As filed with the Securities and Exchange Commission on April 10, 2006

Registration No. 333-

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

PERLEGEN SCIENCES, INC.

(Exact name of Registrant as specified in its charter)

Delaware	8071	77-0556076
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

2021 Stierlin Court
Mountain View, CA 94043-4655
(650) 625-4500

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

Bradley A. Margus
President and Chief Executive Officer
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(650) 625-4500

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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. ☐

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price (1)(2)	Amount of Registration Fee
Common Stock, par value $0.001	$115,000,000	$12,305

(1) In accordance with Rule 457(o) under the Securities Act of 1933, the number of shares being registered and the proposed maximum offering price per share are not included in this table.

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

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.

PROSPECTUS Subject to Completion, dated April 10, 2006

Shares

Common Stock

This is an initial public offering of shares of common stock by Perlegen Sciences, Inc. We are offering shares of common stock. We anticipate the initial public offering price will be between $ and $ per share.

We expect our common stock to be quoted on The NASDAQ National Market under the symbol ''PERL.''

Investing in our common stock involves risks. See ''Risk Factors'' beginning on page 6 of this prospectus.

	Per Share	Total
Initial Public Offering Price	$	$
Underwriting Discounts	$	$
Proceeds to Perlegen Sciences, Inc. (before expenses)	$	$

We have granted the underwriters a 30-day option to purchase up to an additional shares from us on the same terms and conditions as set forth above if the underwriters sell more than shares of common stock in this offering.

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

Deutsche Bank Securities, on behalf of the underwriters, expects to deliver shares on or about , 2006.

Lehman Brothers Deutsche Bank Securities

Piper Jaffray Allen & Company LLC

, 2006

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You should rely only on the information contained in this prospectus. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information you should not rely on it. We are not and the underwriters are not making an offer to sell these securities in any jurisdiction where an offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate as of the date on the front cover of this prospectus only, regardless of the time of delivery of this prospectus or of any sale of our common stock. Our business prospects, financial condition and results of operations may have changed since that date.

No action is being taken in any jurisdiction outside of the United States to permit a public offering of the common stock or possession or distribution of this prospectus in that jurisdiction. Persons who come into possession of this prospectus in any jurisdiction outside of the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus applicable to that jurisdiction.

DEALER PROSPECTUS DELIVERY OBLIGATION

Until , 2006, all dealers that effect transactions in these securities whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter with respect to any unsold allotments or subscriptions.

SUMMARY

The items in the following summary are described in more detail later in this prospectus. This summary provides an overview of selected information and does not contain all of the information you should consider. Therefore, you should also read the more detailed information set out in this prospectus, including the financial statements and the related notes appearing elsewhere in this prospectus. References in this prospectus to ''we,'' ''us'' and ''our'' refer to Perlegen Sciences, Inc. and its subsidiaries unless the context requires otherwise.

Our Business

We are a biopharmaceutical company developing genetically targeted medicines. Our mission is to get the right drugs to the right patients. We believe that genetically targeted medicines hold the promise of significantly improving patient care in a wide range of therapeutic areas including metabolic, cardiovascular, central nervous system and inflammatory diseases. We have begun building our own drug pipeline, and are actively seeking to expand it. Our pipeline currently consists of targeted drug candidates addressing two large markets: type II diabetes and dyslipidemia (cholesterol and fat imbalance).

Each of the drug candidates in our pipeline has demonstrated efficacy and safety in a material subset of patients in Phase II or later clinical trials. We intend to improve the therapeutic profile of these drugs and bring them to market by genetically targeting them to those patients most likely to benefit. This improvement may also enable new and expanded markets for these drugs, not achievable in the absence of targeting. We believe our leadership in genetic analysis, and our expertise in applying genetics to clinical development, will be critical to our success in developing targeted medicines.

We have built one of the world's leading genetic analysis capabilities. Having processed over 70,000 human DNA samples and analyzed several billion genetic variations, we have developed an advanced understanding of the role of genetics in drug response and disease. We believe we have conducted the largest genetic association studies in the world and that we have completed more such studies than any other organization. The result of these studies is the identification of specific patterns of genetic variations called SNPs (pronounced ''snips'') that are predictive of drug response, disease and other traits of interest.

Our leadership position in genetics has been strongly validated by the numerous milestones we have achieved and the multiple collaborations we have established with industry leaders. We believe that we were the first company in the world to discover the genome-wide structure of common genetic variation by comparing many copies of the human genome. In addition, we contributed the majority of the data to the International HapMap Consortium, the successor to the Human Genome Project. We believe that we were the first to develop the ability to perform genetic studies utilizing hundreds of thousands, and in some cases millions, of SNPs to more comprehensively identify the genetic basis of drug response and disease. We have entered into collaborations with eight of the world's leading pharmaceutical companies, most of whom have entered into repeat collaborations with us. Two of these companies, Pfizer and Eli Lilly, made equity investments in us. We have also entered into a number of collaborations with leading academic and governmental organizations across a breadth of areas. Our collaborations have generated approximately $69 million in revenue through December 31, 2005, which has helped finance the continued development of our genetics expertise and drug pipeline.

Our Opportunity

The current one-size-fits-all model of prescribing medicines, without knowing in advance which patients are likely to benefit, results in ineffective treatment and unnecessary costs. Despite widespread recognition of patient-to-patient variability in drug response, physicians typically cannot anticipate which of their patients will benefit most, which will not benefit at all, and which will experience adverse events upon exposure to a given medication. Many medicines that in development show promise in a subset of patients are ultimately

never approved. In some cases, the efficacy and safety of these compounds would have been superior to existing marketed products for a subset of the trial population.

We believe that we can use genetics to better target drugs to appropriate patient populations through the use of a diagnostic test coupled with a drug. We believe targeted medicines will improve the efficacy and safety profile of certain therapeutics in targeted patients, improve clinical trial outcomes, optimize dosage, accelerate identification of appropriate treatment, reduce healthcare spending, and provide other significant benefits.

Our Solution

We are able to screen millions of SNPs across the entire genome to match specific SNP patterns with drug response to enable the development and commercialization of targeted medicines.

We believe the benefits of our solution include:

- The most comprehensive practical genetic approach available today;
- Flexible selection of SNPs that best match the populations under investigation;
- Integrated large-scale analysis to rapidly assess the viability of targeting individual drug compounds;
- An advanced understanding of the role of genetic variation in drug response and disease; and
- Competencies integrating genetic analysis and clinical development.

Our Strategy

Our strategy is to develop and commercialize targeted therapeutics on our own and in partnership with pharmaceutical companies. Specific elements of our strategy are to:

- *Develop targeted therapeutics that address significant markets with unmet medical needs.* We are currently addressing significant markets with unmet medical needs such as metabolic and cardiovascular diseases. We intend to expand our focus into other large market areas, including central nervous system and inflammatory diseases, where we believe targeting of medicines can provide substantial benefit to patients.
- *Pursue compounds with demonstrated efficacy.* We will selectively in-license and pursue compounds that have already demonstrated efficacy and safety in a material subset of patients in Phase II or later clinical trials.
- *Move our products directly into late-stage clinical trials after identifying clinically useful genetic information.* We will first conduct genetic analysis of patient DNA samples to determine the potential of genetically targeting the drug candidates. For those drug candidates that show the greatest promise, we will initiate late-stage clinical trials.
- *Develop proprietary diagnostic tests and ensure their broad availability.* We expect that each drug we develop will be associated with a proprietary diagnostic test to better inform physicians of their patients' expected response. Given the chronic nature of the illnesses our products are expected to treat, we intend to make our diagnostics broadly available to enable more patients to begin appropriate therapy with our drugs.
- *Partner with pharmaceutical companies to accelerate the adoption of targeted medicines.* We partner with pharmaceutical companies to accelerate the process of getting the right drugs to the right patients and to broaden our ability to participate in attractive targeted medicine opportunities. This approach may involve applying our genetics expertise to our partners' therapeutic products. We may also seek to apply our partners' commercialization expertise to our targeted therapeutics. These collaborations may

also enable us to identify, earlier than would otherwise be possible, drug candidates that may be suitable for targeting and licensing.

- *Develop integrated competencies for targeted medicine.* We are building a combination of genetic and clinical competencies to sustain our competitive advantage in targeting medicines.

Our Products

We have begun building our targeted medicine pipeline which currently consists of two lead candidates for large market indications where we expect genetic targeting will address significant unmet medical needs:

Targeted Therapeutic	Indication	Development Phase	Potential Market
PGX-510 (netoglitazone)	Type II Diabetes	*Pre-Phase III* Phase IIb trials completed. Pending satisfactory completion of genetic analysis, Phase III trials can be initiated.	Worldwide (ex-Asia)
PGX-510 (netoglitazone)	Type II Diabetes with Dyslipidemia	*Pre-Phase II* High dose formulation underway. Pending satisfactory completion of genetic analysis and formulation, Phase II trials can be initiated.	Worldwide (ex-Asia)
PGX-520 (bezafibrate)	Dyslipidemia	*Pre-Phase III* Non-targeted versions of bezafibrate currently marketed by others in Europe, Canada and elsewhere. Our formulation of the same dose is underway. Pending satisfactory completion of genetic analysis, formulation and discussion with the FDA, Phase III trials can be initiated.	United States

We are currently conducting multiple large-scale genetic studies to enable our lead candidates to be targeted to patients on the basis of improved efficacy, enhanced safety, or both. Contingent upon finding genetically useful data, we intend to initiate late-stage clinical trials for each lead candidate pending discussions with the FDA.

Risks Associated With Our Business

Our business is subject to numerous risks, as more fully described in the section titled ‘‘Risk Factors.’’ We may be unable, for many reasons, including those that are beyond our control, to implement our current business strategy. Those reasons could include failure to establish clinically useful genetic information for our drug candidates, failure of our drug candidates and associate diagnostics to meet regulatory requirements, failure to maintain and to protect our intellectual property, and an inability to identify suitable new compounds.

We currently have only two compounds in development, and no commercialized products. We have incurred $153.1 million in cumulative net losses since our inception in 2001, and we expect losses to continue for the foreseeable future. Our net loss for the year ended December 31, 2005, was $21.9 million.

Even if our drug candidates succeed in clinical trials, we would not be in position to begin commercialization of products in the next several years. All of our product candidates have yet to be tested by us in Phase III clinical trials. We are unable to predict the extent of future losses or when we will become profitable, if at all. Even if we succeed in developing and commercializing products, we may never generate sufficient product revenues to achieve and sustain profitability.

Corporate Information

We were incorporated as a subsidiary of Affymetrix, Inc. in Delaware in September 2000 and began operations as a separate company in March 2001. Our principal executive offices are located at 2021 Stierlin Court, Mountain View, CA 94043-4655. Our telephone number is (650) 625-4500. Our website is located at www.perlegen.com. The information contained on our website is not a part of this prospectus.

The Offering

Common stock offered by us	shares
Common stock outstanding after this offering	shares
Estimated initial public offering price per share	$ to $
Use of proceeds	We intend to use the net proceeds received by us from this offering for the development of our targeted medicine candidates, genetics research and development, working capital and general corporate purposes, including potential acquisitions of drug or diagnostic product candidates, technologies or companies that complement our business. See ''Use of Proceeds.''
Proposed NASDAQ National Market symbol	PERL

The number of shares of common stock that will be outstanding after this offering is based on shares outstanding as of , and:

- excludes shares issuable upon the exercise of outstanding options at a weighted-average exercise price of approximately $ per share; and
- excludes shares reserved for issuance upon the exercise of options available for grant under our 2006 Equity Incentive Plan.

Unless otherwise indicated, all information in this prospectus assumes:

- a -for- reverse split of our common stock;
- the conversion of all shares of outstanding preferred stock into shares of our common stock;
- the underwriters do not exercise their over-allotment option; and
- the adoption of our amended and restated certificate of incorporation and bylaws.

Summary Consolidated Financial Data

The following table presents summary historical consolidated and unaudited pro forma as adjusted financial data. We derived the summary consolidated statements of operations data for the years ended December 31, 2003, 2004 and 2005 and the summary consolidated balance sheet data as of December 31, 2005 from our audited consolidated financial statements and notes thereto that are included elsewhere in this prospectus. Our historic results are not necessarily indicative of the operating results that may be expected in the future. You should read this data together with our consolidated financial statements and related notes included elsewhere in this prospectus and the information under ''Selected Consolidated Financial Data'' and ''Management's Discussion and Analysis of Financial Condition and Results of Operations.''

	Years Ended December 31,		
	2003	2004	2005
	(in thousands, except per share data)		
Consolidated Statements of Operations Data			
Revenue			
Contract revenue	$ 2,938	$ 22,839	$ 23,344
Research revenue	239	2,965	15,842
Royalty revenue from Affymetrix	10,792	1,966	1,278
Total revenue	13,969	27,770	40,464
Costs and expenses:			
Cost of contract revenue[1]	2,487	17,152	17,032
Research and development[2]	25,103	16,444	33,589
Selling, general and administrative	7,362	9,789	13,209
Total costs and expenses	34,952	43,385	63,830
Loss from operations	(20,983)	(15,615)	(23,366)
Interest income	526	238	1,648
Interest and other expense	(46)	(77)	(36)
Loss before income taxes	(20,503)	(15,454)	(21,754)
Income tax provision	—	—	(102)
Net loss	$(20,503)	$(15,454)	$(21,856)
Net loss per common share, basic and diluted	$	$	$
Shares used in calculating net loss per common share, basic and diluted[4]			
Pro forma net loss per share, basic and diluted (unaudited)			$
Weighted average shares used in calculating pro forma, basic and diluted (unaudited)[4]			

	As of December 31, 2005	
	Actual	Pro Forma as adjusted[3]
	(in thousands)	
Consolidated Balance Sheet Data		
Cash, cash equivalents and short-term investments	$ 106,831	$
Working capital	103,152	
Total assets	129,624	
Convertible preferred stock	257,192	
Accumulated deficit	(153,125)	
Total stockholders' equity (deficit)	(149,158)	

[1] Cost of contract revenue includes $0.4 million, $7.1 million and $5.6 million of expenses related to Affymetrix, a related party, for the years ended December 31, 2003, 2004 and 2005, respectively.

[2] Research and development expense includes $9.2 million, $0.4 million and $4.6 million of expenses related to Affymetrix, a related party, for the years ended December 31, 2003, 2004 and 2005, respectively.

[3] On a pro forma basis to reflect the conversion of all our outstanding convertible preferred stock into shares of common stock immediately prior to the completion of this offering, as adjusted by the receipt of net proceeds from the sale of shares of common stock offered by us at an assumed initial public offering price of $ per share, the mid-point of the range on the front cover of this prospectus, after deducting underwriting discounts and estimated offering expenses.

[4] See Note 1 of the notes to consolidated financial statements for an explanation of the determination of the number of shares used to compute basic and diluted net loss per share.

RISK FACTORS

An investment in our common stock offered by this prospectus involves a substantial risk of loss. You should carefully consider these risk factors, together with all of the other information included in this prospectus, before you decide to purchase shares of our common stock. We believe the risks and uncertainties described below are the most significant we face. The occurrence of any of the following risks could harm our business. In that case, the trading price of our common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our operations.

Risks Related to our Limited History of Operations

We are an early stage company with a history of losses, and we expect to incur net losses for the foreseeable future.

We have incurred substantial net losses since our incorporation in September 2000. For the years ended December 31, 2003, 2004 and 2005, we had net losses of approximately $20.5 million, $15.5 million and $21.9 million, respectively. Through December 31, 2005, we had an accumulated deficit of approximately $153.1 million. To date, we have been, and expect to remain for the next four to five years, mostly in a research and development stage. Since our inception, we have not generated enough revenue to offset operating expenses, mainly due to our substantial research and development expenses, which were approximately $25.1 million, $16.4 million and $33.6 million for the years ended December 31, 2003, 2004, and 2005, respectively. We also have made, and expect to continue to make for at least the next several years, significant expenditures for the in-licensing and development of drug candidates, as well as for the development of our genetic analysis technology and analytical capabilities, which expenditures are accounted for as research and development expenses. Development of one or more of our current drug candidates and associated diagnostic tests will not likely lead to commercialization in the next several years, and we expect to continue to incur substantial losses for the foreseeable future, and we may never become profitable. We anticipate that our expenses will increase substantially in the foreseeable future as we:

- continue to collect DNA samples and analyze them for genetic variations;
- develop diagnostic tests to identify patients that we believe will likely experience the greatest therapeutic benefit from our drug candidates with the fewest possible adverse events;
- if successful, conduct late-stage clinical trials for our drug candidates and associated diagnostic tests;
- seek regulatory approvals for our drug candidates and associated diagnostic tests;
- develop, formulate, manufacture and commercialize our drug candidates and associated diagnostic tests either independently or with partners;
- pursue, acquire or in-license additional compounds, products or technologies, or expand the use of our technology;
- maintain, defend and expand the scope of our intellectual property; and
- hire additional personnel.

We will need to generate significant revenues to achieve and maintain profitability. If we cannot successfully develop, obtain regulatory approval for and commercialize our drug candidates and our associated diagnostic tests, we will not be able to generate such revenues or achieve profitability in the future. Our failure to achieve or maintain profitability would have a material adverse impact on the market price of our common stock.

Our limited operating history may make it difficult for you to evaluate our business and to assess our future viability.

Our operations to date have been limited to organizing and staffing our company, acquiring, developing and securing our technology, conducting large scale genetic studies, DNA sample collection, development of our drug formulations, preclinical studies and early-stage clinical trials of our drug candidates. We have not demonstrated our ability to validate genetic associations between our drug candidates and drug response or disease development, succeed in achieving clinical endpoints, obtain regulatory approvals, formulate and manufacture products on a commercial scale or conduct sales and marketing activities. Consequently, any 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.

Risks Related to our Business

We currently do not have any drugs or diagnostics for sale, and if we are unable to obtain marketing approval for our products, we may never generate product revenues.

To date, our revenues have been derived principally from research and development collaborations and from contracts involving genetic analyses. We have never generated revenues from sales of drug products or diagnostics and we cannot guarantee that we will ever have marketable drugs or associated diagnostic tests. Before proceeding with clinical trials, we will focus on establishing a genetic association between our drug candidates and patient response in a genetically targeted subset of the patient population. If successful, we will then begin late-stage clinical trials. We must demonstrate that our drug candidates satisfy rigorous standards of safety and efficacy before the U.S. Food and Drug Administration, or FDA, and other regulatory authorities in the United States and abroad. In addition, to compete effectively, our drugs and their associated diagnostics must be easy to use, cost-effective and economical to manufacture on a commercial scale. We may not achieve any of these objectives. PGX-510 (netoglitazone) for type II diabetes and PGX-520 (bezafibrate) for dyslipidemia, which comprise our lead drug candidate programs, are pre-Phase III, while PGX-510 for type II diabetes with dyslipidemia, our other drug candidate program, is pre-Phase II. We cannot be certain that the clinical development of these or any other drug candidates that we may in-license or develop in the future will be successful, that they will receive the regulatory approvals required to commercialize them, or that any of our other in-licensing efforts will yield a drug candidate suitable for entry into clinical trials. Our commercial revenues from sales of drugs or diagnostics will be derived from sales of products that we do not expect to be commercially available for at least the next several years, if at all.

We can provide no assurance that any particular genetic associations we have identified will prove to be sufficient indicators of drug response.

It is generally believed that most human traits, including drug response, are caused by numerous genetic and environmental factors. We do not focus on environmental factors; instead, we study genetic factors through the analysis of DNA and specifically SNPs. If our assumption about the correlation between SNPs in predicting drug response is wrong, we may not succeed in commercializing our drug candidates or associated diagnostics. If the trait of interest is due primarily to environmental causes, our genetic approach is unlikely to be successful. Additionally, if the genetic factors responsible for the trait are dispersed in hundreds or thousands of locations across the genome, our current technology and approach may be unable to identify sufficient genetic factors to make an impact, or may require an untenably large number of DNA samples to identify sufficient genetic factors. In other cases, we may succeed in identifying significant genetic associations, but the requirement for achieving clinical, regulatory, and commercial success might exceed the utility of these associations. We can provide no assurance that we will be able to identify the correct genetic factors or a sufficient number of genetic factors for any given trait to enable the creation of therapeutic or diagnostic products that will meet clinical, commercial or regulatory requirements.

Once we have identified genetic factors associated with a trait of interest, in many cases we will be required to prospectively demonstrate their predictive utility in a clinical trial. To date, we have not yet conducted prospective clinical trials to validate any of our genetic associations and, to our knowledge, our

partners have not validated any of our genetic associations. As a result, there can be no assurance that we will be able to utilize our genetic discoveries to develop products that have adequate commercial potential.

We can provide no assurance that we will be able to identify sufficient genetic indicators of drug response for our lead product candidates, PGX-510 and PGX-520.

While we are currently conducting genetic analysis of DNA samples for our lead drug candidates — PGX-510 for type II diabetes, PGX-510 for type II diabetes with dyslipidemia and PGX-520 for dyslipidemia — for efficacy and safety, if we fail to identify the correct genetic factors or a sufficient number of these factors, we may not proceed with prospective clinical trials for these drug candidates. Even if we succeed in identifying sufficient genetic factors, our prospective clinical trials may fail to validate the utility of these genetic factors in predicting efficacy or safety for our drug candidates. As a result, there can be no assurance that we will be able to successfully develop and commercialize PGX-510 or PGX-520, or any other drugs that we may seek to develop, as genetically targeted drugs.

We have limited experience in developing drugs and diagnostics. New drug and diagnostic development involves a lengthy and complex process, and we may be unable to commercialize any of the products we develop.

We have limited experience in developing drugs. Before we can develop diagnostic tests and commercialize any new products, we will need to:

- collect and analyze DNA samples;
- conduct high-density whole genome association studies to discover and replicate the relationship between genetic variations in the DNA samples and therapeutic response;
- undertake clinical trials to validate the efficacy, safety, toxicology, pharmacology, pharmacokinetics and other aspects of our drug candidates, and predictiveness of any related diagnostic tests;
- expend significant resources;
- maintain and expand our intellectual property rights;
- obtain marketing approvals from the FDA and other regulatory approvals; and
- find collaborative partners with manufacturing and commercial capabilities for our current and future drug candidates and related diagnostics.

The process of developing new drugs and diagnostic tests takes several years. Our product development efforts may fail for many reasons, including:

- the failure of products in the research and development stage;
- the high cost of clinical trials and our lack of financial and other resources;
- the inability to locate partners with sufficient resources to assist in conducting clinical trials; and
- the lack of clinical validation data to support the effectiveness of our products.

Success in early clinical trials often is not replicated in later studies, and few research and development projects result in commercial products. At any point, we may abandon development of a product candidate or we may be required to expend considerable resources repeating clinical trials, which would adversely impact the timing for revenues from those product candidates. In addition, as we develop products, we may partner with third parties or be required to make significant investments in product development, and marketing and selling resources. If a clinical validation study fails to demonstrate the prospectively defined endpoints of the study, we may abandon the development of the product or product feature that was the subject of the clinical trial, which could harm our business.

Our operations may be affected by unexpected problems frequently encountered in connection with the development and transition to other technologies and by the competitive environment in which we operate.

Even if we are successful in establishing genetic associations and validating them through clinical trials, there is no guarantee that we will be successful in our product development efforts. Even if we develop products for commercial use, these products may not be accepted by the research, diagnostic, medical and pharmaceutical marketplaces or be capable of being offered at prices that will enable us to become profitable. There can be no assurance that our products will ultimately prove to be useful for commercial markets, meet applicable regulatory standards, or be successfully marketed.

We do not have our own drug or diagnostic manufacturing capacity, and anticipate reliance on partnering arrangements or third-party manufacturers for the development and commercialization of our potential drugs and associated diagnostics.

We do not currently operate manufacturing facilities for clinical or commercial production of our drug candidates or associated diagnostics. We have no experience in drug formulation or manufacturing, the production of diagnostic tests or commercial analysis of diagnostic data, and we lack the resources and the capabilities to manufacture any of our drug candidates or to produce associated diagnostic tests on a clinical or commercial scale. As a result, we expect to partner with third parties to manufacture and distribute our drugs and associated diagnostic tests or rely on contract manufacturers to supply, store and distribute drug supplies for our clinical trials and manufacture our diagnostic tests. Any performance failure on the part of our commercial partners or future manufacturers could delay clinical development or regulatory approval of our drug candidates or commercialization of our drugs, producing additional losses and reducing the potential for product revenues.

Our drug candidates and associated diagnostics will require precise, high quality manufacturing. The failure to achieve and maintain high manufacturing standards, including the incidence of manufacturing errors, could result in misdiagnosis, patient injury or death, product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that could seriously hurt our business. Contract manufacturers and partners often encounter difficulties involving production yields, quality control and quality assurance, as well as shortages of qualified personnel. These manufacturers and partners are subject to ongoing periodic unannounced inspection by the FDA, and if they manufacture or work with controlled substances, by the U.S. Drug Enforcement Agency, or DEA, and corresponding state agencies to ensure strict compliance with current Good Manufacturing Practice, or GMP, and other applicable government regulations and corresponding foreign standards; however, we do not have control over third-party compliance with these regulations and standards. If one of our manufacturers or partners fails to maintain compliance, the production of our drug candidates or associated diagnostic tests could be interrupted, resulting in delays, additional costs and potentially lost revenues. In addition, if the FDA or other regulatory agencies approve any of our drug candidates for commercial sale, we will need to manufacture them in larger quantities. Significant scale-up of manufacturing may require additional validation studies, which the FDA must review and approve. If we are unable to successfully increase the manufacturing capacity for a drug candidate or develop or maintain the capability to produce diagnostics, the regulatory approval or commercial launch of any related drugs may be delayed or there may be a shortage in supply and our business may be harmed as a result.

Commercialization of our drug candidates will be conditioned upon the genetic screening of patients through an associated diagnostic test. If we are unable to develop diagnostic tests with the ability to efficiently and accurately analyze genetic predisposition of patients to respond to our drug candidates, our drugs may not be commercially viable. We currently intend to partner with a third party to contract for the production of our diagnostic tests and the subsequent analysis of patient data, but we can provide no assurance that we will succeed in locating a qualified and suitable partner.

Our strategy of focusing on development of late-stage drug candidates may not succeed or may give rise to disputes over intellectual property or other issues.

Our strategy of focusing on the development of drug candidates discovered by third parties generally requires us to enter into license agreements with such third parties, unless the underlying compounds are off-patent, in which case the level of commercial protection offered is less secure. In addition, we may enter into

partnering agreements with larger companies to help us bring our products to market. Such agreements are generally complex and contain provisions that could give rise to legal disputes. Such disputes can delay the development of potential new drug products, or can lead to lengthy, expensive litigation or arbitration. Other factors relating to in-licensing and partnering agreements may adversely affect the success of our drug candidates, including:

- the development of parallel products by licensors, partners or by a competitor;
- arrangements with partners that limit or preclude us from developing certain products or technologies;
- premature termination of a partnering agreement; or
- failure by a partner or licensor to devote sufficient resources to the development of our potential products.

We may not succeed at in-licensing drug candidates or technologies to expand our product pipeline.

We may not successfully in-license drug candidates or technologies to expand our product pipeline. The number of such candidates or technologies may be limited. Competition among pharmaceutical companies and biopharmaceutical companies for promising drug candidates or technologies may intensify in the future as these companies learn how to use genetic analysis and diagnostic tools to target existing marketed drugs or develop new compounds, in-license compounds and expand their product pipelines.

Developments by competitors may render our products or technologies obsolete or non-competitive.

For the development and commercialization of therapeutics, we compete with major pharmaceutical, biotechnology companies and other entities with access to genetic targeting technologies. Many organizations competing with us have substantially greater capital resources, larger research and development staffs and facilities, greater experience in drug development and in obtaining regulatory approvals and greater manufacturing and marketing capabilities. There can be no assurance that they will not succeed in developing technologies, products and services that are more effective than those developed by us or that would render our technologies and products obsolete. Our competitors may market less expensive or more effective drugs that would compete with our product candidates or reach the market with competing drugs before we are able to obtain market approval and acceptance for our drug candidates.

Our business benefits from access to and the constant development of new technologies. Competition from analytic instrumentation, biotechnology and pharmaceutical companies is intense and is expected to increase. If we are unable to compete successfully against current or future competitors, we may be unable to obtain market acceptance for any drug or diagnostic products that we create, which could prevent us from generating revenues or achieving profitability and could cause the market price of our common stock to decline.

Traditional barriers to entry in the field of targeted medicines include the expertise and equipment to quickly and efficiently perform the large-scale genetic analysis required to conduct high-density whole genome association studies. The cost of genetic analysis is continuing to decline, and there is no guarantee that we will retain our competitive advantage in this environment. Our knowledge regarding SNPs and haplotypes that had previously distinguished us may no longer be a distinguishing point. Alternative approaches to predicting drug response and disease may prove to be more effective than our genetic approach. Recently, two companies, Affymetrix and Illumina, Inc., have announced the launch of products designed to detect genetic variations in many hundreds of thousands of SNPs in individual DNA samples. These products, and subsequent generations of similar products, will increasingly enable others to compete with us for research collaboration projects or enable pharmaceutical companies and others to perform large-scale genetic analysis internally.

We rely on a sole supplier for microarrays and may not be able to obtain alternative components in the event our sole supplier no longer provides us with these materials.

We currently rely solely on Affymetrix, our largest stockholder, to supply the microarrays, including both chips and whole wafers, that we use to conduct our genetic analyses. We believe that there are relatively few manufacturers other than Affymetrix that are currently capable of supplying the microarrays necessary for us to conduct our internal research and development studies and fulfill the requirements of the collaboration agreements into which we have entered. Even if we are able to identify other suppliers, there can be no assurance that we will be able to enter into agreements with such suppliers on a timely basis or on acceptable terms, if at all. Alternative sources of supply may be limited by our supply agreement with Affymetrix, which prohibits us from purchasing certain products from third parties that may infringe on Affymetrix's intellectual property. If we should encounter delays or difficulties in securing from Affymetrix the quality and quantity of microarrays we require in order to continue to conduct our genetic analyses and abide by the terms of our collaboration agreements, we may be unable to generate significant revenues and may breach the terms of our contracts, resulting in the loss of upfront, milestone or royalty payments. In addition, since our supply agreement with Affymetrix does not contain a fixed price for its product, if Affymetrix's cost of producing microarrays increases, it may increase the price of microarrays supplied to us which may adversely affect our operations and financial results. If, for any reason, Affymetrix is unable to continue to produce or supply these microarrays, there is currently no alternative source of supply for such microarrays, and our business and ability to generate significant revenue may be adversely affected. Since inception, we have had the exclusive ability to have custom-designed, high-density microarray whole-wafers manufactured by Affymetrix for our use in our area of interest. The exclusivity provisions of our supply agreement with Affymetrix expired on March 30, 2006, and we can provide no assurance that third party access to custom-designed, high-density microarray whole-wafers manufactured by Affymetrix will not negatively impact our supply or market position.

Our obligations to transfer of technology to Affymetrix may facilitate competition by Affymetrix or others in the future.

We have agreed to assign or license certain intellectual property to Affymetrix including all patents and patent applications relating to probe array design and manufacturing. Further, we have agreed to license to Affymetrix on a worldwide, non-exclusive, royalty-free basis, all patent claims that directly relate to certain probe array assay techniques and software analysis, certain assays and associated primers, rights to the use of certain SNPs and other improvements in Affymetrix products and processes that we discover. These arrangements may enable Affymetrix over time to supply intellectual property that we have created to certain potential competitors of ours and, eventually, to compete with us itself. If we experience increased competition because of this transfer of intellectual property, we may experience a decline in revenue as a result.

Our research and development activities will be hindered if we are unable to obtain necessary DNA samples.

Development of our drug candidates and associated diagnostics depends on our ability to obtain certain DNA samples. Other companies have demonstrated their ability to study DNA samples and often compete with us for access. Additionally, the process of negotiating access to DNA samples can be lengthy since it sometimes involves numerous parties and approval levels to resolve complex issues. If we are not able to negotiate access to samples, or if other laboratories or our competitors secure access to these samples before we do, our ability to research, develop and commercialize future products will be limited or delayed.

If we do not maintain our current research collaborations, a portion of our funding may decrease and inhibit our ability to in-license new compounds.

We have entered into a number of collaborative arrangements with other companies and non-commercial entities, and we rely on these partners for our near-term revenues and joint intellectual property creation. There can be no assurance that any given collaborative arrangement will be successful, or that we will receive

the full amount of research funding, milestone payments or royalties, or that any commercially valuable intellectual property will be created. We have established collaborations with academic institutions, governmental organizations, research foundations and leading pharmaceutical companies. In many cases, the collaborator brings valuable DNA samples and clinical information related to those samples to the project, which allows us to avoid expending our own resources to acquire these essential items. If any of our collaborators were to breach or terminate their agreement with us or otherwise fail to conduct their collaborative activities successfully and in a timely manner, the research contemplated by the collaboration could be delayed or terminated and our costs of performing such studies may increase. We may not be able to negotiate additional collaborations on acceptable terms, if at all, and these collaborations may not be successful.

We also will have limited or no control over the resources that any partner may devote to creating shared value from our services. There can also be no assurance that any of our present or future collaborative partners will perform their obligations as expected or will devote sufficient resources to the development, clinical testing or marketing of products for which we have a shared interest. We have entered into collaborations with AstraZeneca, Eli Lilly, Genentech, GlaxoSmithKline, Johnson & Johnson, Merck, Pfizer and Unilever to analyze the genetics for a range of human traits. In addition, we have entered into collaborations with a broad range of governmental entities and non-profit organizations to determine the genetic variants that predispose humans to numerous common diseases including breast cancer, cardiovascular diseases causing heart attacks, Alzheimer's and Parkinson's disease. In the future, we may rely on collaborators to conduct clinical trials for the drugs that we in-license. Some of the organizations with whom we seek to partner may limit the number of collaborations they have with one company so as not to be perceived as biased or conflicted. These organizations may also have insufficient administrative and related infrastructure to enable collaborations with many companies at once, which can extend the time it takes to develop, negotiate and implement a collaboration. Our current and future success therefore depends in part on our ability to enter into successful collaboration agreements and maintain and extend the collaboration arrangements we currently have. In the event that we are unable to enter into, maintain or extend successful collaborations, our business may be harmed.

We may acquire other businesses or form joint ventures or in-license compounds that could harm our operating results, dilute your ownership of us, or cause us to incur debt or significant expense.

As part of our business strategy, we may pursue acquisitions of complementary businesses and assets, and enter into technology or pharmaceutical compound licensing arrangements. We also may pursue strategic alliances that leverage our core technology and industry experience to expand our product offerings or distribution. We have no experience with respect to acquiring other companies and limited experience with respect to the formation of commercial partnering agreements, strategic alliances, joint ventures or in-licensing of compounds. If we make any acquisitions, we may not be able to integrate these acquisitions successfully into our existing business, and we could assume unknown or contingent liabilities. If we in-license any additional compounds, we may fail to successfully genetically target the drugs, and spend significant resources before determining whether a compound we in-license will produce revenues. Any future acquisitions or in-licensing by us also could result in significant write-offs or the incurrence of debt and contingent liabilities, any of which could harm our operating results. Integration of an acquired company also may require management resources that otherwise would be available for ongoing development of our existing business. We may not identify or complete these transactions in a timely manner, on a cost-effective basis, or at all, and we may not realize the anticipated benefits of any acquisition, technology license, strategic alliance or joint venture.

To finance any acquisitions, we may choose to issue shares of our common stock as consideration, which would dilute your interest in us. If the price of our common stock is low or volatile, we may not be able to acquire other companies for stock. Alternatively, it may be necessary for us to raise additional funds for acquisitions through public or private financings. Additional funds may not be available on terms that are favorable to us, or at all.

We may be unable to raise additional capital on acceptable terms in the future which may in turn limit our ability to develop and commercialize new products and technologies.

We expect capital outlays and operating expenditures to substantially increase over at least the next several years as we expand our targeted medicine pipeline, clinical and regulatory affairs, and research and development activities. In addition, we may require capital outlays and operating expenditures if we do not partner with a third party to manufacture and commercialize our products.

We have funded most of our operations and capital expenditures with the proceeds from stock offerings. Specifically, we may need to raise additional capital through private or public equity offerings, strategic alliances or debt financing to, among other things:

- acquire or in-license technologies or drugs;
- conduct clinical validation studies;
- expand our technologies into other areas;
- finance capital expenditures; and
- fund general and administrative expenses.

Such additional financing may not be available on favorable terms, or at all. Even if we succeed in selling additional securities to raise funds, our existing stockholders' ownership percentage would be diluted and new investors may demand rights, preferences or privileges senior to those of existing stockholders. If we raise additional capital through strategic alliance and licensing arrangements, we may have to trade our rights to our technology, intellectual property, drug candidates or associated diagnostic products to others in such arrangements on terms that may not be favorable to us. If we raise additional capital through debt financing, such financing may involve covenants that restrict our business activities.

If we determine that we need to raise additional funds and we are not successful in doing so, we may be unable to complete the clinical development of some or all of our drug candidates or diagnostic tests or to seek or obtain FDA approval of our drug candidates or diagnostic tests. We then could be forced to discontinue product development, enter into a relationship with a strategic partner earlier than currently intended, reduce sales and marketing efforts or forego attractive business opportunities.

