual performance factor. The formula for the bonus paid to each executive under the 2008 Executive Incentive Compensation Plan is as follows:

Bonus = (Base Salary x % target x corporate performance x 50%) +
(Base Salary x % target x individual performance x 50%)

Equity Incentive Compensation

We believe that our long-term performance is best facilitated through a culture of executive ownership that encourages long-term investment by our executive officers in our equity, thereby better aligning the executives interests with the interests of our stockholders. To encourage this ownership culture, we typically make an initial equity award of stock options to new employees and periodic grants at other times, as approved by our board of directors. Our compensation committee recommends and our board of directors approves all equity grants to our employees including our executive officers. These grants have an exercise price that is at least equal to the fair market value of our common stock on the date of grant, as

Table of Contents

determined by our board of directors. Grants of options in 2007 were typically subject to a four-year vesting schedule with 1/4th of the grant vesting upon the first anniversary of the vesting commencement date and the remainder of the shares vesting at a rate of 1/48th of the total shares subject to the option on each monthly anniversary of the vesting commencement date, subject to the continued service of the executive officer. Vesting commencement dates generally correlate to the date of hire, date of promotion or date of grant. In keeping with our market-competitive philosophy, our compensation committee established the foregoing vesting schedules for 2007 because it determined such vesting represents market practice in our industry based on the experience of the members of our compensation committee.

The size of the initial stock option award is determined based on the executive s position with us and takes into account the executive s base salary and other compensation as well as an analysis of the grant and compensation practices of the peer companies that we review in connection with establishing our overall compensation policies. The initial stock option awards are intended to provide the executive with an incentive to build value in the organization over an extended period of time while remaining consistent with our overall compensation philosophy.

In 2007, we considered a number of factors in determining the amount of periodic equity incentive awards, if any, granted to our executives, including:

- the number of shares subject to, and exercise price of, outstanding options, both vested and unvested, held by our executives;
- the vesting schedule of the unvested stock options held by our executives;
- the amount and percentage of our total equity on a diluted basis held by our executives individually and as a group; and
- the periodic equity incentive award practices of peer companies that we review in connection with establishing our overall compensation policies.

In August 2006, our compensation committee approved the Executive Equity Performance Plan which provides members of our management team with the opportunity to attain proposed target equity ownership levels, over a three-year period, based upon corporate and individual performance. Our compensation committee approved target equity ownership levels for each of our executive officers based upon the experience and judgment of its members who are familiar with the compensation practices of companies in our industries.

In 2007, we retained Compensia to review the market competitiveness of our stock option grant practices, and to help our compensation committee develop an equity strategy for our company. Our compensation committee managed Compensia s review. Compensia recommended an equity strategy, adopted by our compensation committee in August 2007, that targets keeping our equity incentive compensation at the 50th percentile of the companies in the Compensia Peer Group.

In order to ensure that the stock options we granted in 2007 were issued with per share exercise prices no less than the fair market value of our common stock, our board of directors considered what it determined to be all relevant factors related to the fair market value of our common stock, including our financial condition, anticipated expenses, valuations of comparable companies, financing prospects, current and potential strategic relationships, competitive developments and related matters, the aggregate liquidation preference of the Company s preferred stock, and valuations of our common stock performed in August 2006, August 2007, October 2007 and December 2007.

As a privately owned company, there has been no market for our common stock. Accordingly, in 2007, we had no program, plan or practice pertaining to the timing of stock option grants to executive officers coinciding with the release of material non-public information. The compensation committee intends to adopt a formal policy regarding the timing of grants in connection with this offering.

Table of Contents

Termination-Based Compensation

Our compensation committee provides our executives with termination protection when it determines that such protection is necessary to attract or retain an executive and to promote internal equity among executives with the same level of responsibility and authority within our company.

In connection with his offer letter agreement, we provided Mr. Breuil with severance benefits termination protection in the event he was terminated for any reason other than cause, as defined in his offer letter agreement, for a period of three months after the start of his employment and through the 12-month anniversary of an option grant he was entitled to receive after the company secured additional financing. Mr. Breuil was eligible for severance benefits in the amount of $137,500 payable over six months and continued health and insurance benefits for six months. Our compensation committee provided these benefits to Mr. Breuil to encourage him to accept a full-time position with our company and to compensate him for a similar benefit offered by his prior employer. The severance benefits provided for in Mr. Breuil s offer letter agreement terminated in August 2007. For a further description of these arrangements, see the section below entitled Offer Letter Agreements.

We have entered into change in control agreements with Dr. Shaw, Mr. Breuil, Dr. Grate and Mr. Sheehy, which provide severance payments and benefits in the event the executive is terminated without cause or resigns with good reason within 12 months following certain transactions or changes in our control stockholders or, in certain circumstances, where the executive is terminated without cause or resigns with good reason within a short period prior to certain transactions or changes in our control stockholders.

The severance payments and benefits that are payable under the change in control agreements are further described below in the section entitled Potential Payments Upon Termination and Change in Control Change in Control Agreements.

Other Compensation

All of our executive officers are eligible to participate in certain benefit plans and arrangements offered to employees generally, including health, dental, life and disability insurance and our 401(k) plan. We currently pay in excess of 90% of the monthly premium, with respect to coverage for the employee only portion of coverage for all employees, including our named executive officers, for medical, dental, vision, life and long-term disability insurance. Should medical insurance premium rates increase, employees, including named executive officers, may be required to contribute to the cost of increased premiums to retain coverage. Consistent with our market-competitive compensation philosophy, we intend to continue to maintain these benefit plans and arrangements for our employees, including our executive officers. Our compensation committee in its discretion may revise, amend or add to any executive s benefits and perquisites if it deems it advisable. We currently do not believe it is necessary for the attraction or retention of management talent to provide the officers with a substantial amount of compensation in the form of perquisites.

Tax Considerations

Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code, generally disallows a tax deduction for compensation in excess of $1.0 million paid to our Chief Executive Officer and our four other most highly paid executive officers. Qualifying performance-based compensation is not subject to the deduction limitation if specified requirements are met. We generally intend to structure the performance-based portion of our executive compensation, when feasible, to comply with exemptions in Section 162(m) so that the compensation remains tax deductible to us. However, our board of directors may, in its judgment, authorize compensation payments that do not comply with the exemptions in Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent.

Table of Contents

2007 Summary Compensation Table

The following table summarizes the compensation that we paid to our Chief Executive Officer, Chief Financial Officer and each of our three other most highly compensated executive officers during the year ended December 31, 2007. We refer to these officers in this prospectus as our named executive officers.

Name and Principal Position	Year	Salary	Option Awards (1)	Non-Equity Incentive Plan Compensation (2)	All Other Compen-sation (3)	Total
Alan Shaw, Ph.D., President and Chief Executive Officer	2007	$ 385,000	$ 172,523	$ 259,875	$ 1,326	$ 818,724
Robert S. Breuil, Senior Vice President, Finance and Chief Financial Officer	2007	288,750	99,311	133,908	1,469	523,438
John Grate, Ph.D., Chief Technical Officer and Senior Vice President, Technology and Innovation	2007	252,000	33,484	114,660	3,643	403,787
Douglas T. Sheehy, Vice President, General Counsel and Secretary(4)	2007	164,522	32,826	79,200	549	277,097
David Walshaw, Vice President, Operations	2007	220,000	31,193	89,100	1,098	341,391

(1) The amounts included in the Option Awards column represent the compensation cost that was recognized by us in the year ended December 31, 2007 determined in accordance with Statement of Financial Accounting Standards No. 123(R), Share Based Payment. The valuation assumptions used in determining such amounts are described in Note 12 to our consolidated financial statements included in this prospectus.

(2) Amounts reflect bonus payments made pursuant to the Executive Incentive Compensation Plan.

(3) Amounts reflect payments of group term life insurance premiums.

(4) Mr. Sheehy joined Codexis as Vice President, General Counsel and Secretary on April 2, 2007.

Table of Contents

Grants of Plan-Based Awards in 2007 Table

All options granted to our named executive officers are incentive stock options, to the extent permissible under the Code. The exercise price per share of each option granted to our named executive officers was determined to be equal to the fair market value of our common stock by our board of directors on the date of the grant. All options were granted under our 2002 Stock Plan, as amended, as described below in the section entitled Employee Benefit and Stock Plans 2002 Stock Plan, as amended.

The following table shows information regarding grants of equity awards during the year ended December 31, 2007 to each of our named executive officers.

Name	Grant Date	Vesting Commence-ment Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards($)(1) Thres-hold	Target	All Other Option Awards; Number of Securities Underlying Options (#)(3)	Exercise or Base Price of Option Awards ($/Share)	Grant Date Fair Value of Option Awards (4)
Alan Shaw, Ph.D.	1/26/2007	8/23/2006			217,125	1.63	$ 36,637
	1/26/2007	12/31/2006			217,125	1.63	136,637
	8/28/2007	8/28/2007			337,500	4.47	782,190
	10/25/2007	10/25/2007			174,000	4.57	376,292
			77,962	173,250			
Robert S. Breuil	1/26/2007	1/3/2006			62,250	1.63	39,174
	1/26/2007	12/31/2006			62,250	1.63	39,174
	8/28/2007	8/28/2007			108,000	4.47	250,301
	10/25/2007	10/25/2007			108,000	4.57	233,561
			45,478	101,062			
John Grate, Ph.D.	1/26/2007	8/23/2006			44,375	1.63	27,925
	1/26/2007	12/31/2006			44,375	1.63	27,925
	8/28/2007	8/28/2007			82,500	4.47	191,202
			39,690	88,200			
Douglas T. Sheehy	4/19/2007	4/2/2007			150,000	1.63	108,870
	8/28/2007	8/28/2007			33,000	4.47	76,481
	10/25/2007	10/25/2007			56,000	4.57	121,106
			22,275(2)	49,500			
David Walshaw	1/26/2007	8/23/2006			43,625	1.63	27,453
	1/26/2007	12/31/2006			43,625	1.63	27,453
	8/28/2007	8/28/2007			54,000	4.47	125,150
	10/25/2007	10/25/2007			33,750	4.57	72,988
			29,700	66,000			

(1) Amounts in the Estimated Future Payouts Under Non-Equity Incentive Plan Awards column relate to amounts payable under our 2007 Executive Incentive Compensation Plan. The threshold column assumes the achievement of the corporate goal at the threshold level and a failure to achieve any portion of the individual performance component. The maximum amount payable under the 2007 Executive Incentive Compensation Plan is indeterminable.

(2) Amounts listed for Mr. Sheehy are pro-rated based on his April 2, 2007 hire date with the company. As discussed above under Annual Cash Compensation Annual Cash Incentive Bonuses for 2007, our compensation committee waived Mr. Sheehy s pro-ration at the time of payment of his bonus in 2008.

(3) These options vest as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option shall vest monthly thereafter until all shares are vested.

Table of Contents

(4) The amounts set forth in the Grant Date Fair Value of Option Awards column are the full grant date fair value of the awards determined in accordance with SFAS No. 123(R). The valuation assumptions used in determining such amounts are described in Note 11 to our consolidated financial statements included in this prospectus.

Outstanding Equity Awards at 2007 Fiscal Year-End

The following table shows grants of stock options outstanding on December 31, 2007, the last day of our fiscal year, to each of our named executive officers. None of our named executive officers have received grants of unvested restricted stock awards.

	Option Awards(1)					
Name	Date of Grant	Vesting Commence-ment Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Alan Shaw, Ph.D.	5/16/2003	5/16/2003	500,000(2)	0	$ 0.40	5/15/2013
	7/15/2003	7/15/2003	0(3)	50,000	0.40	7/14/2013
	12/11/2003	1/1/2004	137,083	2,917	0.40	12/10/2013
	1/5/2005	1/1/2005	58,333	21,667	0.60	1/4/2015
	1/5/2005	1/1/2005	20,000(4)	0	0.60	1/4/2015
	10/18/2005	10/18/2005	27,083	22,917	0.70	10/17/2015
	12/13/2005	1/1/2006	70,000(4)	0	0.70	12/12/2015
	1/26/2007	8/23/2006	72,375	144,750	1.63	1/25/2017
	1/26/2007	12/31/2006	54,281	162,844	1.63	1/25/2017
	8/28/2007	8/28/2007	0	337,500	4.47	8/27/2017
	10/25/2007	10/25/2007	0	174,000	4.57	10/24/2017
Robert S. Breuil	1/3/2006	1/3/2006	143,750	156,250	0.70	1/2/2016
	1/26/2007	1/3/2006	29,828	32,422	1.63	1/25/2017
	1/26/2007	12/31/2006	15,562	46,688	1.63	1/25/2017
	8/28/2007	8/28/2007	0	108,000	4.47	8/27/2017
	10/25/2007	10/25/2007	0	108,000	4.57	10/24/2017
John Grate, Ph.D.	11/19/2002	9/16/2002	60,000	0	0.40	11/18/2012
	12/11/2003	1/1/2004	20,000(4)	0	0.40	12/10/2013
	12/11/2003	1/1/2004	39,166	834	0.40	12/10/2013
	1/5/2005	1/1/2005	14,583	5,417	0.60	1/4/2015
	1/5/2005	1/1/2005	7,500(4)	0	0.60	1/4/2015
	6/16/2005	7/1/2005	36,250	23,750	0.70	6/15/2015
	12/13/2005	1/1/2006	35,000(4)	0	0.70	12/12/2015
	1/26/2007	8/23/2006	14,791	29,584	1.63	1/25/2017
	1/26/2007	12/31/2006	11,093	33,282	1.63	1/25/2017
	8/28/2007	8/28/2007	0	82,500	4.47	8/27/2017
Douglas T. Sheehy	4/19/2007	4/2/2007	0	150,000	1.63	4/18/2017
	8/28/2007	8/28/2007	0	33,000	4.47	8/27/2017
	10/25/2007	10/25/2007	0	56,000	4.57	10/24/2017
David Walshaw	7/15/2004	6/21/2004	24,062	3,438	0.45	7/14/2014
	1/5/2005	1/1/2005	16,406	6,094	0.60	1/4/2015
	12/13/2005	1/1/2006	23,958	26,042	0.70	12/12/2015
	12/13/2005	1/1/2006	25,000(4)	0	0.70	12/12/2015
	1/26/2007	8/23/2006	14,541	29,084	1.63	1/25/2017
	1/26/2007	12/31/2006	10,906	32,719	1.63	1/25/2017
	8/28/2007	8/28/2007	0	54,000	4.47	8/27/2017
	10/25/2007	10/25/2007	0	33,750	4.57	10/24/2017

112

Table of Contents

(1) Unless otherwise noted, these options vest as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option shall vest monthly thereafter until all shares are vested.

(2) These options vest as to 1/4th of the total number of shares subject to the option on the six-month anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option shall vest monthly thereafter.

(3) These options vest as to 100% of the total number of shares subject to the option on the fifth anniversary of the vesting commencement date.

(4) These options were fully vested on the date of grant.

Option Exercises in 2007 Table

The following table shows information regarding the exercise of stock options during the year ended December 31, 2007. During the year ended December 31, 2007, no restricted stock awards granted to our named executive officers became vested.

	Option Awards	
Name	Number of Shares Acquired on Exercise	Value Realized on Exercise
John Grate, Ph.D.	100,000	$ 87,000

Pension Benefits

We do not maintain any defined benefit pension plans.

Nonqualified Deferred Compensation

We do not maintain any nonqualified deferred compensation plans.

Offer Letter Agreements

We have entered into the following offer letter agreements with each of our named executive officers.

Alan Shaw, Ph.D. On July 29, 2003, we entered into an offer letter agreement with Dr. Shaw, setting forth the terms and conditions of his employment as our Chief Executive Officer. The offer letter agreement provided for annual base salary of $285,000. Most recently, Dr. Shaw s base salary was increased to $425,000 for 2008, as approved by our compensation committee in January 2008. The offer letter agreement also provided that for 2003, Dr. Shaw would be eligible to participate in our Executive Bonus Plan, a performance-based program that allows for a bonus stock option award based upon achievement of our objectives. In connection with his offer letter agreement, Dr. Shaw was granted an option to purchase shares of common stock of our company in exchange for cancellation of his options to purchase shares of Maxygen, Inc.

Robert S. Breuil. On December 22, 2005, we entered into an offer letter agreement with Mr. Breuil, setting forth the terms and conditions of his employment as our Senior Vice President, Finance and Chief Financial Officer. The offer letter agreement provided for annual base salary of $275,000. Most recently, Mr. Breuil s base salary was increased to $320,000 for 2008, as approved by our compensation committee in January 2008. Mr. Breuil s offer letter agreement provided that for 2006, he would be eligible to participate in our Executive Bonus Plan, and that the bonus would be paid out in the form of stock options or cash, or a combination of cash and stock options at the discretion of our compensation committee, based

113

upon the achievement of corporate and individual objectives as defined by our Chief Executive Officer and our board of directors, and subject to the final approval of our compensation committee. The offer letter agreement provided that the dollar value of the bonus payout for the Senior Vice President level is 30% of annual base salary.

In connection with the offer letter agreement, Mr. Breuil received an option to purchase 300,000 shares of our common stock at an exercise price equal to the fair market value of the shares on the date the option was granted as determined by our board of directors, which option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of his employment start date, and 1/48th of the total number of shares subject to the option vesting monthly thereafter until all shares are vested. In addition, the offer letter provides for an additional grant of an option to purchase shares, following the closing of our company s next financing following the date of the offer letter agreement, in a total share amount equal to the amount necessary to make Mr. Breuil s then-total ownership of our company equal to 1.25% of our then fully diluted shares (the Supplemental Hire Grant). The offer letter provides that Mr. Breuil will be eligible for periodic stock option grants based upon our company s and his individual performance, with his target total stock and option ownership, including vested and unvested shares, but excluding any option shares granted pursuant to our Executive Bonus Plan, expected to be approximately 1.25% of our fully diluted shares outstanding immediately prior to our filing to complete an initial public offering. However, this target ownership may be reduced or increased based on our company policy, and additional stock option grants, if any, are subject to approval by our compensation committee and board of directors.

Under the offer letter agreement, if Mr. Breuil was terminated for any reason other than cause, as defined in the offer letter agreement, at any time following the three-month anniversary of his employment starting date and prior to the 12-month anniversary of his Supplemental Hire Grant, he would receive $137,500 payable over a period of six months, and continued healthcare and insurance coverage for six months following his termination.

Subsequent to his offer letter agreement and prior to the company s financing following his hire, our compensation committee increased Mr. Breuil s target ownership percentage share from 1.25% to 1.5%, in consideration of waiver of his right to the Supplemental Hire Grant in August 2006 and reflecting the compensation committee s evaluation of publicly available target percentage ownership data for chief financial officers at life sciences companies in the San Francisco Bay Area. Therefore, the severance benefits provided for in Mr. Breuil s offer letter agreement as set forth above terminated in August 2007.

John Grate, Ph.D. On August 30, 2002, we entered into an offer letter agreement with Dr. Grate, setting forth the terms and conditions of his employment as our Vice President, Research and Development and Chief Technical Officer. The offer letter agreement provided an annual base salary of $180,000. Most recently, Dr. Grate s base salary was increased to $275,000 for 2008, as approved by our compensation committee in January 2008. The offer letter provided that he was eligible to receive a performance-based discretionary cash bonus for 2002, awarded at the discretion of our board of directors. In connection with the offer letter agreement, Dr. Grate received an option to purchase the number of shares equivalent to no less than one percent of our total shares following the closing of an investment in our company by third party investors of at least $15 million, which option was to vest as to 1/4th of the total number of shares subject to the option on the first anniversary of Dr. Grate s employment start date, and 1/48th of the total number of shares subject to the option vesting monthly thereafter until all shares are vested. In September and October 2002, we issued an aggregate of 8,101,101 shares of our Series B convertible preferred stock at a price per share of $3.086 for an aggregate purchase price of approximately $25 million. Subsequently, on November 19, 2002, as provided by his offer letter agreement, Dr. Grate was granted an option to purchase 160,000 shares of our common stock at an exercise price of $0.40.

Douglas T. Sheehy. On February 26, 2007, we entered into an offer letter agreement with Mr. Sheehy, setting forth the terms and conditions of his employment as our Vice President, General

Table of Contents

Counsel and Secretary. The offer letter agreement provided an annual base salary of $220,000. Most recently, Mr. Sheehy s base salary was increased to $260,000 for 2008, as approved by our compensation committee in January 2008. The offer letter also provided that he is eligible to participate in our Executive Cash Compensation Incentive Plan, with a target of 30% of his annualized base salary (prorated to his start date) for 2007, and which will be awarded at the discretion of our board of directors based on the company s performance. Mr. Sheehy also was eligible to receive a signing bonus of up to $40,000, which was to be offset by any 2006 year-end bonus that he received from his previous employer. Because Mr. Sheehy received his full year-end bonus from his previous employer, he did not receive any signing bonus from us. In connection with the offer letter agreement, Mr. Sheehy received an option to purchase 150,000 shares of our common stock at an exercise price equal to the fair market value of the shares on the date the option was granted as determined by our board of directors, which option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option vesting monthly thereafter until all shares are vested. The offer letter also provided that at the time of the company wide compensation review following December 31, 2007, Mr. Sheehy would receive an option to purchase a minimum of 33,000 shares of our common stock, contingent upon Mr. Sheehy s performance and subject to the approval of our board of directors. In lieu of this option grant, Mr. Sheehy received options to purchase 33,000 and 56,000 shares of our common stock on August 28, 2007 and October 25, 2007, respectively. The offer letter provides for certain benefits payable to Mr. Sheehy in the event of termination following a change in control of our company, as described below in the section entitled Potential Payments Upon Termination and Change in Control Change in Control Agreements.

David Walshaw. On December 22, 2004, we entered into an offer letter agreement with Mr. Walshaw, setting forth the terms and conditions of his employment as our Director of Operations. The offer letter agreement provided for an annual base salary of $160,000. Most recently, Mr. Walshaw s base salary was increased to $250,000 for 2008, as approved by our compensation committee in January 2008. The offer letter agreement provided that he was eligible to receive a performance-based discretionary cash bonus of up to 15% of his annualized base salary for 2005, based upon the Company s performance relative to its corporate objectives for the year. In connection with the offer letter agreement, Mr. Walshaw received an option to purchase 22,500 shares of our common stock at an exercise price equal to the fair market value of the shares on the date the option was granted as determined by our board of directors, which option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of his start date as Director of Operations, and 1/48th of the total number of shares subject to the option vesting monthly thereafter until all shares are vested. The offer letter provided for the reimbursement of up to $45,000 for relocation expenses and transportation at the time of actual relocation for him and his immediate family.

Potential Payments Upon Termination and Change in Control

Change in Control Agreements

During 2007, we were party to change in control agreements with Dr. Shaw, Mr. Breuil, Dr. Grate and Mr. Sheehy. The change in control agreements provide that in the event a named executive officer is terminated without cause or resigns for good reason, each as defined in the agreements, within twelve months following the change in control of our company, the terminated executive officer is entitled, subject to our receipt of a release of claims and a confidential information, secrecy and invention agreement, to the following payments and benefits:

Base salary, payable in a cash lump sum	12 months
Equity award vesting acceleration	100%
Continued health, disability, accident and/or life insurance benefits coverage(1)	12 months

Table of Contents

(1) Executive is eligible for continued coverage for such benefits in effect on the date of termination. If an executive and his dependents become eligible for any such coverage under a subsequent employer s plans, continued benefits coverage payments cease for the benefit for which the executive and his dependents are eligible under the subsequent employer s plan.

The following table sets forth quantitative estimates of the benefits that would have accrued to each of our named executive officers if his employment had been terminated on December 31, 2007 by us without cause or for good reason by the named executive officers upon a change in control, assuming that such termination occurred within the period beginning on the effective date of a change in control as specified in the agreement and ending on the last day of the twelfth calendar month following the calendar month in which the effective date of a change in control occurs. Amounts below reflect potential payments pursuant to the change in control agreements for such named executive officers.

Name of Executive Officer	Salary Continuation	Value of Accelerated Equity Awards(1)	Value of Continued Benefits Premiums	Total
Alan Shaw, Ph.D.	$ 385,000	$ 2,451,697	$ 18,640	$ 2,855,337
Robert S. Breuil	288,750	1,398,735	18,640	1,706,125
John Grate, Ph.D.	252,000	523,925	12,398	788,323
Douglas T. Sheehy	220,000	735,880	18,640	974,520

(1) Amounts calculated based on the aggregate amount by which the fair market value of the common stock subject to unvested equity awards exceeded the aggregate exercise price of the awards as of December 31, 2007.

Potential Payments Upon Termination Without Cause

The following table sets forth quantitative estimates of the benefits that would have accrued to Mr. Breuil if his employment had been terminated by us without cause prior to August 2007, as described above in the section entitled Offer Letter Agreements. This benefit terminated in August 2007, pursuant to the terms of Mr. Breuil s offer letter agreement described above. No other named executive officer was eligible for benefits in the event of termination by us without cause during 2007.

Name of Executive Officer	Salary Continuation	Value of Continued Health and Insurance Benefits Premiums(1)	Total
Robert S. Breuil	$ 137,500	$ 9,320	$ 146,820

(1) Mr. Breuil was eligible for continued coverage for such benefits in effect on the date of termination.

Confidentiality Information, Secrecy and Invention Agreements

Each of our named executive officers has entered into a standard form agreement with respect to confidential information, secrecy and inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our proprietary information received during the course of employment and, with some exceptions, to assign to us any inventions conceived or developed during the course of employment.

Employee Benefit and Stock Plans

2008 Incentive Award Plan

We have adopted a 2008 Incentive Award Plan, or the 2008 Plan, which will take effect upon completion of this offering. The principal purpose of the 2008 Plan is to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards

116

and cash-based performance bonus awards. The 2008 Plan is also designed to permit us to make cash-based awards and equity-based awards intended to qualify as performance-based compensation under Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code.

The principal features of the 2008 Plan are summarized below. This summary is qualified in its entirety by reference to the text of the 2008 Plan, which is filed as an exhibit to the registration statement of which this prospectus is a part.

Share Reserve. Under the 2008 Plan, shares of our common stock plus the number of shares remaining available for future awards under our 2002 Stock Plan, as amended, as of the completion of this offering will be initially reserved for issuance pursuant to a variety of stock-based compensation awards. These awards include stock options, restricted stock awards, restricted stock unit awards, performance awards, dividend equivalent awards, deferred stock awards, stock payment awards, stock appreciation rights, or SARs, and other stock-based awards. The number of shares initially reserved for issuance pursuant to awards under the 2008 Plan will be increased by (i) the number of shares represented by awards outstanding under our 2002 Stock Plan that are forfeited or lapse unexercised following the effective date and (ii) an annual increase on the first day of each calendar year beginning in 2009 and ending in 2018, equal to the lesser of (A) shares and (B) percent (%) of the shares of stock outstanding (on an as converted basis) on the last day of the immediately preceding calendar year; provided, however, no more than shares of stock may be issued upon the exercise of incentive stock options.