We depend on skilled and experienced personnel to operate our business effectively. If we are unable to recruit, hire and retain these employees, our ability to manage and expand our business will be harmed, which would impair our future revenue and profitability.

Our success largely depends on the skills, experience and efforts of our officers, especially our chief executive officer, chief scientific officer and chief medical officer, and other key employees. The efforts of each of these persons will be critical to us as we continue to develop our technologies and diagnostic capabilities and as we attempt to transition to a company with commercial products. Any of our officers and other key employees may terminate their employment at any time. The loss of any of our senior management team members could weaken our management expertise and harm our ability to compete effectively, develop our technologies and implement our business strategies.

Our ability to retain our skilled labor force and our success in attracting and hiring new skilled employees will be a critical factor in determining whether we will be successful in the future. Our research and development programs and collaborations depend on our ability to attract and retain highly skilled scientists and technicians, including geneticists. We may not be able to attract or retain qualified scientists and technicians in the future due to the intense competition for qualified personnel among life science businesses, particularly in the San Francisco Bay Area. We also face competition from universities and public and private research institutions in recruiting and retaining highly qualified scientific personnel. The ability to attract and retain key personnel, particularly scientific and technical personnel, is critical to our success.

We must implement additional and expensive finance and accounting systems, procedures and controls in order to grow our business and organization and to satisfy new reporting requirements, which will increase our costs and require additional management resources.

As a public reporting company, we will be required to comply with the Sarbanes-Oxley Act of 2002 and the related rules and regulations of the Securities and Exchange Commission, or SEC, including expanded disclosures and accelerated reporting requirements and more complex accounting rules. Upon approval for listing as a public company on The NASDAQ National Market, or NASDAQ, we will also be required to comply with marketplace rules and the heightened corporate governance standards of NASDAQ. Compliance with Section 404 of the Sarbanes-Oxley Act and other SEC and NASDAQ requirements will increase our costs and require additional management resources. We recently have begun upgrading our finance and accounting systems, procedures and controls and will need to continue to implement additional finance and accounting systems, procedures and controls as we grow our business and organization and to satisfy new reporting requirements. If we are unable to complete the required Section 404 assessment as to the adequacy of our internal control over financial reporting, if we fail to maintain or implement adequate controls, or if our independent registered public accounting firm is unable to provide us with an unqualified report as to the effectiveness of our internal control over financial reporting as of the date of our first Annual Report on Form 10-K for which compliance is required, our ability to obtain additional financing could be impaired. In addition, investors could lose confidence in the reliability of our internal control over financial reporting and in the accuracy of our periodic reports filed under the Exchange Act. A lack of investor confidence in the reliability and accuracy of our public reporting could cause our stock price to decline.

If our facilities become inoperable, we will be unable to perform our research and development activities, fulfill the requirements under our collaboration agreements, and continue developing drug candidates and related diagnostics and, as a result, our business will be harmed.

We do not have redundant laboratory facilities. We perform substantially all of our research, development and testing in our laboratory located in Mountain View, California. Mountain View is situated near active earthquake fault lines. Our facility and the equipment we use to perform our research, development and testing would be costly to replace and could require substantial lead time to repair or replace. The facility may be harmed or rendered inoperable by natural or man-made disasters, including earthquakes, flooding and power outages, which may render it difficult or impossible for us to perform our research, development and testing for some period of time. The inability to perform our research and development activities may result in the loss of partners or harm our reputation, and we may be unable to regain those partnerships in the future. Although we possess insurance for damage to our property and the disruption of our business, this insurance may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, or at all.

Risks Related to Clinical and Regulatory Requirements

We are subject to a number of regulatory requirements from the FDA and other governmental entities that may affect our ability to commercialize our proposed products.

In the United States, the FDA regulates the development, testing, labeling, manufacturing, registration, notification, clearance or approval, marketing, distribution, record-keeping and reporting requirements for human and animal drugs, medical devices, diagnostic tests, biologics, cosmetics and food additives. Similar agencies regulate such products outside the United States. Various other federal and state agencies, including the Environmental Protection Agency, or EPA, and the Occupational Safety and Health Administration, or OSHA, regulate the processes or methods of production of any therapeutic or diagnostic process or product which we intend to develop. The approval of these agencies may be required with respect to any medical products developed by us or our collaborators. State regulatory approval may be required for some or all therapeutic or diagnostic products developed by us or our collaborators. Failure to achieve approval will require modification and redesign of the products or, at worst, elimination of a product. We or our collaborators may not have the financial resources to modify products or implement new designs in response

to regulatory requirements. Accordingly, regulatory approval of our or our collaborators' therapeutic or diagnostic products may significantly impact our ability to generate revenues.

Targeted medicine is an emerging field and regulatory approval of our drug and related diagnostic tests may take longer and be less predictable than approval for untargeted medicines.

Targeted medicine is an emerging field and represents a new approach to patient care. Our business strategy involves seeking marketing approval for our drug candidates with the use of a diagnostic test to pre-screen subsets of patient populations most likely to receive therapeutic benefit or minimal side effects. The FDA has issued guidelines on the approval process for drugs with associated diagnostics, and it remains to be seen how the FDA will develop and implement standards for evaluation of integrated products such as ours. For example, for any given drug we do not know how effective our diagnostic must be in pre-screening patients in order to achieve FDA approval for the launch of clinical trials or marketing approval upon their completion. We can provide no assurance that any genetic association that we locate would be viewed by the FDA as valid indicators for pre-screening patients. In addition, we may be unable to meet the guidelines issued by the FDA or whatever other standards the FDA eventually adopts. In addition, because our approach involves the application of new technologies, various governmental regulatory authorities may subject our products to additional review. As a result, these authorities may grant regulatory approvals more slowly than for untargeted medicines. If we are unable to obtain FDA approval or experience a delay in such approval, the development of our drug candidates and diagnostics may not occur or may occur more slowly than anticipated, and our business would suffer as a result.

If we fail to obtain the necessary regulatory approvals, we will not be able to commercialize our drug candidates or diagnostic tests, and we will not generate product revenues.

Satisfaction of all regulatory requirements typically takes many years, is dependent upon the type, complexity and novelty of the drug candidates or diagnostic tests, and requires the expenditure of substantial resources for research and development and testing. Our research and clinical approaches may not lead to drugs or diagnostic tests that the FDA considers safe for humans and effective for indicated uses we are pursuing. The FDA may require us to conduct additional clinical testing, in which case we would have to expend additional time and resources and such additional clinical testing would likely delay the date of potentially receiving regulatory approval. The approval process may also be delayed by changes in government regulation, future legislation or administrative action or changes in FDA policy that occur prior to or during our regulatory review. Delays in obtaining regulatory approvals will:

- delay commercialization of, and product revenues from, our drug candidates and diagnostic tests; and
- diminish the competitive advantages that we may have otherwise enjoyed, which would have an adverse effect on our operating results and financial condition.

Even if we comply with all FDA regulatory requirements, we may never obtain regulatory approval for any of our drug candidates or diagnostic tests, or obtain regulatory approval for specifying a particular test or a particular genetic profile that may be detected by our test. If we fail to obtain regulatory approval for any of our drug candidates or diagnostic tests, we will have fewer saleable products, if any, and corresponding lower product revenues, if any. Even if we receive regulatory approval of our drug candidates or diagnostic tests, such approval may involve limitations on the indications and conditions of use or marketing claims we may make for our products. Further, later discovery of previously unknown problems or adverse events could result in additional regulatory restrictions, including withdrawal of products. The FDA may also require us to commit to perform lengthy Phase IV post-approval studies, for which we would have to expend additional resources, which could have an adverse effect on our operating results and financial condition.

In jurisdictions outside the United States, we must receive marketing authorizations from the appropriate regulatory authorities before we can commercialize our drugs or diagnostic tests. Regulatory approval processes outside the United States generally include all of the aforementioned requirements and risks associated with FDA approval, among others.

If we are unable to design, conduct and complete clinical trials successfully, we will not be able to obtain regulatory approval for our drug candidates or diagnostic tests.

In order to obtain FDA approval for any of our drug candidates or diagnostic tests, we must submit to the FDA a New Drug Application, or NDA, demonstrating that the drug candidate or diagnostic test is safe and effective in humans for its intended use. This demonstration requires significant research and animal tests, which are referred to as preclinical studies, as well as human tests, which are referred to as clinical trials.

Future clinical trials we perform or that are performed by our partners may not demonstrate the safety or efficacy of our drug candidates or diagnostic tests. Success in pre-clinical testing and early clinical trials does not ensure that later clinical trials will be successful. Results of later clinical trials may not replicate the results of prior clinical trials and pre-clinical testing. FDA guidelines recommend that efficacy be demonstrated in more than one clinical model. This means that even if one of our clinical trials demonstrates positive results for our drug candidates or diagnostic tests, we will likely be required to demonstrate positive results in one or more additional clinical trials prior to receiving broad label FDA approval. Even if the results of one or more of our clinical trials are positive, we may have to commit substantial time and additional resources to conducting further preclinical studies or clinical trials before we can submit NDAs or obtain FDA approvals for our drug candidates or diagnostic tests, and positive results of a clinical trial may not be replicated in subsequent trials.

Clinical trials are very expensive and difficult to design and implement, in part because they are subject to rigorous requirements. The clinical trial process is also time-consuming. Furthermore, if participating patients in clinical studies suffer drug-related adverse reactions during the course of such trials, or if we or the FDA believe that participating patients are being exposed to unacceptable health risks, we will have to suspend or terminate our clinical trials. Failure can occur at any stage of the trials, and we could encounter problems that cause us to abandon clinical trials or to repeat clinical studies.

In addition, completion of clinical trials can be delayed by numerous factors, including:

- delays in identifying and agreeing on acceptable terms with prospective clinical trial sites;
- slower than expected rates of patient recruitment and enrollment;
- increases in time required to complete monitoring of patients during or after participation in a trial; and
- unexpected need for additional patient-related data.

Any of these delays, if significant, could impact the timing, approval and commercialization of our drug candidates and diagnostic tests and could significantly increase our overall costs of drug or diagnostic test development.

Even if our clinical trials are completed as planned, their results may not support our expectations or intended marketing claims. The clinical trials process may fail to demonstrate that our drug candidates and diagnostic tests are safe and effective for indicated uses. Such failure would cause us to abandon a drug candidate or diagnostic test and could delay development of other drug candidates or diagnostic tests.

Our business strategy focuses on identifying late-stage drug candidates that were discontinued by other companies potentially because of undifferentiated or negative clinical results.

Our business strategy involves focusing on late-stage drug candidates that have been shown to be undifferentiated when compared to existing drugs or drugs under development, or have been linked to adverse effects in some subset of the patient population. In most cases, these previous clinical trial results were obtained by pharmaceutical companies with significantly greater resources than we have and who have chosen to abandon further trials because of negative or equivocal clinical results. The late-stage drug candidates that we focus on are therefore inherently at risk for efficacy and safety despite being in late-stage clinical development. To our knowledge, there are very few examples where a company has succeeded in taking a

compound with known adverse effects and proven that the compound was safe for a subset of the patient population through genetic testing. No assurance can be given that we will be able to establish efficacy and safety of our compounds for a given indication in a genetically targeted patient population where a larger pharmaceutical company has elected to stop developing and testing the drug for the general patient population.

Our drug candidates, PGX-510 and PGX-520 have been associated with adverse events, drug interactions, and lack of differentiation, and no assurance can be provided that our clinical programs and diagnostics will screen out patients who are likely to experience adverse events, increase efficacy for our drug candidates or, if successful, receive acceptance in the market.

Our drug candidate, PGX-510 was previously in-licensed by Johnson & Johnson, who after expending resources on Phase I and II clinical trials, decided to terminate the license. Other clinical tests of this compound have shown some incidence of adverse events, such as edema. In addition, PGX-510 stimulates the 3A4 sub-family of cytochrome P450 drug metabolizing enzymes, increasing the speed at which some commercially important drugs are metabolized, which in turn may make it less likely that physicians will prescribe it. The risk of adverse events and the effect of stimulation of drug metabolizing enzymes may be amplified in our PGX-510 indication for type II diabetes with dyslipidemia due to the higher dosage required, which may necessitate physicians to adjust patient prescriptions and further discourage physicians from prescribing it.

Our drug candidate, PGX-520, has been shown in clinical trials conducted by third parties to be associated with some incidence of adverse events, particularly myopathy, or muscle deterioration, and rhabdomyolysis, a rare pathological breakdown of skeletal muscle tissue which can lead to acute renal failure and death.

While we believe that our clinical development programs and associated diagnostics will be able to reduce the incidence of adverse events, no assurance can be given that we will be successful in meeting our desired endpoints, or if so, that any commercialized form of our drug candidates will receive acceptance in the market.

Government agencies may establish and promulgate usage guidelines that directly apply to our drug candidates or diagnostic tests or change legislation or regulations to which we are subject.

Government usage guidelines typically address such matters as usage and dose, among other factors. Application of such guidelines could limit the use of our drug candidates and diagnostic tests. In addition there can be no assurance that government regulations applicable to our proposed products or the interpretation thereof will not change and thereby prevent the marketing of some or all of our or our collaborators' products for a period of time or permanently. We are unable to predict the extent of adverse governmental regulation which might arise from future federal, state or foreign legislative or administrative action.

Conducting clinical trials of our drug candidates and diagnostic tests or potential commercial sales of a drug candidate or diagnostic test may expose us to expensive clinical trial liability claims, and we may not be able to maintain clinical trial liability insurance on reasonable terms or at all.

The risk of clinical trial liability is inherent in the testing of pharmaceutical or diagnostic products. If we cannot successfully defend ourselves against clinical trial claims, we may incur substantial liabilities or be required to limit or terminate testing of one or more of our products. Our inability to obtain sufficient clinical trial insurance at an acceptable cost to protect us against potential clinical trial claims could prevent or inhibit the commercialization of our products. We currently carry clinical trial insurance but we may not be able to obtain such insurance at a reasonable cost, if at all in the future. In addition, if our agreements with any future corporate collaborators entitle us to indemnification against product liability losses and clinical trial liability such indemnification may not be available or adequate should any claim arise.

If we receive regulatory approval for our drug candidates or diagnostic tests, we and our collaborators will also be subject to ongoing FDA obligations and continued regulatory review, such as continued safety reporting requirements, and we and our collaborators may also be subject to additional FDA post-marketing obligations or new regulations, all of which may result in significant expense and which may limit our ability to commercialize our potential drugs.

Any regulatory approvals that we receive for our drug candidates or diagnostic tests may also be subject to limitations on the indicated uses for which the drug may be marketed or contain requirements for potentially costly post-marketing follow-up studies. In addition, if the FDA approves any of our drug candidates or diagnostic tests, the labeling, packaging, adverse event reporting, storage, advertising, promotion and record keeping for the drug or diagnostic test will be subject to extensive regulatory requirements. The subsequent discovery of previously unknown problems with the drugs or diagnostic tests, including adverse events of unanticipated severity or frequency, may result in restrictions on the marketing of the drugs or diagnostic tests, and could include withdrawal of the drugs or diagnostic tests from the market.

The FDA's policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our drug candidates or diagnostic tests. We cannot predict the likelihood, nature or extent of adverse government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are not able to maintain regulatory compliance, we may be subject to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution. Any of these events could prevent us from marketing our drugs or diagnostic tests and our business could suffer.

If we use biological and hazardous materials in a manner that causes injury, we could be liable for damages.

Our activities currently require the controlled use of potentially harmful biological materials, hazardous materials and chemicals and may in the future require the use of radioactive compounds. We cannot eliminate the risk of accidental contamination or injury to employees or third parties from the use, storage, handling or disposal of these materials. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could exceed our resources or any applicable insurance coverage we may have. Additionally, we are subject on an ongoing basis to federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. The cost of compliance with these laws and regulations might be significant and could negatively affect our operating results.

Because our research and development activities rely heavily on sensitive and personal information, an area which is highly regulated by privacy laws, we may not be able to access essential patient samples or data to continue our research and development efforts in the future on reasonable terms and conditions, which may adversely affect our business.

As a result of our research, we have access to very sensitive data regarding the genetic characteristics of persons whose samples have been analyzed using our whole genome association studies. This data will contain information that is personal in nature and may indicate genetic limitations or pre-dispositions to certain life-threatening or limiting disease. The maintenance of these data may be subject to certain privacy related legislation, which may impose upon us certain administrative or financial burdens, or litigation risks. We can provide no assurance that future legislation will not prevent us from generating or maintaining personal data or that patients will consent to the use of their personal information, either of which may prevent us from undertaking or publishing essential research. These burdens or risks may prove too large for us to reasonably bear, and may adversely affect our ability to function profitably in the future.

We may be subject to fines, penalties, injunctions and other sanctions if we are deemed to be promoting the use of our products for non-FDA-approved, or off-label, uses.

Our business and future growth depend on the development, use and ultimate sale of products that are subject to FDA regulation, clearance and approval. Under the Federal Food, Drug, and Cosmetic Act and

other laws, we are prohibited from promoting our products for off-label uses. This means that we may not make claims about the safety or effectiveness of our products and may not proactively discuss or provide information on the use of our products, except as allowed by the FDA.

There is a risk that the FDA or other federal or state law enforcement authorities could determine that the nature and scope of our sales and marketing activities may, constitute the promotion of our products for a non-FDA-approved use in violation of the law. We also face the risk that the FDA or other regulatory authorities might pursue enforcement based on past activities that we have discontinued or changed, including sales activities, arrangements with institutions and doctors, educational and training programs and other activities.

Government investigations concerning the promotion of off-label uses and related issues are typically expensive, disruptive and burdensome and generate negative publicity. If our promotional activities are found to be in violation of the law or if we agree to a settlement in connection with an enforcement action, we would likely face significant fines and penalties and would likely be required to change substantially our sales, promotion, grant and educational activities. In addition, as a result of enforcement actions against us or our senior officers, we could be excluded from participation in government healthcare programs such as Medicare and Medicaid.

Risks Related to our Intellectual Property

If we are unable to protect the intellectual property and market exclusivity of our two current drug candidates, netoglitazone and bezafibrate, thereby enabling other parties to commercialize competing products, our ability to generate revenues from the sale of our products may be limited or diminished.

The *composition of matter* patent for one of our lead drug candidates, netoglitazone, will expire in 2013. After the patent expires, our competitors may produce generic drugs and make them available at a cost that is cheaper than the price at which we would offer to sell the drug. Although we may attempt to extend the exclusivity available to us during the term of the *composition of matter* patent for netoglitazone pursuant to Title 35 of the U.S. Code, Section 156 to restore part of the patent term lost during the review period for the NDA approval by the FDA, there can be no guarantee that we will be entitled to the restoration of any significant term of the *composition of matter* patent.

We may also attempt to further protect the market for netoglitazone by bundling the *composition of matter* patent with other patents that we may obtain for the genetic markers that we discover or diagnostic tests that we develop. The FDA may not elect, however, to approve labeling for netoglitazone that includes genetic markers or diagnostic tests and we may not be successful in obtaining other patent protection. If our efforts to protect the intellectual property and market position of netoglitazone do not succeed, our ability to generate revenues from the sale of our products may be limited or diminished.

The *composition of matter* patent for our second lead drug candidate, bezafibrate, has expired. We expect to seek secondary patent protection such as *method of use* patents relying on the use of genetic markers in the treatment of dyslipidemia patients with bezafibrate. Such secondary patent protection, however, may not be possible if we are unsuccessful in identifying relevant genetic markers for treatment for dyslipidemia with bezafibrate, or we may be unsuccessful in securing patents for other reasons. No assurance can be given that a competitor will not achieve FDA approval of bezafibrate for dyslipidemia or some other indication before we do. If a competitor obtains FDA approval for the bezafibrate molecule for dyslipidemia before we do, our commercial program may not be viable. If a competitor obtains FDA approval for the bezafibrate molecule for another indication, and sold its product at a lower price than we sell our drug candidate, our ability to generate revenues may be limited or diminished.

If we are unable to protect our intellectual property, our competitors could develop and market products similar to ours that may reduce demand for our products.

Our success, competitive position and potential future revenues will depend in significant part on our ability to protect our intellectual property. We rely on the patent, trademark, copyright and trade secret laws

of the United States and other countries, as well as confidentiality and nondisclosure agreements, to protect our intellectual property rights. We apply for patents covering both our technologies and products as we deem appropriate. Some of the intellectual property in our patents has been developed with the use of U.S. government grants and hence, the manufacture of some of the technology of these patents may have to be performed in the United States, which may increase our costs. No assurance can be given that patents will issue from any of such applications or, for those patents that do issue, that the claims will be sufficiently broad to protect our proprietary rights, or that it will be economically possible to pursue sufficient numbers of patents to afford significant protection. The U.S. Supreme Court, in *Metabolite Laboratories, Inc. v. Laboratory Corporation of America*, was recently asked to decide whether patent claims directed to diagnostic methods are patentable subject matter. A decision by the Supreme Court that diagnostic methods cannot be patented could have an adverse impact on our patenting strategy as well as our business. In addition, no assurance can be given that any patents issued to us or licensed or assigned to us by Affymetrix or other third parties will not be challenged, invalidated, or circumvented, or that the rights granted there under will provide competitive advantages to us. If we or our other collaborators or licensors fail to file, prosecute or maintain certain patents, our competitors could market products that contain features and clinical benefits similar to those of our products, and demand for our products could decline as a result. Further, although we have taken steps to protect our intellectual property and proprietary technology, we cannot assure you that third parties will not be able to design around our patents or, if they do infringe upon our technology, that we will be successful in or have sufficient resources to pursue a claim of infringement against those third parties. Any pursuit of an infringement claim by us may involve substantial expense and diversion of management attention.

We also rely on trade secrets and proprietary know-how that we seek to protect by confidentiality agreements with our employees, consultants and collaborators. There can be no assurance that these agreements will be enforceable, will not be breached, that we will have adequate remedies for any breach, or that our trade secrets and proprietary know-how will not otherwise become known or be independently discovered by competitors.

Furthermore, the laws of foreign countries may not protect our intellectual property rights to the same extent as the laws of the United States. If our intellectual property does not provide significant protection against foreign or domestic competition, our competitors, including generic manufacturers, could compete more directly with us, which could result in a decrease in our market share. All of these factors may harm our competitive position.

The pharmaceutical and biopharmaceutical industries are characterized by patent litigation and any litigation or claim against us may cause us to incur substantial costs, and could place a significant strain on our financial resources, divert the attention of management from our business and harm our reputation.

There has been substantial litigation in the pharmaceutical and biopharmaceutical industries with respect to the manufacture, use and sale of new products that are the subject of conflicting patent rights. For the most part, these lawsuits relate to the validity, enforceability and infringement of patents. We expect that we will rely upon patents, trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain our competitive position and we may initiate claims to defend our intellectual property rights as a result. Other parties may have issued patents or may independently develop substantially equivalent proprietary information or be issued patents that may prevent the sale of our products or know-how or require us to license such information and pay significant fees or royalties in order to produce our products. In addition, future patents may issue to third parties which our technology may infringe. Because patent applications can take many years to issue, there may be applications now pending of which we are unaware that may later result in issued patents that our products may infringe. Other parties hold patents relating to the modulation of targets of our candidate drugs and could file an infringement suit that alleges that our drug candidates infringe their patents. Also, certain third parties may have patents related to the use of genes, which may negatively impact our ability to use the genetic associations we identify for our drug candidates. We do not currently have any licenses for the diagnostics that we are developing and we may have to rely on

third party intellectual property to develop, manufacture and sell our diagnostic tests. Our inability to get and necessary licenses may be harmful to our business. If a legal action were to be brought against us we could incur substantial defense costs. In addition to legal actions brought against us, intellectual property litigation brought against any third party manufacturers and suppliers that we use could have a material adverse effect on our business.

Intellectual property litigation, regardless of outcome, is expensive and time-consuming, could divert management's attention from our business and have a material negative effect on our business, operating results or financial condition. If such a dispute were to be resolved against us, we may be required to pay substantial damages, including treble damages if we were to be found to have willfully infringed a third party's patent, to the party claiming infringement, develop non-infringing technology, stop selling our drugs or associated diagnostics, cease using technology that contains the allegedly infringing intellectual property or enter into royalty or license agreements that may not be available on acceptable or commercially practical terms, if at all. Our failure to develop non-infringing technologies or license the proprietary rights on a timely basis could harm our business. Modification of our products or development of new products could require us to conduct additional clinical trials and to revise our filings with the FDA and other regulatory bodies, which would be time-consuming and expensive. In addition, parties making infringement claims may be able to obtain an injunction that would prevent us from selling our drugs or associated diagnostics, which could harm our business.

Risks Related to Commercialization

If physicians and patients do not accept and use our drugs, we will not achieve sufficient product revenues and our business will suffer.

Even if the FDA approves our drug candidates, physicians and patients may not accept and use them. Acceptance and use of our drug candidates may depend on a number of factors including:

- perceptions by members of the healthcare community, including physicians, about the safety and effectiveness of our drugs;
- published studies demonstrating the cost-effectiveness of our drugs relative to competing products;
- development of an associated genetic screening diagnostic with the capability of producing accurate results;
- availability of reimbursement for our products from government or healthcare payers; and
- effectiveness of marketing and distribution efforts by us and our licensees and distributors, if any.

The failure of our drug candidates to find market acceptance would harm our business and could require us to seek additional financing.

Even if we are successful in identifying a drug candidate for commercialization, we may not succeed in commercializing a diagnostic test.

Our business strategy depends not only on bringing to market a drug candidate that is efficacious and safe, but also on the commercialization of a diagnostic test that we or a partner with whom we would contract would produce. Any diagnostic test that we produce would have to demonstrate clinically meaningful results for our drug candidates to gain general market acceptance. We can provide no assurance that we will be successful in designing an accurate diagnostic test, that our diagnostic test would have proprietary intellectual property rights, or that it would receive FDA clearance. If we fail to design a commercially viable diagnostic test, our business would be materially adversely affected.

If we are unable to develop our own sales, marketing and distribution capabilities, or if we are not successful in contracting with third parties for these services on favorable terms, or at all, our product revenues could be disappointing.

We currently have no sales, marketing or distribution capabilities. In order to commercialize any products approved by the FDA, we will either have to develop such capabilities internally or collaborate with third parties who can perform these services for us. If we decide to commercialize any of our drugs ourselves, we may not be able to hire the necessary experienced personnel and build sales, marketing and distribution operations which are capable of successfully launching new drugs and generating sufficient product revenues. In addition, establishing such operations will take time and involve significant expense.

If we decide to enter into co-promotion or other licensing arrangements with third parties, we may be unable to identify acceptable partners because the number of potential partners is limited and because of competition from others for similar alliances with potential partners. Even if we are able to identify one or more acceptable partners, we may not be able to enter into any partnering arrangements on favorable terms, or at all. If we enter into any partnering arrangements, our revenues are likely to be lower than if we marketed and sold our products ourselves.

In addition, any revenues we receive would depend upon our partners' efforts which may not be adequate due to lack of attention or resource commitments, management turnover, change of strategic focus, further business combinations or other factors outside of our control. Depending upon the terms of our agreements, the remedies we have against an under-performing partner may be limited. If we were to terminate the relationship, it may be difficult or impossible to find a replacement partner on acceptable terms, or at all.

If we cannot compete successfully for market share against other drug companies, we may not achieve sufficient product revenues and our business will suffer.

The market for our drug candidates is characterized by intense competition and rapid technological advances. If our drug candidates receive FDA approval, they will compete with a number of existing and future drugs and therapies developed, manufactured and marketed by others. Existing or future competing products may provide greater therapeutic convenience or clinical or other benefits for a specific indication than our products, or may offer comparable performance at a lower cost. If our products are unable to capture and maintain market share, we may not achieve sufficient product revenues and our business will suffer.

We will compete for market share against fully integrated pharmaceutical companies or other companies that are collaborating with larger pharmaceutical companies, academic institutions, government agencies and other public and private research organizations. In addition, many of these competitors, either alone or together with their collaborative partners, operate larger research and development programs and have substantially greater financial resources than we do, as well as significantly greater experience in:

- developing drugs;
- conducting preclinical testing and human clinical trials;
- obtaining FDA and other regulatory approvals of drugs;
- formulating and manufacturing drugs; and
- launching, marketing, distributing and selling drugs.

Our ability to generate product revenues will be diminished if we fail to obtain acceptable prices or an adequate level of reimbursement for our products from healthcare payers.

Our success depends, in part, on the extent to which health insurers, government authorities and other third-party payers will reimburse the costs of products and services which may be developed by us or our partners. We expect that a portion of our economic return from partnering arrangements with pharmaceutical companies and other collaborators will be derived from royalties, fees or other revenues linked to final sales of products or services that we or our partners develop. Newly-approved pharmaceuticals, diagnostic tests and

other products which are developed by us or our partners will not necessarily be reimbursed by third-party payers or may not be reimbursed at levels sufficient to generate significant sales. A drug candidate with an associated diagnostic test as part of the label has been approved in rare instances by the FDA and there is a risk that third party payors will delay reimbursement or not reimburse patients for treatment altogether. Government and other third-party payers are increasingly attempting to contain health care costs by limiting both coverage and the level of reimbursement for new drugs and tests. Cost control initiatives such as these could adversely affect our or our collaborators' ability to commercialize products or services. In addition, real or anticipated cost control initiatives for final products may reduce the willingness of pharmaceutical companies or other potential partners to collaborate with us on the development of new products and services.

Our ability to commercialize our drug candidates, alone or with collaborators, will depend in part on the extent to which reimbursement will be available from:

- government and health administration authorities;
- private health maintenance organizations and health insurers; and
- other healthcare payers.

Significant uncertainty exists as to the reimbursement status of newly approved healthcare products. Healthcare payers, including Medicare, health maintenance organizations and managed care organizations, are challenging the prices charged for medical products and services or are seeking pharmacoeconomic data to justify formulary acceptance and reimbursement practices. We currently have not generated pharmacoeconomic data on any of our products. Government and other healthcare payers increasingly are attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for drugs, and by refusing, in some cases, to provide coverage for uses of approved products for disease indications for which the FDA has or has not granted labeling approval. Adequate third-party insurance coverage may not be available to patients for any products we discover and develop, alone or with collaborators. If government and other healthcare payers do not provide adequate coverage and reimbursement levels for our products, market acceptance of our product candidates could be limited.

Concerns regarding the use of genetic testing results may limit the commercial viability of any products we develop.

The development of genetic tests may raise ethical concerns. For instance, it is possible that employers, insurers or others could discriminate against people who have a genetic predisposition to certain diseases. Concern regarding possible discrimination may result in governmental authorities enacting restrictions or bans on the use of all, or certain types of, genetic testing. Similarly, such concerns may lead individuals to refuse to subject themselves to genetic tests even if permissible or beneficial to their health. Patients' willingness to take a one-time diagnostic test as a condition to the prescription of our drugs is unknown. There are a number of reasons why a patient would not be willing to take such a test, including time, cost, or privacy-related concerns. These factors may limit the market for, and therefore, the commercial viability of, products that we develop.

Risks Related to this Offering

Our common stock has not been publicly traded, and we expect that the price of our common stock will fluctuate substantially.

Before this offering, there has been no public market for our common stock. An active public trading market may not develop after completion of this offering or, if developed, may not be sustained. The price of the common stock sold in this offering will not necessarily reflect the market price of our common stock after this offering. The market price for our common stock after this offering will be affected by a number of factors, including:

- the results of our genetic association studies or clinical trials;
- the announcement of new products or service enhancements by us or our competitors;

- quarterly variations in our or our competitors' results of operations;
- announcements related to litigation;
- changes in earnings estimates, investors' perceptions, recommendations by securities analysts or our failure to achieve analysts' earning estimates;
- developments in our industry; and
- general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors.

In addition, the stock prices of many companies in the biotechnology industry have experienced wide fluctuations that have often been unrelated to the operating performance of those companies. These factors and price fluctuations may materially and adversely affect the market price of our common stock.

New investors in our common stock will experience immediate and substantial dilution in book value after this offering.

The initial public offering price is substantially higher than the book value per share of our common stock. If you purchase common stock in this offering, you will incur immediate dilution of $ in net tangible book value per share of common stock, based on an initial public offering price of $ per share. In addition, the number of shares available for issuance under our stock option plan will automatically increase annually without further stockholder approval. Investors will incur additional dilution upon the exercise of stock options. See ''Dilution.''

Future sales of shares by our stockholders could cause the market price of our common stock to drop significantly, even if our business is doing well.

After this offering, we will have outstanding shares of common stock based on the number of shares outstanding at . This includes the shares we are selling in this offering, which may be resold in the public market immediately. The remaining shares will become available for resale in the public market as shown in the chart below.

Number of Restricted Shares/% of Total Shares Outstanding Following Offering	Date of Availability for Resale into the Public Market
	180 days (subject to extension in specified circumstances) after the date of this prospectus due to the release of the lock-up agreement these stockholders have with the underwriters
	At some point after 180 days (subject to extension in specified circumstances) after the date of this prospectus, subject to vesting requirements and the requirements of Rule 144 (subject, in some cases, to volume limitations), Rule 144(k) or Rule 701

At any time and without public notice, the underwriters may in their sole discretion release all or some of the securities subject to the lock-up agreements. As restrictions on resale end, the market price of our stock could drop significantly if the holders of those shares sell them or are perceived by the market as intending to sell them. In addition, six months after this offering, the holders of shares of common stock issued upon the conversion of our preferred stock may require us to file a registration statement covering those shares, which may also cause our stock price to decline. These declines in our stock price could occur even if our business is otherwise doing well.

Our directors, officers and principal stockholders have significant voting power and may take actions that may not be in the best interests of our other stockholders.

After this offering, our officers, directors and principal stockholders each holding more than 5% of our common stock collectively will control approximately % of our outstanding common stock, without

giving effect to the purchase of shares by any such persons in this offering. Furthermore, our largest stockholder, Affymetrix, will beneficially own % of our outstanding common stock after giving effect to this offering. In addition, following this offering, we will continue to have two representatives on our board of directors affiliated with Affymetrix, including Dr. Stephen Fodor, who is currently the Chief Executive Officer and Chairman of the Board of Affymetrix and who himself beneficially owns an additional % of our common stock. We will also continue to rely on Affymetrix as the sole source of our custom-designed microarrays. As a result, these stockholders, if they act together, will be able to control the management and affairs of our company and most matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This concentration of ownership may have the effect of delaying or preventing a change in control and might adversely affect the market price of our common stock. This concentration of ownership may not be in the best interests of our other stockholders.

We have broad discretion in the use of proceeds of this offering for working capital and general corporate purposes.

We expect to spend the net proceeds that we will receive from this offering on the development of our existing targeted drug candidates, genetics research and development related to drug responses and diseases, working capital, general corporate purposes, and potential acquisitions of other complementary businesses, drug or diagnostic products or technologies. Within those categories, we have not determined the specific allocation of the net proceeds of this offering. Our management will have broad discretion over the use and investment of the net proceeds of this offering within those categories, and accordingly investors in this offering will need to rely upon the judgment of our management with respect to the use of proceeds, with only limited information concerning management's specific intentions.

Anti-takeover provisions in our amended and restated certificate of incorporation and bylaws, and Delaware law, contain provisions that could discourage a takeover.

Anti-takeover provisions of our amended and restated certificate of incorporation and amended and restated bylaws and Delaware law may have the effect of deterring or delaying attempts by our stockholders to remove or replace management, engage in proxy contests and effect changes in control. The provisions of our charter documents include:

- a classified board so that only one of the three classes of directors on our board of directors is elected each year;
- elimination of cumulative voting in the election of directors;
- procedures for advance notification of stockholder nominations and proposals;
- the ability of our board of directors to amend our bylaws without stockholder approval; and
- the ability of our board of directors to issue up to 10,000,000 shares of preferred stock without stockholder approval upon the terms and conditions and with the rights, privileges and preferences as our board of directors may determine.

In addition, as a Delaware corporation, we are subject to Delaware law, including Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder unless certain specific requirements are met as set forth in Section 203. These provisions, alone or together, could have the effect of deterring or delaying changes in incumbent management, proxy contests or changes in control.

Volatility in the stock prices of other companies may contribute to volatility in our stock price.

The NASDAQ National Market, particularly in recent years, has experienced significant volatility with respect to pharmaceutical, biotechnology and other life sciences company stocks. The volatility of pharmaceutical, biotechnology and other life sciences company stocks often does not relate to the operating

performance of the companies represented by the stock. Further, there has been particular volatility in the market prices of securities of early stage and development stage life sciences companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of management's attention and resources.

We have not paid dividends in the past and do not expect to pay dividends in the future, and any return on investment may be limited to the value of our stock.

We have never paid cash dividends on our common stock and do not anticipate paying cash dividends on our common stock in the foreseeable future. The payment of dividends on our common stock will depend on our earnings, financial condition and other business and economic factors affecting us at such time as our board of directors may consider relevant. If we do not pay dividends, our stock may be less valuable because a return on your investment will only occur if our stock price appreciates.

If we were deemed to be an investment company, we would become subject to provisions of the Investment Company Act that likely would have a material adverse impact on our business.

A company is required to register as an investment company under the Investment Company Act of 1940, or the 1940 Act, if, among other things, and subject to various exceptions:

- it is or holds itself out to be engaged primarily, or proposes to engage primarily, in the business of investing, reinvesting or trading in securities; or
- it is engaged or proposes to engage in the business of investing, reinvesting, owning, holding or trading in securities, and owns or proposes to acquire investment securities having a value exceeding 40 per centum of the value of such company's total assets exclusive of government securities and cash items on an unconsolidated basis.

A major portion of our assets has been invested in investment grade interest-bearing securities. Such investments could in some circumstances require us to register as an investment company under the 1940 Act. Registration under the 1940 Act, or a determination that we failed to register when required to do so, could have a material adverse impact on us. We believe that we are and will remain exempt from the registration requirements, but absent interpretation by the courts or the SEC of the relevant exemption as applied to companies engaged in research and development, this result cannot be assured. In addition, a change in our allocation of assets on account of 1940 Act concerns could reduce the rate of return on our liquid assets.

INFORMATION REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled ‘‘Summary,’’ ‘‘Risk Factors,’’ ‘‘Management’s Discussion and Analysis of Financial Condition and Results of Operations’’ and ‘‘Business’’ may contain forward-looking statements. Forward-looking statements include but are not limited to, statements about:

- Our genetic association studies and their utility in predicting drug response;
- The efficacy and safety of our lead drug candidates and their association with disease;
- The timing of clinical development of our two lead drug candidates;
- The outcome or success of clinical trials;
- Our expectation regarding federal, state and foreign regulatory requirements;
- Allocation of resources for the purposes of bringing our targeted medicines to market;
- The amount of research and development expenses we expect to incur;
- Our interest in developing third-party partnerships;
- Our expectations regarding the use of proceeds from this offering;
- Our plans to in-license drugs to address new markets and develop diagnostic products;
- Strategies to strengthen our intellectual property protection for our drug candidates and associated diagnostics; and
- Anticipated trends and challenges in our business and the markets in which we operate.

Forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. These risks and other factors include, but are not limited to, those listed under ‘‘Risk Factors,’’ ‘‘Summary,’’ ‘‘Business – Overview’’ and elsewhere. In some cases, you can identify forward looking statements by terminology such as ‘‘may,’’ ‘‘will,’’ ‘‘should,’’ ‘‘expect,’’ ‘‘plan,’’ ‘‘anticipate,’’ ‘‘believe,’’ ‘‘estimate,’’ ‘‘predict,’’ ‘‘intend,’’ ‘‘potential,’’ ‘‘continue,’’ or the negative of these terms or other comparable terminology. These statements are only predictions. Actual events or results may differ materially.

We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Except as required by applicable law, including the securities laws of the United States and rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements after we distribute this prospectus, whether as a result of any new information, future events or otherwise. Potential investors should not place undue reliance on our forward-looking statements. Before you invest in our common stock, you should be aware that the occurrence of any of the events described in the ‘‘Risk Factors’’ section and elsewhere in this prospectus could harm our business, prospects, operating results and financial condition. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of shares of common stock that we are selling in this offering will be approximately $ million, based on an initial public offering price of $ per share, the mid-point of the range on the front cover of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses. If the underwriters' over-allotment option is exercised in full, we estimate that we will receive net proceeds of approximately $ million.

We currently expect to use our net proceeds from this offering as follows:

- approximately $65 million for the development of our existing targeted medicine candidates;
- approximately $25 million for the acquisition or development of other targeted medicine candidates; and
- the balance for genetics research and development, working capital and other general corporate purposes.

We may also use a portion of the net proceeds to acquire or invest in other technologies, or companies that complement our business, although we have no current understandings, commitments or agreements to do so.

As of December 31, 2005, we had $106.8 million in cash, cash equivalents and short-term investments. We believe that our existing capital resources and the net proceeds from this offering will be sufficient to enable us to maintain currently planned operations through the next two to three years.

The timing and amount of our actual expenditures will be based on many factors, including the successful genetic targeting of our lead drug candidates, cash flows from operations and the anticipated growth of our business. Pending these uses, we intend to invest the net proceeds of this offering primarily in short-term, investment-grade, interest-bearing instruments.

DIVIDEND POLICY

We have never declared or paid any dividends on our capital stock. We anticipate that we will retain any earnings to support operations and to finance the growth and development of our business. Therefore, we do not expect to pay cash dividends in the foreseeable future. Any future determination relating to our dividend policy will be made at the discretion of our board of directors and will depend on a number of factors, including earnings, capital requirements, financial condition, prospects and other factors that our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash, cash equivalents and short-term investments and capitalization as of December 31, 2005:

- on an actual basis; and
- on a pro forma basis to reflect the conversion of all our outstanding convertible preferred stock into shares of common stock immediately prior to the completion of this offering, as adjusted by the receipt of net proceeds from the sale of shares of common stock offered by us at an assumed initial public offering price of $ per share, the mid-point of the range on the front cover of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses.

	As of December 31, 2005	
	Actual	Pro Forma as adjusted
		(unaudited)
	(in thousands, except share data)	
Cash, cash equivalents and short-term investments	$106,831	$
Convertible preferred stock, $0.0001 par value; shares authorized, shares issued and outstanding, actual; no shares authorized, issued and outstanding, pro forma as adjusted	$257,192	$ —
Stockholders' equity:		
Preferred stock, $0.001 par value; no shares authorized, issued or outstanding, actual; shares authorized, no shares issued and outstanding, pro forma as adjusted	—	—
Common stock, $0.0001 par value actual, $0.001 pro forma as adjusted; shares authorized, shares issued and outstanding, actual; and shares issued and outstanding, pro forma as adjusted	1	
Additional paid-in capital	5,490	
Notes receivable from stockholders	(390)	
Deferred stock-based compensation	(955)	
Accumulated other comprehensive loss	(179)	
Accumulated deficit	(153,125)	
Total stockholders' equity (deficit)	(149,158)	
Total capitalization	$108,034	$

The table above, as of :

- excludes shares issuable upon the exercise of outstanding options at a weighted-average exercise price of approximately $ per share; and
- excludes shares reserved for issuance upon the exercise of options available for grant under our 2006 Equity Incentive Plan.

The table above should be read in conjunction with ''Management's Discussion and Analysis of Financial Condition and Results of Operations'' and our consolidated financial statements and related notes included elsewhere in this prospectus.

DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the assumed initial public offering price of $ per share, the mid-point of the range on the front cover of this prospectus, of our common stock and the pro forma as adjusted net tangible book value per share of our common stock after this offering. Our net tangible book value (deficit) as of was ($149.9) million or $ per common share. Our pro forma net tangible book value per share set forth below represents our total tangible assets less total liabilities and convertible preferred stock, divided by the number of shares of our common stock outstanding on , and assumes the automatic conversion of all of our outstanding shares of preferred stock into shares of our common stock immediately prior to the closing of this offering.

Dilution per share to new investors represents the difference between the amount per share paid by new investors who purchase shares of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after the completion of this offering. Giving effect to the sale of shares of our common stock offered by us at the assumed initial public offering price of $ per share, the mid-point of the range on the front cover of this prospectus, and after deducting the underwriting discounts and commissions and estimated offering expenses, our pro forma as adjusted net tangible book value as of would have been approximately $ million. This amount represents an immediate increase in pro forma net tangible book value of $ per share to our existing stockholders, and an immediate dilution in pro forma net tangible book value of $ per share to new investors purchasing shares of our common stock in this offering. The following table illustrates this dilution.

Initial public offering price per share		$
Historical net tangible book value (deficit) per share as of		
Increase per share due to assumed conversion of all shares of preferred stock		
Pro forma net tangible book value per share as of		
Increase per share to existing investors		
Pro forma as adjusted net tangible book value per share after the offering		
Dilution per share to new investors		$

The following table sets forth, on a pro forma as adjusted basis, as of , the differences between the number of shares of common stock purchased from us, the total consideration paid, and the average price per share paid by existing stockholders and new investors purchasing shares of our common stock in this offering, before deducting underwriting discounts and commissions and estimated expenses at an assumed initial public offering price of $ per share, the mid-point of the range on the front cover of this prospectus.

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

Assuming the exercise in full of all options outstanding as of , the number of shares purchased by existing stockholders would be increased by shares to shares, total consideration paid by them would be increased by approximately $ to $ and the weighted-average price per share paid by them would be increased by $ per share to $ per share.

If the underwriters exercise their over-allotment option in full, the percentage of shares of common stock held by existing stockholders will decrease to approximately % of the total number of shares of our

common stock outstanding after this offering, and the number of shares held by new investors will be increased to , or approximately % of the total number of shares of our common stock outstanding after this offering.

The tables above, as of :

- excludes shares issuable upon the exercise of outstanding options at a weighted-average exercise price of approximately $ per share; and
- excludes shares reserved for issuance upon the exercise of options available for grant under our 2006 Equity Incentive Plan.

The exercise of options, all of which have an exercise price less than the assumed initial public offering price, would increase the dilution to new investors an additional $ per share, to $ per share.

SELECTED CONSOLIDATED FINANCIAL DATA

The following table presents selected historical consolidated financial data. We derived the selected consolidated statements of operations data for the years ended December 31, 2003, 2004 and 2005 and consolidated balance sheet data as of December 31, 2004 and 2005 from our audited consolidated financial statements and notes thereto that are included elsewhere in this prospectus. We derived the selected consolidated statements of operations data for the years ended December 31, 2001 and 2002 and the consolidated balance sheet data as of December 31, 2001, 2002 and 2003 from our unaudited financial information not included in this prospectus. Historical results are not necessarily indicative of future results. The selected consolidated financial data should be read in conjunction with ''Management's Discussion and Analysis of Financial Condition and Results of Operations'' and our consolidated financial statements and related notes included elsewhere in this prospectus.

	Years Ended December 31,				
	2001[1]	2002	2003	2004	2005
	(in thousands, except per share data)				
Consolidated Statements of Operations Data					
Revenue					
Contract revenue	$ —	$ 262	$ 2,938	$ 22,839	$ 23,344
Research revenue	126	163	239	2,965	15,842
Royalty revenue from Affymetrix	—	—	10,792	1,966	1,278
Total revenue	126	425	13,969	27,770	40,464
Costs and expenses:					
Cost of contract revenue[2]	—	3,288	2,487	17,152	17,032
Research and development[3]	32,421	52,182	25,103	16,444	33,589
Selling, general and administrative	7,726	7,760	7,362	9,789	13,209
Total costs and expenses	40,147	63,230	34,952	43,385	63,830
Loss from operations	(40,021)	(62,805)	(20,983)	(15,615)	(23,366)
Interest income	2,486	708	526	238	1,648
Interest and other expense	—	(14)	(46)	(77)	(36)
Loss before income taxes	(37,535)	(62,111)	(20,503)	(15,454)	(21,754)
Income tax provision	—	—	—	—	(102)
Net loss	$(37,535)	$(62,111)	$(20,503)	$(15,454)	$(21,856)
Net loss per common share, basic and diluted	$	$	$	$	$
Weighted average shares used in calculating net loss per common share, basic and diluted					

(1) We were incorporated as a subsidiary of Affymetrix in September 2000 and began operations as a company separate from Affymetrix in March 2001. The 2001 amounts presented include $3.5 million of research and development expenses and $1.0 million of selling, general and administrative expenses for the period January 1, 2001 through March 29, 2001 incurred by Affymetrix.

(2) Cost of contract revenue includes $0.8 million, $0.4 million, $7.1 million and $5.6 million of expenses related to Affymetrix, a related party, for the years ended December 31, 2002, 2003, 2004 and 2005, respectively.

(3) Research and development expense includes $16.4 million, $24.0 million, $9.2 million, $0.4 million and $4.6 million of expenses related to Affymetrix, a related party, for the years ended December 31, 2001, 2002, 2003, 2004 and 2005, respectively, exclusive of the amounts described in footnote 1 above.

With respect to footnotes 2 and 3 to the foregoing table, see Note 3 of the notes to consolidated financial statements for an explanation of agreements with Affymetrix.

See Note 1 of the notes to consolidated financial statements for an explanation of the determination of the number of shares used to compute basic and diluted net loss per share.

	As of December 31,				
	2001	2002	2003	2004	2005
			(in thousands)		
Consolidated Balance Sheet Data					
Cash, cash equivalents and short-term investments	$ 69,478	$ 19,981	$ 31,277	$ 7,564	$ 106,831
Working capital (deficit)	57,773	(2,314)	14,385	1,684	103,152
Total assets	79,724	32,110	41,789	22,747	129,624
Long-term debt	—	310	330	399	—
Convertible preferred stock	100,679	101,136	133,062	133,062	257,192
Accumulated deficit	(33,201)	(95,312)	(115,815)	(131,269)	(153,125)
Total stockholders' deficit	(32,935)	(94,439)	(114,555)	(129,136)	(149,158)

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 included elsewhere in this prospectus. This discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth under ''Risk Factors'' and elsewhere in this prospectus.

Overview

Our History

We were incorporated as a subsidiary of Affymetrix in Delaware in September 2000 and began operations as a separate company in March 2001. During the initial two years of our operations, we focused on developing our genetic analysis capability for commercial application. In late 2002, we began commercializing our capabilities, entering into a series of agreements with several major pharmaceutical companies. We delivered initial results from these agreements in late 2002 and 2003.

We are currently focused on developing our own targeted medicine pipeline and completing genetic analysis services for our collaborative partners. From 2003 through much of 2005, in addition to our work with several major pharmaceutical companies and other commercial organizations, we engaged in research collaborations with a broad range of academic, government and not-for-profit organizations. These arrangements included analysis of DNA from humans, as well as other species of animals and plants, and helped to establish us as a leading provider of DNA analysis capability and expertise. In the fourth quarter of 2005, in accordance with our strategy to develop our own targeted medicines, we elected to focus our collaborative efforts on our relationships with key pharmaceutical companies. As a result, we expect that research funding and contract revenue from the not-for-profit sector will decline in 2006 and beyond as we pursue these types of arrangements on a more limited basis.

Results of Operations

Our revenues over the past three years have grown from $14.0 million in 2003 to $27.8 million in 2004 to $40.5 million in 2005. While we expect to continue generating near-term revenues from collaborations, we primarily view these as an additional funding source and expect that they will not continue to grow and may in fact decrease over time as we focus on developing strategic collaborations and our internal pipeline of targeted drugs.

Unless and until we develop commercial products, our revenues will be subject to fluctuations due to the nature, size and the timing of our performance under contracted research projects, the impact of seasonal spending patterns of pharmaceutical companies, the timing and amount of government grant funding programs, changes in overall spending levels in the life science industry and other unpredictable factors that may affect our customers' research programs. In addition, any delays in signing new contracts, receiving DNA samples from customers or completing contracted services could adversely affect our revenues and cause significant fluctuations in revenues between quarters.

Approximately 58% of our revenues for 2005 resulted from 27 projects undertaken with a range of pharmaceutical companies and other commercial and not-for-profit organizations, including eight projects undertaken through our Japanese subsidiary, Perlegen Sciences Japan, K.K. Approximately 39% of our revenues in 2005 resulted substantially from numerous projects that were directly or indirectly funded by the National Institutes of Health, or NIH.

We currently expect that most of our activities funded through NIH grants will be completed in 2006 and, in light of our decision to pursue these types of projects on a more limited basis, the portion of our revenue that we classify as research revenue will decline in 2006 versus 2005. We expect an increase in the

portion of our revenue that we classify as contract revenue that could partially or fully offset any decline in research revenue, and overall revenues could increase slightly over 2005 levels.

We have incurred substantial operating losses since our inception. As of December 31, 2005, our accumulated deficit was $153.1 million. We expect to continue to incur substantial costs for research, development and clinical trial activities over the next several years. Due to the possibility of fluctuations in our revenue and expenses, we believe quarterly comparisons of our operating results are not a good indication of our future performance.

Business Model

We believe that our long term revenues and profits will derive from the sale of targeted medicines. These medicines include those that we may commercialize ourselves, those that we may co-develop or co-commercialize with third parties, those that we elect to out-license in exchange for payments or royalties, and those that may be developed entirely by third parties for which we have provided genetics analysis and expertise in exchange for a variety of forms of compensation.

Our initial capital requirements to in-license a compound, collect DNA samples, and conduct genetic analysis will typically be a fraction of the capital invested by others to advance the compound to this stage of development. We expect that a typical compound that we might in-license to develop as a genetically targeted medicine will have completed some level of Phase II or later clinical trials. At the completion of our genetic analysis, and contingent upon our finding what we deem to be clinically and commercially useful genetic information, we expect to be in a position to develop, co-develop, or out-license a compound under a range of contractual terms.

We are also seeking to expand our relationships with pharmaceutical partners and in certain cases may enter into agreements in which we would contribute the value of our genetics analysis and expertise in exchange for potentially greater milestone and royalty payments, or intellectual property rights on future products that may evolve from these collaborations. If we are successful in entering into such agreements, this would have the effect of eliminating or reducing near term revenue on these activities while we still incur near term costs. As a result, we could reduce our overall revenue and operating margins in certain reporting periods, in exchange for the opportunity to increase our revenue and operating margins in later periods.

Critical Accounting Policies and Estimates

General

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of financial statements requires that management make estimates, assumptions and judgments with respect to the application of accounting policies that affect the reported amounts of assets, liabilities, revenues and expenses, and the disclosures of contingent assets and liabilities. Actual results could differ from those estimates.

Our significant accounting policies are described in Note 1 to the notes to consolidated financial statements. Certain accounting policies are deemed critical if 1) they require an accounting estimate to be made based on assumptions that were highly uncertain at the time the estimate was made, and 2) changes in the estimate that are reasonably likely to occur, or different estimates that we reasonably could have used, would have a material effect on our consolidated financial statements.

We believe the following critical accounting policies reflect our more significant estimates and assumptions used in the preparation of the consolidated financial statements.

Revenue Recognition

Our revenue is primarily derived from two sources: contract revenue and research revenue. Contract revenue consists of revenue received for performing genetic analysis projects. Research revenue consists of

amounts earned under research agreements for similar services wherein our costs are reimbursed by the customer.

We recognize revenue in accordance with the guidelines established by SEC Staff Accounting Bulletin No. 104, or SAB 104. Under SAB 104, revenue cannot be recorded until all of the following criteria have been met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the seller's price to the buyer is fixed or determinable; and collectibility is reasonably assured.

Contract revenue from genetic analysis projects is recognized at the time data is delivered to the customer. In those cases in which we make a partial delivery, we measure performance and recognize revenue based on the percentage of the data delivered to the total data to be delivered under the contract. In the case of SNP genotyping contracts, the contract value is divided by the total number of genotypes to be delivered multiplied by the number of genotypes delivered. Contingent payments for additional deliverables, milestones or royalties are not recognized as revenue until such time as the related deliverables have occurred or the royalties have been earned. Research revenue is recognized in the period during which the related costs are incurred and we become entitled to reimbursement.

We assess collectibility based on a number of factors, including past transaction history with the customer and the creditworthiness of the customer. If we determine that collection of a payment is not reasonably assured, we defer revenue recognition until the time collection becomes reasonably assured, which is generally upon receipt of payment. Judgments and estimates made in applying SAB 104 can have a significant impact on the timing and amount of revenue recognized.

A third source of revenue, royalty revenue from Affymetrix, was related to the assignment of certain patents and worldwide nonexclusive licenses related to the use of our know-how and patents to Affymetrix, which occurred in 2003. In exchange for the assignment of such patents and licenses, we received $15.0 million from Affymetrix. Under the terms of the agreement, up to $6.0 million of this payment was repayable to Affymetrix if we shared our SNP database with others. Our repayment obligation declined over the passage of time in amounts as described in the agreement. We recorded $9.0 million of royalty revenue immediately and the $6.0 million was recognized as royalty revenue as our repayment obligation declined through December 31, 2005. In October 2004, we granted access to a portion of our SNP database to third parties and as a result were required to refund Affymetrix $1.0 million.

Inventory Valuation

We state our inventories at the lower of cost or market. Cost is determined using a specific cost identification method. Inventory includes materials consumed during genetic analysis, such as microarrays, sample preparation reagents and other chemicals. Such costs are recorded to work in process on the balance sheet as the materials are used and subsequently recognized as cost of contract revenue at the time the related revenue is recognized. The work in process balance for a given contract is reviewed to ensure it does not exceed the revenue expected to be obtained for such contract. The labor and overhead components of cost of revenue are expensed as incurred.

We record adjustments to inventory for potentially excess, obsolete or impaired materials in order to state inventory at net realizable value. We regularly review inventory for excess and obsolete materials, taking into account product expiration, historical experience and our current inventory levels. Judgments must be made as to the future usage of raw materials in determining net realizable value; if actual market conditions for genetic analysis are less favorable than anticipated, additional inventory adjustments could be required.

Deferred Stock-Based Compensation

As permitted by SFAS No. 123, *Accounting for Stock-Based Compensation*, or SFAS 123, we historically have accounted for stock options granted to employees and directors in accordance with Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*, or APB 25, and related interpretations. Under APB 25, compensation expense is recognized over the vesting period of the option to the extent that the fair value of the stock exceeds the exercise price of the stock option at the date of grant.

In connection with the issuance of 4,200,000 shares to our founders, we recorded deferred stock-based compensation of $1.5 million representing the difference between the purchase price and the estimated fair value of the stock. This deferred stock-based compensation was amortized over the vesting period of the stock and the resulting expense was $23,000, $125,000 and $267,000 for the years ended December 31, 2005, 2004 and 2003, respectively.

The fair value of the common stock for options granted was originally estimated by our board of directors, with input from management. In connection with this proposed initial public offering, we obtained a contemporaneous valuation as of December 31, 2005 and a retrospective valuation as of April 30, 2005 and retrospectively assessed the fair value of our common stock. A number of objective and subjective factors were considered in determining the fair value of our common stock, including the pricing of convertible preferred stock, the superior preferences and rights of our convertible preferred stock over the common stock, important operational events, such as the in-licensing of our first compound, the risk and non-liquid nature of the common stock, and underlying market conditions. Our retrospective analysis of the fair value of our stock prices utilizes a predominantly linear growth assumption between the dates of the valuations. As a result of such valuations, we determined options were issued in 2005 with exercise prices below the estimated fair value of our common stock on the date of grant.

In accordance with APB 25, we have recorded deferred stock-based compensation for the difference between the exercise price of the stock option and the estimated fair value of our common stock at the date of grant. Deferred compensation is recorded as a reduction of stockholders' equity and is amortized to expense on a straight-line basis over the period during which the options vest or our right to repurchase the stock lapses, generally over four years. During the year ended December 31, 2005, we recorded deferred stock-based compensation related to these options of $1.2 million and amortization of deferred stock-based compensation expense of approximately $198,000. We expect deferred stock-based compensation expense under APB 25 to be approximately $347,000, $280,000, $244,000 and $84,000 for the years ending December 31, 2006, 2007, 2008 and 2009, respectively, related to options granted in 2005, before consideration of the impact of any forfeitures.

In December 2004, the Financial Accounting Standards Board, or FASB, issued FASB Statement No. 123 (revised 2004), *Share Based Payment*, or SFAS 123R, which is a revision of SFAS 123. This statement supersedes APB 25, and amends FASB Statement No. 95, *Statement of Cash Flows*. Generally, the approach in SFAS 123R is similar to the approach described in SFAS 123; however, SFAS 123R requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure is no longer an alternative. We adopted SFAS 123R using the prospective transition method beginning on January 1, 2006. Under the prospective transition method, we will continue to account for stock options outstanding as of December 31, 2005 using the accounting principles originally applied to those options. For stock options and awards granted subsequent to December 31, 2005, we will calculate compensation cost based on the grant-date fair value estimated in accordance with SFAS 123R.

We accounted for share-based payments awarded to employees through December 31, 2005 using APB 25's intrinsic value method and, as such, recognized no compensation cost for employee stock options granted with exercise prices equal to or greater than the fair value of our common stock on the date of the grant. Accordingly, the adoption of SFAS 123R's fair value method is expected to result in significant non-cash charges which will increase our reported operating expenses; however, it will have no impact on our cash flows. The impact of adoption of SFAS 123R will depend on the level of share-based payments granted in the future and the option pricing model we choose to use to value the options.

Options granted to consultants are accounted for in accordance with SFAS 123 and Emerging Issues Task Force, or EITF, No. 96-18, *Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*. We apply the Black-Scholes method to determine the estimated fair value of such options, which are periodically remeasured as they vest, and the resulting value is recognized as an expense over the period of services received. Stock options granted to non-

employees resulted in expense of $858,000, $43,000 and $15,000 for the years ended December 31, 2005, 2004 and 2003, respectively.

Deferred Tax Asset Valuation Allowance

Our estimate of the valuation allowance for deferred tax assets requires us to make significant estimates and judgments about our future operating results. Our ability to realize deferred tax assets depends on our future taxable income as well as limitations on utilization. A deferred tax asset must be reduced by a valuation allowance if it is more likely than not that some portion or all of the deferred tax asset will not be realized prior to its expiration. The projections of our operating results on which the establishment of a valuation allowance is based involve significant estimates regarding future demand for our products, competitive conditions, product development efforts, approvals of regulatory agencies and product cost. We have recorded a full valuation allowance on our United States net deferred tax assets as of December 31, 2004 and 2005 due to uncertainties related to our ability to utilize our deferred tax assets in the foreseeable future. These deferred tax assets primarily consist of certain net operating loss carryforwards and research and development tax credits.

Results of Operations

Years Ended December 31, 2005 and 2004

Revenue

Revenue for the years ended December 31, 2005 and 2004 was $40.5 million and $27.8 million, respectively. Contract revenue is derived from custom genotyping and sequencing projects with pharmaceutical companies, as well as other commercial and not-for-profit organizations and increased to $23.3 million in 2005 from $22.8 million in 2004. The increase is primarily the result of an increase in the number of project deliveries in 2005 as compared to 2004.

Research revenue increased to $15.8 million in 2005 from $3.0 million in 2004. Substantially all of this increase relates to an increase in the research performed under grants with the NIH. We were awarded a total of $19.3 million under our two largest grants from the NIH, including the International HapMap Consortium and a mouse resequencing project, and we recognized revenue from these two grants of $10.9 million in 2005 as compared to $1.0 million in 2004. We completed our work related to the International HapMap Consortium in 2005 and expect to complete work on the mouse resequencing project in 2006.

Royalty revenue from Affymetrix decreased to $1.3 million for the year ended December 31, 2005 from $2.0 million for the year ended December 31, 2004. Royalty revenue is related to agreements with Affymetrix, a related party, under which we were recording $6.0 million of revenue in declining monthly amounts through the passage of time as our repayment obligation to Affymetrix declined. All revenue related to this agreement has been recognized as of December 31, 2005 and we do not expect future royalty revenue from Affymetrix.

Approximately 38% of our revenues for the year 2005 resulted from transactions that were directly funded by the NIH. We expect that our research activities under NIH grants will decline in 2006 versus 2005 as we complete our current projects and do not expect to enter into significant new projects with the NIH. In addition, all royalty revenues related to agreements with Affymetrix were recognized by December 31, 2005. We expect an increase in contract revenue may offset such declines and overall revenues may increase slightly over 2005 levels; however, we cannot assure you that revenue will continue to increase.

Revenue from customers in the United States represented 71% of total revenue in 2005, as compared to 90% of total revenue in 2004.

Cost of Contract Revenue

Cost of contract revenue represents costs incurred in genetic analysis, including raw materials, labor and overhead. Contract costs related to raw materials are recorded to work in process on the balance sheet as the

materials are used and subsequently recognized as cost of contract revenue at the time the related revenue is recognized. Contract direct labor and overhead costs are expensed to cost of contract revenue in the period incurred. All costs related to research revenue is expensed in the period incurred and is included in research and development expense.

Cost of contract revenue decreased to $17.0 million for the year ended December 31, 2005 from $17.2 million for the year ended December 31, 2004. Gross margin on contract revenue increased to 27% for the year ended December 31, 2005, from 25% for the year ended December 31, 2004, primarily due to the mix of contracts in process and delivered, as well as efficiencies gained in genetic analysis offset in part by increases in inventory reserves.

Cost of contract revenue includes costs paid to Affymetrix, a related party, of $5.6 million and $7.1 million for the years ended December 31, 2005 and 2004, respectively. Costs paid to Affymetrix included in cost of contract revenue are comprised of costs of microarrays and declined in 2005 as compared to 2004 due to a more favorable pricing environment, combined with improvements in our processes.

We expect the mix of our contracts will continue to affect our future gross margins and, we may enter into contracts in which we perform projects for customers in exchange for future milestone or royalty revenue as opposed to near-term revenue, which, in the next several years, may cause our margins to decline.

Research and Development Expense

Our research and development expenses consist primarily of personnel-related expenses, laboratory supplies, licensing fees and services provided within our research, development and clinical groups. We expense our research and development expenses as they are incurred. Research and development expenses increased $17.1 million to $33.6 million for the year ended December 31, 2005. Approximately $3.2 million of the increase is attributable to personnel and consulting related expenses, including $0.2 million related to stock-based compensation, and $7.5 million is attributable to lab supplies, including materials used in genetic analysis performed under research projects. These increases are primarily associated with studies under NIH grants, lab research related to our drug product candidates and our new operations in Japan. The remaining $6.4 million increase is primarily due to a $4.8 million increase in clinical development expenses, primarily in-licensing and sample acquisition costs, and a $1.9 million decrease in the amount of indirect expense allocated to cost of contract revenue. Indirect costs are allocated to cost of contract revenue and research and development based on labor hours charged to projects. In 2005, a greater proportion of our projects were related to research and development, including government grants, than in 2004, and therefore a greater percentage of our indirect costs were allocated to research and development as opposed to cost of contract revenue. These increases are offset by a $0.3 million decrease in depreciation expense related to fully-depreciated lab equipment.

We use our internal research and development resources across several projects and many costs are not attributable to specific projects. Accordingly, other than costs associated with research projects for customers, we do not account for all our internal research and development costs on a project basis. Direct costs related to government grants increased $9.4 million to $12.0 million for the year ended December 31, 2005. We incurred $6.5 million in direct research and development expense related to our drug product candidates in the year ended December 31, 2005. No research and development expense was incurred in the year ended December 31, 2004 for our drug product candidates.

Research and development expense includes costs paid to Affymetrix, a related party, of $4.6 million and $0.4 million for the years ended December 31, 2005 and 2004. Costs paid to Affymetrix included in research and development are comprised of costs of microarrays and increased due primarily to the increase in grant activities in 2005.

We expect that our research and development expenses will increase substantially as we enter clinical trials for drug candidates and begin drug development related activities. Due to the risks inherent in the clinical trial process, we are unable to estimate with any certainty the costs we will incur as we expand our research and development activities related to clinical development of our product candidates. In addition, we

cannot forecast with any degree of certainty if any of our drug product candidates will be subject to future partnering, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

Selling, General and Administrative Expense

Our selling, general and administrative expenses consist primarily of personnel costs for business development, legal, finance, human resources and general management, as well as professional fees, such as expenses for legal and accounting services. Selling, general and administrative expenses increased $3.4 million to $13.2 million for the year ended December 31, 2005. Approximately $2.1 million of the increase is attributable to personnel related expenses in the United States and Japan, including $0.7 million related to stock-based compensation. Advertising and marketing expenses increased $0.6 million and consulting and professional services, primarily related to legal and accounting services, increased $0.4 million. The remaining $0.3 million increase is primarily related to facilities costs.

We expect that our selling, general and administrative expenses will increase due to the increased regulatory requirements we will encounter as a public company, including the Sarbanes-Oxley Act of 2002 and the related rules and regulations of the SEC.

Interest Income

Interest income on our cash and cash equivalents and investments was $1.6 million and $0.2 million for the years ended December 31, 2005 and 2004, respectively. The increase is primarily due to higher average cash balances and higher interest rates.

Interest and Other Expense

Interest and other expense for the year ended December 31, 2005 and 2004 consists primarily of interest expense on related party and convertible notes payable.

Provision for Income Taxes

We incurred net operating losses for the years ended December 31, 2005 and 2004, and accordingly, we did not pay any U.S. federal or state income taxes; however, our Japanese subsidiary was profitable and recorded $102,075 as income tax expense during 2005. We have recorded a valuation allowance for the full amount of our U.S. net deferred tax asset, as the future realization of the tax benefit is uncertain. As of December 31, 2005, we had net operating loss carryforwards for U.S. federal and state tax purposes of approximately $142.2 million and $114.0 million, respectively, which begin to expire in 2021 and 2008, respectively, unless previously utilized, except for the state research and development tax credit, which can be carried forward indefinitely.

We also had U.S. federal and state research and development tax credit carryforwards of approximately $8.4 million and $8.0 million, respectively, which begin to expire in 2021, unless previously utilized.

Our utilization of the net operating losses and credits may be subject to substantial annual limitations pursuant to Section 382 and 383 of the Internal Revenue Code, and similar state provisions, as a result of changes in our ownership structure. These annual limitations may result in the expiration of net operating losses and credits prior to utilization.

Years Ended December 31, 2004 and 2003

Revenue

Revenue for the years ended December 31, 2004 and 2003 was $27.8 million and $14.0 million, respectively. Contract revenue increased to $22.8 million in 2004 from $2.9 million in 2003. The increase is primarily the result of an increase in the number of project deliveries in 2004 as compared to 2003.

Research revenue increased to $3.0 million in 2004 from $0.2 million in 2003. Substantially all of this increase relates to an increase in the research performed under grants with the NIH.

Royalty revenue from Affymetrix decreased to $2.0 million for the year ended December 31, 2004 from $10.8 million for the year ended December 31, 2003. Royalty revenue is related to agreements with Affymetrix, a related party, under which we received $15.0 million in 2003. Under the terms of the agreement, up to $6.0 million of this payment was repayable to Affymetrix if we shared our SNP database with others. Our repayment obligation declined over the passage of time in amounts as described in the agreement. We recorded $9.0 million of royalty revenue immediately and $1.8 million of the $6.0 million in 2003 based on the decline in the amount of our repayment obligation as of December 31, 2003.

Revenue from customers in the United States represented 90% of total revenue in 2004, as compared to 100% of total revenue in 2003.

Cost of Contract Revenue

Cost of contract revenue increased to $17.2 million for the year ended December 31, 2004 from $2.5 million for the year ended December 31, 2003 reflecting the increase in project deliveries in 2004. Gross margin on contract revenue increased to 25% for the year ended December 31, 2004 from 15% for the year ended December 31, 2003. The increase in contract gross margin as a percentage of contract revenue is primarily due to efficiencies gained in our processes.

Cost of contract revenue includes costs paid to Affymetrix, a related party, of $7.1 million and $0.4 million for the years ended December 31, 2004 and 2003, respectively. Costs paid to Affymetrix included in cost of contract revenue are comprised of costs of microarrays and increased in 2004 as compared to 2003 due to an increase in the number of project deliveries.

Research and Development Expense

Research and development expenses decreased $8.7 million to $16.4 million for the year ended December 31, 2004. This decrease is primarily due to an additional $4.9 million of indirect expenses allocated to cost of contract revenue in 2004 and a $4.5 million decrease in lab supplies. In 2003 we were developing our genetic analysis capabilities as opposed to a greater focus on contract revenue generating projects in 2004. In addition, information technology expenses allocated to research and development expense decreased $0.5 million from 2003 to 2004, primarily related to depreciation expense related to fully-depreciated computer equipment. These decreases were offset by an increase in personnel and consulting related expenses of $1.0 million and a $0.3 million increase in clinical development expenses.

Research and development expense includes costs paid to Affymetrix, a related party, of $0.4 million and $9.2 million for the years ended December 31, 2004 and 2003, respectively. Costs paid to Affymetrix included in research and development are comprised of costs of microarrays and decreased in 2004 as compared to 2003, due primarily to a shift in our focus. In 2003, we were primarily focused on development efforts, whereas in 2004 we significantly increased our work on genetic analysis contracts for customers.

Selling, General and Administrative Expense

Selling, general and administrative expenses increased $2.4 million to $9.8 million for the year ended December 31, 2004. This is primarily attributable to an increase in personnel and consulting related expenses, partially offset by a decrease in stock-based compensation.

Interest Income

Interest income on our cash and cash equivalents and investments was $0.2 million and $0.5 million for the years ended December 31, 2004 and December 31, 2003, respectively. The decrease is primarily due to lower average cash balances.

Interest and Other Expense

Interest and other expense consists primarily of interest expense on related party and convertible notes payable for the years ended December 31, 2004 and 2003.

Liquidity and Capital Resources

Sources of Liquidity

We have historically funded our operations primarily through the sale of equity securities and funds received from our contract and research revenue. Through December 31, 2005, we have received $256.9 million from the sale of preferred stock, net of issuance costs. We have also financed our operations, including purchases of equipment, through loans and leases. As of December 31, 2005, we had $0.4 million of debt outstanding due in 2006 of which $0.2 million was payable to Affymetrix.

Cash Flows

As of December 31, 2005, we had cash, cash equivalents and short-term investments of approximately $106.8 million. We currently invest our excess cash balances primarily in short-term, liquid, investment-grade fixed income securities.

Net cash used in operating activities was $19.3 million, $23.1 million and $13.5 million for the years ended December 31, 2005, 2004 and 2003, respectively. Net cash used in operating activities for these periods consists primarily of our net loss, the components of which are discussed above, partially offset by non-cash charges for depreciation of property and equipment, amortization of intangible assets and amortization of deferred stock-based compensation. In addition, the timing of customer payments, purchases of inventory and accounts payable to a related party have affected our cash used in operating activities in these years.