The following provisions will be in effect for the share reserve under the 2008 Plan:

- to the extent that an award terminates, expires or lapses for any reason, or an award is settled in cash without the delivery of shares to the holder, any shares subject to the award at such time will be available for future grants under the 2008 Plan;
- to the extent shares are tendered or withheld to satisfy exercise price or tax withholding obligation with respect to any award under the 2008 Plan, such tendered or withheld shares will be available for future grants under the 2008 Plan;
- any shares repurchased by us from a holder who purchased shares pursuant to grants awarded under the 2008 Plan at the same price paid by the holder will be available for future grants under the 2008 Plan;
- the payment of dividend equivalents in cash in conjunction with any outstanding awards will not be counted against the shares available for issuance under the 2008 Plan; and
- to the extent permitted by applicable law or any exchange rule, shares issued in assumption of, or in substitution for, any outstanding awards of any entity acquired in any form of combination by us or any of our subsidiaries will not be counted against the shares available for issuance under the 2008 Plan.

Initially, there will be no limit on the number of shares that may be covered by stock-based awards or the maximum aggregate dollar amount subject to cash-based performance awards granted to any individual during any calendar year. However, after a limited transition period, no individual may be granted stock-based awards under the 2008 Plan covering more than shares in any calendar year. The limited transition period will expire on the earliest of:

- the first material modification of the 2008 Plan;
- the issuance of all of the shares of our common stock reserved for issuance under the 2008 Plan;
- the expiration of the 2008 Plan;

the first meeting of our stockholders at which members of our board of directors are to be elected that occurs after the close of the third calendar year following the calendar year in which our initial public offering occurs; or

Table of Contents

such earlier date as may be required by Section 162(m) of the Code.

Administration. The compensation committee of our board of directors, or another committee or a subcommittee of our board of directors assuming the functions of the Committee, as defined in the 2008 Plan, will administer the 2008 Plan. The compensation committee must consist of at least two members of our board of directors, each of whom is intended to qualify as an outside director, within the meaning of Section 162(m) of the Code, a non-employee director for purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act, and an independent director within the meaning of the rules of The Nasdaq Stock Market, or other principal securities market on which shares of our common stock are traded.

Subject to the terms and conditions of the 2008 Plan, the administrator has the authority to select the persons to whom awards are to be made, to determine the number of shares to be subject to awards and the terms and conditions of awards, and to make all other determinations and to take all other actions necessary or advisable for the administration of the 2008 Plan. The administrator is also authorized to establish, adopt or revise any rules and regulations relating to administration of the 2008 Plan. The full board of directors will administer the 2008 Plan with respect to awards to non-employee directors.

Eligibility. Stock options, SARs, restricted stock and all other stock-based and cash-based awards under the 2008 Plan may be granted to individuals who are then our officers, directors, employees or consultants or are the officers, directors, employees or consultants of certain of our subsidiaries. Only employees may be granted incentive stock options, or ISOs.

Awards. The 2008 Plan provides that the administrator may grant or issue stock options, SARs, restricted stock, restricted stock units, performance awards, dividend equivalents, deferred stock, stock payments and other stock-based and cash-based awards, or any combination thereof. Each award will be set forth in a separate agreement with the person receiving the award and will indicate the type, terms and conditions of the award.

Nonqualified Stock Options, or NQSOs, provide for the right to purchase shares of our common stock at a specified price which may not be less than the fair market value of our common stock on the date of grant, and usually will become exercisable (at the discretion of the administrator) in one or more installments after the grant date, subject to the participant s continued employment or service with us and/or subject to the satisfaction of corporate performance targets and individual performance targets established by the administrator. NQSOs may be granted for any term specified by the administrator, but may not exceed ten years.

Incentive Stock Options are intended to comply with the provisions of Section 422 of the Code and will be subject to specified restrictions contained in the Code. Among such restrictions, ISOs must have an exercise price of not less than the fair market value of a share of our common stock on the date of grant, may only be granted to employees, and must not be exercisable after a period of ten years measured from the date of grant. In the case of an ISO granted to an individual who owns (or is deemed to own) at least 10% of the total combined voting power of all classes of our capital stock, the 2008 Plan provides that the exercise price must be at least 110% of the fair market value of a share of common stock on the date of grant and the ISO must not be exercisable after a period of five years measured from the date of grant.

Restricted Stock may be granted to any eligible individual and made subject to such restrictions as may be determined by the administrator. Restricted stock, typically, may be forfeited for no consideration or repurchased by us at the original purchase price if the conditions or restrictions on vesting are not met. In general, restricted stock may not be sold, or otherwise transferred, until restrictions are removed or expire. Purchasers of restricted stock, unlike recipients of options, will have voting rights and will have the right to receive dividends, if any, prior to the time when the restrictions lapse, however, extraordinary dividends will generally be placed in escrow, and will not be released until restrictions are removed or expire.

Table of Contents

Performance Awards may be granted to any eligible individual by the administrator in the form of cash, stock or a combination of both. The administrator is authorized to determine whether such performance awards shall be performance-based compensation as described in Section 162(m)(4)(C) of the Code. The value of the performance awards may be linked to any one or more of the performance criteria or other specific criteria determined by the administrator, in each case on a specified date or dates or over any period or periods determined by the administrator.

Dividend Equivalents represent the value of the dividends, if any, per share paid by us, calculated with reference to the number of shares covered by the awards held by the participant. Dividend equivalents may be settled in cash or shares and at such times as determined by the compensation committee or other committee, as applicable. No dividend equivalents shall be payable with respect to stock options or SARs.

Stock Payments may be authorized by the administrator to any eligible individual in the form of common stock or an option or other right to purchase common stock as part of a bonus, deferred compensation or other arrangement. Stock payments may be made in lieu of base salary, bonus fees or other cash compensation otherwise payable to eligible individuals.

Deferred Stock represents the right to receive shares of our common stock on a future date. Deferred stock may not be sold or otherwise hypothecated or transferred until issued. Deferred stock will not be issued until the deferred stock award has vested, and recipients of deferred stock generally will have no voting or dividend rights prior to the time when the vesting conditions are satisfied and the shares are issued. Deferred stock awards generally will be forfeited, and the underlying shares of deferred stock will not be issued, if the applicable vesting conditions and other restrictions are not met.

Restricted Stock Units may be awarded to any eligible individual, subject to vesting conditions based on continued employment or service or on performance criteria established by the administrator. Like restricted stock, restricted stock units may not be sold, or otherwise transferred or hypothecated, until vesting conditions are removed or expire. Unlike restricted stock, stock underlying restricted stock units will not be issued until the restricted stock units have vested, and recipients of restricted stock units generally will have no voting or dividend rights prior to the time when vesting conditions are satisfied.

Stock Appreciation Rights may be granted in connection with stock options or other awards, or separately. SARs granted in connection with stock options or other awards typically will provide for payments to the holder based upon increases in the price of our common stock over a set exercise price. The exercise price of any SAR granted under the 2008 Plan must be at least 100% of the fair market value of a share of our common stock on the date of grant, with certain exceptions where the SAR is an award granted by us in connection with the assumption of, or in substitution for, outstanding equity awards previously granted by a company or other entity in connection with an acquisition similar corporate transaction. Except as required by Section 162(m) of the Code with respect to a SAR intended to qualify as performance-based compensation as described in Section 162(m) of the Code, there are no restrictions specified in the 2008 Plan on the exercise of SARs or the amount of gain realizable therefrom, although restrictions may be imposed by the administrator in the SAR agreements. SARs under the 2008 Plan will be settled in cash or shares of our common stock, or in a combination of both, at the election of the administrator.

Awards Intending to Qualify as Performance-Based Compensation. The administrator may grant to eligible individuals who are or may be covered employees, as defined in Section 162(m) of the Code any of the forms of awards described above, or any combination thereof. These awards are intended to be qualified performance-based compensation within the meaning of Section 162(m) of the Code in order to preserve the deductibility of these awards for federal income tax purposes. Participants are only entitled to receive performance-based compensation for any

Table of Contents

given performance period to the extent that pre-established performance goals set by our compensation committee for the period are satisfied. With regard to a particular performance period, our compensation committee will have the discretion to select the length of the performance period, the type of performance-based awards to be granted, and the goals that will be used to measure the performance for the period. In determining the actual size of the individual performance-based compensation for a performance period, the administrator may reduce or eliminate (but not increase) the amount payable. Generally, an employee will have to be employed by our company or any qualifying subsidiaries on the date the performance-based compensation is paid to be eligible for the performance-based compensation for any period.

Pre-established performance goals for awards intended to be qualified performance-based compensation within the meaning of Section 162(m) of the Code must be based on one or more of the following performance criteria: net earnings (either before or after interest, taxes, depreciation and amortization), economic value-added, sales or revenue, net income (either before or after taxes), operating earnings, cash flow (including, but not limited to, operating cash flow and free cash flow), cash flow return on capital, return on net assets, return on stockholders equity, return on assets, return on capital, stockholder returns, return on sales, gross or net profit margin, productivity, expense, margins, operating efficiency, customer satisfaction, working capital, earnings per share, price per share of our common stock and market share, any of which may be measured either in absolute terms or as compared to any incremental increase or as compared to results of a peer group.

Change in Control. In the event of a change in control, each outstanding awards shall be assumed or an equivalent award substituted by the successor corporation or a parent or subsidiary of the successor corporation. If the holder of such assumed or substituted award is terminated upon or within 12 months following the change in control, then such holder shall be fully vested in such assumed or substituted award. In the event of a change in control where the acquiror does not assume or replace awards granted under the 2008 Plan, the administrator may cause any or all such awards issued under the 2008 Plan to accelerate and become fully exercisable immediately prior to the consummation of such transaction and all forfeiture restrictions on any or all such awards shall lapse.

In addition, the administrator will also have complete discretion to structure one or more awards under the 2008 Plan to provide that such awards will become vested and exercisable or payable on an accelerated basis in the event such awards are assumed or replaced with equivalent awards but the individual s service with us or the acquiring entity is subsequently terminated within a designated period following the change in control event. At this time, it is anticipated that a participant s awards under the 2008 Plan will become vested and exercisable (if applicable) in full in the event the participant s employment or service with us or the acquiring entity is subsequently terminated without cause within 18 months following the change in control event. The administrator may also make appropriate adjustments to awards under the 2008 Plan and is authorized to provide for the acceleration, cash-out, termination, assumption, substitution or conversion of such awards in the event of a change in control or certain other unusual or nonrecurring events or transactions. Under the 2008 Plan, a change in control is generally defined as:

the transfer or exchange in a single or series of related transactions by our stockholders of more than 50% of our voting stock to a person or group;

a change in the composition of our board of directors over a two-year period such that fifty percent or more of the members of the board of directors were elected through one or more contested elections;

a merger, consolidation, reorganization or business combination in which we are involved, directly or indirectly, other than a merger, consolidation, reorganization or business combination which results in our outstanding voting securities immediately before the transaction continuing to represent a majority of the voting power of the acquiring company s outstanding voting securities and after which no person or group beneficially owns 50% or more of the outstanding voting securities of the surviving entity immediately after the transaction;

Table of Contents

the sale, exchange, or transfer of all or substantially all of our assets; or

stockholder approval of our liquidation or dissolution.

Adjustments of Awards. If there is a nonreciprocal transaction between our company and its stockholders, such as a stock dividend, stock split, spin-off, rights offering or recapitalization through a large, nonrecurring cash dividend, that affects the shares of our common stock (or other securities of our company) or the share price of our common stock (or other securities of our company), then the administrator shall make equitable adjustments to the aggregate number and kind of shares that may be issued under the 2008 Plan, the number and type of securities subject to each outstanding award under the 2008 Plan, the number and kind of shares of common stock (or other securities or property) for which automatic grants are subsequently to be made to new and continuing non-employee directors, the terms and conditions of any outstanding awards and the exercise price or grant price of any outstanding awards.

If there is any other combination or exchange of shares, merger, consolidation or other distribution (other than normal cash dividends) of our company assets to stockholders, or other change affecting the shares of our common stock or the share price of our common stock (other than an event described in the preceding paragraph), the administrator may, in its discretion:

provide for the termination of any award in exchange for an amount of cash (if any) and/or other property equal to the amount that would have been attained upon the exercise of such award or realization of the participant s rights;

provide for the replacement of any award with other rights or property selected by the Committee in its sole discretion;

provide that any surviving corporation (or its parent or subsidiary) shall assume awards outstanding under the 2008 Plan or shall substitute similar awards for those outstanding under the 2008 Plan, with appropriate adjustment of the number and kind of shares and the prices of such awards; or

make adjustments (i) in the number and type of shares of our common stock (or other securities or property) subject to outstanding awards and in the number and type of shares of restricted stock or deferred stock or (ii) to the terms and conditions of (including the grant or exercise price) and the criteria included in, outstanding rights, options, and awards or future rights, options and awards.

provide that all awards shall be exercisable, payable or fully vested as to all shares of our common stock covered thereby; and

provide that any outstanding award cannot vest, be exercised, or become payable after such event.

Amendment and Termination. Our board of directors may terminate, suspend, amend, or modify the 2008 Plan at any time and from time to time. However, without stockholder approval given within twelve (12) months before or after the action by the administrator, the administrator generally may not:

increase the number of shares available under the 2008 Plan (other than in connection with certain corporate events, as described above); or

decrease the exercise price of any outstanding option or SAR granted under the 2008 Plan.

In addition, the Company shall obtain stockholder approval of any 2008 Plan amendment that would enable the Administrator:

to grant options with an exercise price that is below 100% of the fair market value of shares of our common stock on the grant date;

to extend the exercise period for an option beyond ten years from the date of grant; or

to the extent required by applicable law, rule or regulation (including any applicable stock exchange rule).

Expiration Date. The 2008 Plan will expire on, and no option or other award may be granted pursuant to the 2008 Plan after ten years after the effective date of the 2008 Plan. Any award that is outstanding on the expiration date of the 2008 Plan will remain in force according to the terms of the 2008 Plan and the applicable award agreement.

Securities Laws and Federal Income Taxes. The 2008 Plan is designed to comply with various securities and federal tax laws as follows:

Securities Laws. The 2008 Plan is intended to conform to all provisions of the Securities Act of 1933, as amended, or the Securities Act and the Exchange Act and any and all regulations and rules promulgated by the SEC thereunder, including without limitation, Rule 16b-3. The 2008 Plan will be administered, and options will be granted and may be exercised, only in such a manner as to conform to such laws, rules and regulations. We intend to file with the SEC a registration statement on Form S-8 covering the shares of our common stock issuable under the 2008 Plan.

Section 409A of the Code. Certain awards under the 2008 Plan may be considered nonqualified deferred compensation for purposes of Section 409A of the Code, which imposes certain additional requirements regarding the payment of deferred compensation. Generally, if at any time during a taxable year a nonqualified deferred compensation plan fails to meet the requirements of Section 409A, or is not operated in accordance with those requirements, all amounts deferred under the 2008 Plan and all other equity incentive plans for the taxable year and all preceding taxable years, by any participant with respect to whom the failure relates, are includible in gross income for the taxable year to the extent not subject to a substantial risk of forfeiture and not previously included in gross income. If a deferred amount is required to be included in income under Section 409A, the amount also is subject to interest and an additional income tax. The interest imposed is equal to the interest at the underpayment rate plus one percentage point, imposed on the underpayments that would have occurred had the compensation been includible in income for the taxable year when first deferred, or if later, when not subject to a substantial risk of forfeiture. The additional federal income tax is equal to 20% of the compensation required to be included in gross income. In addition, certain states, including California, have laws similar to Section 409A, which impose additional state penalty taxes on such compensation.

Section 162(m) of the Code. In general, under Section 162(m) of the Code, income tax deductions of publicly held corporations may be limited to the extent total compensation (including, but not limited to, base salary, annual bonus, and income attributable to stock option exercises and other non-qualified benefits) for certain executive officers exceeds $1,000,000 (less the amount of any excess parachute payments as defined in Section 280G of the Code) in any taxable year of the corporation. However, under Section 162(m), the deduction limit does not apply to certain performance-based compensation established by an independent compensation committee that is adequately disclosed to, and approved by, stockholders. In particular, stock options and SARs will satisfy the performance-based compensation exception if the awards are made by a qualifying compensation committee. The 2008 Plan sets the maximum number of shares that can be granted to any person within a specified period and the compensation is based solely on an increase in the stock price after the grant date. Specifically, the option exercise price must be equal to or greater than the fair market value of the stock subject to the award on the grant date. Under a Section 162(m) transition rule for compensation plans of corporations which are privately held and which become publicly held in an initial public offering, the 2008 Plan will not be subject to Section 162(m) until a specified transition date, which is the earlier of:

the material modification of the 2008 Plan;

Table of Contents

the issuance of all of the shares of our common stock reserved for issuance under the 2008 Plan;

the expiration of the 2008 Plan; or

the first meeting of our stockholders at which members of our board of directors are to be elected that occurs after the close of the third calendar year following the calendar year in which our initial public offering occurs.

After the transition date, rights or awards granted under the 2008 Plan, other than options and SARs, will not qualify as performance-based compensation for purposes of Section 162(m) unless such rights or awards are granted or vest upon pre-established objective performance goals, the material terms of which are disclosed to and approved by our stockholders. Thus, we expect that such other rights or awards under the plan will not constitute performance-based compensation for purposes of Section 162(m).

We have attempted to structure the 2008 Plan in such a manner that, after the transition date the compensation attributable to stock options, SARs and other performance-based awards which meet the other requirements of Section 162(m) will not be subject to the $1,000,000 limitation. We have not, however, requested a ruling from the IRS or an opinion of counsel regarding this issue.

2002 Stock Plan, as amended

Our board of directors adopted, and our stockholders approved, the 2002 Stock Plan in November 2002. An aggregate of 12,457,642 shares of our common stock is reserved for issuance under the 2002 Stock Plan. The 2002 Stock Plan provides for the grant of ISOs, NQSOs and stock purchase rights. As of March 31, 2008, options to purchase 9,755,074 shares of our common stock at a weighted average exercise price per share of $2.50 remained outstanding under the 2002 Stock Plan. No stock purchase rights have been granted under the 2002 Stock Plan. As of March 31, 2008, options to purchase 1,569,360 shares of our common stock remained available for future issuance pursuant to awards granted under the 2002 Stock Plan.

Our board of directors, or a committee thereof appointed by our board of directors, has the authority to administer the 2002 Stock Plan and the awards granted under it. Following the completion of this offering, no further awards will be granted under the 2002 Stock Plan; all outstanding awards will continue to be governed by their existing terms.

Stock Options. The 2002 Stock Plan provides for the grant of ISOs under the federal tax laws or NQSOs. ISOs may be granted only to employees. NQSOs and stock purchase rights may be granted to employees, directors or consultants. The exercise price of ISOs granted to employees who at the time of grant own stock representing more than 10% of the voting power of all classes of our common stock may not be less than 110% of the fair market value of our common stock on the date of grant, and the exercise price of ISOs granted to any other employees may not be less than 100% of the fair market value of our common stock on the date of grant. The exercise price of NQSOs to employees, directors or consultants who at the time of grant own stock representing more than 10% of the voting power of all classes of our common stock may not be less than 110% of the fair market value of our common stock on the date of grant, and the exercise price of nonstatutory stock options to all other employees, directors or consultants may not be less than 85% of the fair market value of our common stock on the date of grant. Shares subject to options under the 2002 Stock Plan generally vest in a series of installments over an optionee s period of service, with a minimum vesting rate of at least 20% per year over five years from the date of grant, except with respect to options granted to officers, directors and consultants. This minimum vesting rate does not apply to recipients of options who are tax residents of Germany.

In general, the maximum term of options granted is ten years. The maximum term of options granted to an optionee who owns stock representing more than 10% of the voting power of all classes of our common stock is five years. If an optionee s service relationship with us terminates other than by disability

Table of Contents

or death, the optionee may exercise the vested portion of any option in such period of time as specified in the optionee s option agreement, but in no event will such period be less than 30 days following the termination of service. If an optionee s service relationship with us terminates by disability or death, the optionee, or the optionee s designated beneficiary, as applicable, may exercise the vested portion of any option in such period of time as specified in the optionee s option agreement, but in no event will such period be less than six months following the termination of service. Shares of common stock representing any unvested portion of the option on the date of termination shall immediately cease to be issuable and shall become available for issuance under the 2002 Stock Plan. If, after termination, the optionee does not exercise the option within the time period specified, the option shall terminate and the shares of common stock covered by such option will become available for issuance under the 2002 Stock Plan.

Stock Purchase Rights. The 2002 Stock Plan provides that we may issue stock purchase rights alone, in addition to or in tandem with options granted under the 2002 Stock Plan and/or cash awards made outside of the 2002 Stock Plan. Any stock purchase rights will be governed by a restricted stock purchase agreement. We will have the right to repurchase shares of common stock acquired by the purchaser upon exercise of a stock purchase right upon the termination of the purchaser s status as an employee, director or consultant for any reason. The repurchase price for shares acquired by the purchaser upon exercise of a stock purchase right shall be the original price paid by the purchaser. Except with respect to shares purchased by officers, directors and consultants, the repurchase option shall lapse at a rate of at least 20% per year over five years from the date of purchase; this term does not apply to stock purchase rights granted to individuals who are tax residents of Germany. Once the stock purchase right is exercised, the purchaser shall have rights equivalent to those of our other stockholders.

Corporate Transactions. In the event of a proposed dissolution or liquidation, the administrator of the 2002 Stock Plan has the discretion to take one or more of the following actions: (a) provide that any option or stock purchase right be made exercisable until 10 days prior to such transaction; and (b) provide that the Company repurchase option applicable to any shares purchased upon exercise of an option or stock purchase right shall lapse as to all such shares. To the extent options and stock purchase rights have not been previously exercised, all such options and stock purchase rights will terminate immediately prior to the consummation of the proposed transaction.

In the event of certain corporate transactions, the administrator of the 2002 Stock Plan shall adjust the number of shares of common stock that may be delivered under the 2002 Stock Plan and/or the number class and price of shares of common stock covered by each outstanding option or stock purchase right.

Change in Control. In the event we undergo a change in control, and any surviving corporation does not assume options or stock purchase rights under the 2002 Stock Plan, or substitute an equivalent option of the successor corporation or a parent or subsidiary of the successor corporation, the vesting of options or stock purchase rights held by participants in the 2002 Stock Plan, shall be accelerated and made fully exercisable. The holder of such options or stock purchase rights not assumed or substituted shall be notified by the 2002 Stock Plan administrator that the option or stock purchase right is fully exercisable for a period of 15 days from the date of such notice, and shall be terminated if not exercised within such 15 day period.

401(k) Plan

In January 2005, we implemented a 401(k) Plan covering certain employees. Currently, all of our U.S.-based employees over the age of 18 are eligible to participate in the 401(k) Plan. Under the 401(k) Plan, eligible employees may elect to reduce their current compensation by up to the lesser of 75% of their base salary and cash compensation or the prescribed annual limit and contribute these amounts to the 401(k) Plan. The annual limit in 2007 was $15,500. We may make matching or other contributions to the 401(k) Plan on behalf of eligible employees. In 2007, we did not make any contributions to the 401(k) Plan on behalf of eligible employees. The 401(k) Plan is intended to qualify under Section 401 of the Code so that contributions by employees to the 401(k) Plan, and income earned on the 401(k) Plan contributions,

Table of Contents

are not taxable to employees until withdrawn from the 401(k) Plan. The trustees under the 401(k) Plan, at the direction of each participant, invest the 401(k) Plan employee salary deferrals in selected investment options.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation and amended and restated bylaws, each to be effective upon the completion of this offering, will provide that we will indemnify our directors, officers, employees and agents to the fullest extent permitted by the Delaware General Corporation Law, which prohibits our amended and restated certificate of incorporation from limiting the liability of our directors for the following:

- any breach of the director s duty of loyalty to us or to our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which the director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our amended and restated certificate of incorporation does not eliminate a director s duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also does not affect a director s responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we will also be empowered to enter into indemnification agreements with our directors, officers, employees and other agents and to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our amended and restated certificate of incorporation and amended and restated bylaws, we will enter into indemnification agreements with each of our current directors, officers, and some employees before the completion of this offering. These agreements provide for the indemnification of our directors, officers, and some employees for all reasonable expenses and liabilities incurred in connection with any action or proceeding brought against them by reason of the fact that they are or were our agents. We believe that these provisions in our amended and restated certificate of incorporation and amended and restated bylaws and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. Furthermore, we have obtained director and officer liability insurance to cover liabilities our directors and officers may incur in connection with their services to us. This description of the indemnification provisions of our amended and restated certificate of incorporation, our amended and restated bylaws and our indemnification agreements is qualified in its entirety by reference to these documents, each of which is attached as an exhibit to this registration statement.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder s investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act,

Table of Contents

and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend or terminate the plan in some circumstances. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

Table of Contents

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

We describe below transactions, since our inception, to which we were a party or will be a party, in which:

- The amounts involved exceeded or will exceed $120,000; and
- A director, executive officer, holder of more than 5% of our common stock or any member of their immediate family had or will have a direct or indirect material interest.

Preferred Stock Issuances

Issuance of Series E Preferred Stock

During November and December 2007, we sold 6,100,305 shares of Series E preferred stock at a price of $8.50 per share for gross proceeds of $51.9 million, and issued an additional 56,470 shares of Series E preferred stock valued at $480,000 to a professional consulting services firm in exchange for their services. The table below sets forth the number of shares of Series E preferred stock sold to our directors, executive officers and 5% stockholders and their affiliates.

Name	Number of Shares of Series E Preferred Stock	Aggregate Purchase Price
Equilon Enterprises LLC dba Shell Oil Products US(1)	3,584,428	$ 30,467,638.00
CMEA Ventures Life Sciences 2000, L.P.(2) (3)	588,236	5,000,006.00
Pequot Private Equity Fund III, L.P.(4)	588,235	4,999,997.50
CTTV Investments LLC	88,236	750,006.00

(1) William Rothwell is one of our directors and a Vice President of Innovation and Chemicals Technology for Shell Global Solutions (US) Inc., an affiliate of Royal Dutch Shell plc.

(2) Thomas Baruch is one of our directors and a managing director of CMEA Ventures.

(3) Includes 36,471 shares held by CMEA Ventures Life Sciences 2000, Civil Law Partnership, an affiliate of CMEA Ventures Life Sciences 2000, L.P.

(4) Includes 72,677 shares held by Pequot Offshore Private Equity Partners III, L.P., an affiliate of Pequot Private Equity Fund III, L.P.

Issuance of Series D Preferred Stock

In August and October 2006, we issued an aggregate of 10,068,402 shares of our Series D preferred stock at a price per share of approximately $3.97 for an aggregate purchase price of approximately $40.0 million, including cancellation of indebtedness. The table below sets forth the number of shares of Series D preferred stock sold to our directors, executive officers and 5% stockholders and their affiliates.

Name	Number of Shares of Series D Preferred Stock	Aggregate Purchase Price

Biomedical Sciences Investment Fund Pte Ltd.	5,037,783	$ 19,999,998.51
CMEA Ventures Life Sciences 2000, L.P.(1) (3)	1,520,180	6,035,114.60
Equilon Enterprises LLC dba Shell Oil Products US(2) (6)	1,184,239	5,999,998.96
Pequot Offshore Private Equity Partners III, L.P.(3) (4)	736,375	2,923,408.75
Maxygen, Inc.(5)	254,838	1,011,706.86
CTTV Investments LLC	755,668	3,000,001.96

(1) Thomas Baruch is one of our directors and a managing director of CMEA Ventures.