Customer payments do not always occur coincident with the delivery of data; for example, the majority of our contracts require an upfront payment from the customer. Payments received in advance of delivery are recorded as deferred revenue until earned. In 2003 and 2005, we received payments in excess of the revenue recognized, resulting in a source of cash, and in 2004 we received payments in amounts less than the revenue recognized resulting in a use of cash. In 2003, 2004 and 2005, we purchased inventory in excess of the inventory used resulting in a use of cash in these years. Inventory purchases are made in advance of commencing work on contracts, and in late 2003 and throughout 2004 we experienced a significant increase in the number of contracts we entered into. In late 2002 we incurred significant expenses payable to Affymetrix, a related party, which were paid in early 2003 and resulted in a significant use of cash in 2003.

Net cash used in investing activities was $23.2 million, $0.9 million and $0.5 million in the years ended December 31, 2005, 2004 and 2003, respectively. Cash used in investing activities in the year ended December 31, 2005 was primarily due to the purchase of investment securities, net of sales or maturities of investment securities, and the purchase of property and equipment. Cash used in investing activities in the year ended December 31, 2004 was due to the purchase of property and equipment, offset by proceeds from the repayment of loans to a shareholder. Cash used in the year ended December 31, 2003 was due to the purchase of property and equipment.

Net cash provided by financing activities was $124.3 million, $0.3 million and $25.3 million in the years ended December 31, 2005, 2004 and 2003, respectively. Cash provided in financing activities in these years was primarily due to net proceeds from the issuance of preferred and common stock, offset by payments on a capital lease.

Our future capital uses and requirements depend on numerous factors, including but not limited to the following:

- terms and timing of any collaborative, licensing and other arrangements that we may establish;
- extent to which we acquire or in-license new products or technologies;
- rate of progress and cost of our research and development activities, including clinical trials;
- scope, prioritization and number of clinical development and research programs we pursue;

- costs and timing of regulatory approval;
- costs of establishing or contracting manufacturing, sales and marketing capabilities;
- the success of the commercialization of our products; and
- costs of defending and enforcing any patent claims and other intellectual property rights.

Based on our current operating plans, we expect that our current cash and cash equivalents, investments, and net proceeds from this offering will be sufficient to fund our anticipated operating needs for at least 24 months. Until we can generate significant cash from our operations, we expect to continue to fund our operations with existing cash resources generated from the proceeds of offerings of our equity securities and contracted services. In addition, we may finance future cash needs through the sale of other equity securities, strategic collaborations and debt financing. We may also finance ourselves through the out-licensing of our intellectual property rights, such as rights to our internal drug candidates, which would likely involve us sharing future revenue related to such rights. We cannot be sure that our existing cash and investment resources, together with the proceeds of this offering, will be adequate to fund our business needs or that additional financing will be available when needed or on terms favorable to us or our stockholders. Having insufficient funds may require us to scale back or eliminate some of our development programs and may adversely affect our ability to continue as a going concern. If we raise additional funds by issuing equity securities, dilution to existing stockholders will result. If we raise additional funds by incurring debt financing, the terms of the debt may involve significant cash payment obligations as well as covenants and financial ratios that may affect our ability to operate our business.

Off-Balance Sheet Arrangements and Contractual Obligations

We do not participate in any transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, or SPEs, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. As of December 31, 2005, we are not involved in any SPE transactions.

In October 2001, we entered into a 10-year lease for our Mountain View facility. Under the terms of the lease, we established a $1.6 million letter of credit as security and paid rent of $2.2 million for the first year with an annual increase of $69,811 in each subsequent year. We also lease office space in McLean, Virginia under a non-cancelable operating lease that expires in October 2007.

In January 2004, we entered into a lease for the purchase of capital equipment. As of December 31, 2005 the remaining balance owed under the lease was $200,000.

In October 2004, Affymetrix provided financing to us in the amount of $963,389. As of December 31, 2005, we owed Affymetrix $198,595 under this arrangement.

As of December 31, 2005, our enforceable and legally binding contractual obligations are (in thousands):

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Contractual Obligations					
Note payable to a related party	$ 199	$ 199	$ —	$ —	$ —
Capital leases	200	200	—	—	—
Operating leases	15,439	2,531	5,183	5,398	2,327
Total	$15,838	$2,930	$5,183	$5,398	$2,327

We also lease office space in Tokyo, Japan through March 2008 under an operating lease which is cancelable and therefore not included in the above table. The above table also does not include orders for goods and services entered into in the normal course of business that are not enforceable or legally binding. At December 31, 2005, we had purchase obligations due within one year to Affymetrix of approximately $56,000, constituting non-cancellable orders for custom products.

Recent Accounting Pronouncements

In March 2004, the EITF reached a consensus on EITF No. 03-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments*. EITF No. 03-1 provides guidance regarding disclosures about unrealized losses on available-for-sale debt and equity securities accounted for under SFAS No. 115. The guidance for evaluating whether an investment is other-than-temporarily impaired should be applied in other-than-temporary impairment evaluations made in reporting periods beginning after June 15, 2004. In September 2004, the EITF delayed the effective date for measurement and recognition guidance. In June 2005, the FASB decided not to provide additional guidance on the meaning of other-than-temporary impairment under EITF No. 03-1 and directed the staff to issue FASB Staff Position paper, or FSP 115-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments.* FSP 115-1 will replace the accounting guidance on the determination of whether an investment is other-than-temporarily impaired as set forth in EITF 03-1 with references to existing other-than-temporary impairment guidance. FSP 115-1 will be effective for other-than-temporary impairment analyses conducted in periods beginning after December 15, 2005. We do not believe the adoption of FSP 115-1 will have a material impact on our financial condition or results of operations.

In November 2004, the FASB issued SFAS No. 151, *Inventory Costs, an amendment of ARB No. 43, Chapter 4.* SFAS No. 151 clarifies the accounting for abnormal amounts of unallocated overhead resulting from abnormally low production (or idle capacity), freight, handling costs and spoilage. SFAS No. 151 requires that those items be recognized as current-period charges and that allocation of fixed production overhead to the costs of conversion be based on the normal capacity of the production facilities. SFAS No. 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. We do not believe the adoption of SFAS No. 151 will have a material impact on our financial condition or results of operations.

Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Sensitivity

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. The fair market value of our fixed rate securities may be adversely impacted by fluctuations in interest rates while income earned on our floating rate securities may decline as a result of decreases in interest rates. Under our current policies, we do not use interest rate derivative instruments to manage exposure to interest rate changes. We ensure the safety and preservation of our invested principal funds by limiting default risk, market risk and reinvestment risk. We mitigate default risk by investing in investment grade securities. We have historically maintained a relatively short average maturity for our investment portfolio, typically less than 30 days, and a hypothetical 1% move in interest rates along the entire interest rate yield curve would not materially affect the fair value of our interest sensitive financial instruments.

Foreign Currency Exchange Risk

Although most of our revenue is realized in U.S. dollars, some portions of our revenue are realized in Japanese yen. As a result, our financial results could be affected by factors such as changes in foreign currency exchange rates or weak economic conditions in foreign markets. The functional currency of our Japanese subsidiary is the Japanese yen. Accordingly, the accounts of these operations are translated from Japanese yen to the U.S. dollar using the current exchange rate in effect at the balance sheet date for the balance sheet accounts, and using the average exchange rate during the period for revenue and expense accounts. The effects of translation are recorded in accumulated other comprehensive income (loss) as a separate component of stockholders equity. Exchange gains and losses arising from transactions denominated in foreign currencies are recorded in operations. Under our current policies, we do not use foreign currency derivative instruments to manage exposure to exchange rate changes.

GENETICS BACKGROUND

Overview of the Human Genome

The complete set of human genetic information is called the human genome. Nearly all of the approximately 100 trillion cells in the human body each contain two copies of the human genome, one copy inherited from each parent. The human genome is composed of DNA, a molecule made up of two complementary strands. Each strand is made up of four different types of bases, or nucleotides: adenine, cytosine, guanine and thymine, abbreviated A, C, G and T. Whenever one strand of DNA has an A, the complementary strand has a T. Similarly, whenever there is a C, the complementary strand has a G. These pairings of A&T and G&C are called base pairs.

The human genome contains approximately 3.2 billion base pairs. Contained within the billions of base pairs are functional units called genes. Genes can vary in length from a few hundred base pairs to more than two million base pairs. Inside cells, genes are transcribed into messenger RNAs, which in turn are then translated into proteins, the building blocks of cellular function. The complete human genome contains tens of thousands of genes, but only a subset of all genes are transcribed into RNA and translated into protein in any given cell. The precise ways in which the human genome determines the time of appearance and the specific amount of each of the many proteins within a cell is an area of active scientific investigation.

Genetic Variation and SNPs

The genomes of any two people are more than 99.9% identical. However, within the remaining one tenth of one percent are millions of genetic variations. These variations are responsible for visible differences, such as hair and eye color, and also play a significant role in why some people are predisposed to certain diseases as well as why some people respond well to certain drugs while others do not.

By far the most common forms of variation in the human genome are single nucleotide polymorphisms, or SNPs (pronounced ‘‘snips’’). A SNP is simply the presence of an A, T, C or G in a location on a strand that is different from the nucleotide found at the same location in most people. Some SNPs are considered to be common, occurring in at least 5-10% of the population. Other SNPs are quite rare, and may only occur in a few individuals. Common SNPs found in one population are generally common in other populations, facilitating their use in genetics research as well as increasing their utility in diagnostic tests.

Although there are millions of common SNPs in the human genome, it is estimated that for any given trait as few as 10 to 100 common SNPs can account for most of the observed variability between individuals. Although any single SNP generally accounts for a small fraction of the variability between individuals, in aggregate, such groups of 10 to 100 common SNPs can provide a large fraction of the genetic basis of trait variability.

Why Analyze DNA?

Focusing on the analysis of DNA provides critical advantages:

- *Causality.* Because DNA forms the blueprint for all other biological processes and their reactions to the environment, DNA represents the cause, not the effect, of traits including predisposition to disease and drug response. In contrast, observed changes in other downstream processes, such as RNAs or proteins, may represent cause or effect.
- *Immediate Predictive Utility.* As a result of DNA’s causality, knowledge of it can be used in a predictive manner even in the absence of expending the time and resources to develop a full understanding of its impact on downstream biological processes. This causality can provide important utility in conducting clinical trials and in diagnostics predicting patient response to targeted medicines.
- *Ease of Collection.* DNA can be collected substantially unchanged from virtually any source tissue or cell type at any point in time. In contrast, RNA or proteins often change depending not only on the source tissue or cell type, but also on the time and conditions during which the samples were

collected. For these reasons, DNA can be collected with generally greater ease and less cost, and can be collected retrospectively even long after a particular trait of interest has been observed in the donor.

- *Binary Measurement.* SNPs in DNA are generally binary, meaning they can take only one of two forms, such as an A where normally there is a G. This greatly facilitates their measurement and subsequent analysis. In contrast, RNA or proteins can take many different forms, and also differ substantially in quantity depending on the source tissue, cell type, and conditions to which a body is exposed, complicating their measurement and analysis.

- *Known, Finite Boundaries.* At 3.2 billion base pairs, the sequence of the human genome is massive but finite in size, and the 8–10 million common SNPs thought to be present in it are becoming increasingly known. In contrast, we do not yet have an understanding of the full complement of RNAs or proteins produced by the cells of the body, and thus cannot yet comprehensively study them.

High-Density Whole Genome Association Studies

Analyzing DNA to determine which genetic variations are responsible for a given trait, such as response to a drug or predisposition to a common disease, typically involves a case-control protocol that compares DNA from a group of individuals with the trait, to the DNA from a group without the trait. These association studies compare the frequency with which certain SNPs are present in the first group versus the frequency of those same SNPs in the second group. Differences in frequency are analyzed to determine whether any of the SNPs are statistically associated with the trait.

In the past, due primarily to technological limitations, scientists selected a relatively small number of SNPs typically clustered in and around a set of candidate genes, which are genes that the scientists would select as potentially playing a role in the trait. However, complex traits, including drug response and common diseases, appear to be caused by many SNPs including those located in genes that would not have been predicted to play a role in the trait, as well as in areas of the genome outside of genes entirely. As a result, these candidate gene association studies were limited in their ability to comprehensively identify the genetic basis of complex traits.

More recently, advances in technology have allowed scientists to compare significantly greater numbers of SNPs across the entire genome in what are known as high-density whole genome association studies. By looking broadly across the entire genome at hundreds of thousands of SNPs, scientists increase their chances of more comprehensively identifying the SNPs involved in a given trait. This comprehensiveness can be especially important when associated SNPs are intended to be used in medical practice or clinical trials to predict drug response or determine predisposition to common diseases.

BUSINESS

Overview

We are a biopharmaceutical company developing genetically targeted medicines. Our mission is to get the right drugs to the right patients. We believe that genetically targeted medicines hold the promise of significantly improving patient care in a wide range of therapeutic areas including metabolic, cardiovascular, central nervous system and inflammatory diseases. We have begun building our own drug pipeline, and are actively seeking to expand it. Our pipeline currently consists of targeted drug candidates addressing two large markets: type II diabetes and dyslipidemia (cholesterol and fat imbalance).

Each of the drug candidates in our pipeline has demonstrated efficacy and safety in a material subset of patients in Phase II or later clinical trials. We intend to improve the therapeutic profile of these drugs and bring them to market by genetically targeting them to those patients most likely to benefit. This improvement may also enable new and expanded markets for these drugs, not achievable in the absence of targeting. We believe our leadership in genetic analysis, and our expertise in applying genetics to clinical development, will be critical to our success in developing targeted medicines.

We have built one of the world's leading genetic analysis capabilities. Having processed over 70,000 human DNA samples and analyzed several billion genetic variations, we have developed an advanced understanding of the role of genetics in drug response and disease. We believe we have conducted the largest genetic association studies in the world and that we have completed more such studies than any other organization. The result of these studies is the identification of specific patterns of genetic variations called SNPs (pronounced ''snips'') that are predictive of drug response, disease and other traits of interest.

Our leadership position in genetics has been strongly validated by the numerous milestones we have achieved and the multiple collaborations we have established with industry leaders. We believe that we were the first company in the world to discover the genome-wide structure of common genetic variation by comparing many copies of the human genome. In addition, we contributed the majority of the data to the International HapMap Consortium, the successor to the Human Genome Project. We believe that we were the first to develop the ability to perform genetic studies utilizing hundreds of thousands, and in some cases millions, of SNPs to more comprehensively identify the genetic basis of drug response and disease. We have entered into collaborations with eight of the world's leading pharmaceutical companies, most of whom have entered into repeat collaborations with us. Two of these companies, Pfizer and Eli Lilly, made equity investments in us. We have also entered into a number of collaborations with leading academic and governmental organizations across a breadth of areas. Our collaborations have generated approximately $69 million in revenue through December 31, 2005, which has helped finance the continued development of our genetics expertise and drug pipeline.

The Problem

Patients differ in the way they respond to drugs. Some patients experience excellent efficacy, while others take a drug and receive little or no benefit. Some patients experience few if any side effects, while others may suffer serious adverse events. In fact, a review of published information suggests that in many therapeutic areas, only 40-60% of patients respond positively to a major drug used to treat the disease.

The current one-size-fits-all model of prescribing medicines to as many patients as possible, without adequate knowledge in advance of who will benefit, creates ineffective treatments and unnecessary costs. This results in poor treatment for the patient, lack of adequate decision-making knowledge for the physician and unnecessary expense for the payers. Overall it leads to rising healthcare costs and inadequate medical treatment.

Despite widespread recognition of such patient-to-patient variability in drug responses, physicians typically cannot anticipate which of their patients will benefit most, which will not benefit at all, and which will experience adverse events upon exposure to a given medication. Physicians are left with no other choice than to prescribe medications based on general treatment paradigms established by the medical community and regulatory agencies, coupled with their own personal experience in prescribing these medications.

As a result, potentially large numbers of existing drugs are being utilized by patients who will not realize maximum therapeutic benefit or who will experience side effects, resulting in suboptimal treatment across many diseases. Months may pass before patients are prescribed the most appropriate therapy, allowing their diseases to worsen while potentially exposing them to side effects. For example, with regard to efficacy in diseases such as type II diabetes, schizophrenia and depression, first-line oral therapies fail to provide adequate efficacy in as many as 40% of patients despite the importance of timely treatment in each of these diseases. Examples with regard to safety include the market withdrawals of the pain reliever Vioxx® and the cholesterol treatment Baycol due to risks of serious adverse events with these drugs.

Many medicines that in development show promise in a subset of patients are ultimately never approved. In some cases, the efficacy and safety of these compounds would have been superior to existing marketed products for a subset of the trial population. However, without a reliable means of identifying this subset of patients prior to treatment, regulators have had no choice but to evaluate the drug across all patients. Examples of such drug candidates include the type II diabetes treatment Pargluva™, for which FDA approval has recently been delayed pending additional studies addressing elevated cardiovascular risks, and the hypertension treatment Vanlev™, discontinued during the FDA approval process due to potentially life-threatening swelling in some patients' airways.

In addition to these impacts on patients, problems with marketed drugs and the discontinued development of drug candidates cost the pharmaceutical industry billions of dollars each year. Withdrawals of marketed drugs have led to billions of dollars in foregone revenue, and additional billions of dollars in litigation-related expense. According to the Tufts Center for the Study of Drug Development, it is estimated that over a quarter of the more than $800 million average expense in bringing a single drug to market is represented by failures of other compounds in clinical development.

Third-party payers such as insurers, governments, and employers are also affected as they spend billions of dollars each year on therapies that may only work on a fraction of patients, and billions more addressing adverse events from drug treatment. It has been estimated that the annual cost to the United States alone for drug-related morbidity and mortality exceeds $175 billion.

Our Opportunity

With continuing advances in genetic technology, we believe it is now possible to use genetics to better target drugs to appropriate patient populations through the use of a diagnostic test coupled with a drug. To date, traditional pharmaceutical companies have not focused on genetically targeted medicine. Consequently, we believe the opportunity exists for a company with considerable expertise in genetically targeting the right medicines to the right patients to:

- *Demonstrate Efficacy.* Genetic targeting may allow clinical development to continue for drugs that demonstrate meaningful efficacy in a material subset of patients, but for which development would otherwise be discontinued due to marginal efficacy when averaged across the entire trial population.
- *Reduce Side Effects.* Genetic targeting may allow the identification of patients at greater risk of developing serious adverse events from treatment with certain drugs, allowing physicians to avoid treating those patients with the drugs in question, and may allow pharmaceutical companies to bring more drugs to market, reduce the risk of market withdrawals, and improve the commercial prospects of marketed drugs.
- *Improve Clinical Trial Outcomes.* Genetic targeting may improve likelihoods of positive outcomes in clinical trials by focusing those trials on patients genetically pre-disposed to benefit from treatment or experience fewer side effects.
- *Optimize Dosage.* Genetic targeting may facilitate optimized dosing, allowing physicians to better balance patient benefit versus risk. For example, a patient genetically predisposed to side effects at a certain dose, but who might otherwise benefit, could be given a lower dose. Similarly, a patient unlikely to experience side effects might be given a higher dose if that dose could maximize efficacy.

- *Differentiate Therapeutics.* Genetic targeting may allow a so-called ''me-too'' drug to differentiate itself from other therapies in the same class by improving the me-too drug's efficacy and safety profile within the targeted patient population, potentially allowing it to become the preferred therapy in the class for the targeted patient populations.
- *Accelerate Treatment.* Genetic targeting may allow drugs now administered solely for severe cases of disease, due to safety concerns or cost, to be used earlier in treatment for targeted patient populations.
- *Extend Market Exclusivity.* Genetic targeting may allow pharmaceutical companies to extend market exclusivity through genetic *method of use* patents and drug labeling following the expiration of *composition of matter* patent protection.
- *Rationalize Spending.* Genetic targeting may allow employers, insurers, governments and other third party payers to reduce spending by reducing wasteful expenditures and associated costs incurred by treating patients with drugs that lack efficacy or that cause harmful adverse effects.

Advances in the field of targeted medicine have prompted the FDA and similar regulatory agencies around the world to take an active interest in facilitating targeted medicine. Guidance documents have recently been issued by the FDA to help pharmaceutical and biotechnology companies prepare and submit genetic information for approval of targeted medicines, genetic diagnostic tests, and the simultaneous approval of a targeted drug and companion diagnostic test. Major payers, including the U.S. Centers for Medicare & Medicaid Services, have publicly indicated their interest in targeted medicine's potential to better allocate existing health care resources.

Our Solution

We match specific SNP patterns with drug response or disease to enable the development and commercialization of targeted medicines. We do this through accurately measuring the frequency of hundreds of thousands or millions of SNPs across the entire genome in each of thousands of patient DNA samples, correlating those SNP frequencies with the presence or absence of traits of interest, and using that information to target late-stage therapeutics through the use of genetic diagnostic tests.

We believe the benefits of our solution include:

- *Comprehensive Genetic Coverage.* We believe our high-density whole genome association studies represent the most comprehensive practical genetic approach available today and that our current approach is uniquely capable of analyzing the majority of all known SNPs.
- *SNP Optimization.* Our technology allows us to leverage our knowledge of human genetic variation to flexibly select SNPs that best match the populations we investigate when researching associations between SNPs and drug response. With the ability to quickly and efficiently select from several million SNPs, we are able to execute custom, large scale studies in a manner which we believe retrieves more valuable information. This is in contrast with other approaches that may use large, but relatively fixed, sets of SNPs.
- *Integrated Large-Scale Analysis.* We have integrated a broad range of competencies including multi-stage genetic study design, acquisition of drug response and disease samples, robotics, high speed optics, photolithographic mask design, DNA extraction and amplification, and large scale genetic data analysis. Through the combination of these competencies, we believe we can rapidly assess the viability of targeting each drug candidate.
- *Expertise in Genetic Variability.* Having processed over 70,000 human DNA samples and analyzed several billion genetic data points, we have developed an advanced understanding of the role of genetic variation in drug response and disease.
- *Applying Genetics in Clinical Development.* The application of genetics to target medicines is a relatively new concept, requiring the coordinated design, testing and simultaneous approval of drugs and their companion diagnostic tests. Through the formation of our targeted medicine pipeline and

collaborative activities, we are developing first-hand knowledge of the implementation issues surrounding the effective application of genetics to the clinical development and regulatory approval processes.

Validation of our solution is evidenced by:

- *Broad and Deep Collaborations in Industry and Academia.* We have demonstrated our solution through collaborations with a wide range of commercial and public sector organizations. Nine leading pharmaceutical and consumer products companies and over 35 other institutions have conducted genetics research with us. We have received funding from ten institutes of the National Institutes of Health in the United States. From inception to date, we have recognized approximately $69 million in contract and research revenues.

- *Collaborative Partnership with Pfizer.* We have been in a collaborative relationship with Pfizer since 2002 spanning a number of disease and drug response areas. Our initial efforts focused on understanding the genetics of High-Density Lipoprotein, or HDL, variability and resulted in our validating an important gene central to a Pfizer drug program in 2003, and the publishing of those results in 2004. Subsequently, in 2004 we entered into two additional and substantially larger collaborations focused on metabolic syndrome and drug response in patients with major depression disorder. We have since entered into additional collaborative projects, including a four-year multi-study research agreement executed in December 2005 pursuant to which we may analyze over 75,000 DNA samples. Our contracts with Pfizer to date provide for research funding in excess of $23 million. In most of our collaborations with Pfizer we have also retained significant ownership of patents from our research. In December 2005, Pfizer made a $50 million equity investment in our Company.

- *Collaborative Partnership with Eli Lilly.* We began our relationship with Eli Lilly in late 2002 with a project analyzing over 1.5 million SNPs to identify a set of SNPs potentially predictive of Olanzapine-induced weight gain. Olanzapine is an atypical anti-psychotic drug sold by Eli Lilly under the brand name Zyprexa®. We then partnered with Eli Lilly to determine the applicability of the SNPs that may be associated with Olanzapine-induced weight gain to obesity in general, producing significant findings in obesity. These findings include one SNP whose removal from the population would reduce the incidence of obesity by roughly one quarter, which we believe represents the single most significant discovery made thus far in the genetics of obesity. In 2003, Eli Lilly participated in our Series C preferred stock offering with an equity investment of $1 million. In late 2005, Eli Lilly entered into a broader arrangement with us facilitating further joint research, and we have since initiated additional studies spanning both disease susceptibility and differential drug response. Our contracts with Eli Lilly to date provide for research funding of $6.3 million. In most of our collaborations with Eli Lilly, we have also retained significant ownership of patents resulting from our research. See ‘‘— Collaboration Agreements.’’

- *Licensing Agreement with Mitsubishi.* In April 2005, we entered into an exclusive worldwide licensing agreement, excluding Asia, with Mitsubishi Pharma Corporation, or Mitsubishi, to develop and commercialize netoglitazone (hereafter PGX-510) for the treatment of type II diabetes and other metabolic disorders. Prior to our licensing the compound, Mitsubishi and its partner had advanced the compound through Phase IIb clinical testing for type II diabetes, demonstrating an efficacy and safety profile we concluded to be similar, but not superior to, that of the two currently marketed drugs of the same class, Actos® and Avandia®. Following a review of our proposed approach to genetic analysis, clinical development and commercialization of a targeted PGX-510, Mitsubishi entered into an exclusive license agreement with us for the program. The agreement provides for a combination of upfront, milestone and royalty payments from us to Mitsubishi, as well as potential royalty payments from Mitsubishi to us related to sales of targeted PGX-510 in Asia. See ‘‘— Licensing Agreements.’’

Our Strategy

Our strategy is to use genetics to increase the commercial value and approval probability of late-stage therapeutics by developing and commercializing them as targeted therapeutics coupled with related genetic diagnostic tests. Specific elements of our strategy include:

- *Develop targeted therapeutics that address significant markets with unmet medical needs.* We are currently addressing significant markets with unmet medical needs such as metabolic and cardiovascular diseases. We may pursue therapeutics in large markets where we believe targeting can provide substantial benefit to patients such as in the areas of central nervous system and inflammatory diseases. In many of these areas, we expect to target compounds intended for long-term use by patients suffering from chronic illnesses.

- *Pursue compounds with demonstrated efficacy.* We will selectively in-license and pursue compounds that have already demonstrated efficacy and safety in a material subset of patients in Phase II or later clinical trials. Through genetic targeting, our strategy is to improve the benefit to risk ratio of these compounds by selecting those patients more likely to benefit or less likely to experience adverse events or side effects.

- *Move our products directly into late-stage clinical trials after identifying clinically useful genetic information.* In most cases, we will initiate large-scale clinical testing only if and when we have completed genetic analyses that yield results we believe will allow clinically useful and commercially viable targeting of our products. With those drug candidates for which our genetic analyses support moving forward, we will then conduct one or more large-scale, typically Phase IIb or Phase III, clinical trials. Our objective in these trials is to simultaneously demonstrate the clinical efficacy and safety of our therapeutic in targeted patients, while validating the use of our proprietary targeting diagnostic. In some cases, we may also elect, or be required by regulators to conduct a Phase IV post-marketing trial. Our approach allows us to defer significant clinical trial expenses until after we have confirmed the likelihood of genetically useful information. We believe this approach will allow us to relatively quickly and economically investigate a range of compounds prior to moving forward those that show the greatest promise for genetic targeting.

- *Develop proprietary one-time diagnostic tests and ensure their broad availability.* We expect that each drug we develop on our own or in partnership will be associated with a proprietary diagnostic test to better inform physicians of their patients' expected response. Because these diagnostic tests will almost always measure SNPs, which generally do not change over a patient's life, these tests need only be performed once prior to initiating therapy. Given the chronic nature of the illnesses many of our products are expected to treat, we will seek to make our one-time diagnostics broadly available to enable more patients to begin appropriate therapy with our drugs. We expect to do this through partnering with one or more diagnostic organizations that can broadly conduct the tests themselves, or that can develop and broadly distribute diagnostic kits to laboratories that would conduct the tests.

- *Partner with pharmaceutical companies to accelerate the adoption of targeted medicines.* We partner with pharmaceutical companies to accelerate the process of getting the right drugs to the right patients and to broaden our ability to participate in attractive targeted medicine opportunities. This approach may involve applying our genetics expertise to our partners' therapeutic products. We may also seek to apply our partners' commercialization expertise to our targeted therapeutics. These collaborations may also enable us to identify, earlier than would otherwise be possible, drug candidates that may be suitable for targeting and licensing. To date, we have executed collaborations with eight pharmaceutical companies, from which we have recognized approximately $25 million in revenue. In some cases, these collaborations provide the opportunity to earn milestone or royalty payments from the successful development of our partners' drug programs. In some cases, we also retain intellectual property from these collaborations which may be useful for the development of our own targeted medicine pipeline.

- *Develop integrated competencies for targeted medicine.* We are building a combination of genetic and clinical competencies to sustain our competitive advantage in targeting medicines, and expect to make further investments in these and other competencies necessary to bring targeted medicines to market, such as regulatory affairs and marketing. At the same time, we expect to leverage the capabilities of other organizations if bringing certain competencies in-house would not be justified. Examples include partnering with diagnostics organizations as described above, as well as entering into co-commercialization agreements with pharmaceutical companies or other sales organizations with large sales forces, particularly for our primary-care drugs. We believe that continuing to assemble a novel set of drug targeting competencies will enhance the quality, value, and growth of our own pipeline, differentiate us in the marketplace and increase the value we are able to share with our commercial partners.

Our Products

We have begun building our targeted medicine pipeline which currently consists of two lead candidates for large market indications where we expect genetic targeting will address significant unmet medical needs. The following table summarizes our first product programs:

Targeted Therapeutic	Indication	Development Phase	Potential Market
PGX-510 (netoglitazone)	Type II Diabetes	*Pre-Phase III* Phase IIb trials completed. Pending satisfactory completion of genetic analysis, Phase III trials can be initiated.	Worldwide (ex-Asia)
PGX-510 (netoglitazone)	Type II Diabetes with Dyslipidemia	*Pre-Phase II* High dose formulation underway. Pending satisfactory completion of genetic analysis and formulation, Phase II trials can be initiated.	Worldwide (ex-Asia)
PGX-520 (bezafibrate)	Dyslipidemia	*Pre-Phase III* Non-targeted versions of bezafibrate currently marketed by others in Europe, Canada and elsewhere. Our formulation of the same dose is underway. Pending satisfactory completion of genetic analysis, formulation and discussion with the FDA, Phase III trials can be initiated.	United States

PGX-510 (netoglitazone)

Product Overview

PGX-510 (netoglitazone), an insulin-sensitizer and member of the thiazolidinedione, or TZD, class of drugs, is being developed by us as a treatment for type II diabetes and the separate indication of type II diabetes with dyslipidemia, in each case with the use of a proprietary diagnostic for patient selection. Currently, the TZD class of drugs is widely prescribed for the treatment of type II diabetes with the two marketed drugs, Actos® and Avandia®, accounting for over $4 billion in annual sales. Despite the general safety and efficacy of the marketed TZD class drugs, certain patient subsets experience adverse effects of weight gain and edema, the fluid buildup in bodily tissues. These adverse effects tend to occur in between 7% and 15% of the patient population, with the rate of occurrence influenced by other therapeutics, such as insulin, taken simultaneously.

PGX-510 has been shown to modulate activity of peroxisome proliferator-activated receptor gamma, or PPARγ (pronounced ''P-par-gamma''), specifically acting as a PPARγ agonist. PPARγ agonists work by increasing insulin sensitivity in fat tissue, lowering free fatty acid concentrations and improving insulin

sensitivity in peripheral tissues, and by reducing excess glucose output by the liver, leading to better control of blood glucose in diabetics. PGX-510 has also been shown to modulate activity of peroxisome proliferator-activated receptor alpha, or PPARα (pronounced ''P-par-alpha''), thus providing potential for it to also treat type II diabetes with dyslipidemia. Binding to PPARα, as shown with fibrates, induces the activation or the inhibition of multiple genes involved in lipid metabolism, which results in reduced plasma triglyceride levels. Such PPARα binding also raises HDL, or good, cholesterol levels.

We licensed PGX-510 from Mitsubishi Pharma Corporation, or Mitsubishi, in April 2005. Prior to licensing it to us, Mitsubishi had partnered with Johnson & Johnson in the development of the drug. Following completion of Phase IIb clinical trials, Johnson & Johnson discontinued development of PGX-510 and returned rights to the drug to Mitsubishi. Our review of previous clinical trial data suggest that without genetic targeting, PGX-510 had a similar efficacy and safety profile to currently marketed TZDs, and would thus have been undifferentiated. By genetically targeting PGX-510 treatment to those patients most likely to benefit and avoiding those patients most likely not to respond or to suffer side effects, we believe that we can differentiate PGX-510 from competitor drugs in its class. See ''Risk Factors – Risks Related to Clinical and Regulatory Requirements.''

Candidate Indication: Type II Diabetes

Type II diabetes is a progressive disease characterized by insulin resistance resulting in a build up of glucose in the blood. Over time, type II diabetics suffer increasing vascular complications, which may lead to blindness, end-stage kidney disease, limb amputation, heart attack or stroke.

Despite the availability of a number of different therapies, the treatment of type II diabetes remains an unmet medical need as evidenced by:

- *Type II diabetes has become a global epidemic.* In the United States alone, over the past decade, the prevalence of type II diabetes has soared to an estimated 20 million people. Worldwide, it has been estimated that approximately 200 million people have type II diabetes. The International Diabetes Foundation recently warned that type II diabetes has become a global epidemic and one of the most challenging public health problems of the 21st century.
- *Most patients are not adequately treated.* According to the 1999-2002 National Health and Nutrition Examination Survey, more than half of adults with type II diabetes do not meet the American Diabetes Association standards of blood glucose control as defined by a goal of glycosylated hemoglobin, or HbA1c, of less than 7%. It has been shown that for patients with elevated HbA1c, each percentage point decrease in HbA1c results in a reduction in risk of approximately 21% for deaths related to type II diabetes, approximately 14% for heart attacks, and approximately 37% for micro-vascular complications.
- *The current oral treatment paradigm is iterative.* In the current oral treatment regimen for type II diabetics, patients are typically first given drugs such as metformin or a sulfonylurea. Then, additional oral treatments are prescribed, such as a TZD. Throughout this process, patients may also be given insulin treatment to control increases of glucose that occur after meals, and they may require consistent insulin therapy as the disease progresses. Each step in the process of oral treatment often requires up to three months to determine efficacy through HbA1c measurement, during which time non-responsive patients are not only inadequately controlled for blood sugars, but may also be unnecessarily exposed to side effects from treatment.

Value of Our Approach

Despite their therapeutic benefits, TZDs are often given second-line in the type II diabetes oral treatment paradigm. This results from a combination of factors including uncertain efficacy, side effects such as edema, and the higher prices charged for TZDs versus other oral anti-diabetics. PGX-510 accompanied by the use of a proprietary diagnostic could help position PGX-510 as a preferred therapy for type II diabetes. We believe that by genetically targeting PGX-510, we can lower the expected rate of edema or increase expected efficacy,

which could allow the drug to become the most appropriate treatment for targeted patients. Our targeting could serve to differentiate PGX-510 from other marketed TZDs, as well as allow PGX-510 to be introduced earlier as a first-line oral therapy. As a result, PGX-510 could have a significantly enhanced commercial opportunity relative to an untargeted oral type II diabetes agent.

Status of Our Program

We are currently engaged in a series of parallel activities to advance PGX-510 as a targeted treatment of type II diabetes:

- *Clinical Trials Completed*. Prior to our in-licensing of PGX-510, Mitsubishi and Johnson & Johnson completed 20 Phase I studies, 2 Phase IIa studies and a Phase IIb trial. Over the course of these trials, a total of 1,125 subjects, including 580 diabetics, had been exposed to PGX-510. This number is distinct from the number of patients given a placebo during these trials. The Phase IIb clinical trial supported PGX-510's potential safety and efficacy in treating type II diabetes at an 80 mg dose. PGX-510 has also completed FDA-mandated two-year animal cancer risk testing, the results of which are currently under review by the FDA.
- *Genetic Targeting*. We are currently conducting two high-density whole genome association studies analyzing patients treated with TZDs to identify SNP patterns predictive of drug response. One study focuses on efficacy in type II diabetes, while the other focuses on the side effect of edema. We have collected DNA samples and clinical drug response data from over 3,000 diabetic patients across approximately 150 sites for these studies. Genetic analysis of these samples is expected to be completed by the end of 2006.
- *Formulation and Dosage*. We have prepared a 80mg oral formulation of PGX-510, and are currently testing its pharmacokinetics in human subjects as well as the formulation's stability over time. A pharmacokinetics study measures a drug's absorption and effect on plasma in the body. We expect to complete the pharmacokinetics study by mid-2006.
- *Regulatory Approvals Required Before Launch*. We currently have an open Investigational New Drug, or IND, application for PGX-510 with the FDA, allowing us to conduct clinical trials with the drug. Contingent upon finding genetic data that we believe to be clinically useful, we expect to inform the FDA about our genetic results and our proposed Phase III program design which incorporates the use of a genetic diagnostic test. We would also inform the FDA of our new formulation's pharmacokinetics and the safety of our intended 80mg dose. Provided we are successful in these discussions, Phase III trials of PGX-510 could commence in the first half of 2007. These trials would be intended to prospectively demonstrate PGX-510's efficacy and safety at an 80mg dose for the treatment of type II diabetes in a genetically targeted patient population. In addition, the same studies will be used to demonstrate the clinical utility of our companion genetic diagnostic test for PGX-510. We intend to conduct Phase III trials with PGX-510 to demonstrate its efficacy and safety in at least three trials: in combination with standard oral type II diabetes therapies; in combination with insulin use; and as monotherapy. These Phase III trials would require approximately 2½ years to complete. If successful, we would then expect to file a New Drug Application, or NDA, for PGX-510. In addition, we would expect to file either a Premarket Notification known as a 510(k), or a Premarket Approval known as a PMA, for a companion diagnostic with the FDA. FDA approvals of these applications would allow us to market PGX-510. If we are successful in each of these above steps, potential launch of PGX-510 could occur in 2012. See ''Risk Factors'' and ''— Government Regulation.''