(2) William Rothwell is one of our directors and a Vice President of Innovation and Chemicals Technology for Shell Global Solutions (US) Inc., an affiliate of Royal Dutch Shell plc.

Table of Contents

(3) Includes 94,223 shares held by CMEA Ventures Life Sciences 2000, Civil Law Partnership, an affiliate of CMEA Ventures Life Sciences 2000, L.P.

(4) Includes 645,395 shares held by Pequot Private Equity Fund III, LP, an affiliate of Pequot Offshore Private Equity Partners III, L.P.

(5) Russell J. Howard is one of our directors and the Chief Executive Officer and a director of Maxygen, Inc.

(6) Includes 428,571 shares acquired in November 2007 pursuant to the exercise of a warrant at a price per share of $7.00 per share for an aggregate purchase price of $2,999,997.00.

Registration Rights Agreement

We have entered into an investors rights agreement with the purchasers of our outstanding preferred stock and certain holders of common stock and warrants to purchase our common stock and preferred stock, including entities with which certain of our directors are affiliated. Additionally, in connection with our acquisition of Jülich Fine Chemicals GmbH we entered into a registration rights agreement with certain stockholders of Jülich who acquired shares of our common stock in connection with the acquisition. As of March 31, 2008, the holders of 33,124,426 shares of our common stock, including the shares of common stock issuable upon the automatic conversion of our preferred stock and shares of common stock issued upon exercise of warrants, are entitled to rights with respect to the registration of their shares under the Securities Act. For a more detailed description of these registration rights, see Description of Capital Stock Registration Rights.

Other Transactions

In March 2002, we licensed our core enabling technology from Maxygen and commenced operations.

The license agreement was amended in September 2002, October 2002 and August 2006. See Business License Agreement with Maxygen.

In November 2006, we entered into a research agreement and license agreement with Shell. In November 2007, we entered into a new collaboration under an amended and restated collaborative research agreement and an amended and restated license agreement. See Strategic Collaborations Shell.

We have entered into change of control agreements with certain of our executive officers that, among other things, provide for certain severance and change of control benefits. For a description of these agreements, see Management Change in Control Agreements.

We have granted stock options to our executive officers and certain of our directors. For a description of these options, see Management Grants of Plan-Based Awards in 2007 Table.

We will enter into indemnification agreements with each of our current directors, officers, and some employees before the completion of this offering. See Management Limitation on Liability and Indemnification Matters.

Policies and Procedures for Related Party Transactions

Our board of directors intends to adopt a written related person transaction policy to set forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships in which we were or are to be a participant, the amount involved exceeds $120,000, and a related person had or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness, and employment by us of a related person.

Table of Contents

PRINCIPAL STOCKHOLDERS

The following table sets forth information about the beneficial ownership of our common stock at March 31, 2008 (based on the number of shares of common stock outstanding on March 31, 2008, as adjusted to reflect the conversion of all shares of our outstanding preferred stock and assuming the sale of shares of our common stock in this offering) as adjusted to reflect the sale of the shares of common stock in this offering for:

- each person known to us to be the beneficial owner of more than 5% of our common stock;
- each named executive officer and each director; and
- all of our executive officers and directors as a group.

Unless otherwise noted below, the address of each beneficial owner listed on the table is c/o Codexis, Inc., 200 Penobscot Drive, Redwood City, CA 94063. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the tables below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

In computing the number of shares of common stock beneficially owned by a person after the offering, we have assumed the issuance of 32,330,100 shares of common stock to holders of our preferred stock upon the closing of this offering as a cumulative dividend, pursuant to the terms of our certificate of incorporation.

In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed outstanding shares of common stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days of March 31, 2008. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person.

Table of Contents

We have based our calculation of the percentage of beneficial ownership prior to the offering on 35,805,720 shares of common stock outstanding on March 31, 2008 (as adjusted to reflect at that date the conversion of all shares of our preferred stock outstanding into 32,330,100 shares of common stock). We have based our calculation of the percentage of beneficial ownership after the offering on shares of our common stock outstanding immediately after the completion of this offering.

	Number of Shares Beneficially Owned		Percentage of Shares Beneficially Owned	
Name and Address of Beneficial Owner	**Prior to the Offering**	**After the Offering**	**Prior to the Offering**	**After the Offering**
5% Stockholders:				
Maxygen, Inc.(1)	8,981,888		25.05%	
Biomedical Sciences Investment Fund Pte Ltd(2)	5,037,783		14.07%	
Equilon Enterprises LLC dba Shell Oil Products US	4,768,667		13.32%	
Entities affiliated with CMEA Ventures(3)	4,515,397		12.56%	
Entities affiliated with Pequot Capital Management(4)	4,009,411		11.17%	
CTTV Investments LLC(5)	2,510,348		7.00%	
Executive Officers and Directors:				
Alan Shaw(6)	1,133,823		3.08%	
Robert S. Breuil(7)	232,060		*	
John Grate(8)	355,870		*	
Douglas T. Sheehy(9)	40,624		*	
David Walshaw(10)	133,468		*	
Thomas R. Baruch(11)	4,515,397		12.56%	
Russell J. Howard(12)	8,981,888		25.05%	
Bernard J. Kelley(13)	120,000		*	
Bruce Pasternack(14)	50,000		*	
William Rothwell			*	
Dennis P. Wolf(15)	50,000		*	
All executive officers and directors as a group (11 persons)	15,613,130		41.27%	

* Represents beneficial ownership of less than one percent (1%) of the outstanding shares of our common stock.

(1) Includes 46,224 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by Maxygen, Inc.

(2) EDB Investments Pte Ltd, or EDB Investments, the parent entity of Biomedical Sciences Investment Fund Pte Ltd, and the Economic Development Board of Singapore, or EDB, the ultimate parent entity of EDB Investments, may be deemed to have voting and dispositive power over the shares owned beneficially and of record by Biomedical Sciences Investment Fund Pte Ltd.

(3) Includes (i) 4,105,438 shares and 130,078 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CMEA Ventures Life Sciences 2000, L.P. and (ii) 271,286 shares and 8,595 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CMEA Ventures Life Sciences 2000, Civil Law Partnership. CMEA Ventures LS Management 2000, L.P. is the general partner to CMEA Ventures Life Sciences 2000, L.P. and the managing limited partner of CMEA Ventures Life Sciences 2000, Civil Law Partnership. David Collier, Karl Handelsman and Thomas Baruch are the general partners of CMEA Ventures LS Management 2000, L.P. and as such, have voting and dispositive power over these shares. Each disclaims beneficial ownership of the shares and warrants held by these entities except to the extent of any pecuniary interest therein.

(4) Includes (i) 3,433,018 shares and 81,026 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by Pequot Private Equity Fund III, LP and (ii) 483,945 shares and

130

11,422 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by Pequot Offshore Private Equity Partners III, LP. Pequot Capital Management, Inc. is the investment manager/advisor of, and exercises sole investment discretion over, Pequot Private Equity Fund III, LP and Pequot Offshore Private Equity Partners III, LP, and as such, has voting and dispositive power over these shares. Arthur J. Samberg is the executive officer, director and controlling stockholder of Pequot Capital Management, Inc. Mr. Samberg disclaims beneficial ownership of the shares and shares underlying warrants held by these entities, except to the extent of his pecuniary interest therein.

(5) Includes 46,224 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CTTV Investments LLC.

(6) Includes 996,323 shares issuable pursuant to stock options exercisable within 60 days of March 31, 2008.

(7) Includes 232,060 shares issuable pursuant to stock options exercisable within 60 days of March 31, 2008.

(8) Includes 255,870 shares issuable pursuant to stock options exercisable within 60 days of March 31, 2008.

(9) Includes 40,624 shares issuable pursuant to stock options exercisable within 60 days of March 31, 2008.

(10) Includes 133,468 shares issuable pursuant to stock options exercisable within 60 days of March 31, 2008.

(11) Includes (i) 4,105,438 shares and 130,078 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CMEA Ventures Life Sciences 2000, L.P. and (ii) 271,286 shares and 8,595 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by CMEA Ventures Life Sciences 2000, Civil Law Partnership. CMEA Ventures LS Management 2000, L.P. is the general partner to CMEA Ventures Life Sciences 2000, L.P. and the managing limited partner of CMEA Ventures Life Sciences 2000, Civil Law Partnership. Mr. Baruch is a general partner of CMEA Ventures LS Management 2000, L.P. and as such, has voting and dispositive power over these shares. Mr. Baruch disclaims beneficial ownership of the shares and warrants held by these entities except to the extent of his pecuniary interest therein.

(12) Includes 8,935,664 shares and 46,224 shares that may be acquired pursuant to the exercise of a warrant held prior to this offering by Maxygen, Inc. Dr. Howard is the chief executive officer and a member of the board of directors of Maxygen and may be deemed to be the beneficial owner of our securities held by Maxygen. Dr. Howard disclaims beneficial ownership of all our securities held by Maxygen, except to the extent of his pecuniary interest therein.

(13) Includes 82,500 shares issuable pursuant to stock options exercisable within 60 days of March 31, 2008, and 50,522 shares of which are subject to a right of repurchase within 60 days of March 31, 2008, at the original option exercise price, in the event the holder ceases to provide services to us. The option exercise prices range from $0.70 to $7.00 per share.

(14) Includes 50,000 shares issuable pursuant to stock options exercisable within 60 days of March 31, 2008, all of which are subject to a right of repurchase within 60 days of March 31, 2008, at the original option exercise price, in the event the holder ceases to provide services to us. The option exercise prices range from $4.47 to $7.00 per share.

(15) Includes 50,000 shares issuable pursuant to stock options exercisable within 60 days of March 31, 2008, all of which are subject to a right of repurchase within 60 days of March 31, 2008, at the original option exercise price, in the event the holder ceases to provide services to us. The option exercise prices range from $5.79 to $7.00 per share.

131

Table of Contents

DESCRIPTION OF CAPITAL STOCK

General

Upon the completion of this offering, we will have authorized under our amended and restated certificate of incorporation shares of common stock, $0.0001 par value per share, and shares of preferred stock, $ par value per share. The following information assumes the filing of our amended and restated certificate of incorporation and the conversion of all outstanding shares of our preferred stock into shares of common stock upon the completion of this offering.

As of March 31, 2008, there were outstanding:

- 35,805,720 shares of our common stock held by approximately 87 stockholders; and
- 9,820,074 shares issuable upon exercise of outstanding stock options.

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws to be in effect upon the completion of this offering are summaries. Copies of these documents have been filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part. The descriptions of the common stock and preferred stock reflect changes to our capital structure that will occur upon the closing of this offering. Currently, there is no established public trading market for our common stock.

Common Stock

Voting Rights

Each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights in the election of directors. Accordingly, holders of a majority of the voting shares are able to elect all of the directors.

Dividends

Subject to preferences that may be applicable to any then outstanding preferred stock, holders of our common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Preferred Stock

Upon the completion of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to shares of preferred stock in one or more series and to fix

132

Table of Contents

the rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control of our company or other corporate action. Upon completion of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Warrants

The following table sets forth information about outstanding warrants to purchase shares of our stock as of March 31, 2008. Upon completion of this offering, the warrants to purchase shares of our Series D preferred stock will automatically convert into warrants to purchase our common stock.

Class of Stock	Number of Shares	Exercise Price/Share	Expiration Date
Common	46,176	$ 0.40	02/12/2011
Common	9,100	0.70	10/25/2012
Common	3,577	8.30	02/09/2016
Series D preferred stock	323,569	3.97	05/25/2013
Series D preferred stock	109,091	5.50	09/28/2017

Registration Rights

We are party to an investor s agreement which provides that holders of our preferred stock and our founding stockholder, Maxygen, have the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. In the event that we propose to register any of our securities under the Securities Act, either for our own account or for the account of other security holders, these holders are entitled to notice of such registration and are entitled to certain piggyback registration rights allowing the holder to include their common stock in such registration, subject to certain marketing and other limitations. Pursuant to the investor s rights agreement, the holders of common stock issuable upon conversion of our preferred stock have the right upon the earlier of 180 days after the completion of this offering and November 13, 2010 to require us, on not more than 2 occasions, to file a registration statement under the Securities Act in order to register the resale of their shares of common stock with an anticipated aggregate offering price, net of underwriting discounts and commissions, of at least ten million dollars. We may, in certain circumstances, defer such registrations and any underwriters will have the right, subject to certain limitations, to limit the number of shares included in such registrations. Further, these holders may require us to register the resale of all or a portion of their shares on a registration statement on Form S-3 once we are eligible to use Form S-3, subject to certain conditions and limitations. In an underwritten offering, the underwriter, has the right, subject to specified conditions, to limit the number of registrable securities such holders may include. Additionally, the holders of registration rights have waived their rights to include any of their shares in this offering prior to the completion of this offering.

In connection with our acquisition of Jülich Fine Chemicals GmbH in February 2005, we entered into a registration rights agreement with certain stockholders of Jülich who acquired shares of our common stock in connection with the acquisition. If we propose to register any of our securities under the Securities Act, these stockholders are entitled to notice of such registration and are entitled to certain piggyback registration rights allowing the holder to include their common stock in such registration, subject to certain marketing and other limitations. In an underwritten offering, the underwriter, has the right, subject to specified conditions, to limit the number of registrable securities such holders may include. The holders of these registration rights have waived their rights to include any of their shares in this offering prior to the completion of this offering.

Table of Contents

Anti-Takeover Provisions

Certificate of Incorporation and Bylaws to be in Effect Upon the Completion of this Offering

Our amended and restated certificate of incorporation to be in effect upon the completion of this offering will provide for our board of directors to be divided into three classes, with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation and amended and restated bylaws to be effective upon the completion of this offering will provide that all stockholder action must be effected at a duly called meeting of stockholders and not by a consent in writing, and that only our board of directors, chairman of the board, chief executive officer, or president (in the absence of a chief executive officer) may call a special meeting of stockholders.

Our amended and restated certificate of incorporation will require a 66 2/3% stockholder vote for the amendment, repeal or modification of certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws relating to the classification of our board of directors, the requirement that stockholder actions be effected at a duly called meeting, and the designated parties entitled to call a special meeting of the stockholders. The combination of the classification of our board of directors, the lack of cumulative voting and the 66 2/3% stockholder voting requirements will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions may have the effect of deterring hostile takeovers or delaying changes in our control or management. These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts. Such provisions may also have the effect of preventing changes in our management.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested holder;

upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

Table of Contents

on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an interested stockholder as an entity or person who, together with the person s affiliates and associates, beneficially owns, or is an affiliate or associate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Limitations of Liability and Indemnification Matters

For an in depth discussion of liability and indemnification, please see Management Limitation on Liability and Indemnification Matters.

The Nasdaq Global Market Listing

We have applied to have our common stock approved for listing on The Nasdaq Global Market under the symbol CDXS.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is .

Table of Contents

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Based on the number of shares of common stock outstanding as of March 31, 2008, upon completion of this offering, shares of common stock will be outstanding, assuming no exercise of the underwriters over-allotment option and no exercise of options or warrants. All of the shares sold in this offering will be freely tradable unless purchased by our affiliates. The remaining 35,805,720 shares of common stock outstanding after this offering will be restricted as a result of securities laws or lock-up agreements as described below. Following the expiration of the lock-up period, all shares will be eligible for resale in compliance with Rule 144 or Rule 701 to the extent such shares have been released from any repurchase option that we may hold. Restricted securities as defined under Rule 144 were issued and sold by us in reliance on exemptions from the registration requirements of the Securities Act. These shares may be sold in the public market only if registered pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act.

Rule 144

In general, under Rule 144 of the Securities Act, as in effect on the date of this prospectus, a person (or persons whose shares are aggregated) who has beneficially owned restricted stock for at least six months, will be entitled to sell in any three-month period a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding (shares immediately after this offering or shares if the underwriters over-allotment is exercised in full); or
- the average weekly trading volume of our common stock on The Nasdaq Global Market during the four calendar weeks immediately preceding the date on which the notice of sale is filed with the SEC.

Sales pursuant to Rule 144 are subject to requirements relating to manner of sale, notice and availability of current public information about us. A person (or persons whose shares are aggregated) who is not deemed to be an affiliate of ours for 90 days preceding a sale, and who has beneficially owned restricted stock for at least one year is entitled to sell such shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144. Rule 144 will not be available to any stockholders until we have been subject to the reporting requirements of the Exchange Act for 90 days.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under Underwriting included elsewhere in this prospectus and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Table of Contents

Lock-up Agreements

We, along with our directors, executive officers and substantially all of our other security holders have agreed with the underwriters that for a period of 180 days following the date of this prospectus, we or they will not offer, sell, contract to sell, pledge, or otherwise dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, or enter into any swap, hedge or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement, subject to specified exceptions. Credit Suisse Securities (USA) LLC and Goldman, Sachs & Co. may, in their sole discretion, at any time without prior notice, release all or any portion of the shares from the restrictions in any such agreement.

The 180-day restricted period described in the preceding paragraph will be extended if:

- during the last 17 days of the 180-day restricted period we issue an earnings release or material news or a material event relating to us occurs; or

- prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day period,

in which case the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the release or the occurrence of the material news or material event, unless such extension is waived, in writing, by Credit Suisse Securities (USA) LLC and Goldman, Sachs & Co. on behalf of the underwriters.

Registration Rights

We are party to an investor rights agreement which provides that holders of our preferred stock and our founding stockholders have the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. We are also party to a registration rights agreement with certain former stockholders of Jülich Fine Chemicals GmbH, which we acquired in February 2005, who are entitled to certain piggyback registration rights. See Description of Capital Stock Registration Rights. Except for shares purchased by affiliates, registration of their shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon effectiveness of the registration, subject to the expiration of the lock-up period and to the extent such shares have been released from any repurchase option that we may hold.

Stock Plans

As soon as practicable after the completion of this offering, we intend to file a Form S-8 registration statement under the Securities Act to register shares of our common stock subject to options outstanding or reserved for issuance under our 2002 Stock Plan and our 2008 Incentive Award Plan. This registration statement will become effective immediately upon filing, and shares covered by this registration statement will thereupon be eligible for sale in the public markets, subject to Rule 144 limitations applicable to affiliates and any lock-up agreements. For a more complete discussion of our stock plans, see Management Employee Benefit and Stock Plans.

Table of Contents

CERTAIN MATERIAL UNITED STATES FEDERAL INCOME TAX

CONSEQUENCES TO NON-U.S. HOLDERS

The following is a summary of certain material United States federal income tax consequences to non-U.S. holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this offering. This discussion is not a complete analysis of all of the potential United States federal income tax consequences relating thereto, nor does it address any estate and gift tax consequences or any tax consequences arising under any state, local or foreign tax laws, or any other United States federal tax laws. This discussion is based on the Internal Revenue Code of 1986, as amended, or the Code, Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the Internal Revenue Service, or IRS, all as in effect as of the date of this offering. These authorities may change, possibly retroactively, resulting in United States federal income tax consequences different from those discussed below. No ruling has been or will be sought from the IRS with respect to the matters discussed below, and there can be no assurance that the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, or that any such contrary position would not be sustained by a court.

This discussion is limited to non-U.S. holders who purchase our common stock issued pursuant to this offering and who hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all of the United States federal income tax consequences that may be relevant to a particular holder in light of such holder s particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the United States federal income tax laws, including, without limitation:

U.S. expatriates or former long-term residents of the United States;

partnerships or other pass-through entities;

real estate investment trusts;

regulated investment companies;

controlled foreign corporations, passive foreign investment companies corporations that accumulate earnings to avoid United States federal income tax;

banks, insurance companies, or other financial institutions;

brokers, dealers, or traders in securities, commodities or currencies;

tax-exempt organizations;

tax-qualified retirement plans;

persons subject to the alternative minimum tax; or

persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR UNITED STATES FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER UNITED STATES FEDERAL TAX LAWS.

Table of Contents

Definition of Non-U.S. Holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a U.S. person or a partnership (or other entity treated as a partnership) for United States federal income tax purposes. A U.S. person is any of the following:

- an individual citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized under the laws of the United States, any state therein or the District of Columbia;
- an estate the income of which is subject to United States federal income tax regardless of its source; or
- a trust (1) the administration of which is subject to the primary supervision of a United States court and all substantial decisions of which are controlled by one or more United States persons who have the authority, or (2) that has a valid election in effect under applicable Treasury Regulations to be treated as a U.S. person.

Distributions on Our Common Stock

If we make cash or other property distributions on our common stock, such distributions will constitute dividends for United States federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. Amounts not treated as dividends for United States federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder s adjusted tax basis in the common stock, but not below zero. Any excess will be treated as gain realized on the sale or other disposition of the common stock and will be treated as described under Gain on Disposition of Our Common Stock below.

Dividends paid to a non-U.S. holder of our common stock generally will be subject to United States federal withholding tax at a rate of 30% of the gross amount of the dividends, or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish to us or our paying agent a valid IRS Form W-8BEN (or applicable successor form) certifying such holder s qualification for the reduced rate. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but which qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on the common stock are effectively connected with such holder s United States trade or business, and, if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States, the non-U.S. holder will be exempt from United States federal withholding tax. To claim the exemption, the non-U.S. holder must furnish to us or our paying agent a properly executed IRS Form W-8ECI (or applicable successor form).

Any dividends paid on our common stock that are effectively connected with a non-U.S. holder s United States trade or business (and if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States) generally will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates in much the same manner as if such holder were a resident of the United States, unless an applicable income tax treaty provides otherwise. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax

Table of Contents

treaty) of a portion of its effectively connected earnings and profits for the taxable year. Non-U.S. holders are urged to consult any applicable income tax treaties that may provide for different rules.

A non-U.S. holder who claims the benefit of an applicable income tax treaty generally will be required to satisfy applicable certification and other requirements prior to the distribution date. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Disposition of Our Common Stock

A non-U.S. holder generally will not be subject to United States federal income tax on any gain realized upon the sale or other disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder s conduct of a trade or business in the United States, and if required by an applicable income tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States;

- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the calendar year of the disposition, and certain other requirements are met; or

- our common stock constitutes a United States real property interest by reason of our status as a United States real property holding corporation, or USRPHC, for United States federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder s holding period for our common stock. The determination of whether we are a USRPHC depends on the fair market value of our United States real property interests relative to the fair market value of our other trade or business assets and our foreign real property interests.

We believe we are not currently and do not anticipate becoming a USRPHC for United States federal income tax purposes. Even if we become a USRPHC, however, so long as our common stock is regularly traded on an established securities market, such common stock will be treated as U.S. real property interests only if the non-U.S. holder actually or constructively holds more than 5% of our common stock.

Unless an applicable income tax treaty provides otherwise, gain described in the first bullet point above will be subject to United States federal income tax on a net income basis at the regular graduated United States federal income tax rates in much the same manner as if such holder were a resident of the United States. Non-U.S. holders that are foreign corporations also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of a portion of its effectively connected earnings and profits for the taxable year.

Gain described in the second bullet point above will be subject to United States federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by United States source capital losses (even though the individual is not considered a resident of the United States).

Non-U.S. holders are urged to consult any applicable income tax treaties that may provide for different rules.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the amount of distributions on our common stock paid to such holder and the amount of tax withheld with respect to those distributions, if any. These information reporting requirements apply even if no withholding was required because the distributions were effectively connected with the holder s conduct of a United States trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Backup withholding, currently at a 28% rate, however, generally will not apply to payments made to a non-U.S. holder of our common stock provided the non-U.S. holder

furnishes to us or our paying agent the required certification as to its non-U.S. status, such as by providing a valid IRS Form W-8BEN or IRS Form W-8ECI, or certain other requirements are met. Notwithstanding the foregoing, backup withholding may apply if either we have or our paying agent has actual knowledge, or reason to know, that the holder is a U.S. person that is not an exempt recipient.

Payments of the proceeds from a disposition by a non-U.S. holder of our common stock made by or through a foreign office of a broker generally will not be subject to information reporting or backup withholding. However, information reporting (but not backup withholding) will apply to those payments if the broker does not have documentary evidence that the beneficial owner is a non-U.S. holder or an exemption is not otherwise established, and the broker is:

a U.S. person;

a controlled foreign corporation for United States federal income tax purposes;

a foreign person 50% or more of whose gross income is effectively connected with a United States trade or business for a specified three-year period; or

a foreign partnership if at any time during its tax year (1) one or more of its partners are U.S. persons who hold in the aggregate more than 50% of the income or capital interest in such partnership, or (2) it is engaged in the conduct of a United States trade or business.

Payment of the proceeds from a non-U.S. holder s disposition of our common stock made by or through the United States office of a broker generally will be subject to information reporting and backup withholding unless the non-U.S. holder certifies as to its non-U.S. holder status under penalties of perjury, such as by providing a valid IRS Form W-8BEN or IRS Form W-8ECI, or otherwise establishes an exemption from information reporting and backup withholding.

Backup withholding is not an additional tax. Rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. Any overpayment of taxes as a result of backup withholding rules may be allowed as a refund or a credit against a non-U.S. holder s United States federal income tax liability, provided the required information is timely furnished to the IRS.

Table of Contents

UNDERWRITING

Under the terms and subject to the conditions contained in an underwriting agreement dated , 2008 we have agreed to sell to the underwriters named below, for whom Credit Suisse Securities (USA) LLC, Goldman, Sachs & Co., Piper Jaffray & Co., RBC Capital Markets Corporation and Thomas Weisel Partners LLC are acting as representatives, the following respective numbers of shares of common stock:

Underwriter	Number of Shares
Credit Suisse Securities (USA) LLC	
Goldman, Sachs & Co.	
Piper Jaffray & Co.	
RBC Capital Markets Corporation	
Thomas Weisel Partners LLC	
Total	

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased, other than those shares covered by the over-allotment option described below. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated.

We have granted to the underwriters a 30-day option to purchase on a pro rata basis up to additional shares of common stock at the initial public offering price less the underwriting discounts and commissions. The option may be exercised only to cover any over-allotments of common stock.

The underwriters propose to offer the shares of common stock initially at the public offering price on the cover page of this prospectus and to selling group members at that price less a selling concession of $ per share. The underwriters and selling group members may allow a discount of $ per share on sales to other broker/dealers. After the initial public offering the representatives may change the public offering price and concession and discount to broker/dealers.

The following table summarizes the compensation and estimated expenses we will pay:

	Per Share		Total	
	Without Over-allotment	With Over-allotment	Without Over-allotment	With Over-allotment
Underwriting Discounts and Commissions paid by us	$	$	$	$
Expenses payable by us	$	$	$	$

The representatives have informed us that they do not expect sales to accounts over which the underwriters have discretionary authority to exceed 5% of the shares of common stock being offered.