Candidate Indication: Type II Diabetes with Dyslipidemia

According to the Centers for Disease Control, people with type II diabetes are two to four times more likely to develop cardiovascular disease than people without type II diabetes, and an estimated 65% of diabetics will die from heart disease and stroke. In addition, type II diabetic patients are also particularly susceptible to alterations in specific circulating lipid levels including elevations in triglycerides, or TG, and decreased HDL cholesterol, a condition known as dyslipidemia. Dyslipidemia further increases diabetics' risk

for heart attack, stroke, peripheral vascular disease and other complications. Despite the recognition of these risks, patients are frequently inadequately treated:

- *Most type II diabetes patients are not adequately treated for their dyslipidemia.* Even though dyslipidemia is a significant risk factor in the development of vascular complications, awareness of the condition and proper treatment are both lacking. As noted by the American Diabetes Association, reports from two academic medical centers found that fewer than 40% of patients attending their respective type II diabetes clinics were reaching the Low-Density Lipoprotein, or LDL, goal of less than 100 mg/dl.
- *Combinations of existing therapies intended to address type II diabetes with dyslipidemia are problematic.* Each additional medicine a physician prescribes is associated with an increased risk of adverse events and unwanted drug interactions. Physicians generally use a combination of therapies to address type II diabetes and elevated cholesterol, but they are often reluctant to utilize a third medication to address mixed dyslipidemia with increased TG. Additionally, multiple drugs can complicate dosing schedules, thereby making patient compliance more difficult.
- *No single therapy has been approved to treat type II diabetes with dyslipidemia.* Several new dual PPARγ and PPARα agonists, belonging to a distinct class of compounds known as glitazars, are being developed to achieve significant blood glucose control as well as to lower TG, and Very Low-Density Lipoprotein, or VLDL, cholesterol levels. However, to date none of these drug candidates have been approved for marketing to patients, due primarily to safety concerns. Recent examples include Bristol-Myers Squibb's Pargluva™, for which the FDA requested additional safety information, as well as Takeda's TAK-559, for which development was discontinued in March 2005.

Value of Our Approach

We believe that a higher dose of PGX-510 may demonstrate utility in the treatment of dyslipidemia where the 80mg dose did not. However, increasing the dose of PGX-510 could also elevate the risk of edema. Therefore, we intend to target type II diabetic patients with dyslipidemia who are less likely to experience edema from PGX-510. If we are successful in identifying these patients through a genetic test, PGX-510 could be prescribed at a higher dose to targeted type II diabetes patients to address their dyslipidemia needs. Moreover, this higher dose of PGX-510 could also potentially enable superior glycemic control.

Status of Our Program

We are currently engaged in a high-density whole genome analysis of thousands of DNA samples from type II diabetes patients treated with TZDs who did and did not develop treatment-induced edema. Preliminary analysis is expected to be completed by the end of 2006. Contingent upon results deemed adequately predictive for safety, and following discussions with both the therapeutic and diagnostic centers of the FDA, an exploratory Phase II trial in type II diabetics with dyslipidemia could commence in the first half of 2007.

- *Clinical Trials Completed.* As described above for PGX-510 for type II diabetes, a number of pre-clinical and clinical trials have been completed by Mitsubishi and Johnson & Johnson for PGX-510. *In vivo* studies of PGX-510 demonstrated that in addition to dose-dependent decreases in elevated plasma glucose, HbA1c and insulin, PGX-510 lowered levels of free fatty acids, VLDL, and TG, indicating improvement of not only glucose but also lipid control. Based on previously-conducted clinical trials, we believe that PGX-510 would need to be administered at a dose above 80mg if efficacy and lipid control is to be demonstrated.
- *Genetic Targeting.* Our genetic analysis of TZD-induced edema in support of PGX-510 for type II diabetes will also be utilized for type II diabetes with dyslipidemia, and is expected to be completed by the end of 2006.
- *Formulation and Dosage.* We are currently testing PGX-510's pharmacokinetics at a higher dose. We expect to complete this work by the end of 2006.

- *Regulatory Approvals Required Before Launch.* Contingent upon our finding genetic data that we believe to be clinically useful in predicting drug-induced edema, we expect to inform the FDA about our genetic results and our proposed Phase II program design incorporating the use of a genetic diagnostic test with a higher dose of PGX-510. Provided we are successful in these discussions, Phase II trials of PGX-510 could commence in 2007, and could require approximately 1½ years to complete. If successful, we would then expect to conduct a meeting at the end of Phase II with the FDA to discuss the trial's results, and to propose a Phase III trial program. This Phase III trial program would require approximately 2½ years to complete. If successful, we would then expect to file an NDA, the approval of which by the FDA would allow us to market PGX-510 for the treatment of type II diabetes with dyslipidemia in genetically-targeted patients. If we are successful in each of these above steps, launch of the product for this indication could occur in 2013. See ''Risk Factors'' and ''— Government Regulation.''

PGX-520 (bezafibrate)

Product Overview

PGX-520 (bezafibrate), a member of the fibrate class of drugs, is being developed by us with the use of a proprietary diagnostic for the treatment of dyslipidemia, specifically hypertriglyceridemia and mixed dyslipidemia. Like other fibrates such as TriCor®, which achieved sales of approximately $900 million in 2005, PGX-520 acts primarily through activation of PPARα receptors.

Bezafibrate, the active ingredient of PGX-520, has been marketed in Europe, Canada and other countries, but never in the United States. We believe this reflects the difficulty in recouping the investment of a Phase III clinical trial for a compound whose *composition of matter* patent has already expired, and in an area where the compound would require significant differentiation or substantial marketing to succeed commercially.

Our strategy is to genetically target PGX-520 to allow it to compete effectively against the established competition through an improved efficacy and safety profile. We expect our genetic targeting to provide additional opportunities for obtaining intellectual property rights. We intend to seek FDA approval for a targeted PGX-520 treatment of dyslipidemia as a new molecular entity.

We have filed *method of use* patent applications for PGX-520, including for certain therapeutic areas, including its use as a genetically-targeted medicine.

Candidate Indication: Dyslipidemia

Over 300 million people in the developed world suffer from various forms of dyslipidemia including an estimated 25% with excessively high TG levels, and over 20% with excessively low HDL cholesterol levels. The worldwide market for anti-dyslipidemia drugs exceeded $30 billion in 2005, dominated by the statin class of drugs which includes Pfizer's Lipitor™.

Despite the broad use of statins, unmet medical needs remain to address dyslipidemia:

- *Statins lack efficacy for certain types of dyslipidemia.* Statins are very effective at lowering total cholesterol and LDL cholesterol, and somewhat effective at raising HDL cholesterol, but are markedly less effective at lowering TG and VLDL cholesterol.

- *Untargeted, fibrates have a low risk of adverse events, but this risk increases when fibrates are used with statins.* The fibrate class of drugs addresses a portion of this unmet need through lowering of TG and VLDL cholesterol, and moderately raising HDL cholesterol. When used separately, both statins and fibrates have a low risk of myopathy, or muscle deterioration, and rhabdomyolysis, a rare pathological breakdown of skeletal muscle tissue which can lead to acute renal failure and death. When statins and fibrates are taken in combination this risk increases significantly.

Consequently, a therapy, or combination of therapies, that can more safely lower total cholesterol, LDL cholesterol, TG and VLDL cholesterol while raising HDL cholesterol remains an unmet medical need.

Value of Our Approach

Our strategy with PGX-520 is to differentiate bezafibrate from other drugs in its class, such as TriCor®, by genetically targeting PGX-520 to appropriate patient populations. We believe that fibrates are comparatively underutilized by physicians due primarily to the widespread use of statin therapy, notwithstanding its limitation in treating certain types of dyslipidemia, and the perception of an elevated risk of rhabdomyolysis when fibrates and statins are used together. We believe PGX-520 could provide physicians with an important new treatment alternative for patients suffering from dyslipidemia by screening out patients unlikely to respond to treatment or who are at an elevated risk of rhabdomyolysis or its precursor of muscle weakness, or myopathy.

Successfully improving the safety profile of PGX-520 as a standalone treatment may also allow us to proceed with the development of PGX-520 in combination with a statin in a single pill to treat a potentially broader range of dyslipidemias than either PGX-520 or a statin could alone. In addition to reducing triglycerides and VLDL cholesterol while raising HDL cholesterol, such a combination product is expected to also significantly reduce total cholesterol and LDL cholesterol, as well as the risk of rhabdomyolysis from taking both drugs together. We also expect that this combination agent could improve patient compliance by simplifying treatment regimens. At present, a combination fibrate/statin drug product is not commercially available in the United States or abroad. We have not included such a combination product in our pipeline as we have not yet identified the most suitable statin to develop with PGX-520 and may need to obtain additional intellectual property rights and regulatory approvals to pursue the development and commercialization of such a combination product.

Status of Our Program

We are engaged in the high-density whole genome analysis of over 1,200 samples from dyslipidemia patients treated with PGX-520 with the goal of genetically targeting PGX-520 to patients most likely to benefit from treatment. Additional sample collection and genetic analysis is being directed at the safety component of drug-induced myopathy/rhabdomyolysis. We anticipate initial results from genetic analysis of the efficacy component of PGX-520 to be completed by the end of 2006, and the safety component by the end of 2007.

Contingent upon results deemed adequately predictive for efficacy, a Phase III trial of PGX-520 could commence in late 2007 pending discussions with the FDA. Contingent upon results deemed adequately predictive for safety in the separate genetic analysis for myopathy and rhabdomyolysis, we could pursue the development of a combination PGX-520/statin product commencing in 2008.

- *Clinical Trials Completed.* PGX-520's active pharmaceutical ingredient, bezafibrate, has been tested in many published placebo-controlled trials, and has been launched in Europe, Canada, Australia, Japan and other countries as an approved treatment for dyslipidemia. A large outcomes trial, the Bezafibrate Infarction Prevention Trial, or BIP, enrolled over 3,000 subjects followed for six years. Subjects were randomized to treatment with placebo or a single 400mg tablet of bezafibrate. Bezafibrate was proven safe and effective in lowering TG cholesterol and in elevating HDL cholesterol, although it did not significantly lower heart attacks in the overall population being tested. However, post-hoc analysis of BIP trial results showed that those subjects who began treatment with TG levels above 200 mg/dL had a significant 39.5% reduction in heart attacks and sudden death.
- *Genetic Targeting.* We are currently conducting a high-density whole genome association study analyzing patients treated with PGX-520 to identify SNP patterns predictive of efficacy response. We have gained access to adequately consented DNA samples and clinical drug response data from approximately 1,200 subjects from the BIP study. The clinical data for these subjects includes not only traditional lipid parameters over multiple timepoints, but also major outcomes such as mortality and hospitalizations over a six-year period. The genetic analysis of these samples is expected to be

completed by the end of 2006. In addition, we have been collecting DNA samples from patients who have experienced significant drug-induced myopathy/rhabdomyolysis and expect to have results from the analysis of these DNA samples by the end of 2007.

- *Formulation and Dosage.* We are currently preparing a sustained 400mg oral formulation of PGX-520, and expect to complete testing of its stability as well as pharmacokinetics in 2007. We are also exploring formulations related to the combination of PGX-520 with various statins.

- *Regulatory Approvals Required Before Launch.* Contingent upon our finding genetic data that we believe to be clinically useful and the successful completion of our formulation work, we expect to initiate an IND application of a standalone formulation of PGX-520 and enter into discussions with the FDA in 2007. In these interactions with the FDA, we would discuss our genetic results and our proposed Phase III program design incorporating the use of a genetic diagnostic test. We would also inform the FDA of our new formulation's pharmacokinetics and the safety of our intended 400mg dose. Provided we are successful in these discussions, Phase III trials of PGX-520 could commence in late 2007. These trials would be intended to prospectively demonstrate PGX-520's efficacy and safety at a 400 mg dose for the treatment of dyslipidemia in a genetically targeted patient population, as well as the utility of our companion genetic diagnostic test for PGX-520. We believe these Phase III trials would require approximately 1½ years to complete. If successful, we would then expect to file an NDA for PGX-520, and a 510(k) or PMA for its companion diagnostic, with the FDA. FDA approvals of these applications would allow us to market PGX-520. If we are successful in each of these above steps, potential launch of PGX-520 could occur in 2011. If our genetic analysis of myopathy/rhabdomylosis is successful and we elect to pursue clinical development of a combination PGX-520/statin product, we would need to follow a similar course of action to obtain regulatory approval and secure intellectual property rights before launch. See ''Risk Factors'' and ''— Government Regulation.''

Collaboration Agreements

We have entered into collaborations with nine of the world's leading pharmaceutical or consumer product companies – AstraZeneca, Bristol-Myers Squibb, Eli Lilly, Genentech, GlaxoSmithKline, Johnson & Johnson, Merck, Pfizer and Unilever – as well as with leading academic and government organizations across a breadth of areas. We summarize some of these collaborations below:

Agreements with Pfizer

We began our relationship with Pfizer in late 2002 with a project focused on understanding the genetics of HDL cholesterol variability. This study, which validated an important gene central to a new Pfizer drug program, was completed in 2003 and published in the fall of 2004. In December 2003, we entered into two collaborative research agreements with Pfizer, since completed, one focusing on metabolic syndrome and the other focusing on the treatment of depression. We received payments of over $10 million from Pfizer under these agreements. Under both agreements, we own the rights to any program technology created during the course of the collaboration and agreed to provide certain rights to Pfizer. In December 2005, we entered into a collaborative research agreement with Pfizer, focusing on various traits of interest. If we meet all of our obligations and achieve all of the milestones provided under this agreement, Pfizer may pay us a total of $10 million plus licensing fees for certain rights, at Pfizer's election, to any genetic loci developed under portions of the agreement. Provisions were also made to analyze up to an additional 50,000 DNA samples for additional compensation. This agreement terminates on December 15, 2009. Under both the December 2003 and 2005 agreements, the parties generally retained rights to their respective confidential information and intellectual property; however Pfizer granted us a nonexclusive license with respect to their confidential information and technology for all research and development purposes, and we granted Pfizer a nonexclusive license with respect to the program technology, our confidential information and certain of our intellectual property, with the exception of our platform technology for all research and development purposes. We have entered into various other agreements with Pfizer for the provision by us of genetic analysis services.

Our contracts with Pfizer to date provide for total research funding in excess of $23.0 million. In December 2005, Pfizer made a $50.0 million investment in our capital stock. See ''Description of Capital Stock — Private Share Sale to Pfizer.''

Agreements with Eli Lilly

In December 2002, we entered into our first agreement with Eli Lilly to perform a genetic association study to identify markers associated with weight gain by schizophrenic patients taking olanzapine. Under the amended 2002 agreement, Eli Lilly has paid us a total of $1.6 million in research funding; and may also make additional milestone and royalty payments subject to our achieving certain objectives. In addition, Eli Lilly granted to us an exclusive, worldwide, royalty-free, perpetual and irrevocable, sublicensable license for products and services outside the Eli Lilly field as well as to its rights in our platform technology improvements and in certain intellectual property. We granted to Eli Lilly the same rights for products and services in the Eli Lilly field and under its rights in certain intellectual property. In November 2005, we entered into a laboratory services agreement with Eli Lilly, which governs our ongoing genetic analysis collaborations for Eli Lilly to be set forth in subsequent individual project agreements, or IPAs. Under the 2005 agreement, we entered into an IPA in November 2005 focusing on the effect of Strattera on attention deficit hyperactivity disorder patients and another IPA in December 2005 focusing on schizophrenia and related drug response. The results of each study are jointly owned by us and Eli Lilly. We will own any and all patents related to our genetic analysis services, other than patents related to the Eli Lilly material or confidential information we receive from Eli Lilly in the course of performing our services. We granted Eli Lilly a non-exclusive, worldwide, fully-paid and royalty-free, perpetual and irrevocable, non-sublicensable license to the patents to make, use, sell, offer for sale and import the conduct of our services, any and all products developed by use of, or arising from the results relating to our services. The 2005 agreement will terminate in November 2008. Eli Lilly will pay us up to a maximum of $4.8 million in the aggregate for the two IPAs.

Unilever

In January 2003, we entered into a multi-year agreement with Unilever to conduct several whole genome association studies with the intent to ultimately develop new consumer products that better meet consumer needs. We will receive research funding of at least $8.5 million, incremental research success payments and royalties on consumer product sales. Unilever retains exclusive rights to develop consumer products based on the research results. In addition, we can obtain rights to develop potential therapeutic products. The parties completed the first whole genome study in early 2005 and we received a total of $1.0 million in success fees beyond the research funding based on successfully identifying and validating genetic loci associated with the first trait of interest. We scanned over 1.5 million SNPs in the DNA samples in the discovery phase of the project. The parties are currently conducting their second whole genome association collaboration.

The National Institutes of Health

We have received funding from ten institutes of the National Institutes of Health, collectively, the NIH, in the United States. While projects of a scientific research nature do not involve intellectual property rights, such as the International Hap Map Consortium or SNP discovery in mouse strains, the disease related studies provide for vesting of rights to inventions in us under the condition that certain requirements are met and there is acknowledgement of NIH support. The projects from the various institutes have included the following:

- National Human Genome Research Institute for the International Hap Map Consortium, allelic expression and comparative microarray sequencing of chimpanzee genomes;
- National Institute of Environmental Health Sciences for SNP Discovery in Mouse Strains;
- National Institute on Aging for a whole genome association study related to Alzheimer's Disease; and

- National Heart, Lung and Blood Institute for Women's Health Initiative whole genome association studies on breast cancer, coronary heart disease and stroke in post menopausal women.

We have recognized $18.9 million in revenue as of the end of 2005 in funding from the NIH.

RIKEN

In June 2005, our Japanese subsidiary Perlegen Sciences Japan K.K. entered into an agreement with RIKEN which is the Japanese Institute of Physical and Chemical Research, an independent administrative entity within the Japanese Ministry of Education, Culture, Sports, Science and Technology. The RIKEN agreement provides that the parties will conduct high-resolution, whole genome association studies in Japan aimed at identifying the genetic basis of up to forty-seven common diseases, including, among others, atherosclerosis, rheumatoid arthritis, epilepsy, heart failure, chronic obstructive pulmonary disease, asthma, arrhythmia, cerebral infarction, and many types of cancer. The agreement provides for analysis of approximately 250,000 SNPs in patients to identify regions of the genome associated with selected diseases. Scientists at the RIKEN SNP Research Center are responsible for conducting follow-on replication studies in candidate regions as well as genetic analysis of the associated SNPs in additional sample sets to confirm the results. This will enable RIKEN researchers to conduct follow-up research aimed at understanding the functional biology of each genomic region. The right to apply for the patents concerning inventions following scientific results are held by RIKEN. If RIKEN decides not to exercise a right to apply for a patent in any country or territory in the world and we wish to make an application for a patent in such country or territory, then RIKEN must enter into an agreement with us to transfer free of charge the right to apply for the patent in such country or territory. In 2005, we recognized over $3.0 million in research funding under this agreement.

License Agreements

In April 2005, we entered into an exclusive license agreement with Mitsubishi Pharma Corporation, or Mitsubishi, for the use of netoglitazone and certain other compounds in all indications in humans throughout the world, except for certain territories retained by Mitsubishi in Asia. Our license is exclusive for the duration of the royalty obligations. The royalty obligations expire on a country-by-country basis after a period of years following launch of the product or the last to expire of the licensed patents. After all the royalty obligations have expired, each party's license will continue on a non-exclusive basis. Subject to the terms and conditions of the agreement, Mitsubishi granted to us an exclusive license to use netoglitazone and certain related intellectual property outside Asia. We granted to Mitsubishi an exclusive license in Asia to certain of our future genetic diagnostic intellectual property for use with netoglitazone. Pursuant to the agreement, we paid Mitsubishi an upfront fee of cash and have issued to Mitsubishi, subject to certain conditions, shares of our common stock. Assuming we achieve certain milestones in the development and commercialization of the compound, we may be required to pay Mitsubishi significant payments. If we succeed in commercializing the product, we must make royalty payments based on our annual sales of product. Mitsubishi would also be required to pay us royalties based on its annual sales of diagnostic and diagnostic-drug combination products. Prior to licensing netoglitazone to us, Mitsubishi had partnered with Johnson & Johnson in the development of the drug. See ''Risk Factors — Risks Related to Clinical and Regulatory Requirements.''

For a description of our license agreements with Affymetrix, see ''Related Party Transactions.''

Technology Overview

Our targeted medicine approach is based on integrating advanced science and proprietary technologies to extract, for each human trait we study, what we believe to be the greatest amount of useful genetic information from the genome as is commercially possible. Each of our genetic studies involves the accurate measurement and analysis of hundreds of thousands, and sometimes millions, of SNPs across the genomes of hundreds or thousands of patient DNA samples. We believe we have conducted the largest such high-density whole genome association studies in the world, and that we have completed more of these large studies than any other organization.

The end result of our high-density whole genome association studies is the identification of specific patterns of SNPs that are predictive of drug response, disease or other traits of interest. We believe that predicting drug response with sufficient accuracy to enable targeted medicine requires as complete a set of such associated SNPs as possible. As a result, we have invested significantly to bring together the major components of large scale genetic analysis, and continuously strive to optimize the performance of each of these components individually as well as on an integrated basis.

The manner in which we conduct high-density whole genome studies involves several distinct processes and core competencies, including:

- *High-Density Whole Genome Association Study Design.* Appropriately designing each high-density whole genome association study in advance is central to obtaining results that are statistically valid and clinically useful. Considerations include the characteristics of the trait of interest, the number of DNA samples from case and control subjects to be included, the number and characteristics of SNPs to be measured in each DNA sample, and the number of independent stages of the study.

- *Large-Scale Collection of DNA from Case-Control Populations.* The studies we conduct typically involve several hundred to a few thousand or more DNA samples. All other factors being equal, more samples usually allow for more accurate and definitive identification of the often subtle genetic factors associated with a trait of interest. While we often utilize large numbers of DNA samples already gathered from late-stage clinical trials or other means, on other occasions we conduct our own prospective collection of DNA samples. This approach better ensures our ability to obtain precisely the type of DNA samples we desire, particularly for targeted medicine programs.

- *Flexible Selection of Hundreds of Thousands of Tag-SNPs from Over Four Million SNP Assays.* SNPs in the human genome are often tightly correlated with nearby SNPs, but the extent of these correlations varies significantly across the genome. SNPs that give substantial information about neighboring SNPs are called ''tag-SNPs.'' We believe that our understanding of these correlations coupled with our flexibility to select hundreds of thousands or more of the more informative tag-SNPs, from among the millions of SNPs in the genome, allow us to capture more information from the human genome than other approaches. Moreover, we are able to select tag-SNPs optimized for differences we encounter in different populations. We believe we are distinguished both by the sheer number of SNP assays available to us — over four million — as well as our ability to flexibly optimize the sets of tag-SNPs we use in a given analysis.

- *Customized Microarray Design and Access.* We design custom photolithography masks that direct the synthesis of specific DNA sequences of interest onto microarrays manufactured by Affymetrix, a related party. Microarrays are glass wafers upon which trillions of DNA fragments are synthesized in a predetermined order, affording massively parallel experiments and analyses. Our mask design capability coupled with Affymetrix's production capabilities allows us to rapidly introduce new generations of microarrays for our own use that maximize our advancing knowledge of the human genome as well as advances in high-density microarray technology. Importantly, we have access to numerous microarray formats, including smaller chips as well as larger wafers containing as many as several hundred chips. These larger wafers in particular allow us to operate at throughput levels that would be significantly more difficult if not impractical using individual chips.

- *Large-Scale Sample Handling and DNA Extraction.* We have processed approximately one hundred thousand DNA samples, and have extracted DNA from a range of different biologic materials including saliva and blood. Given the customized nature of each study design, with variations in number and types of samples, volumes and concentrations of DNA, numbers of SNPs, and numerous other study design protocols, we have designed a sophisticated tracking and informatics capability.

- *High-Throughput Microarray Hybridization and Scanning.* We have designed and built an extensive network of proprietary high throughput liquid handling machines and robots, allowing for the parallel processing of large volumes of microarrays. We have also designed and built a large number of automated laser scanners, each with a data capture capability at least twice that of commercially

available equipment. Both our liquid handling equipment and scanners are capable of processing wafers or chips.

- *Data Collection and Statistical Genetic Analysis.* The data files generated by each of our studies are quite large, frequently exceeding one terabyte. After calibrating this scanned image data, utilizing a range of proprietary algorithms we convert the scanned image to a large database of genotypes, which are measurements of individual SNPs from each DNA sample. Each study typically produces hundreds of millions of genotypes, which we then analyze to identify patterns of SNP variation associated with our trait of interest. Results are passed through rigorous validating steps prior to being finalized. We believe our accumulated practical experience with the structure of large genetic data sets provides us with a significant advantage. Additionally, we believe our collaborations with many of the world's most experienced genetic analysts ensures our use of the most advanced statistical genetics analysis methods.
- *Applying Genetics to Enable Targeted Medicine.* As a result of our extensive collaborations and internal genetics programs, we believe we are among the first to understand the combined competencies necessary to translate an advanced understanding of human genetics into targeted medicines. We believe this provides us with certain advantages in selecting appropriate opportunities where genetics can enable targeted medicine, and in identifying and developing additional necessary competencies.

Research and Development

As of March 31, 2006, we had 39 employees dedicated to research and development. Our research and development expenses consist primarily of personnel-related expenses, laboratory supplies and services provided within our research, development and clinical groups. We expense our research and development expenses as they are incurred. Research and development expenses for 2003, 2004 and 2005 were $25.1 million, $16.4 million and $33.6 million, respectively. All of our research and development employees are engaged in the drug and diagnostic development activities and the research collaboration agreements described above. We expect to incur significant research and development expenses for the foreseeable future.

Patents, Trademarks and Proprietary Technology

Intellectual Property

We rely on a combination of patent, trademark, copyright and trade secret laws in the United States and other jurisdictions as well as confidentiality procedures and contractual provisions to protect our proprietary technology. We also enter into confidentiality and invention assignment agreements with our employees and consultants and confidentiality agreements with other third parties, and we rigorously control access to our proprietary technology.

Perlegen® and the Perlegen logo are registered trademarks in the United States, European Union and Japan.

Technology Platform

As of March 31, 2006, we had 7 issued patents in the United States, 1 allowed application and 54 pending provisional and non-provisional applications in the United States. We also had 7 pending international applications filed under the Patent Cooperation Treaty and 26 pending foreign national applications in Europe, Japan, Canada, Singapore, Australia, and Taiwan.

The issued patents include 3 patents related to methods for genetic analysis, 2 patents related to PCR-related methodologies, 1 patent related to optical scanners, and 1 business methods patent. All of the issued patents and patent applications recited above are either solely or jointly owned by us. In cases where we are joint owners, we have negotiated contractual provisions providing us with the exclusive rights under the resulting patents.

The subject matter of our patent applications spans the following three key areas: genetic methodologies and sample preparation techniques, genetic associations for various diseases and drug responses, and methods for treatment utilizing our in-licensed drugs.

Licensed Intellectual Property Rights

In the April 2005 license agreement with Mitsubishi Pharma Corporation we acquired exclusive non-Asia rights to a number of United States and foreign patents and patent applications relating to netoglitazone that are owned or licensed by Mitsubishi. These include a patent for the *composition of matter* for netoglitazone with an expiration date in 2013. The portfolio also includes patents for different polymorphs of netoglitazone and the use of netoglitazone for arteriosclerotic diseases and polycystic ovarian syndrome. See ‘‘ — License Agreements.’’ For a description of our license agreements with Affymetrix, see ‘‘Related Party Transactions.’’

Competition

The emerging targeted medicine landscape is competitive and rapidly changing. As pharmaceutical and biotechnology companies look to improve the ways in which they develop and commercialize therapies for patients, many of them are focusing more of their resources on targeted medicine. We expect that any products that we develop will compete with other therapeutics primarily on the basis of their efficacy and safety and, to a lesser extent, on their price. We face competition from a combination of different sectors and entities within this landscape, including:

- *Companies discovering, developing and commercializing targeted medicines*. A number of pharmaceutical and biotechnology companies are currently applying resources to discover, develop and commercialize targeted medicines. In some cases, these companies are bringing to market targeted medicines that were first discovered based on molecular targets and that require the use of a diagnostic prior to administration of therapy. A current example is Genentech, which successfully markets a targeted medicine for the treatment of breast cancer, Herceptin®. In other cases, these companies have internal genetics groups that seek to identify and understand genetics markers that can be used to target their drugs and drug candidates. Examples include Eli Lilly and GlaxoSmithKline, both of whom have publicly expressed their desire to target medicines.
- *Companies using genetics to create and expand therapeutic opportunities*. In addition to enabling the discovery and development of novel compounds, understanding the genetic basis of certain diseases may enable the expanded use of certain existing drugs. A current example is deCODE genetics with its lead compound in development, DG031, originally intended for the treatment of asthma and now in clinical development for the prevention of heart attack.
- *Companies enabled by offerings from life sciences tool providers and biomarker discovery organizations.* A number of life sciences tools companies and companies with life sciences tools divisions have, or are developing, products for genetic analysis which they make available for purchase by other companies. In particular, life sciences tools companies such as Affymetrix and Illumina, both of whom have recently announced the launch of products designed to analyze hundreds of thousands of SNPs in individual DNA samples, sell genotyping systems to a number of customers. The availability of such products allows pharmaceutical and biotechnology companies to perform their own genotyping and may make them less likely to collaborate or partner with us. Many other academic and government organizations also utilize these and other tools to identify genetic variations and other biomarkers that can be used to discover or develop targeted medicines. These organizations may in turn compete with us to license their findings or otherwise partner with pharmaceutical and biotechnology companies. Examples of organizations actively utilizing life sciences tools include the Sanger Centre, the Whitehead Institute, and GeneLogic.
- *Diagnostic companies developing tests to match patients to drugs*. In the diagnostic industry, we face competition in the form of commercial laboratories possessing strong distribution networks for diagnostic tests and services, companies with extensive histories and successes developing diagnostic

tests, companies with efficient platforms for performing genetic tests, as well as academic and research institutions developing or performing their own diagnostic tests. Diagnostic entities such as Roche Diagnostics and Genomic Health have already developed diagnostic tests intended to direct therapy to specific patient populations. While most of these diagnostic companies do not market their own targeted therapies, their diagnostic products are nonetheless used by patients and physicians to target therapeutic options. We expect that these companies as well as other diagnostic companies will seek to introduce many more such diagnostic tests for targeting medicine in the future.

In addition, we face intense competition from larger pharmaceutical companies and smaller or early stage public and private companies within each of the therapeutic areas our products are meant to treat, which currently include type II diabetes and dyslipidemia. In type II diabetes, we face competition from other treatments including oral treatments such as Takeda's Actos® and GlaxoSmithKline's Avandia®, as well as insulin treatments such as Pfizer/Nektar's Exubera®. In dyslipidemia, we face competition from other treatments including Abbott's TriCor®, low-cost generic fibrates, and the statin class of drugs. Moreover, new medicines may appear in the marketplace that can more effectively treat diseases than our own targeted offerings. New diagnostics may also emerge that can effectively target currently untargeted drugs, providing additional competition.

The acquisition or licensing of pharmaceutical products is very competitive, and a number of more established companies, including pharmaceutical, specialty pharmaceutical and biotechnology companies worldwide, have acknowledged strategies to license or acquire product rights. Emerging companies taking similar or different approaches to product acquisitions and targeted medicine may also compete with us to in-license attractive drug candidates.

Manufacturing and Supply

We purchase custom designed, microarray products from Affymetrix. Our supply agreement with Affymetrix expires in January 2011. Under this agreement, our custom designs for the masks used to manufacture microarray products are treated as our confidential information. The supply agreement with Affymetrix permits our use of the microarray products for internal uses, as well as for providing services to affiliates and our collaborators in the following areas: discovery of genetic variations, genotyping of individual organisms, haplotype discovery, haplotype comparative genetics, genetic variation or haplotype based association studies, haplotype conserved region studies for the generation of qualitative transcription maps, and generation of quantitative expression assays using products supplied or licensed by Affymetrix.

Mitsubishi has supplied us with the active pharmaceutical ingredient, or API, of PGX-510, and other third parties supply us with finished clinical trial material, or CTM, of PGX-510 in compliance with Good Manufacturing Practices. We intend to work with Mitsubishi or other third parties for future clinical trial material and commercial supplies of PGX-510.

Third party vendors also supply us with the API of PGX-520 and the finished CTM of PGX-520 in compliance with Good Manufacturing Practices, or GMP. We also intend to work with third parties for future CTM and commercial supplies of PGX-520.

We do not currently operate manufacturing facilities for clinical or commercial production, as we rely on and leverage the manufacturing and distribution infrastructure of third parties. We may establish our own manufacturing facilities in the future. Manufacture of pharmaceuticals is subject to extensive current GMP regulations, which impose various procedural and documentation requirements and govern all areas of record keeping, production processes and controls, personnel and quality control. The FDA enforces the current GMP requirements through periodic, unannounced inspections of registered manufacturing facilities. Future FDA inspections may identify compliance issues at our facilities or at the facilities of our licensors or contract manufacturers that may disrupt production or distribution, or require substantial resources to correct. In addition, discovery of problems with a product or the failure to comply with current GMP regulations or other regulatory requirements may result in restrictions on a product, manufacturer, or holder of an approved NDA, including interruption or discontinuation of production, cost increases, criminal or civil penalty, withdrawal or recall of the product from the market or other voluntary or FDA-mandated action that could

delay or prevent further marketing. Also, new government requirements may be established that could delay or prevent regulatory approval of products under development. Because we will depend on our partners and other third parties to conduct manufacturing operations, we have very limited ability to control these activities, all of which are fundamental to our business and potential success.

Sales and Marketing

Our two lead drug candidates, as well as many of the drug candidates we will seek to develop in the future, are intended to address large, primary care markets. We do not currently have, nor do we intend in the near term to create, a commercialization organization capable of marketing, selling and distributing targeted drugs to markets of this size. This applies to markets in both the United States and elsewhere. Rather, we intend to establish commercialization partnerships with pharmaceutical, biotechnology or other organizations with the experience and resources to bring our products to market. In some cases, we may enter into agreements with these organizations during the development stage of a drug candidate to further benefit from their clinical development, regulatory, market research, pre-marketing and other expertises. As appropriate, we may establish a specialty sales force with an expertise in marketing and selling any future approved products to specialty physicians for specific target indications. We may also establish other complementary capabilities related to marketing and selling targeted medicines, particularly where those capabilities may not currently exist at other organizations.

Government Regulation

The testing, manufacturing, labeling, advertising, promotion, distribution, export and marketing of our product candidates are subject to extensive regulation by the FDA and comparable regulatory authorities in state and local jurisdictions and in other countries. Our product candidates will be intended to treat patient groups that fall within a genetically targeted population.

U.S. Government Regulation

In the United States, the FDA regulates drugs and diagnostic tests under the Federal Food, Drug, and Cosmetic Act and the agency's implementing regulations. If we fail to comply with the applicable United States requirements at any time during the product development process, clinical testing, and the approval process or after approval, we may become subject to administrative or judicial sanctions. These sanctions could include the FDA's refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties or criminal prosecution. Any agency enforcement action could have a material adverse effect on us.

The development of our product candidates will include genetic analysis studies to identify a patient population most likely to benefit from treatment with the product. This could be accomplished through identification of individuals who should be excluded from treatment due to the risk of experiencing an adverse event related to the drug or by excluding individuals who would not be likely to benefit through treatment of the specific drug. For example, the clinical development program for PGX-510, a PPAR-γ agonist, represents a novel approach to clinical development as we apply our genetic analysis technology and expertise to identify genetic factors corresponding to the safety or efficacy of PPAR-γ agonists. The objective of the clinical development program for PGX-510 and for our other product candidates is to develop a product with a genetic diagnostic test whereby the prescription of the product will be informed by the genetic diagnostic test. We expect the FDA approval for our products to include the marketing of a drug product in conjunction with a diagnostic test. We also intend that the drug product would be labeled for use only in patients with certain genetic characteristics that had been identified during the clinical development studies as the necessary screen for the assessment of the suitability of a patient to be treated with our product.

Our plan will require FDA approval, simultaneously, of a drug and of a diagnostic. We expect the diagnostic will be regulated by the FDA as a medical device. The FDA has indicated a willingness to work with companies to facilitate the simultaneous development of drugs and diagnostics, but there is relatively

little experience with such simultaneous development and no experience that is an exact precedent for what we propose to do. There is thus a risk of delays and mistakes inherent in any precedent-setting enterprise.