We have agreed that we will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, without the prior written consent of Credit Suisse Securities (USA) LLC and Goldman, Sachs & Co., or the Lead Representatives, for a period of 180 days after the date of this prospectus, except issuances pursuant to the exercise of warrants or employee stock options outstanding on the date hereof or grants of employee stock options pursuant to the terms of a plan in effect on the date hereof. However, in the event that either (1) during the last 17 days of the lock-up period, we release earnings results or material news or a material event relating to us occurs or (2) prior to the expiration of the lock-up period, we announce that we will release earnings results during the 16-day period beginning on the last day of the lock-up period, then in either case the expiration of the lock-up will be extended until the expiration of the 18-day period

Table of Contents

beginning on the date of the release of the earnings results or the occurrence of the material news or event, as applicable, unless the Lead Representatives waive, in writing, such an extension.

Our officers and directors and holders of all of our outstanding securities have agreed that they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, enter into a transaction that would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of the Lead Representatives for a period of 180 days after the date of this prospectus, except transfers of shares of our common stock or securities convertible into or exchangeable or exercisable for shares of our common stock by will or intestate succession, in connection with a bona fide gift or in distributions to limited partners, members or stockholders of a security holder. However, in the event that either (1) during the last 17 days of the lock-up period, we release earnings results or material news or a material event relating to us occurs or (2) prior to the expiration of the lock-up period, we announce that we will release earnings results during the 16-day period beginning on the last day of the lock-up period, then in either case the expiration of the lock-up will be extended until the expiration of the 18-day period beginning on the date of the release of the earnings results or the occurrence of the material news or event, as applicable, unless the Lead Representatives waive, in writing, such an extension. Notwithstanding the foregoing, our officers and directors may enter into a written trading plan established pursuant to Rule 10b5-1 of the Exchange Act during the lock-up period, and we may announce the establishment of such a plan, provided that no direct or indirect offers, pledges, sales, contracts to sell, sales of any option or contract to purchase, purchases of any option or contract to sell, grants of any option, right or warrant to purchase, loans, or other transfers or disposals of any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock may be effected pursuant to such plan during the lock-up period.

We have agreed to indemnify the underwriters against liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in that respect.

Prior to this offering, there has been no public market for our common stock. The initial public offering price has been negotiated among us and the representatives. The factors to be considered in determining the initial public offering price of the shares of our common stock, in addition to prevailing market conditions, will be our historical performance, estimates of our business potential and earnings prospects, an assessment of our management and the consideration of the above factors in relation to market valuation of companies in related businesses. We have applied to list the shares of our common stock on The Nasdaq Global Market, under the symbol CDXS.

Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for the company, for which they received or will receive customary fees and expenses.

In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters over-allotment option to purchase additional shares from us in the offering. The underwriters may close out any covered short position by either exercising their over-allotment option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the over-allotment option granted to them. Naked short sales are

Table of Contents

any sales in excess of such over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the company s stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of the common stock. As a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If these activities are commenced, they may be discontinued at any time. These transactions may be effected on The Nasdaq Global Market, in the over-the-counter market or otherwise.

A prospectus in electronic format may be made available on the web sites maintained by one or more of the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations.

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of shares to the public in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of shares to the public in that Relevant Member State at any time:

(a) to legal entities which are authorised or regulated to operate in the financial markets or, if not so authorised or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;

(c) to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive) subject to obtaining the prior consent of the representatives for any such offer; or

(d) in any other circumstances which do not require the publication by the company of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of shares to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

Table of Contents

Each underwriter has represented and agreed that:

- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Market Act 2000 (as amended), or the FSMA) received by it in connection with the issue or sale of the shares in circumstances in which Section 21(1) of the FSMA would not apply to the company; and

- it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares in, from or otherwise involving the United Kingdom.

The shares may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), or (ii) to professional investors within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation or document relating to the shares may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired the shares under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

The securities have not been and will not be registered under the Securities and Exchange Law of Japan (the Securities and Exchange Law) and each underwriter has agreed that it will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Securities and Exchange Law and any other applicable laws, regulations and ministerial guidelines of Japan.

Table of Contents

NOTICE TO CANADIAN RESIDENTS

Resale Restrictions

The distribution of our common stock in Canada is being made only on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province where trades of common stock are made. Any resale of our common stock in Canada must be made under applicable securities laws which will vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of our common stock.

Representations of Purchasers

By purchasing our common stock in Canada and accepting a purchase confirmation a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase our common stock without the benefit of a prospectus qualified under those securities laws,
- where required by law, that the purchaser is purchasing as principal and not as agent,
- the purchaser has reviewed the text above under the heading Resale Restrictions, and
- the purchaser acknowledges and consents to the provision of specified information concerning its purchase of our common stock to the regulatory authority that by law is entitled to collect the information.

Further details concerning the legal authority for this information is available on request.

Rights of Action Ontario Purchasers Only

Under Ontario securities legislation, certain purchasers who purchase a security offered by this prospectus during the period of distribution will have a statutory right of action for damages, or while still the owner of the common stock, for rescission against us in the event that this prospectus contains a misrepresentation without regard to whether the purchaser relied on the misrepresentation. The right of action for damages is exercisable not later than the earlier of 180 days from the date the purchaser first had knowledge of the facts giving rise to the cause of action and three years from the date on which payment is made for the common stock. The right of action for rescission is exercisable not later than 180 days from the date on which payment is made for the common stock. If a purchaser elects to exercise the right of action for rescission, the purchaser will have no right of action for damages against us. In no case will the amount recoverable in any action exceed the price at which the common stock was offered to the purchaser and if the purchaser is shown to have purchased the securities with knowledge of the misrepresentation, we will have no liability. In the case of an action for damages, we will not be liable for all or any portion of the damages that are proven to not represent the depreciation in value of the common stock as a result of the misrepresentation relied upon. These rights are in addition to, and without derogation from, any other rights or remedies available at law to an Ontario purchaser. The foregoing is a summary of the rights available to an Ontario purchaser. Ontario purchasers should refer to the complete text of the relevant statutory provisions.

Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be

146

Table of Contents

located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

Taxation and Eligibility for Investment

Canadian purchasers of our common stock should consult their own legal and tax advisors with respect to the tax consequences of an investment in our common stock in their particular circumstances and about the eligibility of our common stock for investment by the purchaser under relevant Canadian legislation.

Table of Contents

LEGAL MATTERS

The validity of our common stock offered by this prospectus will be passed upon for us by Latham & Watkins LLP, Menlo Park, California. Certain attorneys and investment funds affiliated with the firm collectively own less than 1% of our shares of preferred stock, which will convert into an aggregate of less than 1% of our shares of common stock upon the completion of this offering. Certain legal matters in connection with this offering will be passed upon for the underwriters by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California.

EXPERTS

The consolidated financial statements of Codexis, Inc. as of December 31, 2006 and 2007, and for each of the three years in the period ended December 31, 2007, included in this Prospectus have been so included in reliance on the report of Ernst & Young LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act, with respect to the shares of our common stock offered hereby. This prospectus does not contain all of the information set forth in the registration statement and the exhibits and schedules thereto. Some items are omitted in accordance with the rules and regulations of the SEC. For further information with respect to us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed therewith. Statements contained in this prospectus as to the contents of any contract, agreement or any other document are summaries of the material terms of this contract, agreement or other document. A copy of the registration statement, and the exhibits and schedules thereto, may be inspected without charge at the public reference facilities maintained by the SEC at 100 F Street, N.E., Washington, D.C. 20549. Copies of these materials may be obtained by writing to the Public Reference Section of the SEC at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facility. The SEC maintains a web site that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC. The address of the SEC s website is http://www.sec.gov.

Upon completion of this offering, we will become subject to the information and periodic reporting requirements of the Exchange Act and, in accordance therewith, will file periodic reports, proxy statements and other information with the SEC. Such periodic reports, proxy statements and other information will be available for inspection and copying at the public reference room and web site of the SEC referred to above. We maintain a website at www.codexis.com. You may access our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The reference to our website address does not constitute incorporation by reference of the information contained on our website.

Table of Contents

Codexis, Inc.

Index to Consolidated Financial Statements

Table of Contents

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Codexis, Inc.

We have audited the accompanying consolidated balance sheets of Codexis, Inc. at December 31, 2006 and 2007, and the related consolidated statements of operations, redeemable convertible preferred stock and stockholders deficit, and cash flows for each of the three years in the period ended December 31, 2007. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company s internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Codexis, Inc. at December 31, 2006 and 2007, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2007, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2 to the consolidated financial statements, the Company changed its method of accounting for stock-based compensation as of January 1, 2006 and changed its method of accounting for uncertain tax positions as of January 1, 2007.

/s/ Ernst & Young LLP

Palo Alto, California

April 10, 2008

Table of Contents

Codexis, Inc.

Consolidated Balance Sheets

(In thousands, except share data)

	December 31, 2006	December 31, 2007	March 31, 2008 (unaudited)	Pro Forma as of March 31, 2008 (Note 2) (unaudited)
Assets				
Current assets:				
Cash and cash equivalents	$ 32,246	$ 55,075	$ 27,934	$ 27,934
Marketable securities		28,995	36,978	36,978
Accounts receivable, net of allowances of $250 at December 31, 2006 and 2007 and March 31, 2008 (unaudited), respectively	2,653	4,752	3,558	3,558
Related party accounts receivable	101	1,680	840	840
Inventories	970	1,635	2,519	2,519
Prepaid expenses and other current assets	674	1,209	1,327	1,327
Total current assets	36,644	93,346	73,156	73,156
Restricted cash	894	2,195	2,247	2,247
Property and equipment, net	4,501	11,099	11,365	11,365
Intangible assets, net	2,324	2,783	2,673	2,673
Goodwill	1,926	3,099	3,260	3,260
Other non-current assets	370	1,019	2,496	2,496
Total assets	$ 46,659	$ 113,541	$ 95,197	$ 95,197
Liabilities, Redeemable Convertible Preferred Stock and Stockholders Equity (Deficit)				
Current liabilities:				
Accounts payable	$ 2,491	$ 4,225	$ 4,442	$ 4,442
Accrued compensation	1,518	3,182	2,195	2,195
Related party payable	560	7,788	150	150
Other accrued liabilities	2,593	7,480	10,074	10,074
Preferred stock warrant liability	623	1,485	2,260	
Deferred revenues	1,306	654	955	955
Related party deferred revenues	3,021	4,856	5,513	5,513
Financing obligations	1,560	4,507	5,163	5,163
Total current liabilities	13,672	34,177	30,752	28,492
Deferred revenues, net of current portion	2,989	2,233	2,288	2,288
Related party deferred revenues, net of current portion	156	16,632	15,453	15,453
Financing obligations, net of current portion	2,513	12,900	11,726	11,726
Other long-term liabilities	2,582	2,321	2,371	2,371
Commitments and contingencies (Note 8)				
Redeemable convertible preferred stock issuable in series (Notes 2 and 10), $0.0001 par value per share; 26,770,548 and 33,204,886 and 33,204,886 shares authorized at December 31, 2006 and 2007 and March 31, 2008 (unaudited) respectively; 25,684,148 and 32,269,494 and 32,269,494 shares issued and outstanding at December 31, 2006 and 2007 and March 31, 2008 (unaudited), respectively; aggregate liquidation value of $104,972 and $160,305 and $160,305 at December 31, 2006 and 2007 and March 31, 2008 (unaudited) respectively; no shares authorized, issued or outstanding pro forma (unaudited)	77,513	132,746	132,746	
Stockholders equity (deficit):				
Common stock, $0.0001 par value per share; 40,000,000 and 62,000,000 and 62,000,000 shares authorized at December 31, 2006 and 2007 and March 31, 2008 (unaudited), respectively; 1,797,682 and 3,386,789 and 3,475,620 shares issued and outstanding at December 31, 2006 and 2007 and March 31, 2008 (unaudited), respectively; shares authorized, 35,805,720 shares issued and outstanding pro forma (unaudited)				

Additional paid-in capital	2,501	6,187	7,025	142,027
Accumulated other comprehensive income (loss)	(52)	537	937	937
Accumulated deficit	(55,215)	(94,192)	(108,101)	(108,101)
Total stockholders equity (deficit)	(52,766)	(87,468)	(100,139)	34,867
Total liabilities, redeemable convertible preferred stock and stockholders equity (deficit)	$ 46,659	$ 113,541	$ 95,197	$ 95,197

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents

Codexis, Inc.

Consolidated Statements of Operations

(In thousands, except per share data)

	Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
Revenues:					
Product	$ 2,265	$ 2,544	$ 11,418	$ 1,456	$ 3,545
Related party collaborative research and development		863	8,481	1,289	3,881
Collaborative research and development	9,363	8,403	4,733	1,882	865
Government grants	156	317	701	77	83
Total revenues	11,784	12,127	25,333	4,704	8,374
Cost and operating expenses:					
Cost of product revenues	2,233	1,806	8,319	1,351	2,887
Research and development	12,839	17,257	35,644	4,763	9,855
Selling, general and administrative	7,891	11,880	19,713	4,036	8,738
Total cost and operating expenses	22,963	30,943	63,676	10,150	21,480
Loss from operations	(11,179)	(18,816)	(38,343)	(5,446)	(13,106)
Interest income	245	742	1,491	368	761
Interest expense and other	(413)	(724)	(2,533)	32	(1,466)
Loss before provision (benefit) for income taxes	(11,347)	(18,798)	(39,385)	(5,046)	(13,811)
Provision (benefit) for income taxes	243	(127)	(408)	50	98
Net loss	$ (11,590)	$ (18,671)	$ (38,977)	$ (5,096)	$ (13,909)
Net loss per share of common stock, basic and diluted	$ (7.69)	$ (10.99)	$ (15.53)	$ (2.72)	$ (4.10)
Shares used in computing net loss per share of common stock, basic and diluted	1,508	1,699	2,510	1,873	3,395
Pro forma net loss per share of common stock, basic and diluted (unaudited)			$ (1.29)		$ (0.37)
Shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)			29,116		35,725

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents

Codexis, Inc.

Consolidated Statements of Redeemable Convertible Preferred Stock and Stockholders Deficit

Years Ended December 31, 2005, 2006 and 2007 and the Three Months Ended March 31, 2008 (unaudited)

(In thousands)

	Redeemable Convertible Preferred Stock		Common Stock			Accumulated Other		
	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Compre-hensive Income (Loss)	Accumulated Deficit	Total Stockholders Deficit
December 31, 2004	15,616	$ 37,749	1,147	$	$ 2,027	$ (28)	$ (24,954)	$ (22,955)
Exercise of stock options			177		63			63
Issuance of common stock for acquisition of JFC			313		188			188
Issuance of warrants to purchase common stock in connection with financing arrangement					4			4
Employee stock-based compensation					1			1
Non-employee stock-based compensation					69			69
Comprehensive loss:								
Net loss							(11,590)	(11,590)
Currency translation adjustments						(580)		(580)
Unrealized gain on marketable securities						27		27
Total comprehensive loss								(12,143)
December 31, 2005	15,616	37,749	1,637		2,352	(581)	(36,544)	(34,773)
Exercise of stock options			125		55			55
Issuance of common stock related to acquisition of JFC			36		25			25
Issuance of Series D redeemable convertible preferred stock, net of issuance costs of $208	8,989	35,482						
Beneficial conversion feature on issuance of preferred stock warrants in connection with convertible debt					5			5
Issuance of Series D redeemable convertible preferred stock upon conversion of convertible debt and accrued interest	1,079	4,282						
Employee stock-based compensation					32			32
Non-employee stock-based compensation					32			32
Comprehensive loss:								
Net loss							(18,671)	(18,671)
Currency translation adjustments						528		528
Unrealized gain on marketable securities						1		1
Total comprehensive loss								(18,142)
December 31, 2006	25,684	77,513	1,798		2,501	(52)	(55,215)	(52,766)
Exercise of stock options			596		265			265
Vesting of shares exercised early					38			38
Employee stock-based compensation					1,043			1,043
Non-employee stock-based compensation					213			213
Issuance of common stock for acquisition of BioCatalytics			963		1,228			1,228
Issuance of common stock in connection with a license agreement			30		134			134
Issuance of Series D redeemable convertible preferred stock upon exercise of warrants	429	3,000			765			765
	6,101	51,753						

Issuance of Series E redeemable convertible preferred stock, net of issuance costs of $100							
Issuance of Series E redeemable convertible preferred stock for consulting services	56	480					
Comprehensive loss:							
Net loss						(38,977)	(38,977)
Currency translation adjustments					457		457
Unrealized gain on marketable securities					132		132
Total comprehensive loss							(38,388)
December 31, 2007	32,270	132,746	3,387	6,187	537	(94,192)	(87,468)
Exercise of stock options (unaudited)			89	72			72
Vesting of shares exercised early (unaudited)				18			18
Employee stock-based compensation (unaudited)				647			647
Non-employee stock-based compensation (unaudited)				101			101
Comprehensive loss:							
Net loss (unaudited)						(13,909)	(13,909)
Currency translation adjustments (unaudited)					328		328
Unrealized gain on marketable securities (unaudited)					72		72
Total comprehensive loss (unaudited)							(13,509)
March 31, 2008 (unaudited)	32,270	$ 132,746	3,476	$ $ 7,025	$ 937	$ (108,101)	$ (100,139)

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents

Codexis, Inc

Consolidated Statements of Cash Flows

(In thousands)

	Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
Operating activities					
Net loss	$ (11,590)	$ (18,671)	$ (38,977)	$ (5,096)	$ (13,909)
Adjustments to reconcile net loss to net cash used in operating activities:					
Amortization of purchased intangible assets	744	633	781	162	238
Depreciation and amortization	1,712	1,754	2,103	404	806
Revaluation of preferred stock warrant liability		156	1,328	(146)	775
Loss on disposal of property and equipment	6	6	86		
Stock-based compensation	70	64	1,256	35	748
Amortization of debt discount		5	67		70
Accretion/(amortization) of premium/discount on marketable securities	207		(368)	(71)	(300)
Amortization of deferred costs associated with a license agreement		62	400		
Beneficial conversion feature on issuance of redeemable convertible preferred stock		5			
Issuance of redeemable convertible preferred stock for consulting services			480		
Issuance of common stock in connection with a license agreement			134		
Changes in operating assets and liabilities, net of acquisitions:					
Accounts receivable	(2,457)	369	(3,146)	(1,296)	2,050
Inventories	(10)	(354)	(283)	(685)	(815)
Prepaid expenses and other current assets	(88)	(211)	(285)	(214)	(102)
Other assets	183	(191)	(590)	8	(1,448)
Accounts payable	(593)	1,409	1,169	(800)	211
Accrued compensation	251	552	1,664	(434)	(987)
Accrued related party payable		560	7,228	43	(7,638)
Deferred revenues	4,050	775	16,385	(314)	(166)
Other accrued liabilities	2,841	(210)	4,098	978	2,633
Net cash used in operating activities	(4,674)	(13,287)	(6,470)	(7,426)	(17,834)
Investing activities					
Increase in restricted cash	(239)	(193)	(1,301)	(48)	(53)
Purchase of property and equipment	(2,013)	(1,102)	(8,245)	(704)	(1,055)
Purchase of marketable securities	(1,262)		(42,267)	(11,509)	(11,372)
Proceeds from maturities and sales of marketable securities	11,316	1,500	13,772		3,760
Acquisitions, net of cash acquired	(4,090)		(1,168)		
Net cash provided by (used in) investing activities	3,712	205	(39,209)	(12,261)	(8,720)
Financing activities					
Proceeds from financing obligations	1,786	1,067	14,805	38	
Principal payments on financing obligations	(886)	(1,090)	(1,485)	(290)	(652)
Proceeds from convertible debt		4,200			
Proceeds from the exercise of warrants to purchase preferred stock			3,000		
Proceeds from issuance of preferred stock, net of issuance costs		35,482	51,753		
Proceeds from exercises of stock options	63	55	303	83	72
Net cash provided by (used in) financing activities	963	39,714	68,376	(169)	(580)
Effect of exchange rate changes on cash and cash equivalents	7	109	132	39	(7)
Net increase in cash and cash equivalents	8	26,741	22,829	(19,817)	(27,141)
Cash and cash equivalents at beginning of period	5,497	5,505	32,246	32,246	55,075

Cash and cash equivalents at end of period	$ 5,505	$ 32,246	$ 55,075	$ 12,429	$ 27,934
Supplemental disclosures of cash flow information:					
Cash paid for interest	$ 339	$ 383	$ 686	$ 95	$ 418
Cash paid for income taxes	$ 222	$ 132	$ 99	$ 2	$ 6
Supplemental schedule of noncash investing and financing activities:					
Conversion of convertible debt to redeemable convertible preferred stock	$	$ 4,282	$	$	$
Issuance of preferred stock warrants in connection with financing arrangement	$ 4	$ 736	$ 463	$	$
Issuance of common stock for acquisitions	$ 188	$ 25	$ 1,228	$	$

The accompanying notes are an integral part of these consolidated financial statements.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements

1. Description of Business

Codexis, Inc. (we or Codexis) is a leading developer of proprietary biocatalysts that we believe have the potential to revolutionize chemistry-based manufacturing processes across a variety of industries. Biocatalysts are enzymes or microbes that catalyze chemical reactions that can enable the production of products used in everyday life. Our proprietary technology platform allows us to rapidly evolve and optimize biocatalysts to perform specific and desired chemical reactions for commercial scale industrial applications. We believe we can use our technology platform to improve industrially relevant characteristics of any biocatalyst, enabling manufacturing processes that are faster, less complex, less capital intensive and lower cost than conventional chemistry-based processes.

Codexis was incorporated in Delaware in January 2002 as a wholly-owned subsidiary of Maxygen, Inc. (Maxygen). In March 2002, we licensed our core enabling technology from Maxygen and commenced operations.

2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The consolidated financial statements of Codexis have been prepared in conformity with U.S. generally accepted accounting principles and include the accounts of Codexis and its wholly-owned subsidiaries. The results of operations of Jülich Fine Chemicals GmbH (JFC) in Germany and BioCatalytics, Inc. (BioCatalytics) in the U.S. are included in the consolidated statements of operations subsequent to their acquisitions on February 21, 2005 and July 17, 2007, respectively. We also have subsidiaries in Singapore, India, Austria and Mauritius, and in January 2008 we formed a new subsidiary in Hungary. All significant intercompany balances and transactions have been eliminated in consolidation.

Reclassification

In the current period, we reclassified certain amounts between inventory and accrued liabilities in the consolidated balance sheets and legal expenses from research and development expenses to selling, general and administrative expenses in the consolidated statements of operations. We also reclassified amounts relating to the amortization of discount on marketable securities from investing activities to a reconciling adjustment to net loss for cash used in operating activities in the consolidated statements of cash flows. For comparative purposes, amounts in the prior periods have been reclassified to conform to the current presentation.

Redeemable Convertible Preferred Stock

The holders of at least a majority of the then-outstanding shares of Series B, D and E redeemable convertible preferred stock, voting or consenting together as separate series, may require us to redeem each of these series of redeemable convertible preferred stock on or after December 31, 2011. The holders of Series A and C convertible preferred stock do not have redemption rights, however, the securities are classified outside of stockholders equity (deficit) due to their liquidation rights. The holders of our Series A, B, C, D and E preferred stock control the vote of our stockholders and Board of Directors through their appointed representation. As a result, the holders of Series A, B, C, D and E preferred stock can force a change in control that would trigger liquidation. As redemption of the preferred stock through liquidation is outside of our control, all shares of preferred stock have been presented outside of permanent equity in accordance with Emerging Issues Task Force (EITF) Topic D-98, *Classification and Measurement of Redeemable Securities* (EITF Topic D-98). Series A, B, C, D and E preferred stock are collectively referred to in the consolidated financial statements and notes to the consolidated financial statements as redeemable convertible preferred stock.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Unaudited Interim Financial Information

The accompanying consolidated balance sheet as of March 31, 2008, the consolidated statements of operations and cash flows for the three months ended March 31, 2007 and 2008, and the consolidated statement of redeemable convertible preferred stock and stockholder s deficit for the three months ended March 31, 2008 are unaudited. The unaudited interim financial statements have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to state fairly our financial position as of March 31, 2008 and results of operations and cash flows for the three months ended March 31, 2007 and 2008. The financial data and other information disclosed in these notes to financial statements as of March 31, 2008 and for the three months ended March 31, 2007 and 2008 are unaudited. The results for the three months ended March 31, 2008 are not necessarily indicative of the results to be expected for the year ending December 31, 2008 or for any other interim period or for any future year.

Unaudited Pro Forma Balance Sheet

In the event that an initial public offering that results in the automatic conversion of our redeemable convertible preferred stock, as described in Note 11, is consummated, all of the redeemable convertible preferred stock outstanding will automatically convert into 32,330,100 shares of common stock based on the shares of redeemable convertible preferred stock outstanding at March 31, 2008. In addition, all preferred stock warrants will automatically convert to common stock warrants and the related redeemable convertible preferred stock warrant liability of $2.3 million at March 31, 2008 would be reclassified to additional paid-in capital. The unaudited pro forma balance sheet information at March 31, 2008 gives effect to the automatic conversion of all outstanding shares of the redeemable convertible preferred stock to common stock and the conversion of all preferred stock warrants to common stock warrants.

Significant Risks and Uncertainties

We have incurred net losses of $39.0 and $13.9 million for the year ended December 31, 2007 and for the three months ended March 31, 2008, respectively and used $6.5 million and $17.8 million of cash in operating activities for the year ended December 31, 2007 and for the three months ended March 31, 2008, respectively. At March 31, 2008, we had an accumulated deficit of $108.1 million and unrestricted cash and cash equivalents and marketable securities of $64.9 million. Our failure to generate sufficient revenues, achieve planned gross margins, control operating costs or raise sufficient additional funds may require us to modify, delay or abandon some of our planned future expansion or expenditures, which could have a material adverse effect on our business, operating results, financial condition and ability to achieve our intended business objectives. We may be required to seek additional funds through collaborations or public or private debt or equity financings, and may also seek to reduce expenses related to our operations. There can be no assurance that any financings will be available or will be at terms acceptable to Codexis.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles in the United States 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 consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Codexis management regularly assesses these estimates which primarily affect revenue recognition, the valuation of accounts receivable, the valuation of acquired intangible assets, the valuation of inventories, the valuation of accrued liabilities, the fair values of redeemable convertible preferred stock, common

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

stock, redeemable convertible preferred stock warrants, and stock options and the valuation of allowances associated with deferred tax assets. Actual results could differ from those estimates, and such differences may be material to the consolidated financial statements.

Foreign Currency Translation

The assets and liabilities of foreign subsidiaries, where the local currency is the functional currency, are translated from their respective functional currencies into U.S. dollars at the exchange rates in effect at the balance sheet date, with resulting foreign currency translation adjustments recorded in accumulated other comprehensive income (loss) in the consolidated statements of stockholders equity (deficit). Revenue and expense amounts are translated at average rates during the period. Where the U.S. dollar is the functional currency, translation adjustments are recorded in interest expense and other in the accompanying consolidated statements of operations. Gains and losses realized from transactions, including intercompany balances not considered as permanent investments, denominated in currencies other than an entity's functional currency, are included in interest expense and other in the accompanying consolidated statements of operations. We had foreign currency transaction losses of $96,000, $46,000 and $173,000 in 2005, 2006 and 2007, respectively and $22,000 and $19,000 for the three months ended March 31, 2007 and 2008, respectively.