The following describes, first, the FDA regulatory requirements applicable for drugs and then discusses those requirements applicable to medical devices:

Drug approval

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- preclinical laboratory tests, animal studies and formulation studies all performed in accordance with the FDA's Good Laboratory Practice, or GLP, regulations;
- submission to the FDA of an Investigational New Drug, or IND, application, for human clinical testing, which must become effective before human clinical trials may begin;
- performance of adequate and well-controlled clinical trials to establish the safety and efficacy of the product candidate for each proposed indication;
- submission to the FDA of a New Drug Application, or NDA;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with current GMP regulations; and
- FDA review and approval of the NDA before any commercial marketing, sale or shipment of the product.

Preclinical tests include laboratory evaluations of product chemistry, formulation and stability, as well as studies to evaluate toxicity in animal studies. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND application. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises concerns or questions about the conduct of the clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. In that case, the IND sponsor and the FDA must resolve any outstanding FDA concerns before the clinical trials can begin. Submission of an IND may result in the FDA not allowing the trials to commence or not allowing the trial to commence on the terms originally specified in the IND. A separate submission to an existing IND must also be made for each successive clinical trial conducted during product development, and the FDA must grant permission, either explicitly or implicitly (by not objecting), before each clinical trial can begin.

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators. Clinical trials are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated. Each protocol must be submitted to the FDA as part of the IND. An independent Institutional Review Board, or IRB, for each medical center proposing to conduct a clinical trial must also review and approve a plan for any clinical trial before it can begin at that center and the IRB must monitor the study until it is completed. The FDA, the IRB or the sponsor may suspend or discontinue a clinical trial at any time for various reasons, including a finding that the subjects are being exposed to an unacceptable health risk. Clinical testing also must satisfy extensive good clinical practice requirements and the requirements for informed consent.

Clinical Trials

For the purposes of NDA submission and approval, clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined.

- Phase I studies are initially conducted with relatively few subjects to test the drug candidate for safety, dosage tolerance, absorption, metabolism, distribution and excretion and, if possible, to gain an early

indication of its effectiveness. Such studies are conducted in healthy humans, or, on occasion, in patients.

- Phase II studies are generally controlled clinical trials conducted with a relatively small number of subjects to:

  (a) evaluate dosage tolerance and appropriate dosage;

  (b) identify possible adverse effects and safety risks; and

  (c) evaluate preliminarily the efficacy of the drug for specific indications in patients with the disease or condition under study.

- Phase III studies, commonly referred to as pivotal studies are typically conducted when Phase II clinical trials demonstrate that a dose range of the drug candidate is effective and has an acceptable safety profile. Phase III clinical trials are undertaken with large numbers of patients (several hundred to several thousand) to further evaluate dosage, to provide substantial evidence of clinical efficacy and to further test for safety in an expanded and diverse patient population at multiple, geographically dispersed clinical trial sites.

Additionally Phase IV post-approval studies, to further assess the drug's safety and effectiveness, are sometimes required by the FDA as a condition of approval.

Our clinical trials may not proceed in this order. For example, if we do not have access to prior formulations of a drug candidate, we may require development of our own drug formulation which requires a Phase I pharmacokinetic study, after which we may proceed directly to Phase III studies relying on prior Phase II dose ranging studies if available for selection of the appropriate dose. In addition our Phase I, Phase II and Phase III testing may not be completed successfully within any specified period, if at all. The commencement and completion of our clinical trials could be delayed or prevented by several factors, including:

- delays in obtaining regulatory approvals to commence or continue a study;
- delays in identifying and reaching agreement on acceptable terms with prospective clinical trial sites;
- insufficient quantities of the study drug;
- slower than expected rates of patient recruitment and enrollment or the inability to reach full enrollment;
- inconclusive or negative interim results during clinical trials, including lack of effectiveness or unforeseen safety issues;
- death of, or serious adverse effects experienced by, one or more patients during a clinical trial, whether for reasons related to the study drug or for reasons not related to the study drug, including the advanced stage of the patient's disease or medical condition;
- uncertain dosing issues;
- inability to monitor patients adequately during and after treatment;
- inability or unwillingness of contract laboratories to follow good laboratory practice regulations;
- inability or unwillingness of clinical investigators to follow our clinical protocols or good clinical practice requirements generally; and
- inability or unwillingness of other third-parties to perform data collection and analysis in a timely or accurate manner.

We do not know whether planned clinical trials or sample acquisition studies will begin on time, will need to be restructured or will be completed on schedule, if at all. We may not be able to enroll and retain sufficient patients to complete our trials in a timely manner or at all. Sample acquisition studies may require

prospective drug intervention studies which have never been conducted before and the outcome and enrollment rates are difficult to predict. The indications for which we are conducting or plan to conduct trials may in some cases have relatively small patient populations; as a result, patient enrollment may be time consuming and may require us to open a large number of sites. Significant delays in clinical trials could significantly increase our development costs and would impede our ability to commercialize drug candidates and generate revenue. In addition, the favorable results in earlier stage clinical trials do not ensure that the results of late-stage trials will be favorable or that they will be adequate to demonstrate the safety and efficacy of the drug candidate or to support an approval application. Furthermore, the FDA, IRB or sponsor may suspend or terminate clinical trials at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk.

New Drug Application

Since our program involves the development of both a pharmacogenomic predictive diagnostic and a drug, we will be submitting applications to regulatory agencies for approval of both a diagnostic device and a pharmaceutical drug.

The results of the preclinical testing and of the clinical trials, together with other detailed information, including extensive manufacturing information and information on the composition of the product, are submitted to the FDA in the form of an NDA requesting approval to market the product for one or more specified indications. The FDA reviews an NDA to determine, among other things, whether a product is safe and effective for its intended use.

Once the NDA submission has been accepted for filing, by law the FDA has 180 days to review the application and respond to the applicant. The review process is often significantly extended by FDA requests for additional information or clarification. The FDA may refer the NDA to an advisory committee for review, evaluation and recommendation as to whether the application should be approved. The FDA is not bound by the recommendation of an advisory committee, but it generally follows such recommendations. The FDA may deny approval of an NDA if the applicable statutory and regulatory criteria are not satisfied, or it may require additional clinical data or an additional Phase III clinical trial or trials. Even if such data are submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. Data from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret data. Once the FDA approves an NDA or supplement thereto, the FDA may withdraw the approval if ongoing regulatory requirements are not met or if safety problems are identified after the drug reaches the market. Where a withdrawal may not be appropriate, the FDA still may seize existing inventory of such product or require a recall of any product already on the market. In addition, the FDA may require testing, including Phase 4 clinical trials, risk minimization action plans, and surveillance programs to monitor the effect of approved products, which have been commercialized. The FDA has the authority to prevent or limit further marketing of a drug based on the results of these post-marketing programs.

Drugs may be marketed only for the approved indications and in accordance with the provisions of the approved labeling. Changes to some of the conditions established in an approved application, including changes in indications, labeling, or manufacturing processes or facilities, require submission and FDA approval of a new NDA or NDA supplement. An NDA supplement for a new indication typically requires clinical data similar to that in the original application, and the FDA uses the same procedures and actions in reviewing NDA supplements as it does in reviewing NDAs.

Before approving an application, the FDA will inspect the facility or the facilities at which the finished drug product (and sometimes the active drug ingredient) is manufactured, and will not approve the product unless current good manufacturing practice compliance is satisfactory. The FDA may also inspect the clinical sites at which the trials were conducted to assess their compliance, and will not approve the product unless compliance with good clinical practice requirements is satisfactory. If the FDA concludes that the application demonstrates that the product is safe and effective for the proposed indication, and that the manufacturing process and the manufacturing facilities are acceptable, the FDA will issue an approval letter. If the FDA concludes that the application, manufacturing process or manufacturing facilities are not acceptable, the FDA

will outline the deficiencies in the submission and often will request additional testing or information. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the statutory and regulatory criteria for approval and may deny the application, limit the indication for which the drug is approved, add new warnings, precautions, or Adverse Reactions to the final labeling, or require additional post-approval testing in other requirements. The FDA does not require reinspection of a manufacturing facility for compliance with current good manufacturing practice prior to approval of a new indication for an approved drug, provided there is no change to the drug from a chemical, manufacturing and control perspective.

The testing and approval processes require substantial time, effort, and financial resources, and each may take several years to complete. The FDA may not grant approval on a timely basis, or at all. Even if we believe that a clinical trial has demonstrated safety and efficacy of one of our products for the treatment of a disease, the results may not be satisfactory to the FDA. Preclinical and clinical data may be interpreted by the FDA in different ways, which could delay, limit or prevent regulatory approval. We may encounter difficulties or unanticipated costs in our efforts to secure necessary governmental approvals, which could delay or preclude us from marketing products. The FDA may limit the indications for use or place other conditions on any approvals that could restrict the commercial application of the products. After approval, certain changes to the approved product, such as adding new indications, manufacturing changes, or additional labeling claims are subject to further FDA review and approval.

If regulatory approval of a product or new indication for an existing product is obtained, we (and our partners) will be required to comply with a number of post-approval requirements. We (and our partners) also will be required to comply with other regulatory requirements, including current good manufacturing practice regulations and adverse event reporting. Holders of an approved NDA are required to report certain adverse reactions and production problems, if any, to the FDA, to provide updated safety and efficacy information and to comply with requirements concerning advertising and promotional labeling for their products. Drug manufacturers and certain of their subcontractors are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including current good manufacturing practice regulations, which impose certain procedural and documentation requirements upon drug manufacturers. Accordingly, manufacturers must continue to expend time, money, and effort in the areas of production and quality control to maintain compliance with current good manufacturing practice regulations and other regulatory requirements.

Device Approval

As previously noted, we expect that the diagnostic test that we will develop in conjunction with each drug will be regulated by the FDA as a medical device. The test would likely be considered by the FDA to be an *in vitro* diagnostic, or IVD. There are two potential regulatory paths by which the FDA may give permission to market the test, depending on its characteristics.

510(k)

First, the test may be cleared for marketing after our filing of a ‘‘510(k)’’ premarket notification. To obtain a 510(k) clearance, a manufacturer must prove that its test system is substantially equivalent to a legally marketed predicate device, that is, a previously cleared 510(k) device or a device that was in commercial distribution before May 28, 1976 (or to a pre-1976 class III device for which the FDA has not yet called for the submission of premarket approval applications). Substantial equivalence requires that the device have ‘‘the same intended use as the predicate device’’ and either: (1) have ‘‘the same technological characteristics as the predicate device’’; or (2) be ‘‘as safe and effective as a legally marketed device, and... not raise different questions of safety and effectiveness than the predicate device.’’ The evidence required to prove substantial equivalence varies with the risk posed by the device and its complexity.

By regulation, the FDA is required to complete its review of a 510(k) within 90 days of submission of the notification. As a practical matter, clearance often takes longer. The FDA may require further

information, including clinical data, to make a determination regarding substantial equivalence. If the FDA determines that the device, or its intended use, is not ''substantially equivalent,'' the FDA will place the device, or the particular use of the device, into Class III, and the device sponsor must then fulfill much more rigorous premarketing requirements, known as premarket approval (see discussion below).

After a device receives 510(k) clearance for a specific intended use, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, design or manufacture, will require a new 510(k) clearance or could require a PMA application approval. The FDA requires each manufacturer to make this determination initially, but the FDA can review any such decision and can disagree with a manufacturer's determination. If the FDA disagrees with a manufacturer's determination that a new clearance or approval is not required for a particular modification, the FDA can require the manufacturer to cease marketing and recall the modified device until 510(k) clearance or a Pre-Market Approval Application, or PMA approval is obtained (discussed below). Also, in these circumstances, the manufacturer may be subject to significant regulatory fines or penalties.

510(k) review of IVD products includes analysis of the bias, inaccuracy, imprecision, analytical specificity, and sensitivity of the new device, *i.e.*, the ability of the device to accurately and reliably detect the presence of an analyte (analytical validity). In addition, the FDA regularly requests clinical samples with sufficient laboratory or clinical characterization to allow an assessment of the clinical validity of a new device, where clinical validity relates to whether the presence of an analyte accurately and reliably correlates with the underlying clinical condition the test is intended to detect.

PMA

Second, if we are unable to demonstrate that the diagnostic test is substantially equivalent to a marketed device, the FDA will require the submission and approval of a PMA before marketing of the diagnostic. The FDA will approve a PMA only if the applicant provides the FDA with a reasonable assurance that the device is safe and effective when used in accordance with its proposed labeling. In the IVD context, safety and efficacy are intertwined since both relate to test accuracy and reliability. Safety requires a low number of false negative or false positive results (or few adverse health consequences should such false results occur), and effectiveness requires both analytical and clinical validity. The PMA review process includes analysis of manufacturing processes, inspection of manufacturing facilities, a bioresearch monitoring audit of clinical data sites, and a comprehensive review of premarket data.

A PMA application, which is intended to provide the FDA with reasonable assurance that the device is safe and effective, must be supported by extensive data, including data from preclinical studies and human clinical trials and existing research material, and must contain a full description of the device and its components, a full description of the methods, facilities and controls used for manufacturing, and proposed labeling.

After the FDA determines that a PMA application is sufficiently complete to permit a substantive review, the FDA will accept the application and begins an in-depth review of the submitted information. The FDA, by statute and regulation, has 180 days to review an accepted PMA application, although the review generally occurs over a significantly longer period of time, and can take up to several years. During this review period, the FDA may request additional information or clarification of information already provided. Also during the review period, an advisory panel of experts from outside the FDA may be convened to review and evaluate the application and provide recommendations to the FDA as to the approvability of the device. In addition, the FDA will conduct a preapproval inspection of the manufacturing facility to ensure compliance with the FDA's Quality System Regulation, or QSR. New PMA applications or supplemental PMA applications are required for significant modifications to the manufacturing process, labeling, use and design of a device that is approved through the premarket approval process. Premarket approval supplements often require submission of the same type of information as a PMA application, except that the supplement is limited to information needed to support any changes from the device covered by the original PMA application, and may not require as extensive clinical data or the convening of an advisory panel.

In approving a PMA application, or clearing a 510(k) notification, the FDA may also require some form of postmarket surveillance, in which the manufacturer follows certain patient groups for a number of years and makes periodic reports to the FDA on the clinical status of those patients when necessary to protect the public health or to provide additional safety and effectiveness data for the device.

Clinical Trials

A clinical trial is almost always required to support a PMA application and, to a much lesser extent, to support a 510(k) premarket notification. When FDA approval of a device requires human clinical trials, and if the clinical trial presents a ''significant risk'' (as defined by the FDA) to human health, the device sponsor is required to file an investigational device exemption, or IDE, application with the FDA and obtain investigational device exemption approval prior to commencing the human clinical trial. The IDE application must be supported by appropriate data, such as animal and laboratory testing results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound. Clinical trials for a significant risk device may begin once the IDE application is approved by the FDA and the Institutional Review Board, or IRB, overseeing the clinical trial. If the product is deemed a ''non-significant risk'' device under FDA regulations, only informed consent and approval from the IRB overseeing the clinical trial is required. Clinical trials are subject to extensive recordkeeping and reporting requirements. Clinical trials must be conducted under the oversight of an IRB at the relevant clinical trials site and in accordance with applicable regulations and policies including, but not limited to, the FDA's good clinical practice, or GCP, requirements. We, the FDA or the IRB at each site at which a clinical trial is being performed may suspend a clinical trial at any time for various reasons, including a belief that the risks to study subjects outweigh the anticipated benefits. The results of clinical testing may not be sufficient to obtain approval of the product.

Continuing Food and Drug Administration Regulation of Medical Devices

After the FDA permits a device to enter commercial distribution, numerous regulatory requirements apply. These include:

- The FDA's Quality Systems Regulations, or QSR, which requires manufacturers to follow stringent design, testing, production, control, labeling, packaging, storage, shipping, documentation and other quality assurance procedures during all aspects of the manufacturing process;
- the registration and listing regulation, which requires manufacturers to register all manufacturing facilities and list all medical devices placed into commercial distribution;
- labeling regulations which impose restrictions on labeling and promotional activities, and FDA prohibitions against the promotion of products for uncleared, unapproved, or ''off-label'' uses;
- clearance or approval of product modifications that could significantly affect safety or efficacy or that would constitute a major change in intended use;
- post-market surveillance requirements which apply when necessary to protect the public health or to provide additional safety and effectiveness data for the device;
- the Medical Device Reporting, or MDR, regulations, which require that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if it were to recur; and
- notices of correction or removal, and recall regulations.

The MDR regulations will require that we report to the FDA any incident in which our product may have caused or contributed to a death or serious injury, or in which our product malfunctioned and, if the malfunction were to recur, it would likely cause or contribute to a death or serious injury.

Seeking approval of a drug and diagnostic together

As noted previously, there is not significant experience with the simultaneous FDA approval of a drug and a diagnostic intended to identify patients most likely to benefit from that drug. We anticipate, however, that FDA will work with us to coordinate the data filings that we will be required to make for the IND and NDA covering the drug and for the IDE and 510(k) or PMA that we anticipate will be required for clearance or approval of the diagnostic test. Thus, we believe that the FDA may permit the use of the same clinical trials that are used to support approval of the drug to support clearance or approval of the diagnostic. That could, however, potentially complicate the design of those studies. The design that may be required may be difficult to perform. For example, the FDA may require that we first utilize our diagnostic to place study subjects into groups that we expect to be more likely or less likely to suffer side effects efficacy from use of the drug and then to test both groups with the test drug to determine whether our expectation based on the diagnostic test is correct. We have no experience to predict whether such a design will complicate recruitment of patients or investigators or will qualify for IRB approval.

Promotional issues

In the course of practicing medicine, physicians may prescribe legally available drugs or devices for an indication that has not been approved by the FDA and which, therefore, is not described in the product's approved labeling — a so-called ''off-label use.'' The FDA does not regulate the behavior of physicians in their choice of treatments. The FDA and other governmental agencies do, however, restrict communications on the subject of off-label use by a manufacturer or those acting on behalf of a manufacturer. Simply put, companies may not promote FDA-approved drugs or devices for off-label uses. However, the FDA and other governmental agencies do permit a manufacturer (and those acting on its behalf) to engage in some limited, non-misleading, non-promotional speech regarding unapproved products or indications. We believe that our pre-approval communications constitute lawful activities and we have policies and procedures in place to regulate them. We are in the process of formalizing these and other policies and procedures to ensure that our pre-approval communications comply with applicable law. However, we have not yet formally implemented such policies and procedures, and if we fail to do so, or if such policies and procedures are inadequate or not adhered to, our pre-approval communications could result in violations of law which could harm our business. The FDA and other governmental agencies actively enforce laws and regulations prohibiting promotion of off-label uses and the promotion of products for which marketing clearance has not been obtained and may disagree that all of our communications comply with our restrictions on off-label promotion. The federal government has sought large civil fines and criminal penalties against manufacturers for alleged improper promotion, and the FDA has enjoined companies from engaging in off-label promotion.

We engage in medical education activities that, if conducted in accordance with FDA guidelines, are excluded by the FDA from consideration as promotional activities and, therefore, excluded from scrutiny under FDA regulations governing off-label promotion. While we believe that we are currently in compliance with FDA guidelines governing education activities and FDA regulations prohibiting off-label promotion, the guidelines and regulations are subject to varying interpretations, which are evolving, and the FDA may disagree that all of our activities comply with applicable restrictions on pre-approval promotion. Failure to comply with these requirements in the past or with respect to future activities can result in enforcement action — including civil and criminal sanctions by the FDA and other federal and state governmental bodies, including the Department of Justice and the Office of the Inspector General of the Department of Health and Human Services, which would harm our business and could have a material adverse effect on our business, financial condition and profitability. Any such enforcement action might be directed at both our company and our pharmaceutical partners, which could have an additional chilling effect on our ability to enter into new relationships with pharmaceutical companies.

International Regulation

In addition to being subject to the laws and regulations in the United States, we will be subject to a variety of laws and regulations in those other countries in which we seek to study and commercialize drug products, including netoglitazone. European and Canadian regulatory requirements and approval processes are

similar in principle to those in the United States. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of the European Union, European countries, Canada and other countries before we can commence clinical trials or marketing of the product in those countries. The approval process may be longer or shorter than that required for FDA approval. The requirements governing pricing, reimbursement, clinical trials, and to a lesser extent, product licensing vary from country to country.

In the European Union, there are two ways that a company can obtain multi-state marketing authorization for a pharmaceutical product. The first route is the ''centralized procedure.'' This procedure is compulsory for certain pharmaceutical products, in particular pharmaceutical products derived from biotechnology, but is also available for pharmaceutical products containing a new active substance or whose applications constitute a significant innovation. Under this procedure the applicant nominates a rapporteur, who is the co-ordinator for the evaluation of an application for marketing authorization, and co-rapporteur. A marketing authorization granted under the centralized procedure is valid in all Member States of the European Union. The second route to obtain marketing authorization in the European Union is the ''mutual recognition procedure.'' Application is made in all the Member States in which the marketing of the product is sought but the applicant chooses one Member State to act as the ''reference Member State'' and to prepare an assessment report. Within 90 days of receipt of such report, each Member State applied to may object to the approval if it believes the product raises a potential serious risk to public health. If the Member States do not reach an agreement on whether the approval should be granted or rejected, the matter is referred to the European Union relevant authority whose opinion is then forwarded to the European Commission. The European Commission makes the ultimate decision, which in most cases follows the European Union relevant authority's opinion.

To obtain marketing approval in Canada, we must provide Canada's Therapeutic Products Directorate with clinical data that demonstrate safety and efficacy for the new indications in humans. The data is provided in a new drug submission or in a supplemental new drug submission. We cannot market netoglitazone for the new indications in Canada until a supplemental new drug submission is approved by the Therapeutic Products Directorate. If the Therapeutic Products Directorate approves a supplemental new drug submission, the Therapeutic Products Directorate issues a marketing approval, known as a notice of compliance, for the new indications.

Third-Party Reimbursement and Pricing Controls

In the United States and elsewhere, sales of pharmaceutical products depend in significant part on the availability of reimbursement to the consumer from third-party payors, such as government and private insurance plans. Third-party payors are increasingly challenging the prices charged for medical products and services. It will be time consuming and expensive for us to go through the process of seeking reimbursement from Medicare and private payors. Netoglitazone or other products from which we may receive revenue in the future may not be considered cost-effective, and reimbursement may not be available or sufficient to allow these products to be sold on a competitive and profitable basis.

In many foreign markets, including the countries in the European Union and Canada, pricing of pharmaceutical products, in particular reimbursed products, is subject to governmental control. In the European Union, a product must receive specific country pricing approval in order to be reimbursed in that country. The pricing approval in the Member States of the European Union can take many months, and sometimes years, to obtain. In Canada, pricing must be approved by the Patented Medicine Prices Review Board, government and third-party payors. In addition, the provincial governments have the authority to assess the reimbursement status, if any, and the pricing of newly approved drugs, pharmaceutical products and pharmaceutical product indications. Obtaining price approval from the Patented Medicine Prices Review Board and provincial governments can take six to twelve months or longer after the receipt of the notice of compliance.

In the United States, there have been, and we expect that there will continue to be, a number of federal and state proposals to implement similar governmental pricing control. The adoption of such proposals could harm our business and financial condition.

Anti-Kickback and False Claims Laws

In the United States, we are subject to various federal and state laws pertaining to healthcare ''fraud and abuse,'' including anti-kickback and false claims laws. The federal Anti-Kickback Law makes it illegal for any person, including a prescription drug manufacturer (or a party acting on its behalf) to knowingly and willfully solicit, offer, receive or pay any remuneration, directly or indirectly, in exchange for, or to induce, the referral of business, including the purchase, order or prescription of a particular drug, for which payment may be made under federal healthcare programs such as Medicare and Medicaid. The federal government has issued regulations, commonly known as safe harbors, that set forth certain provisions which, if fully met, will assure healthcare providers and other parties that they will not be prosecuted under the federal Anti-Kickback Law. Although full compliance with these provisions ensures against prosecution under the federal Anti-Kickback Law, the failure of a transaction or arrangement to fit within a specific safe harbor does not necessarily mean that the transaction or arrangement is illegal or that prosecution under the federal Anti-Kickback Law will be pursued. Violations of the law are punishable by up to five years in prison, criminal fines, administrative civil money penalties, and exclusion from participation in federal healthcare programs. In addition, many states have adopted laws similar to the federal Anti-Kickback Law. Some of these state prohibitions apply to referral of patients for healthcare services reimbursed by any source, not only the Medicare and Medicaid programs. Due to the breadth of these laws, and the potential for additional legal or regulatory change addressing some of our practices, it is possible that our sales and marketing practices or our relationships with physicians might be challenged under anti-kickback laws, which could harm us. In anticipation of commercializing a product or products which may be reimbursed under a federal healthcare program and other governmental healthcare programs, we are in the process of developing a comprehensive compliance program that will seek to establish internal controls to facilitate adherence to the rules and program requirements to which we may be or may become subject.

False claims laws prohibit anyone from knowingly presenting, or causing to be presented, for payment to third-party payors (including Medicare and Medicaid) claims for reimbursed items or services, including drugs, that are false or fraudulent, claims for items or services not provided as claimed, or claims for medically unnecessary items or services. Our future activities relating to the reporting of wholesaler or estimated retail prices for our products, the reporting of Medicaid rebate information and other information affecting federal, state and third-party reimbursement of our products, and the sale and marketing of our products, are subject to scrutiny under these laws. In addition, pharmaceutical companies have been prosecuted under the federal False Claims Act in connection with their off-label promotion of drugs. Suits filed under the False Claims Act, known as ''qui tam'' actions, can be brought by any individual on behalf of the government and such individuals (known as ''relators'' or, more commonly, as ''whistleblowers'') may share in the amounts paid by the entity to the government in fines or settlement.

Penalties for a violation include three times the actual damages sustained by the government, plus mandatory civil penalties of between $5,500 and $11,000 for each separate false claim. In addition, certain states have enacted laws modeled after the federal False Claims Act. If the government were to allege that we were or our partners were, or convict us or our partners of, violating these false claims laws, we could be harmed, be subject to a substantial fine and suffer a decline in our stock price.

Employees

As of March 31, 2006, we had 105 full-time employees, including 25 with doctoral degrees. Of our world-wide workforce, 39 employees are engaged in research and development, 30 employees in bioinformatics, information technology, and data analysis, 11 are engaged in business development and alliance management, and 25 in finance and administration. We believe that our future success will depend in part on our continued ability to attract, hire and retain qualified personnel. None of our employees is

represented by labor unions or covered by collective bargaining agreements. We consider our relationship with our employees to be good.

Facilities

In December 2001, we moved our principal executive offices and our research and development and administrative operations to a 58,000 square foot research, development, and administrative facility located at 2021 Stierlin Court, Mountain View, California. We have leased this facility through October 2011 with an option to renew through 2016. We also lease a small office space in Tysons Corner, Virginia through October 2007 and an office space located in Tokyo, Japan through March 2008. We believe that our premises are adequate for our current and future needs.

Litigation

We are currently not a party to any litigation. From time to time, we may become party to litigation and subject to claims arising in the ordinary course of our business. To date, these actions have not had a material adverse effect on our financial position, results of operations or cash flows.

SCIENTIFIC ADVISORY BOARD

The members of our scientific advisory board, none of whom are our officers or employees, provide advice, assistance and consultation in the fields of genetics and drug development. We enter into scientific advisory board agreements with our advisory board members. We consider our advisory board members to be opinion leaders in their respective fields, and they offer us advice and feedback regarding, among other things, the following:

- feedback on our internal drug development programs;
- unmet needs and opportunities; and
- assessment of new analytical products and technologies.

As of March 31, 2006, our Scientific Advisory Board consisted of the following members:

Name	Title	Affiliation
Paul Berg, Ph.D.	Cahill Professor Emeritus in Biochemistry & Director Emeritus of the Beckman Center for Molecular and Genetic Medicine	Stanford University School of Medicine
Jean-Charles Fruchart, Ph.D.	Head of the Department of Atherosclerosis	Pasteur Institute of Lille, INSERM and University of Life
Michael B. Kastan, M.D., Ph.D.	Chairman, Department of Hematology-Oncology	St. Jude Children's Research Hospital
Jose M. Ordovas, Ph.D.	Professor of Nutrition and Genetics	Tufts University
Edward Rubin, M.D., Ph.D.	Head of the Department of Genome Sciences	Lawrence Berkeley National Laboratory
Lubert Stryer, M.D.	Winzer Professor in the School of Medicine and Professor of Neurobiology	Stanford University
Eric J. Topol, M.D.	Chairman of the Department of Cardiovascular Medicine	Case Western Reserve University

We have granted all but one of the above individuals options to purchase shares of our common stock. In addition, two of these individuals have purchased our preferred stock in prior financings.

MANAGEMENT

Executive Officers, Directors and Key Employees

The following table sets forth certain information concerning our executive officers, directors and key employees as of March 31, 2006:

Name	Age	Position
Bradley A. Margus	45	Founder, President and Chief Executive Officer and Director
William W. Sims	60	Chief Financial Officer
David R. Cox, M.D., Ph.D.	59	Founder and Chief Scientific Officer
Mark A. McCamish, M.D., Ph.D.	53	Chief Medical Officer
Robert G. Middlebrook	47	Chief Corporate Development Officer
Phyllis E. Whiteley, Ph.D.	48	Senior Vice President of Business Development and Licensing
Stephen P.A. Fodor, Ph.D.[1]	52	Founder and Chairman of the Board of Directors
William W. Bradley[1]	62	Director
Howard Furst, M.D.[2]	39	Director
Satoru Iino[3]	40	Director
Martha H. Marsh[2]	57	Director
Maxine F. Singer, Ph.D.[3]	75	Director
John A. Young[2][3]	73	Director

[1] Member of nominating and corporate governance committee

[2] Member of audit committee.

[3] Member of compensation committee.

Bradley A. Margus. Mr. Margus is one of our co-founders and has served as our President and Chief Executive Officer since our formation in September 2000. For the fourteen years prior to starting Perlegen, Mr. Margus served as President and Chief Executive Officer of Kitchens of the Oceans, Inc., an international private company involved in aquaculture and food manufacturing. In 1993, after learning that two of his children had a lethal genetic disease that combined progressive loss of muscle control with cancer and immune deficiency, Mr. Margus obtained tutoring in molecular genetics, formed a non-profit research organization focused on genetic research, and became an advocate for patients with other genetic disorders. Mr. Margus has served on the Secretary of Health and Human Services' Advisory Committee on Genetics, Health and Society, on the Advisory Council of the National Institute of Neurological Disorders and Strokes at the NIH and on the Board of the Genetic Alliance, an umbrella organization representing hundreds of genetic disease organizations. Mr. Margus holds a B.A. in Government and Business from George Washington University and an M.B.A. from Harvard University.

William W. Sims. Mr. Sims has served as our Chief Financial Officer since June 2004. From September 1999 to November 2003, Mr. Sims served as Vice President of Finance and Business Operations at Becton Dickinson Biosciences Clontech, a biotechnology company. From July 1998 to September 1999, Mr. Sims served as Senior Vice President of Finance and Chief Financial Officer for Clontech Laboratories, a biological products company, which was acquired by Becton Dickinson Biosciences in September 1999. From April 1994 to July 1998, Mr. Sims served as Chief Financial Officer for Palo Alto Medical Foundation, a non-profit medical foundation. Mr. Sims held various senior finance positions at Syntex Laboratories, a division of Syntex Corporation, a pharmaceutical company, including Senior Vice President of Finance and Operations. Mr. Sims holds a B.S. in Business from Oregon State University and an M.B.A. from Stanford University and is a Certified Public Accountant.

David R. Cox, M.D., Ph.D. Dr. Cox is one of our co-founders and has served as our Chief Scientific Officer since our formation in September 2000. From March 1993 to February 2000, Dr. Cox held a faculty

position as Professor of Genetics and Pediatrics at the Stanford University School of Medicine as well as a Co-Director of the Stanford Genome Center. During this period, Dr. Cox was an active participant in the large scale mapping and sequencing efforts of the Human Genome Project. Dr. Cox was certified by the American Board of Pediatrics as well as the American Board of Medical Genetics in 1981. Dr. Cox was elected as a member of the Institute of Medicine of the National Academy of Science in 2001. Dr. Cox holds an A.B. in Biology and an M.M.S., in Medical Science, from Brown University and an M.D. and a Ph.D. in Genetics from the University of Washington.

Mark A. McCamish, M.D., Ph.D. Dr. McCamish has served as our Chief Medical Officer since September 2003. From January 1998 to September 2003, Dr. McCamish developed drugs for Amgen and served as Global Development Leader. From August 1990 to September 1997, Dr. McCamish served as Medical Director of Abbott Laboratories. Dr. McCamish has held positions as a professor of Surgery at Michigan State University from 1980-1983, Internal Medicine at the University of California at Davis from 1987-1990, and Endocrinology at The Ohio State University from 1990-1997. Dr. McCamish holds a B.S. in Physical Education and an M.S. in Ergonomics from the University of California at Santa Barbara, a Ph.D. in Human Nutrition from The Pennsylvania State University and an M.D. from the University of California at Los Angeles. Dr. McCamish is Board Certified in Internal Medicine and Nutrition and Metabolism.

Robert G. Middlebrook. Mr. Middlebrook has served as our Chief Corporate Development Officer since October 2003. From April 1992 to September 2003, Mr. Middlebrook was employed by Fidelity Investments where he served in several roles including Chief Investment Officer of the Managed Income Group, Head Trader of the Municipal Money Market Group and Senior Vice President in two service related business units. From 1986 to 1992, Mr. Middlebrook served as Vice President and Principal of Regent Capital Corporation, a private equity firm. Mr. Middlebrook holds a B.S. in Business Management from Bucknell University and an M.B.A. from Harvard University and is a Chartered Financial Analyst.

Phyllis E. Whiteley, Ph.D. Dr. Whiteley has served as our Senior Vice President of Business Development and Licensing since November 2004. From December 2000 to October 2004, Dr. Whiteley held several positions at F. Hoffman La Roche, a unit of Roche, a pharmaceuticals company, including Vice President Strategic Portfolio Management, Pharma Research Strategy (Global), Vice President Business Development and Global Licensing Director and Vice President Global Alliance Research, North America. From September 1995 to December 2000, Dr. Whiteley held several positions at Roche Bioscience, another unit of Roche, including Vice President, Therapeutic Area Head, Arthritis, Deputy Therapeutic Area Head, and Department Head Biology. Dr. Whiteley holds a B.A. in Chemistry and a Ph.D. in Pharmacology from Washington University.

Stephen P.A. Fodor, Ph.D. Dr. Fodor is one of our co-founders and has served as our Chairman of the Board of Directors since our formation in September 2000. Since 1993, Dr. Fodor has served on the Board of Directors of Affymetrix. Since 1999, Dr. Fodor has served as Chairman of the Board of Directors and Chief Executive Officer of Affymetrix. From 1989 to 1992, Dr. Fodor held positions at the Affymax Research Institute, an affiliate of Affymetrix. From 1986 to 1989, Dr. Fodor was a National Institutes of Health post doctoral fellow at the University of California at Berkeley, working on time-resolved spectroscopy of bacterial and plant pigments. Dr. Fodor and colleagues were the first to develop and describe microarray technologies and combinatorial chemistry synthesis, today known as GeneChip® brand technology. Dr. Fodor also serves on the board of Sunesis Pharmaceuticals, Inc., a pharmaceutical company. Dr. Fodor holds a B.S. in Biology and an M.S. in Biochemistry from Washington State University and a Ph.D. in Chemistry from Princeton University.

William W. Bradley. Senator Bradley has served as one of our directors since March 2001. Since November 2000, Senator Bradley has been a Managing Director of Allen & Company LLC, an investment bank. From April 2001 to June 2004, Senator Bradley also served as chief outside advisor to the non-profit practice of McKinsey & Company, a consulting firm. From February 1997 to December 1998, Senator Bradley was a Senior Advisor and Vice Chairman of the International Council of JP Morgan & Co., Inc., an investment bank. He remains a member of JP Morgan's International Council. From January 1979 to January 1997, Senator Bradley served in the U.S. Senate, representing the state of New Jersey. Senator Bradley

currently serves on the board of public companies, including Seagate Technology, Inc., a data storage device company, Starbucks Corporation and Willis Group Holdings Limited, an insurance company. Senator Bradley holds a B.A. in American History from Princeton University and an M.A. in Philosophy, Politics and Economics from Oxford University.

Howard Furst, M.D. Dr. Furst has served as one of our directors since January 2004. From January 2000 to March 2006, Dr. Furst has held various positions at Maverick Capital, a hedge fund, including Principal since January 2005. From 1997 to 2000, Dr. Furst was a Fellow in the University of Pennsylvania's Renal Electrolyte and Hypertension Division. From 1996 to 1997, Dr. Furst served as Senior Chief Medical Resident at New York University. Dr. Furst holds a B.A. in Biological Basis of Behavior, an M.B.A. from the University of Pennsylvania and an M.D. from New York University.

Satoru Iino. Mr. Iino was appointed as one of our directors in March 2006. Since March 2000, Mr. Iino has been employed by CSK Venture Capital Co. Ltd., a venture capital firm, where he became a Director and General Manager in February 2004. From April 1989 to February 2000, Mr. Iino was employed by Hitachi Ltd. and Hitachi America Co. Ltd., where he was mainly in charge of technology licensing and alliance with overseas companies. Mr. Iino currently serves on the board of Crystal Genomics, Inc., a Korean publicly traded biotechnology company. Mr. Iino also serves on the board of several privately held companies. Mr. Iino holds a B.A. in Aesthetics from Tokyo University.

Martha H. Marsh. Ms. Marsh was appointed as one of our directors in April 2006. Since April 2002, Ms. Marsh has been the President and Chief Executive Officer of Stanford Hospital and Clinics, an academic medical center. Ms. Marsh has also served as the Chief Executive Officer of the University of California at Davis Medical Center, an academic medical center, and the Chief Operating Officer of the University of California at Davis Health System, an academic health system, each from July 1999 to February 2002. In March 2003, Ms. Marsh was appointed to serve on the National Infrastructure Advisory Council (NIAC). In 2004, she became the co-chairperson of the NIAC Risk Assessment Committee and she is currently co-chair of the NIAC Critical Infrastructure Workforce on Chemical, Biological, and Radiological Events. Ms. Marsh currently serves as the Chair of the Board of Trustees for the California Hospital Association and the California Association of Hospitals and Health Systems. Ms. Marsh is also a member and the past Chair of the Blue Cross of California Hospital Relations Committee, and a member of the Healthcare Research Development Institute. Ms. Marsh graduated from the University of Rochester with a B.A. in history and from Columbia University with an M.P.H. degree in health administration and an M.B.A. degree specializing in accounting.

Maxine F. Singer, Ph.D. Dr. Singer has served as one of our directors since March 2001. Since June 1987, Dr. Singer has been a Scientist Emeritus at the National Institutes of Health where she worked on the synthesis and structure of RNA and contributed to deciphering the genetic code. Since February 2003, Dr. Singer has also served as President Emerita of the Carnegie Institution of Washington, a non-profit scientific research organization. From March 1988 to January 2003, Dr. Singer served as President of the Carnegie Institution of Washington. Dr. Singer is a member of the National Academy of Sciences and its Institute of Medicine. Dr. Singer was a member of the board of directors of Johnson & Johnson until her retirement in 2003. Dr. Singer holds an A.B. in Chemistry from Swarthmore College and a Ph.D. in Biochemistry from Yale University.

John A. Young. Mr. Young has served as one of our directors since March 2001. From July 1958 to October 1992, Mr. Young was employed by Hewlett-Packard Company, a manufacturer of electronic, computer, and medical instruments, where he became President and Chief Executive Officer in April 1978. Mr. Young currently serves on the board of Affymetrix and Ciphergen Biosystems, Inc., a publicly traded proteomics applications company. Mr. Young also serves on the board of several privately held companies. Mr. Young holds a B.S. in Electrical Engineering from Oregon State University and an M.B.A. from Stanford University.

Executive Officers

Our executive officers are elected by, and serve at the discretion of, our board of directors.

Board of Directors

Our authorized number of directors is eight. We are actively searching for qualified candidates to add to our board of directors or to replace current members. We have determined that a majority of our directors, are independent under the NASDAQ rules. Two of our directors are board members of Affymetrix which owns a substantial amount of stock prior to this offering and are not considered to be independent. See ''Principal Stockholders.'' Upon completion of this offering, our amended and restated certificate of incorporation will provide that our board of directors will be divided into three classes, each with staggered three-year terms. As a result, 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. Messrs. Iino and Margus and Dr. Furst have been designated as Class I directors, whose terms will expire at the 2007 annual meeting of stockholders. Dr. Fodor and Mr. Young have been designated as Class II directors, whose terms will expire at the 2008 annual meeting of stockholders. Dr. Singer, Ms. Marsh and Senator Bradley have been designated as Class III directors, whose terms will expire at the 2009 annual meeting of stockholders. This classification of the board of directors may delay or prevent a change in control of our company or our management. See ''Description of Capital Stock — Anti-Takeover Effects of Provisions of the Amended and Restated Certificate of Incorporation and Bylaws.''

Board Committees

Our board of directors has an audit committee, a compensation committee and a nominating and corporate governance committee.

Audit Committee. The audit committee of our board of directors appoints our independent auditors, reviews our internal accounting procedures and financial statements, and consults with and reviews the services provided by our independent auditors, including the results and scope of their audit. The audit committee currently consists of Ms. Marsh, Dr. Furst and Mr. Young. Ms. Marsh is the chairperson of our audit committee. Ms. Marsh and Dr. Furst will be independent, within the meaning of SEC and NASDAQ rules, upon completion of this offering. Mr. Young is currently not considered to be independent and our board has determined to keep Mr. Young on the audit committee based on his qualifications and experience until a qualified independent director can be identified. We expect to find a replacement for Mr. Young within one year of this offering if he is not considered to be independent. Mr. Young is our audit committee financial expert, as currently defined under the SEC rules implementing the Sarbanes-Oxley Act of 2002. We believe that the composition and functioning of our audit committee complies with all applicable requirements of the Sarbanes-Oxley Act of 2002, The NASDAQ National Market and SEC rules and regulations subject to phase-in periods described thereunder. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee. The compensation committee of our board of directors reviews and recommends to our board of directors the compensation and benefits for our chief executive officers and has the authority to establish the compensation and benefits for our executive officers, administers our stock plans, and establishes and reviews general policies relating to compensation and benefits for our employees. The compensation committee is currently comprised of Dr. Singer, Mr. Iino and Mr. Young. Dr. Singer and Mr. Iino will be independent, within the meaning of SEC and NASDAQ rules, upon completion of this offering. Mr. Young is the chairperson of our compensation committee and our board has determined to keep Mr. Young on the compensation committee based on his qualifications and experience until another qualified independent director can be located. We believe that the composition and functioning of our compensation committee complies with all applicable requirements of the Sarbanes-Oxley Act of 2002, The NASDAQ National Market and SEC rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Nominating and Corporate Governance Committee. The nominating and corporate governance committee of our board of directors is responsible for:

- assisting the board in identifying prospective director nominees and recommending to the board of directors, the director nominees for each annual meeting of stockholders;
- recommending members for each board committee;
- ensuring that the board is properly constituted to meet its fiduciary obligations to our company and the stockholders and that we follow appropriate governance standards;
- developing and recommending to the board, governance principles applicable to our company; and
- overseeing the evaluation of the board and management.

The nominating and corporate governance committee currently consists of Senator Bradley and Dr. Fodor. Senator Bradley will be independent within the meaning of applicable SEC and NASDAQ rules, upon completion of this offering. Our board has determined to keep Dr. Fodor on the committee based on his qualifications and experience until a qualified independent director can be located. We are searching for an additional independent member for our nominating and corporate governance committee and once an additional independent member is added, we believe that the composition and functioning of our nominating and governance committee will comply with all applicable requirements of the Sarbanes-Oxley Act of 2002, The NASDAQ National Market and SEC rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Board of Directors and Compensation Committee Interlocks and Insider Participation

The chairman of our board of directors, Stephen P.A. Fodor, is the chief executive officer at, and chairman of the board of directors of, Affymetrix. Another of our directors, John A. Young, is a director of Affymetrix. David B. Singer, the son of another of our directors, Maxine F. Singer, is a director of Affymetrix and a principal at Maverick Capital, one of our greater than 5% stockholders.

None of the members of our compensation committee has at any time been one of our officers or employees. None of our executive officers currently serves, or in the past year 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.

Director Compensation

In February 2006, our board of directors approved a compensation program pursuant to which we pay each of our non-employee directors an annual retainer of $25,000 for service as a director. The chairperson of our audit committee receives an annual retainer of $15,000, and the other members of our audit committee receive a $10,000 annual retainer. Our other committee chairpersons receive an annual retainer of $10,000, and the members of other committees receive an annual retainer of $5,000. We reimburse each non-employee member of our board of directors for out-of-pocket expenses incurred in connection with attending our board and committee meetings. The cash compensation paid to our directors may be adjusted from time to time as the board of directors may determine.

We have in the past granted directors options to purchase our common stock pursuant to the terms of our 2002 Equity Incentive Plan. Our 2006 Equity Incentive Plan provides for the automatic grant of options to our non-employee directors. Each non-employee director appointed to the board after the completion of this offering will automatically receive an initial option to purchase shares of common stock upon such appointment, except for those directors who had previously been employees. In addition, beginning in 2007, at each annual meeting, non-employee directors who were non-employee directors on the date of the prior year's annual meeting will automatically receive an option to purchase shares of common stock, and non-employee directors who were not non-employee directors on the date of the prior year's annual meeting will automatically receive a prorated option to purchase the number of shares of common stock equal to multiplied by a fraction, the numerator of which is the number of days since he or she received

an initial option (or first became a non-employee director, if no initial option was received), and the denominator of which is 365. See ''— Employee Benefit Plans.''

Executive Compensation

The following table sets forth summary information for 2005 concerning compensation of our chief executive officer, chief financial officer and each of our other four most highly compensated executive officers as of the end of the last fiscal year. We refer to these persons as our named executive officers elsewhere in this prospectus. Except as provided below, none of our named executive officers received any other compensation required to be disclosed by law or in excess of 10% of their total annual compensation.

Summary Compensation Table

Name and Position	Annual Compensation		Long-Term Compensation (Securities Underlying Options)	All Other Compensation[2]
	Salary	Bonus[1]		
Bradley A. Margus ..... President and Chief Executive Officer and Director	$365,737	$200,000		$120,350[3]
William W. Sims ..... Chief Financial Officer	250,000	37,500		14,064
David R. Cox, M.D., Ph.D. ..... Chief Scientific Officer	320,832	130,000		53,321[3]
Paul J. Cusenza ..... Senior Vice President of Marketing and Alliance Management	284,432	66,436		11,310
Mark A. McCamish, M.D., Ph.D. ..... Chief Medical Officer	265,000	60,659		134,742[4]
Robert G. Middlebrook ..... Chief Corporate Development Officer	286,203	60,659		83,810[4]

(1) Earned for services during year and paid in March 2006. Bonus numbers do not include amounts earned for services in 2004 that were paid in 2005.

(2) Consists of amounts paid by us for (i) group term life insurance premiums and (ii) a 75% matching contribution of the amount each participant contributed to our 401(k) plan.

(3) Includes housing allowance and loan interest forgiveness.

(4) Includes housing bonus.

Option Grants in Last Fiscal Year

In 2005, we granted options to purchase an aggregate of shares of our common stock to our employees, directors and consultants, all of which were granted under the 2002 Equity Incentive Plan. These options generally vest at the rate of 25% per year of service from the date of grant. These options have a term of 10 years, but may terminate before their expiration dates if the optionee's status as our employee, director or consultant is terminated, or upon the optionee's death or disability. See ''— Employee Benefit Plans — 2002 Equity Incentive Plan.''

The following table sets forth certain information with respect to stock options granted to each of our named executive officers during 2005.

2005 Option Grants

	Individual Grants				Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term	
Name	Number of Securities Underlying Options Granted	Percent of Total net Options Granted to Employees	Exercise Price Per Share	Expiration Date	5%	10%
Bradley A. Margus		16.52%	$0.40	4/26/15		
William W. Sims		—	—	—	—	—
David R. Cox, M.D., Ph.D.		9.91%	$0.40	4/26/15		
Paul J. Cusenza		9.50%	$0.40	4/26/15		
Mark A. McCamish, M.D., Ph.D.		3.61%	$0.40	4/26/15		
Robert G. Middlebrook		3.61%	$0.40	4/26/15		

With respect to the amounts disclosed in the column captioned ''Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term,'' the 5% and 10% assumed annual rates of compounded stock price appreciation are mandated by rules of the SEC, and do not represent our estimate or projection of our future common stock prices. The potential realizable values are calculated based on an assumed initial public offering price of $ per share, the mid-point of the range on the front cover of this prospectus, and assume that the common stock appreciates at the indicated rate for the entire term of the option, and that the option is exercised at the exercise price and sold on the last day of the option term at the appreciated price. Actual gains, if any, on stock option exercises are dependent on the future performance of our common stock and overall stock market conditions. The amounts reflected in the table may not necessarily be realized.

Aggregated Option Exercises in 2005 and Year-End Option Values

The following table sets forth certain information concerning the number of options exercised during the fiscal year ended December 31, 2005 and the number and value of unexercised options held by each of the named executive officers as of December 31, 2005. The amount described in the column captioned ''Value of Unexercised in-the-Money Options at December 31, 2005'' represents the positive spread between the exercise price of stock options and the fair market value of the options, which is based upon an assumed initial public offering price of $ per share, the mid-point of the range on the front cover of this prospectus, minus the exercise price per share.

2005 Aggregated Option Exercises and Year-End Values

			Number of Securities Underlying Unexercised Options at December 31, 2005		Value of Unexercised in-the-Money Options at December 31, 2005	
Name	Shares Acquired on Exercise	Value Realized[(1)]	Exercisable	Unexercisable	Exercisable	Unexercisable
Bradley A. Margus						
William W. Sims						
David R. Cox, M.D., Ph.D.						
Paul J. Cusenza						
Mark A. McCamish, M.D., Ph.D.						
Robert G. Middlebrook						

(1) The value realized reflects the fair market value of our common stock underlying the option on the date of exercise, as determined by our board of directors, minus the exercise price of the option.

Employee Benefit Plans

2001 Stock Option and Incentive Plan

Our board of directors adopted our 2001 Stock Option and Incentive Plan in March 2001, and our sole stockholder also approved it in March 2001. Our board of directors has determined not to grant any additional awards under the 2001 Stock Option and Incentive Plan after the completion of this offering and has terminated the plan effective as of the completion of this offering. However, the 2001 Stock Option and Incentive Plan will continue to govern the terms and conditions of the outstanding awards granted thereunder.

As of , 2006, options to purchase a total of shares of our common stock were issued and outstanding under the 2001 Stock Option and Incentive Plan. No shares remain available for future issuance under the 2001 Stock Option and Incentive Plan.

Our 2001 Stock Option and Incentive Plan provided for the grant of options to our service providers, stock appreciation rights, restricted stock, restricted stock units, performance shares, share units, and other stock-based awards, each of which is referred to as an ''award,'' to our service providers. The plan also permitted the granting of dividend equivalent rights with respect to any award. Incentive stock options within the meaning of Section 422 of the Internal Revenue Code were permitted to be granted only to our (or a parent or subsidiary corporation's) employees, and all other awards were permitted to be granted to directors, officers, employees, and consultants of us or of any parent or subsidiary of us. Our compensation committee administers the 2001 Stock Option and Incentive Plan. The administrator has the authority to determine the terms and conditions of the awards granted under the 2001 Stock Option and Incentive Plan, including the authority to grant an award in substitution for other awards.

Our 2001 Stock Option and Incentive Plan provides that in the event of our merger with or into another corporation, a sale of all or substantially all of our assets or transaction by which a person, corporation, other than Affymetrix, or entity becomes the beneficial owner of more than 50% of our issued and outstanding capital stock, the successor corporation or its parent or subsidiary may assume or substitute each award. If the outstanding awards are not assumed or substituted, they will fully vest and be cashed out by the company. If outstanding awards are assumed or substituted, and our stockholders immediately before the transaction do not own more than 55% of the successor's shares that vote for directors after the transaction, a situation which is referred to in the Plan as a ''qualifying transaction,'' each participant will be credited with an additional 12 months of service for vesting purposes. A qualifying transaction does not include a situation where the successor company is Affymetrix, or a company controlled by it. In the event of a qualifying transaction in which the successor assumes or substitutes for the outstanding awards, if the participant is terminated by the successor without cause or the participant resigns for good reason, in each case within 18 months of the consummation of the transaction, then all outstanding awards held by the participant will immediately vest and be cashed out by the successor.

2002 Equity Incentive Plan

Our board of directors adopted our 2002 Equity Incentive Plan in January 2002, and our stockholders approved it in July 2002. Our board of directors has determined not to grant any additional awards under the 2002 Equity Incentive Plan after the completion of this offering and has terminated the plan effective as of the completion of this offering. However, the 2002 Equity Incentive Plan will continue to govern the terms and conditions of the outstanding awards granted thereunder.

As of , 2006, options to purchase a total of shares of our common stock were issued and outstanding under the 2002 Equity Incentive Plan. Upon the completion of this offering, no shares will remain available for issuance under the 2002 Equity Incentive Plan; any shares that remained available for issuance as of immediately prior to the completion of this offering will be transferred to our 2006 Equity Incentive Plan.

Our 2002 Equity Incentive Plan provided for the grant of options and stock purchase rights to our service providers. Stock purchase rights and nonstatutory stock options were permitted to be granted to our, or a parent or subsidiary corporation's, employees, directors and consultants, and incentive stock options

within the meaning of Section 422 of the Internal Revenue Code were permitted to be granted only to our, or a parent or subsidiary corporation's, employees. Our compensation committee administers the 2002 Equity Incentive Plan. The administrator has the authority to determine the terms and conditions of the options and stock purchase rights granted under the 2002 Equity Incentive Plan, including the ability to offer to buyout a previously granted option.

Our 2002 Equity Incentive Plan provides that if, as a result of a dividend, distribution, reclassification, stock split, reverse stock split, liquidation, dissolution, sale, transfer, exchange or other disposition of all or substantially all of our assets, and the administrator of the plan determines that one or more of following actions is appropriate to prevent dilution or enlargement of current or potential benefits under the plan, the administrator may provide for the cash out of the award, the acceleration of the award, the assumption or substitution of the award, the adjustment in the number, exercise price and other terms of the award, or for the termination of the award after notice that the award has become fully vested. Our 2002 Equity Incentive Plan also provides that in the event of our merger with or into another corporation in which our stockholders before the merger own less than 50% of the voting power after the merger, or a sale of all or substantially all of our assets, the successor corporation or its parent or subsidiary may assume or substitute each stock purchase right and option. If the outstanding options or stock purchase rights held by then-current service providers are not assumed or substituted, they will fully vest and become exercisable at least 10 days prior to the closing of such transaction and shall terminate if not exercised prior to the closing of such transaction.

2006 Equity Incentive Plan

Our board of directors adopted our 2006 Equity Incentive Plan in April 2006 and we expect our stockholders to approve the plan prior to the completion of this offering. Our 2006 Equity Incentive Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and our parent and subsidiary corporations' employees, and for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, performance units, deferred stock units and dividend equivalents, each of which is referred to as an ''award,'' to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants. The 2006 Equity Incentive Plan also provides for the automatic periodic grant of nonstatutory stock options to our non-employee directors. No awards have yet been issued pursuant to our 2006 Equity Incentive Plan.

Our 2006 Equity Incentive Plan provides that the number of shares authorized for issuance under the 2006 Equity Incentive Plan will equal a total of (a) any shares that have been reserved but not issued under our 2002 Equity Incentive Plan as of immediately prior to the effective date of this offering, up to a maximum of 20,000,000 shares and (b) any shares returned to our 2002 Equity Incentive Plan or 2001 Stock Option and Incentive Plan on or after the completion of this offering as a result of termination of options issued thereunder, up to a maximum of 20,000,000 shares plus (c) an annual increase in the number of shares available for issuance under the 2006 Equity Incentive Plan on the first day of each fiscal year, beginning with our fiscal year 2007, equal to the lesser of: (i) 4% of the outstanding shares of our common stock on the first day of the applicable fiscal year; (ii) shares; and (iii) such other amount as our board of directors may determine.

Our board of directors or a committee of our board administers our 2006 Equity Incentive Plan. In the case of options intended to qualify as ''performance based compensation'' within the meaning of Section 162(m) of the Internal Revenue Code, the committee will consist of two or more ''outside directors'' within the meaning of Section 162(m) of the Code. The administrator has the power to determine the terms of the awards, including the exercise price, the number of shares subject to each such award, the exercisability of the awards and the form of consideration, if any, payable upon exercise. The administrator also has the authority to amend existing awards to reduce their exercise price and to institute an exchange program by which outstanding awards may be surrendered in exchange for awards with a lower exercise price.

If an award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an exchange program or is forfeited back to or repurchased by the Company, the unpurchased

shares (or forfeited or repurchased shares) which were subject to such award will become available for future grant or sale under our plan (unless our plan has terminated). Shares that have actually been issued under our plan under any award, will not be returned to our plan and will not be available for future distribution under our plan, except if shares of restricted stock, performance units, or restricted stock units are repurchased by us or are forfeited, in which case such shares will be available for future grant under our plan. Shares withheld to satisfy the purchase price of an award or tax withholding obligations will again become available for future grant or sale under our plan. The shares available will not be reduced by awards settled in cash or by payout of dividend equivalents.

Incentive stock options and nonstatutory stock options may be granted under our 2006 Equity Incentive Plan. The administrator determines the exercise price of options granted under our 2006 Equity Incentive Plan, but generally the exercise price must at least be equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed 10 years, except that, with respect to any participant who owns 10% of the voting power of all classes of our outstanding stock, the term must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. The administrator determines the term of all other options.

After termination, an employee, director or consultant, may exercise his or her option for the period of time as the administrator may determine. Generally, if termination is due to death or disability, the option will remain exercisable, to the extent vested, for 12 months. In all other cases, the option will generally remain exercisable, to the extent vested, for three months. However, an option generally may not be exercised later than the expiration of its term.

Stock appreciation rights may be granted under our 2006 Equity Incentive Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. The administrator determines the terms of stock appreciation rights, including when such rights become exercisable and whether to pay the increased appreciation in cash or with shares of our common stock, or a combination thereof.

Restricted stock awards may be granted under our 2006 Equity Incentive Plan. Restricted stock awards are shares of our common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares of restricted stock granted to any employee, director or consultant. The administrator may impose whatever conditions to vesting it determines to be appropriate. For example, the administrator may set restrictions based on the achievement of specific performance goals, on the continuation of service or employment or any other basis determined by the administrator. Shares of restricted stock that do not vest are subject to our right of repurchase or forfeiture.

Restricted stock units may be granted under our 2006 Equity Incentive Plan. Restricted stock units are awards that will result in a payment to a participant at the end of a specified period only if performance goals established by the administrator are achieved or the award otherwise vests. The administrator may impose any conditions to vesting, restrictions and conditions to payment it determines to be appropriate. For example, the administrator may set restrictions based on the achievement of specific performance goals, on the continuation of service or employment or any other basis determined by the administrator. Payments of earned restricted stock units may be made, in the administrator's discretion, in cash or with shares of our common stock, or a combination thereof.

Performance units may be granted under our 2006 Equity Incentive Plan. Performance units are awards that will result in a payment to a participant only if performance goals established by the administrator are achieved or the awards otherwise vest. The administrator may impose any conditions to vesting, restrictions and conditions to payment it determines to be appropriate. For example, the administrator may set restrictions based on the achievement of specific performance goals, on the continuation of service or employment or any other basis determined by the administrator, which, depending on the extent to which the conditions are met, will determine the number of performance units to be paid out to participants. The administrator will also establish the initial dollar value of performance units prior to the grant date.

Deferred stock units may be granted under our 2006 Equity Incentive Plan. Deferred stock units are awards of restricted stock, restricted stock units, or performance units that are paid out in installments or on a deferred basis. The administrator determines the terms and conditions of deferred stock units.

Dividend equivalents may be granted under our 2006 Equity Incentive Plan. Dividend equivalents are units representing shares of our common stock that entitle a participant to receive an amount equal to the ordinary dividends paid on one share of our common stock for each share represented by another award held by the participant. The administrator determines at the time of grant whether the dividend equivalents will be paid in cash or in shares of our common stock, the time or times at which they will be paid out, and such other vesting and other terms and conditions as the administrator deems appropriate.

Our 2006 Equity Incentive Plan also provides for the automatic grant of options to our non-employee directors. Each non-employee director appointed to the board after the completion of this offering will automatically receive an initial option to purchase shares upon such appointment, except for those directors who had previously been employees. In addition, beginning in 2007, at each annual meeting non-employee directors who were non-employee directors on the date of the prior year's annual meeting will automatically receive a subsequent option to purchase shares of common stock, and non-employee directors who were not non-employee directors on the date of the prior year's annual meeting will receive a prorated subsequent option to purchase the number of shares of common stock equal to multiplied by a fraction, the numerator of which is the number of days since the he or she received an initial option or first became a non-employee director if no initial option was received, and the denominator of which is 365. All options granted under the automatic grant provisions have a term of 10 years and an exercise price equal to fair market value on the date of grant. Each initial option becomes vested and exercisable as to 50% of the shares on each annual anniversary of the grant date, provided the non-employee director remains a director on such dates. Each subsequent option and prorated subsequent option becomes 100% vested and exercisable as to all shares on the one year anniversary of the date of grant, provided the non-employee director remains a director on such date. The administrator retains the authority to change the terms and conditions of automatic option grants, including the number of shares subject to future option grants. In addition to the automatic option grants described in this paragraph, non-employee directors are eligible to receive additional, discretionary options and other awards under our 2006 Equity Incentive Plan.

Unless the administrator provides otherwise, the transfer of awards will not be permitted and only the recipient of an award may exercise an award during his or her lifetime. Unless the administrator provides otherwise, awards under our 2006 Equity Incentive Plan will be structured to comply with the requirements of Section 409A of the Internal Revenue Code. In addition, and unless provided otherwise by the administrator, any service-based vesting on awards granted under the 2006 Equity Incentive Plan will be extended on a proportionate basis in the event a participant transitions to a less than full-time work schedule or transfers back to working additional hours.

Our 2006 Equity Incentive Plan provides that in the event of our change in control, awards granted under the plan will be subject to the definitive agreement governing the change of control. The agreement must provide for one of the following (i) that the successor corporation or its parent will assume or substitute an equivalent award for each outstanding award, (ii) the awards will convert into an award to purchase or receive the consideration received by our stockholders in the transaction, (iii) the administrator will provide notice to the recipient that he or she has the right to exercise an option and stock appreciation right in full (and to the extent not exercised, will terminate following the end of the notice period), all other awards will be deemed vested in full, and all restrictions on such awards will lapse and all other conditions be deemed met and such an award will be paid out prior to the change of control.

Our 2006 Equity Incentive Plan will automatically terminate in 2016, unless we terminate it sooner. In addition, our board of directors has the authority to amend, suspend or terminate the 2006 Equity Incentive Plan provided such action does not impair the rights of any participant.

401(k) Retirement Plan

We maintain a 401(k) retirement plan which is intended to be a tax-qualified defined contribution plan under Section 401(k) of the Internal Revenue Code. In general, all of our employees are eligible to participate, the first day of the month following the hire date. The 401(k) plan includes a salary deferral arrangement pursuant to which participants may elect to reduce their current compensation by up to the statutorily prescribed limit, equal to $15,000 in 2006, and have the amount of the reduction contributed to the 401(k) plan. We are permitted to match employees' 401(k) plan contributions. For the year ended December 31, 2006, we will match 75% of employee contributions not to exceed a contribution equal to 5% of employee compensation.

Change of Control Benefits

Employment at our company is at-will. We have a change of control policy that covers each of our employees under which the vesting of options granted to these employees will fully accelerate and become immediately exercisable upon a change of control followed by: (i) involuntary termination without cause within 12 months after a change of control, (ii) the failure by an acquiror to offer comparable employment upon a change of control, and (iii) the resignation within 6 months of a change of control due to constructive termination. The change of control policy also accelerates the vesting of options held by board members who are asked to resign or not stand for re-election within 12 months of a change of control.

Under this policy, an employee who is terminated without cause following a change of control will receive severance benefits based on his or her position within the company according to the following amounts: (i) an officer receives a lump sum equal to 12 months of then current base pay, (ii) a director receives a lump sum equal to 9 months of then current base pay, (iii) a manager receives a lump sum equal to 6 months of then current base pay, (iv) an exempt employee receives a lump sum equal to 3 months of then current base pay and (v) a non-exempt employee receives a lump sum equal to 2 months of then current base pay.

Offer Letters

We have entered into offer letters with each of our employees pursuant to which they agree to an at-will employment relationship with us. Under these offer letters, employment may be terminated by us with or without cause at any time. All of the offer letters are substantially similar in that they set forth each employee's base salary, health benefits, and stock option grants. Pursuant to the offer letters two of our named executive officers, Robert G. Middlebrook and Mark A. McCamish, received relocation and guaranteed bonuses related to housing and, in the case of Dr. McCamish, a sign-on bonus as well. Our Chief Executive Officer and President, Bradley A. Margus, received relocation assistance pursuant to the terms of his offer letter.

2006 Bonus Plan

On February 15, 2006, our compensation committee established the 2006 annual incentive plan for our chief executive officer and president, executive officers (other than our chief executive officer and president), vice presidents and senior directors for our fiscal year ending December 31, 2006. The performance measurements are based upon (i) the execution of corporate goals in the areas of scientific and clinical activities, commercial activities, finance and capital markets activities and intellectual property and (ii) individual accomplishments. Bonuses, if any, will be paid at the end of the year. The purposes of the plan are to enhance employee retention, and to further align employee performance and incentives with increasing stockholder value and our performance. Generally, any participant must be employed by us through the end of the annual bonus period in order to be eligible to receive the bonus. The maximum aggregate bonuses payable under the plan for our chief executive officer and president, executive officers, vice presidents and senior directors is $1.2 million.

The maximum target bonus payable under the plan for fiscal year 2006 to our chief executive officer and president and other executive officers is equal to 30% and 25% of their annual base salaries, respectively.

The actual bonuses payable for fiscal year 2006, if any, will vary depending on the extent to which actual performance meets, exceeds or falls short of the goals approved by the compensation committee. In addition, the compensation committee retains discretion to increase, reduce or eliminate the bonus that otherwise would be payable based on actual performance.

Limitations on Liability and Indemnification

Our amended and restated certificate of incorporation and bylaws provide that we will indemnify our directors and officers, and may indemnify our other employees and agents, to the fullest extent permitted by the General Corporation Law of the State of Delaware. Under our bylaws, we are also empowered to enter into indemnification agreements with our directors, officers, employees and agents and to purchase insurance on behalf of any such persons whether or not we are required or permitted to indemnify. We have procured and intend to maintain a directors' and officers' liability insurance policy that insures such persons against the costs of defense, settlement or payment of a judgment under certain circumstances.

We have entered into indemnification agreements with our directors, executive officers and others. Under these agreements, we are required to indemnify them against all expenses, judgments, fines, settlements and other amounts actually and reasonably incurred in connection with any actual or threatened proceeding, if any of them may be made a party to such proceeding because he or she is or was one of our directors or officers. We are obligated to pay these amounts only if the officer or director acted in good faith and in a manner that he or she reasonably believed to be in, or not opposed to, our best interests. With respect to any criminal proceeding, we are obligated to pay these amounts only if the officer or director had no reasonable cause to believe that his or her conduct was unlawful. The indemnification agreements also set forth procedures that will apply in the event of a claim for indemnification thereunder.

In addition, our amended and restated certificate of incorporation provides that the liability of our directors for monetary damages shall be eliminated to the fullest extent permissible under the General Corporation Law of the state of Delaware. This provision in our amended and restated certificate of incorporation does not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies such as an injunction or other forms of non-monetary relief would remain available. Each director will continue to be subject to liability for any breach of the director's duty of loyalty to us and for acts or omissions not in good faith or involving intentional misconduct or knowing violations of 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.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, 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, 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.

RELATED PARTY TRANSACTIONS

We describe below transactions and series of similar transactions that have occurred this year or during our last three fiscal years to which we were a party or will be a party in which:

- the amounts involved exceeded or will exceed $60,000; 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.

Relationship with Affymetrix

We were formed as a wholly-owned subsidiary of Affymetrix in September 2000, specifically to pursue whole genome research and development. In March 2001, Affymetrix spun-out our company as an independent entity. As part of the transaction, Affymetrix received ownership of approximately 52% of our equity in exchange for providing us with the right to use certain Affymetrix patents and licenses that we use in our business and in exchange for entering into a microarray supply arrangement. Affymetrix is now our single largest stockholder and as of December 31, 2005 held 25.4% of our company.

One of our directors Stephen P.A. Fodor is the chief executive officer at and chairman of the board of directors of Affymetrix and another of our directors John A. Young is a member of the board of directors of Affymetrix.

Affymetrix is currently the sole supplier of microarrays used in our research and development activities. To the extent we remain dependent upon Affymetrix for the supply of principal products or components, we may be unable to perform genetic analysis projects for ourselves or for our partners on a timely basis. If Affymetrix increases the price of microarrays supplied to us, it may adversely affect our business. If Affymetrix is unable to continue to produce or supply these microarrays, then we believe we would be able to convert the relevant portions of our technology and approach following a period of disruption and after incurring additional expense.

Our Intellectual Property Transfer and License Agreement with Affymetrix

Under our intellectual property transfer and license agreement to Affymetrix dated January 2003, we agreed to assign to Affymetrix all of our rights, title and interest in certain patents and patent applications relating to probe array design, probe array manufacturing techniques, probe array layouts, or probe array packaging techniques. We also granted to Affymetrix certain rights and licenses. In return for such licenses, Affymetrix agreed to pay us and grant us a credit against royalties owed to Affymetrix by us under this agreement in an aggregate amount of $16 million. Affymetrix agreed to pay us 2% of net sales of certain products leased, licensed, sold, supplied, used in the provision of a service, or otherwise disposed of pursuant to certain licenses. In the event Affymetrix is required to make royalty payments to a third party on products for which it is also obligated to pay us a royalty under the agreement, the royalties under the agreement shall be reduced. The agreement shall terminate upon the expiration of the last-to-expire of the intellectual property rights granted thereunder and may also be terminated under certain other circumstances.

Affymetrix Intellectual Property Transfer and License Agreement with Us

Under the Affymetrix intellectual property transfer and license agreement to us dated January 2003, Affymetrix agreed to assign to us all of their rights, title and interest in certain patents relating to our technology. Subject to certain restrictions on use and manufacture, Affymetrix also granted to us certain additional rights and licenses. The agreement provides that we shall not use chips or wafers produced by Affymetrix outside of the license rights described in the agreement. With respect to one of the licenses granted to us, we have agreed not to take specified actions. Affymetrix also granted to us a worldwide, non-exclusive, perpetual, royalty-free and irrevocable right and license (but not the right to sublicense) to exercise and otherwise exploit those certain patents and patent applications relating to probe array design, probe array manufacturing techniques, probe array layouts, or probe array packaging techniques that we assigned to Affymetrix in this agreement. In exchange for certain of the rights granted in the agreement, we are obligated

to pay royalties for certain microarrays we use in connection with our licensed activities. Under the agreement, we assigned to Affymetrix all of our rights, title and interest in certain patents and patent applications relating to probe array manufacturing techniques, probe array layouts, probe array packaging techniques, and certain probe array software analysis techniques, subject in each case to a paid-up, non-exclusive, non-transferable license (but with no right to assign or sublicense) in favor of us to use those patents and patent applications for our non-commercial, internal research purposes. We also granted Affymetrix a fully paid-up, royalty free, fully sublicensable, worldwide, non-exclusive license in the field of arrays, chips and wafers to all inventions relating to certain assay techniques that may be used in connection with probe array-type products used for processes after RNA extraction. The agreement will terminate upon the expiration of the last-to-expire of the intellectual property rights granted thereunder and may also be terminated under certain other circumstances.

Supply Agreement

We entered into a supply agreement with Affymetrix effective January 2003. Pursuant to the supply agreement, we provide Affymetrix with mask designs for wafers, and Affymetrix then manufactures and supplies us with wafers using those designs. We pay Affymetrix's actual costs, as well as any required third party royalties due pursuant to the manufacture and supply of the wafers. However, if, without Affymetrix's prior written consent, we take certain actions, then the price we must pay for the wafers under the supply agreement would increase. Until March 30, 2006, Affymetrix had agreed not to sell whole wafers to any other parties for discovery of genetic variation, genotypes of individual organisms, haplotypes, qualitative transcription maps, quantitative expression assays, phenotype association or conserved regions research or in certain of our other areas of interest. As new manufacturing technology becomes available, Affymetrix will work with us to adopt the new technology for wafers they supply us. Under the supply agreement, Affymetrix has also agreed to supply us on commercially reasonable terms and rates, and for our internal research use only, fluorescent labels. If, after reasonable prior written notice, Affymetrix does not supply us with those labels, then Affymetrix will grant us a right and license under patents owned or controlled by Affymetrix to make (and to have made by a provider approved by Affymetrix) such labels for our internal research use. Unless otherwise extended, the agreement terminates on January 11, 2011. The agreement may also be terminated under certain other circumstances.

Genotyping Collaboration Subcontract Agreement

We have entered into a genotyping collaboration subcontract agreement with Affymetrix effective as of June 28, 2005. Affymetrix and a third party have executed a separate, primary agreement whereby Affymetrix has agreed to provide genotyping services for two projects involving the genotyping of 15,000 DNA samples. Pursuant to the agreement, we have agreed to perform the genotyping for these projects using Affymetrix GeneChip® technology. Affymetrix has agreed to supply us with the GeneChip® arrays, reagents and certain other equipment necessary to perform the genotyping. The agreement provides that neither party may use the other party's intellectual property or solely owned confidential information for any purpose other than for the purposes of carrying out their obligations pursuant to the agreement and no implied licenses or rights under any intellectual property are granted under the agreement.

SNP Database Agreement

We have entered into a SNP database agreement with Affymetrix effective January 23, 2003. Pursuant to this agreement, we assisted Affymetrix in the selection of SNPs for validation and have assembled such SNPs in a database. The agreement provides that Affymetrix has a non-exclusive, world-wide license under our technology to (i) use the database for the purpose of selecting SNPs and (ii) make, sell and use the product subject to certain volume limitations. We were obligated to pay Affymetrix up to $6 million if we granted third party access to the SNP database. As of December 31, 2005, we had repaid Affymetrix approximately $960,000, because we had released all the SNPs under the agreement into the public domain. As a result, we have satisfied our financial obligations to Affymetrix.