Concentrations of Credit Risk

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

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

One customer accounted for 62%, 47% and 14% of accounts receivable at December 31, 2006 and 2007 and March 31, 2008, respectively. At December 31, 2007 and March 31, 2008, a second customer accounted for 26% and 19% of accounts receivable, respectively. We do not believe the accounts receivable from these customers represent a significant credit risk based on past collection experiences and the general credit worthiness of these customers.

Fair Value of Financial Instruments

The carrying amounts of certain of our financial instruments, including cash and cash equivalents, marketable securities, restricted cash, accounts receivable and accounts payable, approximate fair value due to their short maturities. Based on borrowing rates currently available to Codexis for loans with similar terms, the carrying values of our financing obligations approximate their fair values.

SFAS No. 157, *Fair Value Measurement* (SFAS 157), clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. Effective January 1, 2008, we adopted the provisions of SFAS No. 157 for financial assets and liabilities measured at fair value. See Note 6.

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

Cash, Cash Equivalents and Marketable Securities

We consider all highly liquid investments with maturity dates of three months or less at the date of purchase to be cash equivalents. Cash and cash equivalents consist of cash on deposit with banks and money market funds.

Marketable securities are primarily comprised of corporate debt obligations. Management determines the appropriate classification of debt securities at the time of purchase and reevaluates such designation at each balance sheet date. Our debt securities are classified as available-for-sale and are carried at estimated fair value, as determined by quoted market rates, on the consolidated balance sheets. Unrealized gains and losses are reported as a component of accumulated other comprehensive income (loss). The amortized cost of debt securities in this category is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion are included in interest income. Realized gains and losses and declines in value deemed to be other-than-temporary, if any, are included in interest income and expense. The cost of securities sold is based on the specific-identification method. Interest earned on securities is included in interest income. There were no significant realized gains or losses from sales of marketable securities in the periods presented. At December 31, 2007, we have not had any other-than-temporary declines in the fair value of our marketable securities. At December 31, 2006 and 2007, the contractual maturities of investments were all due within one year.

Accounts Receivable

Accounts receivable represent amounts owed to us under our collaborative research and development agreements and government grants. We establish collectibility reserves on a specific identification basis. We established a reserve of $391,000 in 2005 and increased that reserve by $250,000 in 2006. Specific accounts written off against the reserve were $0, $391,000 and $0 in 2005, 2006 and 2007, respectively. There was no activity in the reserve during the three months ended March 31, 2007 and 2008, respectively.

Inventories

Inventories consist of biocatalysts, which are enzymes or microbes that facilitate chemical reactions, and pharmaceutical intermediates. Inventories are held in our facilities in the United States and Europe and at contract manufacturers in Europe and Asia. Internally produced biocatalysts only qualify as commercial inventory after they have achieved specifications that are required for selling the materials. Inventories held at our contract manufacturers are accepted as finished goods after achieving specifications stated in our purchase orders. Inventories are carried at the lower of cost or market and are removed from inventory using the first-in first-out method. Inventories are written down for excess and obsolete materials, if necessary.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Property and Equipment

Property and equipment, including the cost of purchased software, are stated at cost, less accumulated depreciation and amortization. Depreciation is calculated using the straight-line method over the following estimated ranges of useful lives:

Laboratory equipment	5 years
Computer equipment and software	3 to 5 years
Office equipment and furniture	5 years
Leasehold improvements	Estimated useful life of asset or term of lease, whichever is shorter

Goodwill

Goodwill represents the excess of the purchase price over the fair value of assets acquired and liabilities assumed in accordance with Statement of Financial Accounting Standard (SFAS) No. 141, *Business Combinations* (SFAS 141). In accordance with SFAS No. 142, *Goodwill and Other Intangible Assets* (SFAS 142), goodwill is presumed to have an indefinite life and is not subject to annual amortization. We review our long-lived intangible assets, including goodwill, for impairment on at least an annual basis and at any interim date whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

The annual test for goodwill impairment is a two-step process. The first step is a comparison of the fair value of the reporting unit with its carrying amount, including goodwill. If this step indicates an impairment, then the loss is measured as the excess of recorded goodwill over its implied fair value. Implied fair value is the excess of the fair value of the reporting unit over the fair value of all identified assets and liabilities. For the years ended December 31, 2005, 2006 and 2007 and for the three months ended March 31, 2008, no impairment charges have been recorded.

Intangible Assets and Impairment of Long-Lived Assets

Intangible assets consist of customer relationships, developed core technology, customer backlog and trade name all arising out of the JFC and BioCatalytics acquisitions. Intangible assets are recorded at their fair value at the date of the acquisition and, for those assets having finite useful lives, are amortized using the straight-line method over their estimated useful lives which range from one to seven years.

We periodically review our intangible and other long-lived assets for possible impairment, whenever events or changes in circumstances indicate that such assets are impaired or the estimated useful lives are no longer appropriate. If indicators of impairment exist and the undiscounted projected cash flows associated with such assets are less than the carrying amounts of the assets, an impairment loss is recorded to write the assets down to their estimated fair values. Fair value is estimated based on discounted future cash flows. For 2005, 2006 and 2007 and the three months ended March 31, 2008, no impairment charges have been recorded.

Restricted Cash

Restricted cash was $894,000, $2.2 million and $2.2 million at December 31, 2006 and 2007 and March 31, 2008, respectively. The restricted cash was invested in money market accounts for the purpose of securing a standby letter of credit as collateral for our Redwood City, California facility lease agreement, future payment obligations to the shareholder of BioCatalytics related to the acquisition and for the purpose of securing a working capital line of credit for JFC.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Deferred Offering Costs

In connection with our initial public offering, we have recorded $1.6 million of deferred offering costs included in other non-current assets in the accompanying balance sheet at March 31, 2008.

Redeemable Convertible Preferred Stock Warrant Liability

We apply the provisions of Financial Accounting Standards Board (FASB) Staff Position (FSP) FAS No. 150-5, *Issuer s Accounting under Statement No. 150 for Freestanding Warrants and Other Similar Instruments on Shares that are Redeemable* (FSP 150-5), to outstanding warrants to purchase shares of our Series D redeemable convertible preferred stock. FSP 150-5 affirms that freestanding warrants are subject to the requirements under SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*, regardless of the timing of the redemption feature or the redemption price or the likelihood of redemption. Pursuant to FSP 150-5, freestanding warrants issued by us for shares of our redeemable convertible preferred stock that are subject to redemption are classified as liabilities on the consolidated balance sheet at fair value. The initial liability recorded is adjusted for changes in fair value at each reporting date with an offsetting entry recorded as a component of interest expense and other in the accompanying consolidated statements of operations. The liability will continue to be adjusted for changes in fair value until the earlier of the exercise date or the conversion of the underlying redeemable convertible preferred stock into common stock, at which time the redeemable convertible preferred stock warrants will convert to common stock warrants and the liability will be reclassified to stockholders equity.

Revenue Recognition

We follow the revenue recognition criteria outlined in the SEC Staff Accounting Bulletin (SAB) No. 104, *Revenue Recognition in Financial Statements*, and EITF Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables* (EITF 00-21). When evaluating multiple element arrangements, we consider whether the components of each arrangement represent separate units of accounting as defined in EITF 00-21. Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer, and whether there is objective and reliable evidence of the fair value of the undelivered items. Consideration received is allocated among the separate units of accounting based on their respective fair values. Applicable revenue recognition criteria are then applied to each of the units.

Revenue is recognized when the four basic revenue recognition criteria are met: (1) persuasive evidence of an arrangement exists; (2) products have been delivered, transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectibility is reasonably assured.

Our primary sources of revenues consist of collaborative research and development agreements, product revenues and government grants. Collaborative research and development agreements typically provide us with multiple revenue streams, including up-front fees for licensing, exclusivity and technology access, fees for full-time employee equivalent (FTE) services and the potential to earn milestone payments upon achievement of contractual criteria and royalty fees based on future product sales or cost savings by our customers. Our collaborative research and development revenue consist of revenues from related parties and revenues from our other collaborative research and development agreements. We consider related parties to be parties who own more than 10% of our outstanding capital stock. Related party collaborative research and development revenue for years ended December 31, 2006 and 2007 and

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

for the three months ended March 31, 2007 and 2008 presented on the consolidated statements of operations comprises collaborative research and development revenue from Equilon Enterprises LLC dba Shell Oil Products US (Shell). Accordingly, collaborative research and development revenue from our other collaborative research and development agreements includes revenue from parties that were not considered to be related during any of the years presented.

Related party collaborative research and development revenues consist of the following (in thousands):

	For the Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
License, access and exclusivity fees	$	$ 373	$ 2,665	$ 558	$ 479
Services		365	4,909	546	3,402
Milestones		125	907	185	
Total related party collaborative research and development revenues	$	$ 863	$ 8,481	$ 1,289	$ 3,881

Revenues from our other collaborative research and development agreements consist of the following (in thousands):

	For the Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
License, access and exclusivity fees	$ 1,633	$ 894	$ 1,340	$ 616	$ 150
Services	6,168	6,084	2,584	1,169	471
Milestones	800	724	300		
Royalties	762	701	509	97	244
Total collaborative research and development revenues	$ 9,363	$ 8,403	$ 4,733	$ 1,882	$ 865

For each source of collaborative research and development revenues, product revenues and grant revenues, we apply the above revenue recognition criteria in the following manner:

Up-front payments received in connection with collaborative research and development agreements, including license fees and exclusivity fees, are deferred upon receipt and recognized as revenue over the periods specified in the agreement.

Revenues related to FTE services are recognized as research services are performed over the related performance periods for each contract. Under these agreements, we are required to perform research and development activities as specified in each respective agreement. The payments received under each respective agreement are not refundable and are based on a contractual reimbursement rate per FTE working on the project. When up-front payments are combined with FTE services in a single unit of accounting, we recognize the up-front payments using the proportionate performance method of revenue recognition based upon the actual amount of research and development labor hours incurred relative to the amount of the total expected labor hours to be incurred by us, up to the

amount of cash received. In cases where the planned levels of research services fluctuate substantially over the research term, we are required to make estimates of the

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

total hours required to perform our obligations. Research and development expenses related to FTE services under the collaborative research and development agreements approximate the research funding over the term of the respective agreements.

Revenues related to milestones that are determined to be substantive and at risk are generally recognized upon achievement of the milestone event and when collectibility is reasonably assured. Milestone payments are triggered either by the results of our research efforts or by events external to Codexis, such as our collaboration partner achieving a revenue target. Fees associated with milestones for which performance was not at risk at the inception of the arrangement or that are determined not to be substantive are included in a separate unit of accounting within the arrangement, or if the EITF 00-21 criteria to separately account for each element have not been met, to the single unit of accounting within the arrangement.

Revenues related to royalties on product sales or cost savings of our customers are recorded as revenue as reported to us by the customer and when collectible. Royalties are generally reported in the quarter following the underlying sales or cost savings realized.

Product revenues are recognized once passage of title and risk of loss has occurred and contractually specified acceptance criteria has been met, provided all other revenue recognition criteria have been met. Product revenues consist of sales of enzymes, intermediates and Codex Biocatalyst Panels. Cost of product revenues includes both internal and third party fixed and variable costs including amortization of purchased technology, materials and supplies, labor, facilities and other overhead costs associated with our product revenues.

We receive payments from government entities in the form of government grants. Government grants are agreements that generally provide us with cost reimbursement for certain types of expenditures in return for research and development activities over a contractually defined period. Revenues from government grants are recognized in the period during which the related costs are incurred, provided that the conditions under which the government grants were provided have been met and we have only perfunctory obligations outstanding. Costs of government grant revenues approximate the revenues.

Shipping and handling charged to customers are recorded as revenue. Shipping costs are included in our cost of product revenues. Such charges were not significant in any of the periods presented.

Customer Concentration

Customers with revenues of 10% or greater of total revenues for the period ended.

	Percentage of Total Revenues				
	For the Years Ended December 31,			For the Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
Customers					
A	*	*	33%	27%	46%
B	34%	36%	13%	26%	*
C	*	11%	*	*	*
D	17%	*	*	*	*

* Represents less than 10% of total revenues

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Concentrations of Supply Risk

We rely on a limited number of suppliers for our products. We believe that other vendors would be able to provide similar products; however, the qualification of such vendors may require substantial start-up time. In order to mitigate any adverse impacts from a disruption of supply, we attempt to maintain an adequate supply of critical single-sourced materials. For certain materials, our vendors maintain a supply for us.

Research and Development Expenses

Research and development expenses consist of costs incurred for internal projects as well as partner-funded collaborative research and development activities. These costs include direct and research-related overhead expenses, which include salaries and other personnel-related expenses, facility costs, supplies, depreciation of facilities, and laboratory equipment, as well as research consultants and the cost of funding research at universities and other research institutions, and are expensed as incurred. Costs to acquire technologies that are utilized in research and development and that have no alternative future use are expensed when incurred.

We do not track fully burdened research and development costs by project. However, we do estimate, based on FTE efforts, the percentage of research and development efforts (as measured in hours incurred, which approximates costs) undertaken for projects funded by our collaborative partners and government grants and projects funded by us. To approximate research and development expenses by funded category, the number of hours expended in each category has been divided by the total number of hours expended on all categories of research and development with the resulting fractions then multiplied by the total cost of research and development effort, with the products then added to project-specific external costs. In the case where a collaborative partner is sharing the research and development costs, the expenses for that project are allocated proportionately between the collaborative projects funded by third parties and internal projects. We believe that presenting our research and development expenses in these categories will provide our investors with meaningful information on how our resources are being used.

The following table presents our approximate research and development expenses by funding category (in thousands):

	Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
Collaborative research and development(1)	$ 5,610	$ 4,150	$ 10,920	$ 740	$ 1,749
Grants	88	25	384	32	4
Internal projects	7,141	13,082	24,340	3,991	8,102
Total research and development expenses	$ 12,839	$ 17,257	$ 35,644	$ 4,763	$ 9,855

(1) Research and development expenses related to collaborative projects funded by third parties are less than the reported revenues due to the amortization of non-refundable up-front payments.

In connection with the acquisition of JFC (see Note 4), we recorded a charge to research and development for acquired in-process research and development in the amount of $260,000 for the year ended December 31, 2005. The charge represented the estimated fair value of certain development projects for which, at the time of the acquisition, technological feasibility had not been established and there was no alternative future use.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Net Loss per Share of Common Stock

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

The calculations for the unaudited pro forma basic and diluted net loss per share of common stock assume the conversion of all outstanding shares of redeemable convertible preferred stock into shares of common stock and the conversion of redeemable convertible preferred stock warrants to common stock warrants as if the conversions had occurred at the beginning of the period, or for Series E redeemable convertible preferred stock issued in 2007, the issue date for each share, using the as-if-converted method. Also, the numerator in the pro forma basic and diluted net loss per share calculation has been adjusted to remove gains and losses resulting from re-measurements of the redeemable convertible preferred stock warrant liability as these measurements would no longer be required when the warrants become warrants to purchase shares of our common stock at that time and will, therefore, no longer be subject to FSP 150-5.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

The following table presents the calculation of historical and pro forma basic and diluted net loss per share of common stock (in thousands, except per share amounts):

	For the Years Ended December 31,			For the Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
Actual:					
Numerator:					
Net loss	$ (11,590)	$ (18,671)	$ (38,977)	$ (5,096)	$ (13,909)
Denominator:					
Weighted-average shares of common stock outstanding	1,508	1,699	2,530	1,873	3,442
Less: Weighted-average shares of common stock subject to repurchase			(20)		(47)
Weighted-average shares of common stock used in computing net loss per share of common stock, basic and diluted	1,508	1,699	2,510	1,873	3,395
Net loss per share of common stock, basic and diluted	$ (7.69)	$ (10.99)	$ (15.53)	$ (2.72)	$ (4.10)
Pro Forma:					
Numerator:					
Net loss			$ (38,977)		$ (13,909)
Less: change in fair value of preferred stock warrant liability			1,328		775
Net loss used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)			$ (37,649)		$ (13,134)
Denominator:					
Weighted-average shares of common stock used in computing net loss per share of common stock, basic and diluted, as used above			2,510		3,395
Add: Pro forma adjustments to reflect weighted-average effect of assumed conversion of redeemable convertible preferred stock (unaudited)			26,606		32,330
Weighted-average shares of common stock used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)			29,116		35,725
Pro forma net loss per share of common stock, basic and diluted (unaudited)			$ (1.29)		$ (0.37)

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

The following redeemable convertible preferred stock, common stock subject to repurchase, options to purchase common stock, and warrants to purchase redeemable convertible preferred and common stock were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have had an antidilutive effect (in thousands):

	For the Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
Redeemable convertible preferred stock	15,616	25,745	32,330	25,745	32,330
Common stock subject to repurchase			58		43
Options to purchase common stock	4,573	4,188	9,032	6,062	9,820
Warrants to purchase redeemable convertible preferred stock		752	433	752	433
Warrants to purchase common stock	55	55	59	55	59
Total	20,244	30,740	41,912	32,614	42,685

Income Taxes

We use the asset and liability method of accounting for income taxes in accordance with SFAS No. 109, *Accounting for Income Taxes*. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the consolidated financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets are recognized for deductible temporary differences, along with net operating loss carryforwards, if it is more likely than not that the tax benefits will be realized. To the extent a deferred tax asset cannot be recognized under the preceding criteria, a valuation allowance is established. Deferred tax assets and liabilities are measured using enacted tax rates in effect for the year in which those temporary differences are expected to be recovered or settled.

Effective January 1, 2007, we adopted FASB Interpretation (FIN) No. 48, *Accounting for Uncertainty in Income Taxes, an interpretation of FASB Statement No. 109* (FIN 48).

Stock-Based Compensation

Prior to January 1, 2006, we accounted for stock-based employee compensation arrangements using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* (APB 25), and related interpretations, and complied with the disclosure-only provisions of SFAS No. 123, *Accounting for Stock-Based Compensation* (SFAS 123), as amended by SFAS No. 148, *Accounting for Stock-Based Compensation, Transition and Disclosure, an amendment to SFAS Statement No. 123* (SFAS 148). Under APB 25, compensation expense for employees is based on the intrinsic value of the option, determined as the excess, if any, of the fair value of the common stock over the exercise price of the option on the date of grant. Historically, our stock options have been granted with exercise prices at or above the estimated fair value of our common stock on the date of grant. Accordingly, no stock-based employee compensation expense was recorded under APB 25 during 2005.

Effective January 1, 2006, we adopted SFAS No. 123(R), *Share-Based Payment* (SFAS 123(R)), which requires compensation expense related to share-based transactions, including the awarding of employee stock options, to be measured and recognized in the financial statements based on the estimated fair value of the awards granted. SFAS 123(R) revises SFAS 123, as amended, and supersedes APB 25. We adopted SFAS 123(R) using the prospective transition method, as options granted prior to January 1, 2006

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

were measured using the minimum value method for the pro forma disclosures previously required by SFAS 123. In accordance with the prospective transition method, we continued to account for non-vested employee share-based awards outstanding at the date of adoption using the intrinsic value method in accordance with APB 25. All awards granted, modified or settled after the SFAS 123(R) adoption date have been accounted for using the measurement, recognition and attribution provisions of SFAS 123(R).

The adoption of SFAS 123(R) increased loss before provision for income taxes and net loss for the year ended December 31, 2006 by approximately $32,000 each, and increased net loss per common share by $0.02. We are using the straight-line method to allocate stock-based compensation expense to reporting periods subsequent to the adoption of SFAS 123(R).

We account for stock options issued to non-employees in accordance with the provisions of SFAS 123(R) and EITF Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services* (EITF 96-18). In accordance with SFAS 123(R) and EITF 96-18, stock options issued to non-employees are accounted for at their estimated fair value determined using the Black-Scholes option-pricing model. The fair value of the options granted to non-employees is remeasured as they vest, and the resulting increase in value, if any, is recognized as expense during the period the related services are rendered.

At March 31, 2008, we had one share-based compensation plan (see Note 12).

Advertising

Advertising costs are expensed as incurred and included in general and administrative expenses in the consolidated statements of operations. Advertising costs were $154,000, $191,000 and $244,000 for the years ended December 31, 2005, 2006 and 2007, and $9,000 and $152,000 for the three months ended March 31, 2007 and 2008, respectively.

Comprehensive Loss

We report our comprehensive loss, and its components, on the consolidated statements of stockholders equity (deficit). Comprehensive loss consists of net loss, unrealized gains (losses) on marketable securities and foreign currency translation adjustments. Accumulated other comprehensive loss comprised a loss of $52,000, and gains of $405,000 and $733,000 of currency translation adjustments at December 31, 2006 and 2007 and March 31, 2008, respectively. Unrealized gains on marketable securities was $0, $132,000 and $204,000 at December 31, 2006 and 2007 and March 31, 2008, respectively.

Recent Accounting Pronouncements

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities including an amendment of FASB Statement No. 115* (SFAS 159). This statement permits entities to choose to measure many financial instruments and certain other items at fair value that are not currently required to be measured at fair value. This statement also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. This statement does not affect any existing accounting literature that requires certain assets and liabilities to be carried at fair value. This statement does not establish requirements for recognizing and measuring dividend income, interest income or interest expense. SFAS 159 is effective for periods beginning after November 15, 2008. We are currently reviewing this new standard to determine the effects, if any, on our consolidated results of operations or financial position.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

In December 2007, the FASB ratified EITF Issue No. 07-1, *Accounting for Collaborative Agreements* (EITF 07-1), which defines collaborative agreements as contractual arrangements that involve a joint operating activity. These arrangements involve two or more parties who are both active participants in the activity and that are exposed to significant risks and rewards dependent on the commercial success of the activity. EITF 07-1 provides that a company should report the effects of adoption as a change in accounting principle through retrospective application to all periods. Furthermore, it requires the parties to determine who is the principal party of the arrangement, and therefore which party must report the revenues and expenses under the collaboration, as well as specific additional disclosures in the parties financial statements. EITF 07-1 is effective for periods beginning after December 15, 2008. We are currently evaluating the impact the adoption of EITF 07-1 will have on our consolidated financial statements.

In December 2007, the FASB issued SFAS No. 141 (revised 2007), *Business Combinations* (SFAS 141(R)). SFAS 141(R) establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any noncontrolling interest in the acquiree and the goodwill acquired. SFAS 141(R) also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. This statement is effective for periods beginning after December 15, 2008. We are currently evaluating the potential impact of the adoption of SFAS 141(R) on our consolidated financial position, results of operations or cash flows.

In December 2007, the FASB issued SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements* (SFAS 160). SFAS 160 establishes accounting and reporting standards for ownership interests in subsidiaries held by parties other than the parent, the amount of consolidated net income attributable to the parent and to the noncontrolling interest, changes in a parent s ownership interest, and the valuation of retained noncontrolling equity investments when a subsidiary is deconsolidated. SFAS 160 also establishes disclosure requirements that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. This statement is effective for periods beginning after December 15, 2008. As we currently only have wholly-owned subsidiaries, we expect that the adoption of SFAS 160 will not have an impact on our consolidated financial statements.

During the three months ended March 31, 2008, we adopted the following accounting standards:

EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities* (EITF 07-3). EITF 07-3 provides clarification surrounding the accounting for nonrefundable research and development advance payments, whereby such payments should be recorded as an asset when the advance payment is made and recognized as an expense when the research and development activities are performed. We adopted EITF 07-3 effective January 1, 2008 and are required to report the effects of applying EITF 07-3 prospectively for new contracts entered into after the effective date of EITF 07-3. The adoption of Issue No. 07-3 did not have an impact on our results of operations or financial position; and

SFAS No. 157, *Fair Value Measurements* (SFAS 157). SFAS 157 defines fair value, establishes a framework for measuring fair value and expands disclosure of fair value measurements. SFAS 157 applies under other accounting pronouncements that require or permit fair value measurements and accordingly, does not require any new fair value measurements. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007, except that under FASB Staff Position 157-2, Effective Date of FASB Statement No. 157 , companies are allowed to delay the effective date of SFAS 157 for non-financial assets and non-financial liabilities that are not

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

recognized or disclosed at fair value on a recurring basis until fiscal years beginning after November 15, 2008. Effective January 1, 2008, we adopted the provisions of SFAS 157 for all financial assets and liabilities and measures its required financial assets and liabilities at fair value. We elected to delay the adoption of SFAS 157 for such non-financial assets and non-financial liabilities. See Note 6.

3. Collaborative Research and Development Agreements

The following table represents the percentage of our total revenues that have been recognized from our significant collaborative research and development agreements:

	Years Ended December 31,			Three Months Ended March 31,	
	2005	2006	2007	2007	2008
				(unaudited)	
Shell	*	*	33%	27%	46%
Pfizer	34%	33%	13%	26%	*
Schering-Plough	*	11%	*	*	*
Cargill	17%	*	*	*	*

* Represents less than 10% of total revenues

No other collaborators comprised 10% or more of total revenues in the periods presented. Our existing significant collaboration agreements are summarized below.

Shell

In November 2006, we entered into a collaborative research agreement and a license agreement with Shell to develop biocatalysts, and associated processes that use such biocatalysts. In November 2007, we entered into a new and expanded five-year collaborative research agreement and a license agreement with Shell.

Shell owned approximately 3% and 13% of our outstanding capital stock, on an as converted basis, at December 31, 2006 and 2007, respectively. In connection with the collaborative research and license agreements discussed below, we recorded $863,000 and $8.5 million of collaborative research and development revenue for the years ended December 31, 2006 and 2007, and $1.3 million and $3.9 million for the three months ended March 31, 2007 and 2008, respectively. At December 31, 2006 and 2007 and March 31, 2008, we had accounts receivable due from Shell of $101,000, $1.7 million and $840,000. At December 31, 2006 and 2007 and March 31, 2008, we recorded deferred revenue related to the research collaboration with Shell of $3.2 million, $21.5 million and $21.0 million, respectively, on our consolidated balance sheets.

November 2006 Research Collaboration with Shell

In connection with the November 2006 research collaboration, Shell paid us a $2.8 million nonrefundable, up-front technology access fee, purchased 755,668 shares of our Series D redeemable convertible preferred stock at $3.97 per share for gross proceeds and an aggregate value of approximately $3.0 million, and agreed to pay us (1) research funding at specified rates per FTE working on the project during the 12-month research term, (2) a $1.0 million milestone fee upon the delivery of a research report six months after the research commenced, and (3) royalties on future product sales, should such products using our technology be developed. Under this agreement, we had a right of first negotiation to manufacture for Shell any biocatalysts developed under the collaborative research agreement if Shell decided to out-source the manufacture of such biocatalysts. In conjunction with the collaborative research

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

agreement, Shell was issued a warrant to purchase $3.0 million of additional Series D redeemable convertible preferred stock at a price of $7.00 per share. The fair value of the warrant at issuance was determined to be $462,000 and was amortized against revenue over the term of the collaborative research agreement, which ended in November 2007. The fair value was measured using the probability-weighted expected return method. Shell exercised this warrant in full in November 2007 in connection with the new and expanded collaborative research and license agreement discussed below (see Note 10).

In accordance with our revenue recognition policy, the $2.8 million up-front technology access fee, the $4.1 million of research funding fees and the $1.0 million milestone payment were recognized over the 12-month performance period. The $1.0 million milestone fee was concluded to not be at risk and therefore was determined to not be a substantive milestone. For the years ended December 31, 2006 and 2007, we recognized $863,000 and $6.6 million, respectively and $1.3 million and $0 for the three months ended March 31, 2007 and 2008, respectively, as related party collaborative research and development revenue under this agreement.

November 2007 Research Collaboration with Shell

In November 2007, we entered into a new, five-year expanded collaborative research agreement and a license agreement with Shell. In connection with the new and expanded collaborative research agreements, Shell paid us a $20.0 million up-front exclusivity fee, purchased 3,584,428 shares of our Series E redeemable convertible preferred stock at $8.50 per share for gross proceeds of $30.5 million, and agreed to pay us (1) research funding at specified rates per FTE working on the project during the research term, (2) milestone funding upon the achievement of milestones, and (3) royalties on future product sales. This up-front exclusivity fee is refundable under certain conditions, such as a change in control in which the Company is acquired by a competitor of Shell. This refundability lapses ratably over a five-year period beginning on November 1, 2007, on a straight-line basis. The agreement also specifies certain minimum levels of FTE services that we must allocate to the collaboration efforts that increase over the term of the agreement. After August 2008, Shell has the right to reduce the total number of FTEs assigned to perform our obligations under the program upon advance notice, with certain limitations. Shell has the right to terminate the agreement upon six months written notice, subject to certain restrictions, at any time after November 2009. The term of the new and expanded agreement extends through November 2012. During the term of the agreement, we are required to act exclusively with Shell as it relates to the rights and research described in the arrangement and may not conduct research, or contract to conduct research, for another party in the field of use. Under this agreement, we also have a right of first negotiation but not an obligation to manufacture any biocatalysts developed under the collaborative research agreement if Shell decides to out-source the manufacture of such biocatalysts.

In accordance with our revenue recognition policy, the $20.0 million up-front exclusivity fee and the research funding fees to be received for FTE services are being recognized in proportion to the actual research efforts incurred relative to the amount of total expected effort to be incurred by us over the five-year research period commencing November 2007. Milestones to be earned under this agreement have been determined to be at risk and substantive at the inception of the arrangement and are expected to be recognized upon achievement of the milestone and when collectability is reasonably assured. For the year ended December 31, 2007, $241,000 of the $20.0 million up-front payment and $1.6 million of research funding was recognized as related party collaborative research and development revenue under this agreement. For the three months ended March 31, 2008, $479,000 of the $20.0 million up front payment and $3.4 million of research funding was recognized as related party collaborative research and development revenue under agreement. No milestone payments have been received as of March 31, 2008 under the new and expanded agreement.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Pfizer

In July 2004, we entered into a multi-year collaborative research agreement and a license agreement with Pfizer to discover and develop biocatalysts, and associated processes that use such biocatalysts, in the manufacture of pharmaceutical products for Pfizer. Under the terms of these agreements, Pfizer provided us an up-front technology access fee of $2.0 million and agreed to provide research funding of approximately $8.6 million over a multi-year period. We were also eligible to receive milestone payments, a license fee if Pfizer exercised its option to acquire a non-exclusive worldwide license to our gene shuffling technology, and royalty payments based upon sales by Pfizer of products that are manufactured using our biocatalysts. The agreement, which was initially scheduled to expire in July 2008, was terminated in May 2007 following Pfizer s six-month notice of termination provided to us in November 2006. Consistent with the terms of the agreement, Pfizer s option to acquire a license to our gene shuffling technology does not expire until July 2008. As of March 31, 2008, Pfizer had not exercised this option. Through March 31, 2008, we had received three $200,000 milestone payments in connection with the discovery and development of new biocatalysts on behalf of Pfizer.

In accordance with our revenue recognition policy, the $2.0 million up-front technology access fee and the research funding at specified rates per FTE working on the project were recognized over the research period under the agreement. In November 2006 following Pfizer s six-month notice of termination of the research term, we changed our estimate of the research term from 48 to 34 months and recognized the remaining unamortized portion of the up-front payment over the reduced expected life of the research term. Research milestones were determined to be substantive and at risk at the inception of the arrangement and, as such, were recognized in the period when each milestone was achieved. Total revenue recognized under this agreement was $3.7 million, $3.7 million and $1.8 million in 2005, 2006 and 2007, and $1.2 million and $0 for the three months ended March 31, 2007 and 2008, respectively.

Concurrent with the execution of the multi-year collaborative research agreement and the license agreement, Codexis and Pfizer also entered into a stock purchase agreement in which Pfizer purchased 1,514,645 shares of our Series C redeemable convertible preferred stock at $6.60 per share for gross proceeds of $10.0 million.

In September 2000, Maxygen extended a May 1998 agreement with Pfizer for the development of a biochemical manufacturing process for a specific pharmaceutical product. This agreement was assigned to Codexis in connection with our initial capitalization in March 2002. The extended agreement entitled us to earn research and commercial milestones and a percentage of all manufacturing cost savings once the optimized commercial process was scaled up at Pfizer. During the years ended December 31, 2005, 2006 and 2007, we recognized revenue related to commercial payments under this agreement in the amounts of $280,000, $313,000 and $323,000, respectively. For the three months ended March 31, 2007 and 2008, we recognized revenue of $50,000 and $0, respectively, related to the arrangement.

Pfizer owned approximately 5% and 4% of our outstanding capital stock, on an as converted basis, at December 31, 2006 and 2007, respectively. In connection with the license and collaborative research agreements discussed above, we recorded $4.0 million, $4.0 million and $2.1 million of collaborative research and development revenue for 2005, 2006 and 2007, and $1.2 million and $0 for the three months ended March 31, 2007 and 2008, respectively. At December 31, 2006 and 2007, we had accounts receivable due from Pfizer of $162,000 and $91,000, respectively and $97,000 at March 31, 2008. At December 31, 2006 and 2007 and March 31, 2008 we had deferred revenue from Pfizer of $1.1 million, $200,000 and $200,000, respectively, recorded on our consolidated balance sheets.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Schering-Plough

In March 2006, we entered into a multi-year collaborative research agreement with Schering-Plough to jointly develop biocatalytic processes to synthesize one or more intermediates for use in the manufacturing of certain proprietary pharmaceutical products owned by Schering-Plough. Under the terms of the agreement, Schering-Plough provided us access to Schering-Plough s technology and entitled us to receive research funding over a multi-year period as well as milestone payments and payments for the purchase of research compounds. In accordance with our revenue recognition policy, the research funding at specified rates per FTE working on the project were recognized over the research period under the agreement. Research milestones were determined to be substantive and at risk at the inception of the arrangement and, as such, an aggregate value of $700,000 was recognized in the periods in which each milestone was achieved. During the years ended December 31, 2006 and 2007 and for the three months ended March 31, 2007, we recorded $1.4 million, $1.3 million and $320,000, respectively, of collaborative research and development revenue under this agreement. The agreement expired in September 2007.

Cargill

In April 2003, we entered into a multi-year collaboration agreement with Cargill to develop a novel biochemical platform to enable production of a broad range of specialty chemicals and polymers. Building on metabolic pathways developed by Cargill, we agreed to use its proprietary technologies to enhance the production of acid from carbohydrate raw material. Under the agreement, Cargill and the U.S. Department of Energy were to each contribute to our research and development funding for three years and we were eligible for milestone and royalty payments from products derived from the collaboration and commercialized by Cargill. In accordance with our revenue recognition policy, the research funding at specified rates per FTE working on the project were recognized over the research period under the agreement. The initial research milestone of $50,000 was determined not to be substantive and at risk at the inception of the arrangement and, as such, was deferred upon receipt and recognized over the term that the research services were provided. Subsequent research milestones of $50,000 were determined to be substantive and at risk at the inception of the arrangement and, as such, were recognized in the periods achieved. During the years ended December 31, 2005, 2006 and 2007, we recorded $1.0 million, $844,000, and $0 of collaborative research and development revenue under this agreement , respectively. The funded research term of the collaboration agreement ended in May 2006.

In January 2005, we entered into an agreement with Cargill to license the Codexis gene shuffling technology on a non-exclusive basis for use by Cargill in researching biocatalysts for production of organic chemicals for certain food applications. In addition to the research license, Cargill has a right of negotiation for a commercial license and an option for a non-exclusive license to use the Codexis gene shuffling technology for applications in the field of starch processing. Our obligations under the agreement include providing scientific and technical support to enable Cargill to practice the Codexis gene shuffling technology. Our obligations related to the transfer of the license and provision of services necessary for Cargill to utilize the license were complete within the first three months of the agreement. In accordance with our revenue recognition policy, license fees are recorded following the completion of our obligations and as the payments become due. During the years ended December 31, 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008, we recorded $1.0 million, $151,000, $306,000 and $306,000 and $150,000, respectively, of collaborative research and development revenue under this agreement.

Manufacturing Collaboration

In October 2005, we entered into a technology transfer and supply agreement, which we refer to as the 2005 Agreement, with Arch Pharmalabs Ltd. (Arch), a company based in India engaged in the

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

manufacturing and sale of APIs and intermediates to pharmaceutical companies worldwide. In exchange for a $500,000 up-front payment, we granted to Arch certain of our patent rights and technology, a non-exclusive, royalty-free license, with no right to grant sublicense rights, solely to manufacture an intermediate called ATS-8 for us and on our behalf. We also agreed to transfer technology that is necessary or useful for the manufacture of ATS-8. We recognized the fee upon delivery of the technology and the performance certain other obligations. In exchange for a $1.5 million up-front payment, we agreed to purchase from Arch certain intermediate production quantities. The $1.5 million up-front payment was repayable by us to Arch if the specified purchases of production quantities were not met. Arch also agreed to purchase exclusively from us quantities of certain of our enzymes and an earlier intermediate, used in the production of ATS-8, known as ATS-5, sufficient to enable Arch to fulfill our orders for ATS-8. Subsequently, we have transferred our ATS-5 related technology to Arch for the sole purposes of manufacturing ATS-5 for our resale to Pfizer and others and for Arch s use in the manufacture of ATS-8 manufactured for and on our behalf.

In August 2006, we broadened our relationship with Arch by entering into an enzyme and supply agreement, a supply agreement and a master services agreement, which we call the 2006 Agreements. The 2006 Agreements, among other things, provided biocatalytic supply specifications from us to Arch, intermediate supply from Arch to us, and services to be performed by Arch over the four year term of the agreements.

Due to the ongoing negotiations of our agreements with Arch in 2005 and 2006, we viewed the 2006 Agreements to be linked to the 2005 Agreement. We did not purchase the production volumes to earn the $1.5 million up-front payment under the 2005 Agreement so that payment was applied as consideration to the 2006 Agreements.

Under the 2006 Agreements, we agreed to pay Arch up to $1.5 million for certain chemical process and manufacturing method development services as Arch delivers them over the course of the master services agreement. Through March 31, 2008, we had paid Arch $0.5 million for their services under the 2006 Agreements and, as of March 31, 2008, we had a remaining liability of $1.0 million due to Arch. We have recognized expense for these services of $156,000, $375,000,$93,750 and $ 93,750 during the years ended December 31, 2006 and 2007 and the three months ended March 31, 2007 and 2008, respectively, on a proportional basis based on quarterly reports from Arch.

The terms of the license prohibit Arch from using the licensed process or biocatalysts for any purpose other than manufacturing ATS-8, for sale to or by us or our affiliates. We sell the biocatalysts to Arch at cost, and Arch manufactures ATS-8 on our behalf. Arch sells ATS-8 to us at a formula-based price, which results in a fixed percentage profit share. We then directly market and sell ATS-8 to the generic pharmaceutical industry, including to Arch. Sales to Arch of ATS-8 are recognized net of the manufacturing costs charged by Arch. Sales to Arch, net of the Arch manufacturing costs of ATS-8, were $219,000, $387,000, $0 and $68,000 during the years ended December 31, 2006 and 2007 and for the three months ended March 31, 2007 and 2008, respectively.

4. Acquisitions

Jülich Fine Chemicals GmbH

On February 21, 2005, we acquired 100% of the outstanding stock of JFC for total consideration of $4.3 million. JFC is a supplier of enzymes and fine chemicals to pharmaceutical and chemical companies worldwide. We acquired JFC in order to extend our presence in international markets, in particular Europe. In addition, JFC is a distributor for several of our proprietary biocatalysts.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

The JFC acquisition was accounted for as a business combination using the purchase method in accordance with SFAS 141. Accordingly, the results of JFC are included in our consolidated financial statements as of the date of acquisition.

The aggregate purchase price was $4.3 million and consisted of the following (in thousands):

Cash consideration	$ 3,917
Fair value of common stock issued	213
Direct transaction costs	173
Total purchase price	$ 4,303

The allocation of the total purchase price to the assets acquired and liabilities assumed based on their respective fair values at the acquisition date is as follows (in thousands):

Total current assets	$ 881
Property and equipment, net and other non-current assets	410
Total current liabilities assumed	(2,006)
Financing obligation, net of current portion	(777)
Customer relationships	2,360
Developed and core technology	990
Customer backlog	140
Tradename	90
In-process research and development	260
Goodwill	1,955
Total purchase price	$ 4,303

These allocated fair values required management to make significant estimates and assumptions, especially with respect to the fair value of intangible assets.

Customer relationships and developed technology are being amortized over an expected useful life of five years.

Customer backlog was amortized over the period of time necessary for JFC to fulfill the outstanding purchase orders, and was fully amortized at December 31, 2005. Tradename is being amortized over its expected useful life of four years. In-process research and development was written off in its entirety during 2005 and is included as a component of research and development expense in the accompanying consolidated statement of operations.

BioCatalytics

On July 17, 2007, we acquired 100% of the outstanding stock of BioCatalytics for total consideration of $2.4 million. BioCatalytics offers a range of enzymes for chemical synthesis. It also provides synthesis services of metabolites and other compounds. We acquired BioCatalytics to expand our product offerings and customer relationships.

The BioCatalytics acquisition was accounted for as a business combination using the purchase method in accordance with SFAS 141. Accordingly, the results of BioCatalytics are included in our consolidated financial statements as of the date of acquisition.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

The aggregate purchase price was $2.4 million and consisted of the following (in thousands):

Cash consideration	$ 1,000
Fair value of common stock issued	1,228
Direct transaction costs	219
Total purchase price	$ 2,447

The cash consideration noted in the table above includes $775,000 of restricted cash held in escrow that is scheduled to be paid to the shareholder of BioCatalytics in 2008.

The preliminary allocation of the total purchase price to the assets acquired and liabilities assumed based on their respective fair values at the acquisition date is as follows (in thousands):

Total current assets	$ 1,041
Property and equipment, net and other non-current assets	601
Total liabilities assumed	(1,227)
Core technology	440
Customer relationships	490
Non-compete agreement	90
Goodwill	1,012
Total purchase price	$ 2,447

We continue to accumulate information to assess pre-acquisition contingencies and whether or not an asset or liability can be reasonably estimated. The quantification may result in future adjustments to goodwill.

These allocated fair values required management to make significant estimates and assumptions, especially with respect to the fair value of intangible assets.

Customer relationships are being amortized over an expected useful life of five years. Core technology is being amortized over an expected useful life of five years. The non-compete agreement is being amortized over its expected useful life of three years.

The following unaudited pro forma information presents the total revenues, net loss and the net loss per share of common stock of Codexis and BioCatalytics for the years ended December 31, 2006 and 2007, as if the acquisition had been consummated as of January 1 of each respective year. The unaudited pro forma financial information does not reflect any incremental direct costs, including any restructuring charges to be recorded in connection with the acquisition, or any potential cost savings that may result from the consolidation of certain operations of Codexis and BioCatalytics. Accordingly, the unaudited pro forma financial information is presented below for illustrative purposes and not necessarily indicative of the results of operations of the combined company that would have occurred had the acquisition occurred at the beginning of the years presented, nor is it necessarily indicative of future operating results. The unaudited pro forma information for the years ended December 31, 2006 and 2007 is as follows (in thousands, except per share data):

	2006	2007
		(unaudited)
Total revenues	$ 17,074	$ 27,615
Net loss	(18,082)	(40,456)
Net loss per share of common stock, basic and diluted	(10.64)	(16.12)

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

5. Balance Sheets and Statements of Operations Details

Cash Equivalents and Marketable Securities

At December 31, 2006, cash equivalents consisted only of money market funds. At December 31, 2007 and March 31, 2008, cash equivalents and marketable securities consisted of the following (in thousands):

	December 31, 2007				March 31, 2008			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses (unaudited)	Estimated Fair Value
Money market funds	$ 52,125	$	$	$ 52,125	$ 27,934	$	$	$ 27,934
Corporate debt obligations	28,863	133	(1)	28,995	36,774	204		36,978
Total	80,988	133	(1)	81,120	64,708	204		64,912
Less amounts classified as cash equivalents	(52,125)			(52,125)	(27,934)			(27,934)
Total marketable securities	$ 28,863	$ 133	$ (1)	$ 28,995	$ 36,774	$ 204	$	$ 36,978

All available-for-sale securities held as of December 31, 2007 and March 31, 2008 had contractual maturities of less than one year.

Inventories

Inventories consisted of the following (in thousands):

	December 31, 2006	December 31, 2007	March 31, 2008 (unaudited)
Raw materials	$ 146	$ 372	$ 892
Work in process		43	25
Finished goods	824	1,220	1,602
Total inventories	$ 970	$ 1,635	$ 2,519

Property and Equipment

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

	December 31, 2006	December 31, 2007	March 31, 2008

			(unaudited)
Laboratory equipment	$ 7,809	$ 11,875	$ 13,074
Leaseholds improvements	3,408	6,295	6,467
Computer equipment and software	743	1,105	1,181
Office equipment and furniture	189	429	471
Construction in progress		502	109
	12,149	20,206	21,302
Less: Accumulated depreciation and amortization	(7,648)	(9,107)	(9,937)
Property and equipment, net	$ 4,501	$ 11,099	$ 11,365

Included in property and equipment, net is $81,000, $155,000 and $133,000 of equipment relating to capital lease obligations at December 31, 2006 and 2007 and at March 31, 2008, respectively. Included in

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

accumulated depreciation and amortization is $49,000, $121,000 and $150,000 of accumulated amortization relating to capital lease obligations at December 31, 2006 and 2007 and March 31, 2008, respectively. Depreciation and amortization expense for the years ended December 31, 2005, 2006 and 2007 and the three months ended March 31, 2007 and 2008 was $1.7 million, $1.8 million, $2.1 million, $404,000 and $806,000, respectively.

Intangible Assets

Intangible assets consisted of the following (in thousands):

	December 31, 2006			December 31, 2007		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value
Customer relationships	$ 2,360	$ (779)	$ 1,581	$ 2,850	$ (1,323)	$ 1,527
Developed and core technology	990	(260)	730	990	(401)	589
Customer backlog	140	(140)		140	(140)	
Tradename	90	(41)	49	90	(64)	26
Purchased technology				440	(40)	400
Non-compete agreements				90	(14)	76
Foreign exchange adjustments	(148)	112	(36)	72	93	165
	$ 3,432	$ (1,108)	$ 2,324	$ 4,672	$ (1,889)	$ 2,783

	March 31, 2008		
	Gross Carrying Amount	Accumulated Amortization (unaudited)	Net Carrying Value
Customer relationships	$ 2,850	$ (1,473)	$ 1,377
Developed and core technology	990	(436)	554
Customer backlog	140	(140)	
Tradename	90	(69)	21
Purchased technology	440	(62)	378
Non-compete agreements	90	(21)	69
Foreign exchange adjustments	200	74	274
	$ 4,800	$ (2,127)	$ 2,673

The weighted-average amortization period of our intangible assets is 5.0 years. Amortization expense for the years ended December 31, 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008 was $744,000, $633,000, $781,000, $162,000 and $238,000, respectively. The estimated amortization expense for the next five years is as follows (in thousands):

Years Ending,	Cost of Product Revenues	Selling, General and Administrative	Total
2008	$ 172	$ 487	$ 659
2009	230	631	861

2010	230	197	427
2011	230	98	328
2012	70	53	123
	$ 932	$ 1,466	$ 2,398

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Goodwill

The changes in the carrying value of goodwill are as follows (in thousands):

	December 31, 2006	December 31, 2007	March 31, 2008 (unaudited)
Balance at beginning of period	$ 1,955	$ 1,926	$ 3,099
Additions due to BioCatalytics acquisition		1,012	
Adjustments to tax valuation allowances established in purchase accounting		(51)	
Foreign exchange adjustments	(29)	212	161
Balance at end of period	$ 1,926	$ 3,099	$ 3,260

6. Fair Value

Assets and liabilities recorded at fair value in the Consolidated Financial Statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. Hierarchical levels, defined by SFAS No. 157 and directly related to the amount of subjectivity associated with the inputs to valuation of these assets or liabilities, are as follows:

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

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

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

In accordance with SFAS No. 157, the following table represents financial instruments that were measured at fair value on a recurring basis at March 31, 2008 by level within the fair value hierarchy (in thousands):

	March 31, 2008			
	Level 1	Level 2	Level 3	Total
		(unaudited)		
Assets				
Money market funds	$ 19,096	$	$	$ 19,096
U.S. treasury bills	2,999			2,999
Commercial paper		33,405		33,405
Asset backed securities		4,573		4,573
Total	$ 22,095	$ 37,978	$	$ 60,073
Liabilities				

Preferred stock warrant liability	$	$	$ 2,260	$ 2,260

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

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

Fair value at December 31, 2007	$ 1,485
Change in fair value recorded in interest expense and other (unaudited)	775
Fair value at March 31, 2008 (unaudited)	$ 2,260

The valuation of the preferred stock warrant liability is discussed in Note 10.

7. Related Party Transactions with Maxygen

We were incorporated under the laws of the State of Delaware in January 2002 as a wholly-owned subsidiary of Maxygen upon the transfer of the assets, liabilities and operations of Maxygen s chemical business unit to Codexis. We issued 999,000 shares of our common stock and 6,000,000 shares of our Series A convertible preferred stock to Maxygen in exchange for consideration consisting of (i) funding of our operations through June 30, 2002, (ii) intellectual property licenses granted to us in a license agreement, (iii) trademarks and patents assigned to us in a trademark assignment agreement and in a patent assignment agreement, (iv) an itemized list of assets contributed to us, and (v) the assignment to us of certain collaborative research and other agreements. The assets received from Maxygen were recorded at the historical basis of Maxygen.

Under the license agreement, Maxygen granted to us the right to use certain intellectual property owned or controlled by Maxygen, tangible property, and other technology of Maxygen in connection with its discovery, research, development, and commercialization of certain chemical products. The licenses provided in the agreement continue in force until the last-to-expire patent within the licensed intellectual property provided, however, that upon a change of control of Codexis, Codexis may not be entitled to receive any additional license rights to patent applications made, or patents related to Maxygen s intellectual property issued, after the change of control.

Under the trademark assignment agreement, Maxygen assigned us all rights, title, and interest in the Codexis trademark for all jurisdictions in which it had filed trademark applications and related registrations.

Under the patent assignment agreement, Maxygen assigned us all rights, title, and interest in certain patent applications related to various products.

In July 2002, we entered into a services agreement with Maxygen (2002 Services Agreement). Under the 2002 Services Agreement, we could receive certain finance, human resources, facility, information systems, purchasing, legal, patent, investor and public relations, and laboratory research services (Services) and designated space in the Maxygen facility (Facilities). We agreed to reimburse Maxygen for all necessary and reasonable direct and indirect costs that Maxygen incurred in providing these Services and Facilities to us. Direct costs include third party costs paid by Maxygen on behalf of Codexis that are specifically attributable to Codexis. Indirect costs include an allocation of Maxygen s costs for Services shared between Maxygen and Codexis based on a methodology defined in the 2002 Services Agreement. Effective January 2005, we terminated this agreement and initiated a new agreement. Under the new agreement (2005 Services Agreement), we leased from Maxygen certain equipment and received certain facility, information systems, patent, and library services on terms similar to the 2002 Services Agreement. The 2005 Services Agreement expired on December 31, 2005. Codexis and Maxygen have continued to operate under the terms of the 2005 Services Agreement although it has lapsed; however, continuing services being provided are minimal.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Total fees paid to Maxygen for Facilities and Services under the 2005 Services Agreement during the years ended December 31, 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008 were $1.4 million, $652,000, $259,000, $59,000 and $158,000, respectively. At December 31, 2006 and 2007 and March 31, 2008, we owed Maxygen $21,000, $116,000 and $29,000, respectively, in connection with the 2005 Services Agreement.

In August 2006, Maxygen purchased 254,838 shares of Series D redeemable convertible preferred stock for $3.97 per share. Other investors not affiliated with Maxygen also purchased shares of Series D redeemable convertible preferred stock at the same price and on the same date as Maxygen. Maxygen has not subsequently purchased or been granted any additional shares as of March 31, 2008.

In August 2006, we entered into an amendment to the license agreement with Maxygen. Under the amendment, Codexis is required to pay Maxygen a fee based on a percentage of all consideration received by Codexis from Shell related to the use of certain intellectual property owned or controlled by Maxygen in the specified field of biofuels. We expense all payments owed to Maxygen as they become due as collaborative research and development expenses, which we report as research and development expenses in our consolidated statements of operations. We expensed $556,000, $7.8 million, $0 and $121,000 during the years ended December 31, 2006 and 2007 and for the three months ended March 31, 2007 and 2008, respectively. We had a payable due to Maxygen in the amount of $556,000, $7.6 million and $121,000 at December 31, 2006 and 2007 and at March 31, 2008, respectively, related to the payments received under our collaborative research and license agreements with Shell (see Note 3).

8. Financing Obligations

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

	December 31,		March 31,
	2006	2007	2008 (unaudited)
Loans payable	$ 3,740	$ 17,035	$ 16,756
Lines of credit	253	217	
Capital leases	80	155	133
	4,073	17,407	16,889
Less: current portion	(1,560)	(4,507)	(5,163)
Financing obligations, net of current portion	$ 2,513	$ 12,900	$ 11,726

Loans Payable

In September 2007, we entered into a loan and security agreement with General Electric Capital Corporation and Oxford Finance Corporation (Lenders) under which we could borrow up to $15.0 million. In connection with the execution of the loan and security agreement, we incurred costs of $269,000 and, in addition, we issued the Lenders a warrant to purchase 109,091 shares of Series D redeemable convertible preferred stock with an estimated fair value of $297,000, which were recorded on the consolidated balance sheet as a debt discount that is being amortized to interest expense over the life of the loans (see Note 10). During 2007, we drew down the entire $15.0 million, net of issuance costs which remained outstanding at March 31, 2008. The loan agreement provides for a 42-month repayment term from the date of each funding, is secured by our specific assets and also contains covenants that, among other things, place restrictions on our use of cash including the payment of dividends, investment in

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

subsidiaries and the purchase of capital assets. At December 31, 2007, we were in compliance with the covenants under the loan agreement. During the three months ended March 31, 2008, we obtained from the lenders a waiver of default for our failure to timely deliver monthly financials compliance certificates and capitalization tables for periods which were due to the lender in January, February and March 2008. All borrowings are subject to monthly cash payments of principal and interest following a six-month period of interest-only monthly payments. Interest accrues at 9.4% per annum. During the year ended December 31, 2007 and the three months ended March 31, 2008, we recorded interest expense of $362,000 and $365,000 under the effective interest rate method and amortization expense of $67,000 and $70,000 for the debt discounts related to these loans.

In October 2005, we entered into a loan agreement with Oxford Finance Corporation to borrow up to $3.0 million to be used for equipment purchases. Borrowings under the agreement to purchase equipment are secured by the equipment financed. The ability to make new borrowings under this financing agreement expired on December 31, 2006. Each borrowing is being repaid over 48 months from the date of drawdown at a fixed interest rate that is derived from the four-year Treasury Bill Weekly Average rate at the time of the drawdown. The fixed interest rates for the loan range between 9.9% and 10.7%, respectively. At December 31, 2006 and 2007 and March 31, 2008, the principal amount outstanding was $1.3 million, $923,000 and $834,000, respectively. In connection with this loan agreement, we issued to the lender a warrant to purchase 9,100 shares of our common stock at $0.70 per share (see Note 10). The estimated fair value of the warrant on the issue date of $4,000 was recorded as debt discount to be amortized over approximately four years.

In February 2004, we entered into a loan agreement with Lighthouse Capital Partners V, L.P. to borrow up to $4.8 million to be used for equipment purchases and to fund working capital requirements. Borrowings under this agreement to purchase equipment are secured by the equipment financed while borrowings to fund working capital requirements are unsecured. The ability to make new borrowings under this financing agreement expired on March 31, 2005. The borrowings are being repaid over 48 months from the date of drawdown at a fixed interest rate that is derived from the prime lending rate at the time of the drawdown. The fixed interest rates for the loan range between 9.2% and 10.9%. At December 31, 2006 and 2007 and March 31, 2008, the principal amount outstanding was $1.8 million, $858,000 and $555,000, respectively. In connection with this loan agreement, we issued to the financing company a warrant to purchase 46,176 shares of our common stock at $0.40 per share (see Note 10). The estimated fair value of the warrant on the issue date of $14,000 was recorded as debt discount to be amortized over approximately four years.

In August 2001, JFC entered into a loan agreement with a German bank denominated in Euros in which JFC borrowed $753,000 at a fixed interest rate of 7.9%. The loan requires interest-only payments of $15,000 per quarter until September 2011, at which time, the entire principal of $753,000 is payable in full. The principal amount outstanding at December 31, 2006 and 2007 and March 31, 2008 was $753,000.

Lines of Credit

In February 2006, JFC entered into a line of credit agreement with a German bank denominated in Euros, which can be used for both equipment purchases and working capital requirements in the amount of $184,000. The interest rate for the line of credit ranges between 8.3% and 8.5%. The line of credit is secured by a standby letter of credit in the amount of $182,000 in favor of the German bank for which Codexis is the guarantor. The standby letter of credit expires in May 2008. In the event that the standby letter of credit is not renewed, all amounts owed under the line of credit become immediately due and payable. At December 31, 2006 and 2007, $85,000, and $128,000, respectively, was owed under the lines

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

of credit. During the first quarter of 2008 we repaid amounts outstanding under the line of credit. At December 31, 2006 and 2007 and March 31, 2008, we classified $182,000, as restricted cash to fully collateralize the standby letter of credit.

Prior to its acquisition, JFC had entered into a line of credit agreement with a German bank denominated in Euros, which can be used for both equipment purchases and working capital requirements. The interest rate for the line of credit in 2006 and 2007 ranges between 9.6% and 12.3%. The line of credit increased from $135,000 at December 31, 2006 to $175,000 at December 31, 2007. In May 2006, Codexis guaranteed the line of credit by issuing a standby letter of credit in the amount of $250,000 in favor of the German bank. The standby letter of credit expires in May 2008. In the event that the standby letter of credit is not renewed, all amounts owed under the line of credit become immediately due and payable. At December 31, 2006 and 2007, $168,000 and $89,000, respectively, was owed under the line of credit. During the first quarter of 2008 we repaid amounts outstanding under the line of credit. In addition, at December 31, 2006 and 2007 and March 31, 2008, we classified $250,000 as restricted cash to fully collateralize the standby letter of credit.

Bridge Financing Agreement

In May 2006, we entered into a bridge financing agreement with several of our then current investors. Under the agreement, the investors loaned us a total of $4.2 million in exchange for convertible promissory notes bearing interest at an annual rate of 8.0%. With the exception of certain assets securing various notes under our other financing agreements, the notes were secured by all of our assets including our intellectual property.

Under the terms of the bridge financing agreement, in the event that we sold preferred stock with proceeds of at least $20.0 million prior to December 31, 2006, the outstanding principal balance of the convertible promissory notes, together with all unpaid interest, would automatically convert into shares of the new series of preferred stock. The conversion price was to be the price per share at which the preferred stock was sold in the initial closing. In addition, each investor was entitled to receive a warrant to purchase that number of shares of the new series of preferred stock equal to 30% of the number of shares acquired by each investor upon loan conversion. Commensurate with our closing of the Series D redeemable convertible preferred stock offering in August 2006, the bridge loan principal of $4.2 million plus accrued interest of $82,000 was converted into 1,078,568 shares of Series D redeemable convertible preferred stock. These shares of Series D redeemable convertible preferred stock will automatically convert into common stock on a 1-for-1 basis immediately before the closing of a firmly underwritten public offering (see Note 11). In accordance with the terms of the bridge loan financing, warrants to purchase 323,569 shares of our Series D redeemable convertible preferred stock were also issued (See Note 10).

In connection with closing the bridge loan financing on May 25, 2006, the estimated fair value of the warrants of $5,000 was recorded as debt discount with an offsetting entry to the preferred stock warrant liability. As the strike price of the warrants is equal to the liquidation preference of Series D redeemable convertible preferred stock and the warrants convert to common stock warrants upon a merger or a qualified initial public offering, the fair value was determined on an as-converted basis using the Black-Scholes option-pricing model. The entire amount of the debt discount was amortized to interest expense during 2006. The initial allocation of proceeds received from the bridge loan financing to the warrants resulted in an embedded beneficial conversion feature in the amount of $5,000. The beneficial conversion feature has been recorded as interest expense with an offsetting entry to additional paid-in capital during 2006.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Capital Leases and Future Payments

We lease certain property and equipment under leases classified as capital leases. Future payments due for all financing obligations, including capital leases, are as follows as of December 31, 2007 (in thousands):

Years	Loans Payable	Lines of Credit	Capital Leases	Total
2008	$ 6,098	$ 217	$ 80	$ 6,395
2009	6,255		67	6,322
2010	5,980		18	5,998
2011	2,983			2,983
Total payments	$ 21,316	$ 217	$ 165	21,698
Less: amount representing interest				(4,291)
Present value of minimum payments				17,407
Less: current portion of financing obligations				(4,507)
Long-term portion of financing obligations				$ 12,900

Interest expense for the three years ended December 31, 2005, 2006 and 2007 was $344,000, $485,000 and $829,000, respectively, and $94,000 and $568,000 for the three months ended March 31, 2007 and 2008, respectively.

9. Commitments and Contingencies

Operating Leases

In October 2003, we entered into an operating lease agreement with a third party landlord for our facilities in Redwood City, California. The rent payments commenced in February 2004, with scheduled rent increases through the lease expiration in January 2011. Rent expense is recognized on a straight-line

basis over the term of the lease. In accordance with the terms of the lease agreement, we exercised our right to deliver a letter of credit in the amount of $450,000 in lieu of a security deposit. Provided that we have not been in default of the lease, the amount of the letter of credit will be reduced to $225,000 in February 2010. This letter of credit, which is recorded as restricted cash on the consolidated balance sheets, will be required until the termination of the lease.

In connection with this lease agreement, we were reimbursed $618,000 by the landlord for leasehold improvements. We recorded this amount as a lease incentive obligation that is being amortized as a reduction of rent expense on a straight-line basis over the term of the operating lease. Rent expense was reduced by $63,000, $78,000, $78,000, $19,000 and $28,000 during the years ended December 31, 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008, respectively.

Prior to its acquisition, JFC entered into an operating lease agreement for its facilities in Jülich, Germany. The rent payments made by JFC commenced in September 2003, with scheduled rent increases through the lease expiration in September 2013. Rent expense is being recognized on a straight-line basis over the term of the lease.

We recorded a liability of $349,000 in 2007 related to an asset retirement obligation from an operating lease in Singapore entered into in June 2007, whereby we must restore the building that we are renting to its original form. We are expensing the asset retirement obligation over the term of the lease on a straight-line basis. We review the estimated obligation each period and we will make adjustments if future estimates change.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Total rent expense under these operating leases was $1.1 million, $1.2 million, $2.1 million, $316,000 and $654,000 during the years ended December 31, 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008, respectively. Deferred rent of $140,000, $210,000 and $199,000 at December 31, 2006 and 2007 and March 31, 2008, respectively. represents the difference between rent expense recognized and the cash payments related to the operating leases and is included in other accrued liabilities on our consolidated balance sheets.

During the first quarter of 2008, we entered into another operating lease agreement with the landlord for our facilities in Redwood City for additional office space adjacent to our current headquarters. The new lease commences in April 2008, with scheduled rent increases through the lease expiration in March 2013. Future minimum payments under noncancellable operating leases, including payments for the new lease signed during 2008, are as follows (in thousands):

Years	Lease Payments
2008	$ 2,591
2009	3,064
2010	2,943
2011	1,553
2012	1,144
Thereafter	428
	$ 11,723

Litigation

We have been subject to various legal proceedings related to matters that have arisen during the ordinary course of business. We are not currently subject to any pending legal proceedings, nor are we aware of any such proceedings, that would, individually or in the aggregate, have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Indemnifications

In November 2002, the FASB issued FIN No. 45, *Guarantor s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*, which requires a guarantor to recognize a liability for the fair value of the obligations it assumes upon the issuance of a guarantee.

As permitted under Delaware law and in accordance with our bylaws, we indemnify our officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at our request in such capacity. In September 2007, we entered into indemnification agreements with our officers and directors. The maximum amount of potential future indemnification is unlimited; however, we intend to continue to maintain director and officer insurance that adequately limits our exposure and may enable us to recover a portion of any future amounts paid. We believe that fair value for these indemnification obligations is minimal. Accordingly, we have not recognized any liabilities related to these obligations at of December 31, 2007.

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. 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.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

10. Warrants

We have issued warrants to purchase 861,231 shares of our Series D redeemable convertible preferred stock and warrants to purchase 58,853 shares of our common stock at various times between 2004 and 2007. The warrants are generally exercisable at any time during their term. During 2007, a warrant to purchase 428,571 shares of Series D redeemable convertible preferred stock was exercised (see Note 3). At December 31, 2007 and March 31, 2008 the following warrants were issued and outstanding:

Issue Date	Reason for Grant	In Connection with Redeemable Convertible Preferred or Common Stock	Shares Subject to Warrants	Exercise Price per Share	Expiration
February 12, 2004	Debt	Common	46,176	$ 0.40	February 12, 2011
October 25, 2005	Debt	Common	9,100	0.70	October 25, 2012
May 25, 2006	Debt	Series D	323,569	3.97	May 25, 2013
July 17, 2007	Debt	Common	3,577	8.30	February 9, 2016
September 28, 2007	Debt	Series D	109,091	5.50	September 28, 2017
			491,513		

At December 31, 2006 and 2007 and March 31, 2008, the outstanding warrants to purchase shares of our Series D redeemable convertible preferred stock were subject to the provisions of FSP 150-5. The fair values for these warrants were $623,000, $1.5 million and $2.3 million at December 31, 2006 and 2007 and March 31, 2008, respectively. The fair value of the warrants was determined using the Black-Scholes pricing model using the following assumptions:

	Years ended December 31,		March 31,
	2006	2007	2008 (unaudited)
Weighted average expected term in years (equals the remaining contractual term)	1.0 - 6.4	5.4 - 9.8	5.2 - 9.5
Weighted average expected volatility	48% - 49%	44.1%	56.0%
Range of risk-free rates	4.6% - 5.0%	3.8% - 4.8%	2.4% - 3.4%
Expected dividend yields	0.0%	0.0%	0.0%

An increase in fair value due to re-measurements of the preferred stock warrant liability of $156,000 and $1.3 million was recognized as interest expense and other in the consolidated statements of operations during the years ended 2006 and 2007. For the three months ended March 31, 2007 and 2008, $146,000 was recognized as other income and $775,000 was recognized as other expense, respectively.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

11. Redeemable Convertible Preferred Stock

The authorized, issued, and outstanding shares, aggregate liquidation preferences and carrying value of our redeemable convertible preferred stock were as follows at December 31, 2006 (in thousands):

	Number of Shares		Aggregate	
Series (1) (2)	Authorized	Issued and Outstanding	Liquidation Preference	Carrying Value
Series A (3)	6,000	6,000	$ 30,000	$ 1
Series B	8,101	8,101	25,000	27,779
Series C	1,515	1,515	10,000	9,969
Series D	11,155	10,068	39,972	39,764
Balance as of December 31, 2006	26,771	25,684	$ 104,972	$ 77,513

(1) All series of preferred stock, except Series A, were convertible into common stock on a 1-for-1 basis.

(2) Series A and Series C are not redeemable; Series B and D are all redeemable.

(3) Series A was convertible on a 1:1.01 basis, or into 6,060,606 shares of common stock.

The authorized, issued, and outstanding shares, aggregate liquidation preferences and carrying value of redeemable convertible preferred stock were as follows at December 31, 2007 and March 31, 2008 (in thousands):

	Number of Shares		Aggregate	
Series (1) (2)	Authorized	Issued and Outstanding	Liquidation Preference	Carrying Value
Series A (3)	6,000	6,000	$ 30,000	$ 1
Series B	8,101	8,101	25,000	27,779
Series C	1,515	1,515	10,000	9,969
Series D	11,155	10,497	42,972	42,764
Series E	6,434	6,157	52,333	52,233
Balance	33,205	32,270	$ 160,305	$ 132,746

(1) All series of preferred stock, except Series A, were convertible into common stock on a 1-for-1 basis.

(2) Series A and Series C are not redeemable; Series B, D and E are all redeemable.

(3) Series A was convertible on a 1:1.01 basis, or into 6,060,606 shares of common stock.

We recorded the redeemable convertible preferred stock at fair values on the dates of issuance, net of issuance costs. We classify the redeemable convertible preferred stock outside of stockholders equity (deficit) in accordance with EITF Topic D-98. For the years ended December 31, 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008, we elected not to adjust the carrying values of the redeemable convertible preferred stock to the deemed redemption value of such shares since it is uncertain as to whether or when a liquidation event could occur. Subsequent adjustments to increase the carrying values to the ultimate redemption values will be made only when it becomes probable that such a liquidation event will occur.

During 2006, we sold 10,068,402 shares of Series D redeemable convertible preferred stock at a price of $3.97 per share for gross proceeds of $40.0 million. Included in the offering were 1,078,571 shares

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

issued as a result of the conversion of the bridge loans issued under the bridge financing agreement entered into in May 2006 (See Note 8).

During 2007, we sold 6,100,305 shares of Series E redeemable convertible preferred stock at a price of $8.50 per share for gross proceeds of $51.9 million, and issued an additional 56,470 shares of Series E redeemable convertible preferred stock valued at $480,000 to a professional consulting services firm in exchange for their services. We also issued an additional 428,571 shares of Series D redeemable convertible preferred stock at a price of $7.00 per share, upon exercise of a warrant for cash, for gross proceeds of $3.0 million.

The significant rights, privileges, and preferences of our redeemable convertible preferred stock are as follows:

Voting Rights The holders of Series A through E redeemable convertible preferred stock are all entitled to one vote for each share of common stock into which such share may be converted, and the vote of the holders of a majority of our Series B, C, D and E redeemable convertible preferred stock (voting together as a single class and on an as-if-converted basis) is required to effect certain corporate actions. In addition, the vote of the holders of a majority of our Series D redeemable convertible preferred stock is required to effect (i) any winding up or liquidation of our Singapore subsidiary, (ii) a significant reduction in the number of employees at our Singapore subsidiary or (iii) a significant reduction in the overall technological capacity of our Singapore subsidiary s operations.

Dividends The holders of the redeemable convertible preferred stock are entitled, when, as, and if declared by the Board of Directors, to non-cumulative dividends of (i) $0.40 per share for Series A, (ii) $0.25 per share for Series B, (iii) $0.53 per share for Series C, (iv) $0.32 per share for Series D, and (v) $0.68 per share for Series E. The Series B, C, D, and E redeemable convertible preferred stock dividends are to be paid in advance of any distributions to the holders of Series A convertible preferred stock and common stock. The Series A convertible preferred stock dividends are to be paid in advance of any distributions to the holders of common stock. Once the redeemable convertible preferred stockholders have received their dividend preference, and in the event dividends are paid on any share of common stock, the holders of all series of redeemable convertible preferred stock are entitled to additional dividends equal to those paid or set aside to the common stockholders determined on an as-if-converted basis. No dividends have been declared or paid as of December 31, 2007 and March 31, 2008.

Liquidation In the event of any voluntary or involuntary liquidation, dissolution or winding up of our company, all of our assets available for distribution among the holders of redeemable convertible preferred stock are required to be distributed in the following order: (i) each holder of Series D and E redeemable convertible preferred stock is entitled to receive a liquidation preference of $3.97 and $8.50 per share, respectively, together with any declared but unpaid dividends, before any payments can be made to holders of Series A, B and C redeemable convertible preferred stock, (ii) each holder of Series B and C redeemable convertible preferred stock is entitled to receive a liquidation preference of $3.09 and $6.60 per share, respectively, together with any declared but unpaid dividends, before any payments can be made to holders of Series A convertible preferred stock, and (iii) each holder of Series A convertible preferred stock is entitled to receive a liquidation preference of $5.00 per share, together with any declared but unpaid dividends. After payment of these preferential amounts, the remaining assets are required to be distributed ratably to holders of common stock. In the event that the assets available for distribution are insufficient to make the full per share distributions, all such assets are required to be distributed among the holders of the

respective series in proportion to the full preference to which such holders would otherwise be entitled. Any of the following shall be deemed a liquidation, dissolution or winding up of our company: (1) a

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

consolidation or merger of our company with or into any other corporation or other entity or person, or any other corporate reorganization, in which (x) we do not survive or (y) our stockholders immediately prior to such consolidation, merger or reorganization, own less than 50% of our voting power immediately after such consolidation, merger or reorganization; (2) any transaction or series of related transactions to which we are a party in which greater than 50% of our voting power is transferred; or (3) a sale, lease, exclusive license or other disposition of all or substantially all of our assets. As the holders of our redeemable convertible preferred stock may elect a majority of the members of our board of directors, and control the vote of our stockholders, a liquidation may not be in our control. Accordingly, all series of redeemable convertible preferred stock are classified outside of permanent equity in accordance with the requirements of EITF Topic D-98.

From our inception through February 2005, Maxygen held a majority of our outstanding voting rights and, therefore, consolidated us as a subsidiary of Maxygen through that date. Based upon Maxygen s control of us during this period, we recorded accretion adjustments to Maxygen s Series B convertible preferred stock through the end of 2004, the last balance sheet date at which Maxygen retained such control. Accordingly, we adjusted the carrying value of redeemable convertible preferred stock to the deemed redemption amount during 2002, 2003 and 2004. During 2005, 2006 and 2007, our Board of Directors has not indicated that a deemed redemption or liquidation event, as described in the preceding paragraph, was being considered or was probable due to the reduction of Maxygen s voting rights to less than a majority of our outstanding shares. Accordingly, during 2005, 2006 and 2007, we did not adjust the carrying value of our Series A, B, C, D and E redeemable convertible preferred stock to the amounts we would have paid if a deemed redemption payment had become probable.

Conversion The holders of Series B through E redeemable convertible preferred stock have the right, at the option of the holder, at any time, to convert their shares into shares of common stock on a 1-for-1 basis, subject to adjustment for antidilution, stock splits, reclassifications and the like. The holders of the Series A convertible preferred stock have the right, at the option of the holder, at any time, to convert their shares into shares of common stock on a 1-for-1.01 basis, subject to adjustment for antidilution, stock splits, reclassifications and the like. Conversion of all outstanding redeemable convertible preferred stock is automatic (i) at any time upon the affirmative election of the holders of at least two-thirds (66 2/3%) of the then outstanding shares of the Series B, C, D and E, voting together as a single class and on an as-if-converted basis, or (ii) immediately upon the closing of a firmly underwritten public offering in which the gross cash proceeds to Codexis before underwriting discounts, commissions and fees are equal to or exceed $50.0 million and the value of the Company immediately prior to the offering is equal to or exceeds $250.0 million.

Redemption The holders of at least a majority of the then-outstanding shares of Series B, D and E redeemable convertible preferred stock, voting or consenting together as a separate series, may require Codexis to redeem each of these series of redeemable convertible preferred stock in three annual installments. The redemption price for each share will be payable in cash in exchange for the shares of Series B redeemable convertible preferred stock to be redeemed at a sum equal to the applicable original issue price per share plus five percent (5%) of the original issue price per annum from the Series B original issue date until the Series D original issue date and eight percent (8%) of the original issue price per annum from the Series D original issue date until the applicable Series B redemption date, plus declared but unpaid dividends. The redemption price for each share of Series D and E will be payable in cash in exchange for the shares of each series redeemable convertible preferred stock to be redeemed at a sum

equal to the applicable original issue price per share plus eight percent (8%) of the original issue price per annum from the original issue date until the applicable redemption date, plus declared but unpaid dividends. Notice of redemption can be given at any time on or after December 31, 2011.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

12. Stockholders Equity (Deficit)

2002 Stock Option Plan

In 2002, we adopted the 2002 Stock Option Plan (the Plan), under which our Board of Directors may issue incentive stock options, nonstatutory stock options (options that do not qualify as incentive stock options) and restricted stock to employees, officers, directors or consultants of Codexis or any parent or subsidiary. As of December 31, 2007, and March 31, 2008, we have reserved 12,457,642 shares of common stock for issuance under the Plan. Options granted under the Plan expire no later than 10 years from the date of grant. For incentive stock options and nonstatutory stock options, the option price shall be at least 100% and 85%, respectively, of the fair value of the common stock on the date of grant, as determined by the Board of Directors. 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. Options typically vest over a four-year period at a rate of no less than 25% per year but may be granted with different vesting terms.

In 2007, our Board of Directors amended the Plan to allow for the early exercise of options prior to vesting. During 2007, we issued an aggregate of 130,000 shares of common stock pursuant to the early exercise of stock options. Prior to 2007, we had not issued any shares of common stock pursuant to the early exercise of stock options. The amounts received in exchange for these shares have been recorded as a liability in the accompanying consolidated balance sheet and are reclassified into equity as the shares vest.

The activity of unvested shares of common stock that are subject to repurchase by the Company is as follows:

	Number of Shares	Weighted Average Exercise Price per Share
December 31, 2006		$
Exercised unvested stock options	129,999	0.81
Vested	(72,396)	0.53
December 31, 2007	57,603	1.16
Vested (unaudited)	(15,000)	1.19
March 31, 2008 (unaudited)	42,603	1.15

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

A summary of activity for the Plan is as follows:

		Options Outstanding	
	Shares Available for Grant	Number of Options	Weighted Average Exercise Price per Share
December 31, 2004	1,235,377	2,617,775	$ 0.41
Authorized	1,400,000		
Grants	(2,258,600)	2,258,600	0.65
Exercises		(176,724)	0.42
Forfeited	191,377	(191,377)	0.47
December 31, 2005	568,154	4,508,274	0.53
Authorized	3,700,000		
Grants	(322,500)	322,500	0.70
Exercises		(125,121)	0.44
Forfeited	582,715	(582,715)	0.55
December 31, 2006	4,528,369	4,122,938	0.54
Authorized	3,357,642		
Grants	(5,807,825)	5,807,825	2.74
Exercises		(595,684)	0.63
Forfeited	368,005	(368,005)	0.73
December 31, 2007	2,446,191	8,967,074	1.95
Authorized (unaudited)			
Grants (unaudited)	(1,095,550)	1,095,550	7.00
Exercises (unaudited)		(88,831)	0.76
Forfeited (unaudited)	218,719	(218,719)	3.27
March 31, 2008 (unaudited)	1,569,360	9,755,074	2.50

Options exercised during 2007 include options that are exercised prior to vesting. As of March 31, 2008, there were 65,000 options outstanding outside the Plan with a weighted average exercise price per share of $0.50.

During January 2007, we granted 521,000 options to employees that were authorized by our Board of Directors in 2006 under the Plan; however, we did not communicate all of the key terms of the grants to these employees until May 2007. Therefore, the grant date as defined in SFAS 123(R) did not occur until May 2007. As a result, no compensation expense was recorded related to these grants in 2006. These options have exercise prices of $0.70 per share, weighted average measurement date fair value of $0.97 per share at May 2007 and an aggregate fair value of $507,000. A compensation charge in the amount of $140,000 was recorded on the May 2007 measurement date representing the fair value of options that had vested according to their terms by that date.

Table of Contents

The following table summarizes information about stock options outstanding and exercisable at December 31, 2007:

	Options Outstanding			Options Exercisable	
Exercise Prices	Number of Options	Weighted Average Remaining Contractual Term (Years)	Weighted Average Exercise Price per Share	Number of Options	Weighted Average Exercise Price per Share
$0.40	1,491,644	5.5	$ 0.40	1,432,207	$ 0.40
0.45	129,500	6.5	0.45	110,144	0.45
0.60	615,963	7.1	0.60	457,938	0.60
0.70	1,528,142	7.9	0.70	880,637	0.70
1.63	2,882,500	9.2	1.63	453,961	1.63
4.47	1,271,175	9.7	4.47	25,500	4.47
4.57	864,550	9.8	4.57		0.00
5.79	183,600	9.9	5.79	25,000	5.79
Total	8,967,074	8.3	1.95	3,385,387	0.74

The following table summarizes information about stock options outstanding and exercisable at March 31, 2008 (unaudited):

	Options Outstanding			Options Exercisable	
Exercise Prices	Number of Options	Weighted Average Remaining Contractual Term (Years)	Weighted Average Exercise Price per Share	Number of Options	Weighted Average Exercise Price per Share
$0.40	1,476,331	5.1	$ 0.40	1,425,819	$ 0.40
0.45	129,500	6.3	0.45	117,613	0.45
0.60	598,934	6.7	0.60	479,540	0.60
0.70	1,454,951	7.6	0.70	913,642	0.70
1.63	2,776,958	8.9	1.63	663,226	1.63
4.47	1,249,800	9.4	4.47	35,416	4.47
4.57	864,550	9.6	4.57		0.00
5.79	113,600	9.7	5.79	25,000	5.79
7.00	1,090,450	9.8	7.00	105,000	7.00
Total	9,755,074	8.2	2.50	3,765,256	0.97

The following table summarizes information about stock options that have vested and are expected to vest at December 31, 2007:

	Number of Options Outstanding	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In Thousands)
Vested	3,283,927	$ 0.66	6.8	$ 16,831
Expected to vest	5,478,554	2.69	9.2	16,984
Total vested and expected to vest	8,762,481	1.95	8.3	$ 33,815

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

The following table summarizes information about stock options that have vested and are expected to vest at March 31, 2008 (unaudited):

	Number of Options Outstanding	Weighted Average Exercise Price per Share	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value (In Thousands)
Vested	3,582,650	$ 0.74	6.6	$ 24,478
Expected to vest	5,923,248	3.52	9.1	20,613
Total vested and expected to vest	9,505,898	2.50	8.2	$ 45,091

The aggregate grant date fair value of options granted during the years ended 2005, 2006 and 2007 and during the three months ended March 31, 2007 and 2008 was $192,000, $133,000, $7.5 million, $0 and $3.7 million, respectively.

Options exercisable as December 31, 2007 had a weighted-average exercise price of $0.74 per share and an intrinsic value of $17.1 million. The aggregate intrinsic value of stock options outstanding as of December 31, 2007 was $34.4 million, of which $17.1 million was related to exercisable options. At March 31, 2008, exercisable options had a weighted average exercise price of $0.97 per share and an intrinsic value of $24.8 million. The aggregate intrinsic value of stock options outstanding at March 31, 2008 was $49.5 million, of which $24.8 million was related to exercisable options. The aggregate intrinsic value of exercised stock options was $49,000, $50,000, $869,000, $168,000 and $472,000 during the years ended December 31, 2005, 2006 and 2007 and the three months ended March 31, 2007 and 2008, respectively. The intrinsic value of stock options outstanding, exercised, exercisable and expected-to-vest is calculated based on the difference between the exercise price and the fair value of our common stock at December 31, 2007 and March 31, 2008, respectively.

Stock-based compensation costs capitalized during 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008 were insignificant. There were no stock-based compensation tax benefits during 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008.

At December 31, 2007 and March 31, 2008, there was $6.2 million and $9.4 million of unrecognized stock-based compensation cost related to stock options granted under the Plan expected to be recognized over an average period of 2.2 years.

Stock Options Granted to Non-employees

During the years ended December 31, 2005, 2006 and 2007 and the three months ended March 31, 2008, we granted options to purchase 260,000, 22,500, 331,000 and 30,000 shares of common stock, respectively, to non-employees. For all options granted to non-employees in 2005, the Black-Scholes option-pricing model was applied using the following assumptions: volatility of 70%; a risk-free interest rate of 4.4%; a remaining contractual option life between 4 and 8 years; and no dividend yield. The exercise price of the options granted to non-employees in 2005 ranged between $0.60 and $0.70 per share. For all options granted to non-employees in 2006, the Black-Scholes option-pricing model was applied using the following assumptions: volatility between 49% and 65%; a risk-free interest rate between 4.5% and 4.7%; a remaining contractual option life of 8 years; and no dividend yield. The exercise price of all options granted to non-employees in 2006 was $0.70 per share. For all options granted to non-employees in 2007, the Black-Scholes option-pricing model was used with the following assumptions: volatility between 44% and 49%; a risk-free interest rate between 3.9% and 5.0%; a remaining contractual option life between 9 and 10 years; and no dividend yield. The exercise price of the options granted to non-employees in 2007

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

ranged from $1.63 to $4.57 per share. For all options granted to non-employees in the three months ended March 31, 2008, the Black-Scholes option-pricing model was used with the following assumptions: volatility of 57%; a risk-free rate of 3.17%; a remaining contractual life between 9 and 10 years; and no dividend yield. The exercise price of options granted to non-employees for the three months ended March 31, 2008 was $7.00. We recorded stock-based compensation expense related to these options of $69,000, $32,000, $213,000, $25,000 and $101,000 in the years ended December 31, 2005, 2006 and 2007 and for the three months ended March 31, 2007 and 2008, respectively, as the underlying services were rendered. In accordance with SFAS 123(R) and EITF 96-18, options granted to non-employees are periodically revalued as they vest.

Stock-Based Compensation after Adoption of SFAS 123(R)

Upon adoption of SFAS 123(R), we estimated the fair value of stock-based awards granted to employees and directors using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of highly subjective and complex assumptions to determine the fair value of stock-based awards, including the expected life of the option and expected volatility of the underlying stock over the expected life of the related grants. As a private entity, company specific historical volatility data are not available. As a result, we estimate the expected volatility based on the historical volatility of a group of unrelated public companies within the same industry as Codexis. We will continue to consistently apply this process until a sufficient amount of historical information regarding the volatility of our own share price becomes available. Due to our limited history of grant activity, the expected life of options granted to employees is calculated using the simplified method permitted by SEC Staff Accounting Bulletin No. 107. In the future, as we gain historical data on the actual term employees hold our options, the expected life may change, which could substantially change the grant date fair value of future awards of stock options and, ultimately, the expense we record. The expected life represents the period of time that options granted are expected to be outstanding. The risk-free interest rate for periods pertaining to the expected life of each option is based on the U.S. Treasury strip yield of a similar duration in effect at the time of grant. We have never paid dividends and do not expect to pay dividends in the foreseeable future. SFAS 123(R) requires forfeitures to be estimated at the time of grant and revisited in subsequent periods if actual forfeitures differ from those estimates. Prior to the adoption of SFAS 123(R), we accounted for forfeitures as they occurred.

The following assumptions were used to estimate the fair value of options granted during the period:

	Years Ended December 31,		Three Months Ended March 31,	
	2006	2007	2007	2008
			(unaudited)	
Weighted average expected life (years)	6.1	6.0	N/A	6.0
Weighted average expected volatility	65%	48%	N/A	57%
Weighted average risk-free interest rates	4.2%	4.3%	N/A	3.1%
Expected dividend yield	0%	0%	N/A	0%

We recognized stock-based compensation expense during the year ended December 31, 2006 of $32,000 for employee stock options and $32,000 for non-employee stock options. Furthermore, $61,000 was recorded as a general and administrative expense while $3,000 was recorded as a research and development expense. We recognized stock-based compensation expense during 2007 of $1.0 million for employee stock options and $213,000 for non-employee stock options. Furthermore, $788,000 was recorded as a general and administrative expense while $468,000 was recorded as a research and

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

development expense. For the three months ended March 31, 2007 and 2008, we recognized stock-based compensation expense of $10,000 and $618,000 for employee stock options and $25,000 and $101,000 for non-employee stock options. Of these amounts, $32,000 and $418,000 was recorded as general and administrative expense while $3,000 and $301,000 was recorded as a research and development expense for the three months ended March 31, 2007 and March 31, 2008, respectively.

In January 2008, in connection with a termination agreement with a former employee, we modified the terms of the stock option agreement to extend the vesting period of unvested stock options and the post-termination exercise period for vested options. As a result of the modification of stock options, we recorded a stock-based compensation charge of $29,000 for the three months ended March 31, 2008 as an expense to research and development.

Common Stock

In connection with the acquisition of JFC, we issued to the former shareholders of JFC a total of 312,500 shares of common stock on the acquisition date in February 2005 and an additional 36,489 shares of common stock in February 2006 in relation to the achievement of predefined performance objectives.

In connection with the acquisition of BioCatalytics, we issued to the former shareholder of BioCatalytics a total of 963,423 shares of common stock in July 2007.

Warrants to Purchase Common Stock

In October 2005, in connection with a loan agreement (see Note 8), we issued to the lender a warrant to purchase 9,100 shares of our common stock at $0.70 per share. The warrant is exercisable until October 2012. The fair value of the warrant was determined to be $4,000 using the Black-Scholes option-pricing model. We will recognize the fair value of the warrant as additional interest expense over the term of the related debt. The assumptions used in calculating the fair value were as follows: a risk-free interest rate of 4.4%; an expected life of seven years; no dividend yield; and a volatility of 70%. The warrant was outstanding and exercisable at March 31, 2008.

In February 2004, in connection with a loan agreement (see Note 8), we issued to the lender a warrant to purchase 46,176 shares of our common stock at $0.40 per share. The warrant is exercisable until February 2011. The fair value of the warrant was determined to be $14,000 using the Black-Scholes option-pricing model. We will recognize the fair value of the warrant as additional interest expense over the term of the related debt. The assumptions used in calculating the fair value were as follows: a risk-free interest rate of 3.6%; an expected life of seven years; no dividend yield; and a volatility of 80%. The warrant was outstanding and exercisable at March 31, 2008.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Shares Reserved

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

	December 31, 2007	March 31, 2008 (unaudited)
Conversion of redeemable convertible preferred stock	32,330	32,330
Warrants to purchase redeemable convertible preferred and common stock	492	492
Stock options:		
Outstanding	9,032	9,820
Reserved for future grants	2,446	1,569
	44,300	44,211

13. Income Taxes

Our loss before provision for income taxes was as follows (in thousands):

	Years ended December 31,		
	2005	2006	2007
United States	$ 10,961	$ 18,142	$ 35,504
Foreign	386	656	3,881
Loss before provision for income taxes	$ 11,347	$ 18,798	$ 39,385

The tax provision (benefit) for 2005, 2006 and 2007, respectively, consist primarily of foreign tax withheld at source on royalties received from overseas and other taxes attributable to foreign operations. The components of the provision (benefit) for income taxes are as follows (in thousands):

	Years ended December 31,		
	2005	2006	2007
Current provision (benefit):			
Federal	$	$	$
State	2	3	4
Foreign	429	208	287
Total current provision	431	211	291

Deferred provision (benefit):

Federal	$	$	$ (131)
State			
Foreign	(188)	(338)	(568)
Total deferred (benefit)	(188)	(338)	(699)
Total provision (benefit)	$ 243	$ (127)	$ (408)

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

Reconciliation of the benefits for income taxes at the statutory rate to our provision for income taxes is as follows (in thousands):

	Years ended December 31,		
	2005	2006	2007
Tax benefit at federal statutory rate	$ (3,972)	$ (6,580)	$ (13,781)
State taxes	(597)	(859)	(1,827)
Research and development credits	(218)	(371)	(483)
Foreign operations taxes at different rates	(28)	(43)	1,047
Other nondeductible items	581	147	560
Change in valuation allowance	4,477	7,579	14,076
Provision (benefit) for income taxes	$ 243	$ (127)	$ (408)

Significant components of our deferred tax assets and liabilities are as follows (in thousands):

	December 31,	
	2006	2007
Deferred tax assets:		
Federal, state and foreign net operating loss carryforwards	$ 17,100	$ 24,213
Federal and state credits	1,152	1,635
Deferred contract revenues	2,416	8,945
Capitalized research and development	395	323
Other	1,900	2,472
Total deferred tax assets	22,963	37,588
Deferred tax liabilities:		
Acquired intangible assets	(983)	(913)
Total deferred tax liabilities	(983)	(913)
Valuation allowance	(22,817)	(36,893)
Net deferred tax assets (liabilities)	$ (837)	$ (218)

Realization of the deferred tax assets is dependent upon future taxable income, if any, the amount and timing of which are uncertain. Accordingly, the net deferred tax assets have been fully reserved by a valuation allowance. The net valuation allowance increased by $4.5 million, $7.6 million and $14.1 million during the years ended December 31, 2005, 2006 and 2007, respectively. At such time as it is determined that it is more likely than not that the deferred tax assets are realizable, the valuation allowance will be reduced. Deferred tax assets primarily relate to net operating loss carryforwards (NOLs).

As of December 31, 2007, we had federal NOLs of $58.3 million. We also had federal research and development tax credit carryforwards of $1.0 million. The federal NOLs will expire at various dates beginning in 2022 through 2027 if not utilized and the federal research and development tax credits will expire at various dates beginning in 2022 through 2027 if not utilized.

As of December 31, 2007, we had state NOLs of $55.3 million. We also had state research and development tax credit carryforwards of $1.0 million. The state NOLs will expire at various dates beginning in 2013 through 2027 if not utilized and the state research and development tax credits will not expire.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

As of December 31, 2007, we had foreign NOLs of $4.6 million, which do not expire.

Utilization of the NOLs and credits may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. Our existing NOLs and credits may already be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this public offering, our ability to utilize NOLs and credits could be further limited by Section 382 of the Internal Revenue Code. The annual limitation may result in the expiration of net operating losses and credits before utilization.

We have not recorded deferred income taxes applicable to undistributed earnings of a foreign subsidiary that are indefinitely reinvested in foreign operations. Undistributed earnings amounted to $900,000 at December 31, 2007. Generally, such earnings become subject to U.S. tax upon the remittance of dividends and under certain other circumstances. It is not practicable to estimate the amount of the deferred tax liability on such undistributed earnings.

We adopted the provisions of FIN 48 on January 1, 2007. As a result of the adoption, we recognized a $79,000 increase in the liability for unrecognized tax benefits, which was accounted for as an adjustment to deferred tax assets which was fully offset by a valuation allowance. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

January 1, 2007	$ 1,661
Additions based on tax positions related to 2007	1,137
Additions for tax positions of prior years	
Reductions for tax positions of prior years	
Lapse of the applicable statute of limitations	
Settlements	
December 31, 2007	$ 2,798

We recognize interest and penalties in income tax expense. Total interest and penalties recognized in the consolidated statement of operations and balance sheet was $49,000 in 2007. The total unrecognized tax benefits that, if recognized, would impact our effective tax rate are $288,000. We do not expect any unrecognized tax benefits to be recognized within the next 12 months. We are not subject to examination by U.S. federal or state tax authorities for years prior to 2002 and foreign tax authorities for years prior to 2006.

14. Segment Reporting

SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*, establishes standards for reporting information about operating segments. 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 revenue by geographic region, for purposes of allocating resources and evaluating financial performance. We have one business activity and there are no segment managers who are held accountable for operations, operating results beyond revenue goals or gross margins, or plans for levels or components below the consolidated unit level. Accordingly, we have a single reporting segment.

Table of Contents

Codexis, Inc.

Notes to Consolidated Financial Statements (Continued)

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

	Years Ended December 31,			Three Months Ended March, 31	
	2005	2006	2007	2007	2008
				(unaudited)	
Revenues					
Americas	$ 6,547	$ 7,933	$ 15,010	$ 3,225	$ 5,056
Europe	3,268	2,491	4,005	804	1,677
Asia	1,969	1,703	6,318	675	1,641
	$ 11,784	$ 12,127	$ 25,333	$ 4,704	$ 8,374

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

	December 31,		March 31,
	2006	2007	2008
			(unaudited)
Long-lived assets			
United States	$ 9,562	$ 14,760	$ 16,106
Europe	449	650	669
Asia	4	4,785	5,266
	$ 10,015	$ 20,195	$ 22,041

Table of Contents

Table of Contents

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. ***Other Expenses of Issuance and Distribution***

The following table sets forth the fees and expenses, other than underwriting discounts and commissions, payable in connection with the registration of the common stock hereunder. All amounts are estimates except the SEC registration fee, the FINRA filing fee and The Nasdaq Global Market listing fee.

SEC registration fee	$ 3,930
FINRA filing fee	10,500
Nasdaq Global Market listing fee	*
Blue Sky fees and expenses	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees	*
Miscellaneous expenses	*
Total	*

* To be provided by amendment.

Item 14. ***Indemnification of Directors and Officers***

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify its directors and officers from certain expenses in connection with legal proceedings and permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by this section.

The Registrant s amended and restated certificate of incorporation provides for the indemnification of directors to the fullest extent permissible under Delaware law.

The Registrant s amended and restated bylaws provide for the indemnification of officers, directors and third parties acting on the Registrant s behalf to the full extent permitted by Delaware law, which allows for indemnification if such persons act in good faith and in a manner reasonably believed to be in and not opposed to the Registrant s best interest, and, with respect to any criminal action or proceeding, such indemnified party had no reason to believe his or her conduct was unlawful.

The Registrant is entering into indemnification agreements with each of its directors and executive officers, in addition to the indemnification provisions provided for in its charter documents, and the Registrant intends to enter into indemnification agreements with any new directors and executive officers in the future.

The underwriting agreement (a form of this agreement to be filed as Exhibit 1.1 hereto) will provide for indemnification by the underwriters of the Registrant, the Registrant s executive officers and directors, and indemnification of the underwriters by the Registrant for certain liabilities, including liabilities arising under the Securities Act, in connection with matters specifically provided in writing by the underwriters for inclusion in the registration statement.

The Registrant intends to purchase and maintain insurance on behalf of any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in that capacity, subject to certain exclusions and limits of the amount of

coverage.

Table of Contents

Item 15. ***Recent Sales of Unregistered Securities***

Since March 31, 2005, the Registrant has issued and sold the following unregistered securities:

1. In October 2005, the Registrant issued a warrant to purchase an aggregate of 9,100 shares of its common stock at an exercise price of $0.70 per share to a certain lender to the Registrant. The warrant may be exercised at any time prior to its termination date, which is the 7th anniversary of its issue date.

2. In May 2006, the Registrant issued warrants to purchase an aggregate of 323,569 shares of its Series D convertible preferred stock at an exercise price of $3.97 per share to certain bridge lenders to the Registrant. The warrants may be exercised at any time prior to their respective termination dates, which are the 7th anniversaries of their issue dates.

3. In August and October 2006, the Registrant issued and sold 10,068,402 shares of Series D convertible preferred stock to venture capital funds and other investors at a per share price of approximately $3.97, for aggregate consideration of approximately $40.0 million. Upon completion of this offering, these shares of Series D convertible preferred stock will convert into 10,068,402 shares of the Registrant s common stock.

4. In November 2006, the Registrant issued a warrant to purchase an aggregate of 428,571 shares of its Series D convertible preferred stock at an exercise price of $7.00 per share to a certain strategic partner of the Registrant. In November 2007, the warrant was exercised and the Registrant issued and sold 428,571 shares of Series D convertible preferred stock to the holder for a purchase price of $2,999,997.00

5. In July 2007, the Registrant issued and sold 963,423 shares of common stock to the sole shareholder of BioCatalytics, Inc. as partial consideration for the Registrant s acquisition of BioCatalytics, Inc.

6. In July 2007, the Registrant converted a warrant issued by a newly-acquired subsidiary to its landlord into a warrant to purchase an aggregate of 3,577 shares of its common stock at an exercise price of $8.30 per share. The warrant may be exercised at any time prior to its termination date, which is the 10th anniversary of its issue date.

7. In September 2007, the Registrant issued warrants to purchase an aggregate of up to 109,091 shares of its Series D convertible preferred stock at an exercise price of $5.50 per share to certain lenders to the Registrant. The warrants may be exercised at any time prior to their respective termination dates, which are the 10th anniversaries of their issue dates.

8. In November and December 2007, the Registrant issued and sold 6,156,775 shares of Series E convertible preferred stock to venture capital funds and other investors at a per share price of approximately $8.50, for aggregate consideration of approximately $52.0 million. Upon completion of this offering, these shares of Series E convertible preferred stock will convert into 6,156,775 shares of the Registrant s common stock.

9. From March 31, 2005 through March 31, 2008, the Registrant granted stock options to purchase 8,487,675 shares of the registrant s common stock at exercise prices ranging from $0.60 to $7.00 per share to employees, consultants and directors of the Registrant under the Registrant s 2002 Stock Plan. Since January 1, 2005 through March 31, 2008, the Registrant had issued and sold an aggregate of 983,236 shares of its common stock to the Registrant s employees, consultants and directors at prices ranging from $0.40 to $1.63 per share pursuant to exercises of options granted under the Registrant s 2002 Stock Plan.

The issuance of securities described above in paragraphs (1) through (8) were exempt from registration under the Securities Act, in reliance on Section 4(2) of the Securities Act, and Regulation D

Table of Contents

promulgated thereunder, as transactions by an issuer not involving any public offering. The purchasers of the securities in these transactions represented that they were accredited investors and that they were acquiring the securities for investment only and not with a view toward the public sale or distribution thereof. Such purchasers received written disclosures that the securities had not been registered under the Securities Act, and that any resale must be made pursuant to a registration statement or an available exemption from registration. All purchasers either received adequate financial statement or non-financial statement information about the Registrant or had adequate access, through their relationship with the Registrant, to financial statement or non-financial statement information about the Registrant. The sale of these securities was made without general solicitation or advertising.

Each issuance of securities described above in paragraph (9) was exempt from registration under the Securities Act, in reliance on Section 4(2) of the Securities Act and Regulation D promulgated thereunder, as transactions by an issuer not involving a public offering, Regulation S promulgated under the Securities Act, as offers and sales made outside of the United States or Rule 701 of the Securities Act, pursuant to compensatory benefit plans or agreements approved by the Registrant s board of directors.

All certificates representing the securities issued in these transactions described in this Item 15 included appropriate legends setting forth that the securities had not been offered or sold pursuant to a registration statement and describing the applicable restrictions on transfer of the securities. There were no underwriters employed in connection with any of the transactions set forth in this Item 15.

Item 16. ***Exhibits and Financial Statement Schedules***

(a) Exhibits

Exhibit No.	Description
1.1*	Form of Underwriting Agreement.
3.1#	Sixth Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect.
3.2*	Form of Amended and Restated Certificate of Incorporation of the Registrant, to be in effect upon completion of the offering.
3.3#	Bylaws of the Registrant, as currently in effect.
3.4*	Form of Amended and Restated Bylaws of the Registrant, to be in effect upon completion of the offering.
4.1*	Form of the Registrant s Common Stock Certificate.
4.2#	Fourth Amended and Restated Investor Rights Agreement dated November 13, 2007.
4.3#	Form of Warrant to purchase shares of Common Stock issued in connection with the Loan and Security Agreement dated as of February 12, 2004.
4.4#	Warrant to purchase shares of Common Stock issued to Oxford Finance Corporation dated October 25, 2005.
4.5#	Form of Warrant to purchase shares of Series D preferred stock issued in connection with the Bridge Loan Agreement dated as of May 25, 2006.
4.6#	Form of Warrant to purchase shares of Series D preferred stock issued in connection with the Loan and Security Agreement dated as of September 28, 2007.
4.7*	Warrant to purchase shares of Common Stock issued to Alexandria Equities, LLC.
4.8#	Registration Rights Agreement dated February 11, 2005.

Table of Contents

Exhibit No.	Description
5.1*	Opinion of Latham & Watkins LLP.
10.1 Δ	Loan and Security Agreement with General Electric Capital Corporation and Oxford Finance Corporation dated September 28, 2007.
10.2 Δ	First Amendment to Loan and Security Agreement with General Electric Capital Corporation and Oxford Finance Corporation dated November 9, 2007.
10.3 Δ	License Agreement effective as of March 28, 2002, by and between Maxygen, Inc. and the Company.
10.4 Δ	Amendment No. 1 to License Agreement by and between Maxygen, Inc. and the Company effective as of September 13, 2002.
10.5#	Amendment No. 2 to License Agreement by and between Maxygen, Inc. and the Company effective as of October 1, 2002.
10.6 Δ	Amendment No. 3 to License Agreement by and between Maxygen, Inc. and the Company effective as of August 22, 2006.
10.7 #	Side Letter by and between Maxygen, Inc. and the Company re: the Maxygen License dated February 18, 2005.
10.8 Δ	Side Letter by and between Maxygen, Inc. and the Company re: the Maxygen License dated September 11, 2007.
10.9 Δ	Side Letter by and between Maxygen, Inc. and the Company re: the Maxygen License dated September 24, 2007.
10.10 Δ	Amended and Restated Collaborative Research Agreement effective November 1, 2006, by and between Equilon Enterprises LLC dba Shell Oil Products US and the Company.
10.11 Δ	Amended and Restated License Agreement by and between Equilon Enterprises LLC dba Shell Oil Products US and the Company effective as of November 1, 2007.
10.12 Δ	Agreement effective August 1, 2006 by and between the Company and Arch Pharmalabs, Ltd.
10.13 Δ	Supply Agreement effective August 1, 2006 by and between the Company and Arch Pharmalabs, Ltd.
10.14 Δ	Enzyme License and Supply Agreement effective August 1, 2006 by and between the Company and Arch Pharmalabs, Ltd.
10.15 Δ	Master Services Agreement effective August 1, 2006 by and between the Company and Arch Pharmalabs, Ltd.
10.16#	Lease Agreement dated February 1, 2004 by and between Metropolitan Life Insurance Company and the Company.
10.17#	Amendment to Lease Agreement by and between Metropolitan Life Insurance Company and the Company dated June 1, 2004.
10.18#	Amendment to Lease Agreement by and between Metropolitan Life Insurance Company and the Company dated March 9, 2007.
10.19#	Amendment to Lease Agreement by and between Metropolitan Life Insurance Company and the Company dated March 31, 2008.
10.20#	Loan and Security Agreement dated February 12, 2004 by and between the Company and Lighthouse Capital Partners V, L.P.

Table of Contents

Exhibit No.	Description
10.21#	Master Security Agreement effective October 25, 2005 by and between the Company and Oxford Finance Corporation.
10.22#	Codexis, Inc. 2002 Stock Plan, as amended, and Form of Stock Option Agreement.
10.23*	Codexis, Inc. 2008 Incentive Award Plan and Form of Stock Option Agreement.
21	List of Subsidiaries.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2*	Consent of Latham & Watkins LLP (included in Exhibit 5.1).
24.1#	Power of Attorney (contained on signature page).

* To be filed by amendment.
\# Previously filed.
Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the SEC.
Δ The Registrant is re-filing this exhibit to the Registrant s Form S-1 originally filed on April 14, 2008 to include certain previously omitted portions in the agreement. The Registrant has made no other changes to the previously filed agreement.

(b) Financial Statement Schedules

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. ***Undertakings***

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933, as amended, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933, as amended, and will be governed by the final adjudication of such issue.

The Registrant hereby undertakes that:

(a) The Registrant will provide to the underwriters at the closing as specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

(b) For purposes of determining any liability under the Securities Act of 1933, as amended, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act of 1933, as amended, shall be deemed to be part of this registration statement as of the time it was declared effective.

(c) For the purpose of determining any liability under the Securities Act of 1933, as amended, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Amendment No. 1 to the Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Redwood City, State of California, on the 4th day of August, 2008.

CODEXIS, INC

By: /s/ ALAN SHAW
Alan Shaw

President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Amendment No. 1 to the Registration Statement has been signed by the following persons in the capacities indicated below on the 4th day of August, 2008.

Signature	Title	Date
/s/ ALAN SHAW Alan Shaw	President and Chief Executive Officer, Director (Principal Executive Officer)	August 4, 2008
/s/ ROBERT BREUIL Robert Breuil	Chief Financial Officer (Principal Financial and Accounting Officer)	August 4, 2008
* Thomas Baruch	Chairman of the Board of Directors	August 4, 2008
* Russell Howard	Director	August 4, 2008
* Bernard J. Kelley	Director	August 4, 2008
* Bruce Pasternack	Director	August 4, 2008
* William Rothwell	Director	August 4, 2008
* Dennis Wolf	Director	August 4, 2008

*By: /s/ ALAN SHAW
Alan Shaw
Attorney-in-Fact

Table of Contents

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