Relationship Between one of our Directors and one of the Underwriters

One of our directors William W. Bradley is a Managing Director of Allen & Company LLC; Allen & Company LLC is one of the co-managers in our initial public offering. As a Managing Director, Mr. Bradley may receive compensation indirectly from Allen & Company LLC's participation in this offering.

Series D Financing, Participation by Directors, Officers and 5% Stockholders

Over the past three years, we have sold securities to certain private investors, including our directors, officers and 5% stockholders and persons and entities associated with them. In February 2005, we sold Series D convertible preferred stock for a per share price of $. Each share of Series D convertible preferred stock will convert into one share of common stock upon the closing of this offering. The table below sets forth the participation in these financings by our 5% holders, directors and officers and persons and entities associated with them.

Holders of More than 5%, and Entities Affiliated with Directors and Officers	Shares of Series D Preferred Stock
Affymetrix, Inc.	
Funds affiliated with CSK Venture Capital Co., Ltd.[1]	
Funds affiliated with Maverick Capital[2]	
Robert G. Middlebrook Revocable Trust of 2000	
Funds affiliated with Alejandro Zaffaroni[3]	

(1) Includes (i) shares of Series D convertible preferred stock held of record by CSK Finance Co., Ltd., an affiliate of CSK Venture Capital Co., Ltd., and (ii) shares of Series D convertible preferred stock held of record by CSK Venture Capital Co., Ltd., as Investment Manager for CSK-VC Life Sciences Investment Fund. An investment committee at CSK Venture Capital Co., Ltd. consisting of Shunichi Ishimura, its President and Chief Executive Officer, Makoto Kaneshiro, its Senior Executive Director, Osamu Hori, its Senior Executive Director, and Satoru Iino, a member of our board of directors and its Executive Director and General Manager at CSK Venture Capital Co., Ltd., holds the voting or dispositive power over the shares held by these entities. Mr. Iino disclaims beneficial ownership of these shares except to the extent of his pecuniary interest in such shares.

(2) Includes (i) shares of Series D convertible preferred stock held of record by Maverick Fund LDC, (ii) shares of Series D convertible preferred stock held of record by Maverick Fund USA, Ltd., and (iii) shares of Series D convertible preferred stock held of record by Maverick Fund II, Ltd. Maverick Capital, Ltd. is an investment adviser registered under Section 203 of the Investment Advisers Act of 1940 and, as such, has beneficial ownership of the shares held by Maverick Fund USA, Ltd., Maverick Fund II, Ltd. and Maverick Fund LDC through the investment discretion it exercises over these accounts. Maverick Capital Management, LLC is the General Partner of Maverick Capital, Ltd. Lee S. Ainslie III is a manager of Maverick Capital Management, LLC and is granted sole investment discretion pursuant to Maverick Capital Management, LLC's regulations.

(3) Includes (i) shares held of record by Zaffaroni Revocable Trust 1/24/86, (ii) shares held of record by Zaffaroni Family Partnership, LP, (iii) shares held of record by Alexander Peter Zaffaroni, (iv) shares held of record by Charles Adam Zaffaroni 12/29/88 Trust, (v) shares held of record by Alejandro Zaffaroni, TTEE Zaffaroni Retirement Trust FBO M. Lorette Viand U/A/D 1/1/02, and (vi) shares held of record by Alejandro Zaffaroni, Trustee of Zaffaroni Retirement Trust FBO Gonzalo M. Silveria, U/A/D 1/1/02.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to beneficial ownership of our common stock, as of , by:

- each beneficial owner of 5% or more of the outstanding shares of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our named executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock subject to options held by that person that are currently exercisable or exercisable within 60 days of are deemed outstanding, but are not deemed outstanding for computing the percentage ownership of any other person. Percentage of beneficial ownership is based upon shares of common stock outstanding as of . To our knowledge, except as set forth in the footnotes to this table and subject to applicable community property laws, each person named in the table has sole voting and investment power with respect to the shares set forth opposite such person's name. Except as otherwise indicated, the address of each of the persons in this table is c/o Perlegen Sciences, Inc., 2021 Stierlin Court, Mountain View, CA 94043-4655.

Name of Beneficial Owner	Beneficial Ownership		Percentage of Shares Outstanding	
	Shares	Options Exercisable Within 60 Days	Before the Offering	After the Offering
Holders of More than 5%				
Affymetrix, Inc.			25.4%	
3420 Central Expressway Santa Clara, CA 95051				
Pfizer Overseas Pharmaceuticals			13.3%	
2900 Cork Airport Business Pk. Airport Rd. Cork Ireland				
Funds affiliated with Maverick Capital[1]			8.1%	
610 W. Germantown Pike Suite 170 Plymouth Meeting, PA 19462				
Named Executive Officers				
Bradley A. Margus			*	
William W. Sims[2]			*	
David R. Cox, M.D., Ph.D.			*	
Paul J. Cusenza			*	
Mark A. McCamish, M.D., Ph.D.[3]			*	
Robert G. Middlebrook[4]			*	
Directors				
Stephen P.A. Fodor, Ph.D.[5]			26.2%	
William W. Bradley			*	
Howard Furst, M.D.[1]			—	
Satoru Iino[6]			4.4%	
Martha H. Marsh				
Maxine F. Singer, Ph.D.			*	
John A. Young[7]			*	
All named executive officers and directors as a group (13 persons)			33.7%	

* Indicates ownership of less than 1%.

(1) Includes (i) shares held of record by Maverick Fund LDC, (ii) shares held of record by Maverick Fund USA, Ltd., and (iii) shares held of record by Maverick Fund II, Ltd. Maverick Capital, Ltd. is an investment adviser registered under Section 203 of the Investment Advisers Act of 1940 and, as such, has beneficial ownership of the shares held by Maverick Fund USA, Ltd., Maverick Fund II, Ltd. and Maverick Fund LDC through the investment discretion it exercises over these accounts. Maverick Capital Management, LLC is the General Partner of Maverick Capital, Ltd. Lee S. Ainslie III is a manager of Maverick Capital Management, LLC and is granted sole investment discretion pursuant to Maverick Capital Management, LLC's regulations.

(2) Includes shares held of record by The Sims 2004 Family Living Trust.

(3) Includes shares held of record by The Mark McCamish and Barbara R. McCamish Family Trust 1999.

(4) Includes (i) shares held of record by Robert G. Middlebrook Revocable Trust of 2000 and (ii) shares held of record by Atlantic Trust Company FBO Robert G. Middlebrook.

(5) Includes shares held of record by Affymetrix, Inc., of which Mr. Fodor is Chairman and Chief Executive Officer. Mr. Fodor disclaims beneficial ownership of these shares except to the extent of his pecuniary interest in such shares.

(6) Includes (i) shares held of record by CSK Finance Co., Ltd., an affiliate of CSK Venture Capital Co., Ltd. (ii) shares held of record by CSK Venture Capital Co., Ltd., as Investment Manager for CSK-VC Life Sciences Investment Fund, (iii) shares held of record by CSK Venture Capital Co., Ltd., as Investment Manager for Hitachi CSK Internet Business Fund, and (iv) shares held of record by CSK Venture Capital, Co., Ltd., as Investment Manager for CSK – 4 Investment Fund. For each of these entities, the voting or dispositive power is held by an investment committee at CSK Venture Capital Co., Ltd. consisting of Shunichi Ishimura, its President and Chief Executive Officer, Makoto Kaneshiro, its Senior Executive Director, Osamu Hori, its Senior Executive Director, and Mr. Iino, its Executive Director and General Manager. Mr. Iino disclaims beneficial ownership of these shares except to the extent of his pecuniary interest in such shares.

(7) Includes shares subject to repurchase by us pursuant to the terms of a Restricted Stock Purchase Agreement.

DESCRIPTION OF CAPITAL STOCK

The following information describes our common stock and preferred stock, as well as options to purchase our common stock and provisions of our amended and restated certificate of incorporation and bylaws. This description is only a summary. You should also refer to our amended and restated certificate of incorporation and bylaws, which have been filed with the SEC as exhibits to our registration statement, of which this prospectus forms a part.

Upon the completion of this offering, we will be authorized to issue up to 110,000,000 shares of capital stock, $0.001 par value, to be divided into two classes designated common stock and preferred stock. Of such authorized shares, 100,000,000 shares will be designated as common stock and 10,000,000 shares will be designated as preferred stock.

Common Stock

As of , there were shares of common stock outstanding that were held of record by 282 stockholders. These amounts assume the automatic conversion of all outstanding shares of our preferred stock into shares of our common stock immediately prior to the completion of this offering. After giving effect to the sale of common stock offered in this offering, there will be shares of common stock outstanding. As of , there were outstanding options to purchase a total of shares of our common stock under our 2001 Stock Option and Incentive Plan and outstanding options to purchase a total of shares of our common stock under our 2002 Equity Incentive Plan.

The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders. 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. Subject to preferences that may be granted to any then outstanding preferred stock, holders of common stock are entitled to receive ratably only those dividends as may be declared by the board of directors out of funds legally available therefor. See ''Dividend Policy.'' In the event of our liquidation, dissolution or winding up, holders of preferred stock and common stock are entitled to share ratably in all of our assets remaining after we pay our liabilities and distribute the liquidation preference of any then outstanding preferred stock. Holders of common stock have no preemptive or other subscription or conversion rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

Upon the completion of this offering, our board of directors will have the authority, without further action by the stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the designations, powers, preferences and rights, and the qualifications, limitations or restrictions thereof, including dividend rights, dividend rates, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), redemption price or prices, 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 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 in our control 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.

Private Share Sale to Pfizer

Concurrent with the closing of the Series D-1 preferred stock financing on December 22, 2005, we entered into a letter agreement that provided us with a put right to cause Pfizer to purchase from us in a private sale up to $25 million of our common stock under certain terms and conditions. We do not intend to exercise this put right under its current terms.

Registration Rights

After the closing of this offering, the holders of approximately shares of our common stock will be entitled to certain rights with respect to the registration of such shares under the Securities Act. In the

event that we propose to register any of our securities under the Securities Act following this offering, 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 include their common stock in such registration, subject to certain marketing and other limitations. Beginning on March 31, 2007, the holders of at least 25% of these securities have the right to require us, on not more than two occasions, to file a registration statement on Form S-1 under the Securities Act in order to register the resale of their shares of common stock. In addition, beginning on March 31, 2007, Affymetrix has the right to require us on not more than two occasions, to file a registration statement on Form S-1 under the Securities Act in order to register the resale of their shares of common stock. We may, in certain circumstances, defer such registrations and the underwriters 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, subject to certain conditions and limitations. In addition, these holders have certain ''piggyback'' registration rights, which allow these holders to participate in securities offerings initiated by the company. If we propose to register any of our equity securities under the Securities Act following this offering, other than pursuant to the registration rights noted above or specified excluded registrations, holders may require us to include all or a portion of their registrable securities in the registration and in any related underwriting. In an underwritten offering, the managing underwriter, if any, has the right, subject to specified conditions, to limit the number of registrable securities such holders may include. Additionally, piggyback registrations are subject to delay or termination of the registration under certain circumstances.

Anti-Takeover Effects of Provisions of the Amended and Restated Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation to be effective upon 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 representing 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 bylaws to be effective upon 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 may call a special meeting of stockholders. Our amended and restated certificate of incorporation to be effective on the completion of this offering will require a 66⅔% stockholder vote for the amendment, repeal or modification of certain provisions of our amended and restated certificate of incorporation and bylaws relating to the designated parties entitled to call a special meeting of the stockholders, the absence of cumulative voting, the requirement that stockholder actions be effected at a duly called meeting, the requirement that notice of any stockholder business to be addressed at a meeting be provided in advance, the requirement that notice of any person whom a stockholder wishes to nominate as a director at a meeting be provided in advance, and the election, qualification, classification, resignation, vacancy and removal of our board of directors.

The combination of the classification of our board of directors, the lack of cumulative voting and the 66⅔% 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. Since 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 in the policies they implement, and to discourage certain types of transactions that may involve an actual or threatened change of our control. 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 General Corporation Law of the State of Delaware

We are subject to Section 203 of the General Corporation Law of the State of Delaware, 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
- 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 interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation or any entity or person affiliated with or controlling or controlled by such entity or person.

The NASDAQ National Market Listing

Application will be made for quotation of our common stock on The NASDAQ National Market under the symbol ‘‘PERL.’’

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is . Its address is , and its telephone number is .

SHARES ELIGIBLE FOR FUTURE SALE

We will have shares of common stock outstanding after the completion of this offering (shares if the underwriters' over-allotment is exercised in full) based on shares outstanding as of . Of those shares, the shares of common stock sold in the offering (shares if the underwriters' over-allotment option is exercised in full) will be freely transferable without restriction, unless purchased by persons deemed to be our ''affiliates'' as that term is defined in Rule 144 under the Securities Act. Any shares purchased by an affiliate may not be resold except pursuant to an effective registration statement or an applicable exemption from registration, including an exemption under Rule 144 promulgated under the Securities Act. The remaining shares of common stock to be outstanding immediately following the completion of this offering are ''restricted,'' which means they were originally sold in offerings that were not registered under the Securities Act. These restricted shares may only be sold through registration under the Securities Act or under an available exemption from registration, such as provided through Rule 144.

All of our officers, directors and holders of more than 5% of our securities, have entered into lock-up agreements pursuant to which they have agreed, subject to limited exceptions, not to offer, sell, or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or securities convertible into or exchangeable or exercisable for shares of common stock for a period of 180 days from the date of this prospectus. After the 180-day lock-up period, these shares may be sold, subject to applicable securities laws. Notwithstanding the foregoing, for the purpose of allowing the underwriters to comply with the NASD Rule 2711(f)(4), if, under certain circumstances, we release earnings results or material news or make certain announcements that we will release earnings results, or a material event relating to us occurs, then the 180-day lock-up period will be extended until 18 days following the date of release of the earnings results or the occurrence of the material news or material event, as applicable. See ''Underwriting.''

After the offering, the holders of approximately shares of our common stock will be entitled to registration rights. For more information on these registration rights, see ''Description of Capital Stock — Registration Rights.''

In general, under Rule 144, as currently in effect, beginning 90 days after the effective date of this offering, a person (or persons whose shares are aggregated), including an affiliate, who has beneficially owned shares of our common stock for one year or more, may sell in the open market within any three-month period a number of shares that does not exceed the greater of:

- one percent of the then outstanding shares of our common stock (approximately shares immediately after the offering); or
- the average weekly trading volume in the common stock on The NASDAQ National Market during the four calendar weeks preceding the sale.

Sales under Rule 144 are also subject to certain limitations on the manner of sale, notice requirements and the availability of our current public information. A person (or persons whose shares are aggregated) who is deemed not to have been our affiliate at any time during the 90 days preceding a sale by him or her and who has beneficially owned his or her shares for at least two years, may sell the shares in the public market under Rule 144(k) without regard to the volume limitations, manner of sale provisions, notice requirements or the availability of current public information we refer to above.

Any of our employees, officers, directors or consultants who purchased his or her shares before the completion of this offering or who hold options as of that date pursuant to a written compensatory plan or contract are entitled to rely on the resale provisions of Rule 701, which permits non-affiliates to sell their Rule 701 shares without having to comply with the public information, holding period, volume limitation or notice provisions of Rule 144 commencing 90 days after completion of this offering. Neither Rule 144 nor Rule 701 supersedes the contractual obligations of our security holders set forth in the lock-up agreements described above.

Based on shares outstanding as of and subject to the lock-up agreements, the shares of our common stock that will become eligible for sale without registration pursuant to Rule 144 or Rule 701 under the Securities Act are as follows:

- no shares will be immediately eligible for sale in the public market without restriction pursuant to Rule 144(k); and
- shares will be eligible for sale in the public market under Rule 144 or Rule 701 beginning 180 days after the date of this prospectus, subject to volume, manner of sale, and other limitations under those rules.
- an additional shares will become eligible for sale in the public market pursuant to Rule 144 on December 22, 2006, subject to volume, manner of sale, and other limitations under those rules.

Upon completion of this offering, we intend to file a registration statement on Form S-8 under the Securities Act to register shares of common stock reserved for issuance under the 2001 Stock Option and Incentive Plan, the 2002 Equity Incentive Plan, and the 2006 Equity Incentive Plan, thus permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act. Such registration statement will become effective immediately upon filing.

Prior to the completion of this offering, there has been no public market for our common stock, and any sale of substantial amounts in the open market may adversely affect the market price of our common stock offered hereby.

UNDERWRITING

Lehman Brothers Inc. and Deutsche Bank Securities Inc. are acting as joint book-running managers of the offering, and, together with Piper Jaffray & Co. and Allen & Company LLC, are acting as representatives of the underwriters named below. Under the terms of the underwriting agreement which is filed as an exhibit to the registration statement, each of the underwriters has severally agreed to purchase from us the respective number of common stock shown opposite its name below:

Underwriters	Number of Shares
Lehman Brothers Inc.	
Deutsche Bank Securities Inc.	
Piper Jaffray & Co.	
Allen & Company LLC	
Total	

The underwriting agreement provides that the underwriters' obligation to purchase shares of common stock depends on the satisfaction of the conditions contained in the underwriting agreement including:

- the obligation to purchase all of the shares of common stock offered hereby (other than those shares of common stock covered by their option to purchase additional shares as described below), if any of the shares are purchased;
- the representations and warranties made by us to the underwriters are true;
- there is no material change in our business or the financial markets; and
- we deliver customary closing documents to the underwriters.

Commissions and Expenses

The following table summarizes the underwriting discounts and commissions we will pay to the underwriters. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares. The underwriting fee is the difference between the initial price to the public and the amount the underwriters pay to us for the shares.

	No Exercise	Full Exercise
Per share	$	$
Total	$	$

The representatives of the underwriters have advised us that the underwriters propose to offer the shares of common stock directly to the public at the public offering price on the cover of this prospectus and to selected dealers, which may include the underwriters, at such offering price less a selling concession not in excess of $ per share. After the offering, the representatives may change the offering price and other selling terms.

The expenses of the offering that are payable by us are estimated to be $ (excluding underwriting discounts and commissions).

Option to Purchase Additional Shares

We have granted the underwriters an option exercisable for 30 days after the date of this prospectus to purchase, from time to time, in whole or in part, up to an aggregate of shares at the public offering price less underwriting discounts and commissions. This option may be exercised if the underwriters sell more than shares in connection with this offering. To the extent that this option is exercised, each underwriter will be obligated, subject to certain conditions, to purchase its pro rata portion of these additional

shares based on the underwriter's underwriting commitment in the offering as indicated in the table at the beginning of this Underwriting section.

Lock-up Agreements

We, all of our directors, executive officers and holders of more than 5% of our outstanding stock have agreed that, without the prior written consent of each of Lehman Brothers Inc. and Deutsche Bank Securities Inc., we and they will not directly or indirectly, (1) offer for sale, sell, pledge, or otherwise dispose of (or enter into any transaction or device that is designed to, or could be expected to, result in the disposition by any person at any time in the future of) any shares of common stock (including, without limitation, shares of common stock that may be deemed to be beneficially owned by the undersigned in accordance with the rules and regulations of the SEC and shares of common stock that may be issued upon exercise of any options) or securities convertible into or exercisable or exchangeable for common stock, (2) enter into any swap or other derivatives transaction that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock, (3) make any demand for or exercise any right or file or cause to be filed a registration statement, including any amendments thereto, with respect to the registration of any shares of common stock or securities convertible, exercisable or exchangeable into common stock or any of our other securities, or (4) publicly disclose the intention to do any of the foregoing for a period of 180 days after the date of this prospectus.

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 announce a material event relating to us; 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 earnings release or the announcement of the material news or material event.

Lehman Brothers Inc. and Deutsche Bank Securities Inc., in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice. When determining whether or not to release common stock and other securities from lock-up agreements, Lehman Brothers Inc. and Deutsche Bank Securities Inc. will consider, among other factors, the holder's reasons for requesting the release, the number of shares of common stock and other securities for which the release is being requested and market conditions at the time.

Prior to completion of this offering, we will notify holders of options exercisable into shares of our common stock issued pursuant to our 2001 Stock Option and Incentive Plan and 2002 Equity Incentive Plan that we have entered into this lock-up agreement with Lehman Brothers Inc. and Deutsche Bank Securities Inc. and that under our 2001 Stock Option and Incentive Plan and 2002 Equity Incentive Plan, option holders may not sell or otherwise transfer any shares during the aforementioned periods. We have imposed stop-transfer instructions to our transfer agent and have undertaken to the underwriters to continue to impose such stop-transfer instructions during the duration of the aforementioned periods.

Offering Price Determination

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be negotiated between the representatives and us. In determining the initial public offering price of our common stock, the representatives will consider:

- the history and prospects for the industry in which we compete;
- our financial information;
- the ability of our management and our business potential and earning prospects;

- the prevailing securities markets at the time of this offering; and
- the recent market prices of, and the demand for, publicly traded shares of generally comparable companies.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act and to contribute to payments that the underwriters may be required to make for these liabilities.

Stabilization, Short Positions and Penalty Bids

The representatives may engage in stabilizing transactions, short sales and purchases to cover positions created by short sales, and penalty bids or purchases for the purpose of pegging, fixing or maintaining the price of the common stock, in accordance with Regulation M under the Securities Exchange Act of 1934:

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- A short position involves a sale by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase in the offering, which creates the syndicate short position. This short position may be either a covered short position or a naked short position. In a covered short position, the number of shares involved in the sales made by the underwriters in excess of the number of shares they are obligated to purchase is not greater than the number of shares that they may purchase by exercising their option to purchase additional shares. In a naked short position, the number of shares involved is greater than the number of shares in their option to purchase additional shares. The underwriters may close out any short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the 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 shares through their option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions.
- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of the common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The NASDAQ National Market or otherwise and, if commenced, may be discontinued at any time.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither we nor any of the underwriters make representation that the representatives will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Electronic Distribution

A prospectus in electronic format may be made available on the Internet sites or through other online services maintained by one or more of the underwriters or selling group members participating in this

offering, or by their affiliates. In those cases, prospective investors may view offering terms online and, depending upon the particular underwriter or selling group member, prospective investors may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares for sale to online brokerage account holders. Any such allocation for online distributions will be made by the representatives on the same basis as other allocations.

Other than the prospectus in electronic format, the information on any underwriter's or selling group member's web site and any information contained in any other web site maintained by an underwriter or selling group member is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter or selling group member in its capacity as underwriter or selling group member and should not be relied upon by investors.

Discretionary Sales

The underwriters have informed us that they do not intend to confirm sales to discretionary accounts that exceed 5% of the total number of shares offered by them.

Foreign Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, or 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, or the Relevant Implementation Date it has not made and will not make an offer of ordinary shares being offered hereby to the public in that Relevant Member State prior to the publication of a prospectus in relation to such 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. However, with effect from and including the Relevant Implementation Date, it may make an offer of our ordinary shares to the public in that Relevant Member State at any time:

(1) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(2) to any legal entity which has two or more of (i) an average of at least 250 employees during the last financial year; (ii) a total balances sheet of more than €43,000,000; and (iii) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts; or

(3) in any other circumstances which do not require the publication by the issuer 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 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 such shares, as may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression ''Prospectus Directive'' means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

France

This prospectus is not being distributed pursuant to a public offer in France within the meaning of Article L. 411-1 of the French Monetary and Financial Code (*Code monétaire et financier*), and as a result this prospectus has not been and will not be submitted to the *Autorité des Marchés Financiers* for approval in France. The shares offered have not been offered or sold, and will not be offered or sold, directly or indirectly, to the public in France, and this prospectus and any other offering related material has not been distributed and will not be distributed to the public in France. Any offers, sales and distributions have only

been and will only be made in France to qualified investors (*investisseurs qualifiés*) or to a restricted group of investors (*cercle restreint d'investisseurs*), in each case, acting for their own account, all as defined in, and in accordance with, Articles L. 411-1 and L. 411-2 of the French Monetary and Financial Code and Decree no, 98-880 dated October 1, 1998. This prospectus is not to be further distributed or reproduced (in whole or in part) in France by the recipients hereof and this prospectus will be distributed on the understanding that any recipients will only participate in the issue or sale of the shares for their own account and undertake not to transfer, directly or indirectly, the shares to the public in France, other than in compliance with all applicable laws and regulations and in particular with Articles L. 411-1 and L. 411-2 of the French Monetary and Financial Code.

Germany

The shares have not been and will not be offered to the public within the meaning of the German Sales Prospectus Act *(Verkaufsprospektgesetz)* or the German Investment Act *(Investmentgesetz)*. The shares have not been and will not be listed on a German exchange. No sales prospectus pursuant to the German Sales Prospectus Act has been or will be published or circulated in Germany or filed with the German Federal Financial Supervisory Authority *(Bundesanstalt für Finanzdienstleistungsaufsicht)* or any other governmental or regulatory authority in Germany. This prospectus does not constitute an offer to the public in Germany and it does not serve for public distribution of the shares in Germany. Neither this prospectus, nor any other document issued in connection with this offering, may be issued or distributed to any person in Germany except under circumstances which do not constitute an offer to the public within the meaning of the German Sales Prospectus Act or the German Investment Act.

Italy

The offering has not been registered with the *Commissione Nazionale per le Società e la Borsa*, or CONSOB, pursuant to Italian securities legislation. The shares may not be offered or sold nor may the prospectus or any other offering materials be distributed in the Republic of Italy unless such offer, sale or distribution is:

(1) made by an investment firm, bank or financial intermediary permitted to conduct such activities in the Republic of Italy in accordance with Legislative Decree No. 385 of September l, 1993 (Decree No. 385), Legislative Decree No. 58 of February 24, 1998, CONSOB Regulation No. 11971 or May 14, 1999 and any other applicable laws and regulations;

(2) made (i) to professional investors *(operatori qualificati)* as defined in Article 31, second paragraph of CONSOB Regulation No. 11422 of July 1, 1998, as amended, or Regulation No. 11522, (ii) in circumstances where an exemption from the rules governing solicitations to the public at large applies pursuant to Article 100 of Legislative Decree No. 58 of February 24, 1998 and Article 33, first paragraph, of CONSOB Regulation No. 11971 of May 14, 1999, as amended or (iii) to persons located in the Republic of Italy who submit an unsolicited request to purchase shares; and

(3) in compliance with all relevant Italian securities, tax laws and regulations.

Japan

Each underwriter has represented and agreed that the shares included in this offering have not been registered under the Securities and Exchange Law of Japan, and it has not offered or sold and will not offer or sell, directly or indirectly, the ordinary shares in Japan or to or for the account of any resident of Japan, except (1) pursuant to an exemption from the registration requirements of the Securities and Exchange Law and (2) in compliance with any other applicable requirements of Japanese law.

Netherlands

The shares may not be offered in The Netherlands, directly or indirectly, whether as part of their initial distribution or as part of any re-offering at any time thereafter, other than to individuals or legal entities who or which trade or invest in securities in the conduct of their profession or business within the meaning of section 2 of the exemption regulation pursuant to the Securities Market Supervision Act of The Netherlands 1995 (*Vrijstellingsregeling Wet toezicht eff'ectenverkeer 1995*), which includes banks, securities firms, insurance companies, pension funds, investment institutions, other institutional investors, finance companies and treasury departments of large commercial enterprises, which are regularly active in the financial markets in a professional manner.

United Kingdom

Each underwriter has represented, warranted and agreed that:

(1) it has not offered or sold and, prior to the expiration of a period of six months from the closing date, will not offer or sell any shares included in this offering to persons in the United Kingdom except to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995;

(2) it has only communicated caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, or FSMA) received by it in connection with the issue or sale of any shares included in this offering in circumstances in which section 21(1) of the FSMA does not apply to the Issuer; and

(3) 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 included in this offering, from or otherwise involving the United Kingdom.

Stamp Taxes

If you purchase shares of common stock offered in this prospectus, you may be required to pay stamp taxes and other charges under the laws and practices of the country of purchase, in addition to the offering price listed on the cover page of this prospectus.

Relationships

The underwriters may in the future perform investment banking and advisory services for us from time to time for which they may in the future receive customary fees and expenses. The underwriters may, from time to time, engage in transactions with or perform services for us in the ordinary course of their business.

Certain underwriters have, in the past, performed services for one of our principal selling stockholders. Maverick Capital, Ltd. has had a prime brokerage relationship with Lehman Brothers and engages in substantial swap transaction with Deutsche Bank.

LEGAL MATTERS

The validity of the shares of common stock offered hereby has been passed upon for us by Wilson Sonsini Goodrich & Rosati, P.C., Palo Alto, California. Certain members of, and investment partnerships comprised of members of, and persons associated with, Wilson Sonsini Goodrich & Rosati, P.C. own an interest representing less than 1% of the shares our common stock. Simpson Thacher & Bartlett LLP, is counsel for the underwriters in connection with this offering.

EXPERTS

The consolidated financial statements as of December 31, 2004, and 2005 and for each of the three years in the period ended December 31, 2005 included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-1 with the SEC for the stock we are offering by this prospectus. This prospectus does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document. When we complete this offering, we will also be required to file annual, quarterly and special reports, proxy statements and other information with the SEC.

You can read our SEC filings, including the registration statement, over the Internet at the SEC's web site at www.sec.gov. You may also read and copy any document we file with the SEC at its public reference facilities at 100 F Street, NE, Room 1580, Washington, D.C. 20549. You may also obtain copies of the documents at prescribed rates by writing to the Public Reference Section of the SEC at 100 F Street, NE, Room 1580, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

PERLEGEN SCIENCES, INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Perlegen Sciences, Inc.

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of convertible preferred stock and stockholders' deficit and of cash flows present fairly, in all material respects, the financial position of Perlegen Sciences, Inc. and its subsidiaries at December 31, 2004 and 2005 and the results of their operations and cash flows for each of the three years in the period ended December 31, 2005, in conformity with accounting principles generally accepted in the United States of America. 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 of these statements 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. An audit 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.

As described in Note 1, in 2005 the Company changed its method of revenue recognition.

/s/ PricewaterhouseCoopers LLP
San Jose, California
April 6, 2006

PERLEGEN SCIENCES, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share amounts)

	As of December 31,		Pro Forma Stockholders' Equity at December 31, 2005
	2004	2005	(unaudited) (Note 1)
Assets			
Current assets:			
Cash and cash equivalents	$ 7,564	$ 89,197	
Investments, available for sale	—	17,634	
Accounts receivable	3,254	7,556	
Grants receivable	1,636	1,286	
Inventory, net	5,021	4,883	
Prepaid expenses and other current assets	185	397	
Total current assets	17,660	120,953	
Property and equipment, net	2,780	6,307	
Restricted cash	1,600	1,600	
Intangible and other assets, net	707	764	
Total assets	$ 22,747	$129,624	
Liabilities, convertible preferred stock and stockholders' equity (deficit)			
Current liabilities:			
Accounts payable	$ 1,675	$ 1,887	
Accounts payable to a related party	2,876	3,923	
Accrued liabilities	2,343	2,688	
Current portion of deferred revenue	7,721	8,904	
Convertible note payable	340	—	
Current portion of note payable to related party	764	199	
Current portion of capital lease obligation	257	200	
Total current liabilities	15,976	17,801	
Deferred revenue, less current portion	1,500	2,750	
Note payable to related party, less current portion	199	—	
Capital lease obligation, less current portion	200	—	
Other non-current liabilities	946	1,039	
Commitments and contingencies (Note 5)			
Convertible preferred stock, $0.0001 par value, 159,806,668 shares authorized, 84,588,720 and 157,242,928 shares issued and outstanding at December 31, 2004 and 2005, respectively; aggregate liquidation preference of $386,710,048 at December 31, 2005; no shares issued and outstanding pro forma (unaudited)	133,062	257,192	$ —
Stockholders' equity (deficit):			
Common stock, $0.0001 par value, 500,000,000 shares authorized, 6,447,963 and 8,460,176 shares issued and outstanding at December 31, 2004 and 2005, respectively; 188,077,528 shares issued and outstanding pro forma (unaudited)	1	1	19
Additional paid-in capital	2,545	5,490	262,664
Notes receivable from stockholders	(390)	(390)	(390)
Deferred stock-based compensation	(23)	(955)	(955)
Accumulated other comprehensive loss	—	(179)	(179)
Accumulated deficit	(131,269)	(153,125)	(153,125)
Total stockholders' equity (deficit)	(129,136)	(149,158)	$ 108,034
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	$ 22,747	$129,624	

The accompanying notes are an integral part of these consolidated financial statements.

PERLEGEN SCIENCES, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands except per share amounts)

	Years Ended December 31,		
	2003	2004	2005
Revenue:			
Contract revenue	$ 2,938	$ 22,839	$ 23,344
Research revenue	239	2,965	15,842
Royalty revenue from Affymetrix	10,792	1,966	1,278
Total revenue	13,969	27,770	40,464
Costs and expenses:[1] [2]			
Cost of contract revenue	2,487	17,152	17,032
Research and development	25,103	16,444	33,589
Selling, general and administrative	7,362	9,789	13,209
Total costs and expenses	34,952	43,385	63,830
Loss from operations	(20,983)	(15,615)	(23,366)
Interest income	526	238	1,648
Interest and other expense	(46)	(77)	(36)
Loss before income taxes	(20,503)	(15,454)	(21,754)
Income tax provision	—	—	(102)
Net loss	$(20,503)	$(15,454)	$(21,856)
Net loss per common share, basic and diluted	$ (8.39)	$ (3.73)	$ (3.25)
Weighted average shares used in calculating net loss per common share, basic and diluted	2,444	4,146	6,732
Pro forma net loss per share, basic and diluted (unaudited)			$ (0.16)
Weighted average shares used in calculating pro forma net loss per share, basic and diluted (unaudited)			135,071
[1] Includes the following stock-based compensation charges:			
Cost of contract revenue	$ —	$ —	$ 8
Research and development	15	43	234
Selling, general and administrative	267	125	837
[2] Includes the following expenses related to Affymetrix, a related party:			
Cost of contract revenue	$ 395	$ 7,144	$ 5,586
Research and development	9,208	376	4,563

The accompanying notes are an integral part of these consolidated financial statements.

PERLEGEN SCIENCES, INC.

CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT
(in thousands)

	Convertible preferred stock		Common stock		Additional paid-in capital	Notes receivable from Stockholders	Deferred compensation	Accumulated other comprehensive income (loss)	Accumulated deficit	Total stockholders' Deficit
	Shares	Amount	Shares	Amount						
Balance at December 31, 2002 ..	63,927	$101,136	5,183	$ 1	$1,943	$(656)	$ (415)	$ —	$ (95,312)	$ (94,439)
Issuance of Series C convertible preferred stock at $1.56 per share for cash, net of issuance costs of $306,726	20,662	31,926	—	—	—	—	—	—	—	—
Issuance of common stock upon exercise of options	—	—	246	—	106	—	—	—	—	106
Stock-based compensation expense related to consultant options	—	—	—	—	15	—	—	—	—	15
Amortization of deferred stock-based compensation	—	—	—	—	—	—	267	—	—	267
Net loss and comprehensive loss									(20,503)	(20,503)
Balance at December 31, 2003 ..	84,589	133,062	5,429	1	2,064	(656)	(148)	—	(115,815)	(114,554)
Issuance of common stock upon exercise of options	—	—	1,296	—	538	—	—	—	—	538
Repurchase of unvested restricted common stock	—	—	(277)	—	(100)	100	—	—	—	—
Repayment of stockholder note receivable	—	—	—	—	—	166	—	—	—	166
Stock-based compensation expense related to consultant options	—	—	—	—	43	—	—	—	—	43
Amortization of deferred stock-based compensation	—	—	—	—	—	—	125	—	—	125
Net loss and comprehensive loss									(15,454)	(15,454)
Balance at December 31, 2004 ..	84,589	133,062	6,448	1	2,545	(390)	(23)	—	(131,269)	(129,136)
Issuance of Series C convertible preferred stock at $1.56 per share upon conversion of note	218	340	—	—	—	—	—	—	—	—

PERLEGEN SCIENCES, INC.

CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT — (Continued)
(in thousands)

	Convertible preferred stock		Common stock		Additional paid-in capital	Notes receivable from Stockholders	Deferred compensation	Accumulated other comprehensive income (loss)	Accumulated deficit	Total stockholders' Deficit
	Shares	Amount	Shares	Amount						
Issuance of Series D convertible preferred stock at $1.56 per share for cash, net of issuance costs of $177,683	47,436	73,823	—	—	—	—	—	—	—	—
Issuance of Series D-1 convertible preferred stock at $2.00 per share for cash, net of issuance costs of $32,451	25,000	49,967	—	—	—	—	—	—	—	—
Issuance of common stock upon exercise of options	—	—	1,691	—	719	—	—	—	—	719
Issuance of common stock for license agreement	—	—	321	—	215	—	—	—	—	215
Stock-based compensation expense related to consultant options	—	—	—	—	858	—	—	—	—	858
Deferred stock-based compensation	—	—	—	—	1,153	—	(1,153)	—	—	—
Amortization of deferred stock-based compensation	—	—	—	—	—	—	221	—	—	221
Comprehensive loss:										
Unrealized loss on available-for-sale securities	—	—	—	—	—	—	—	(5)	—	(5)
Foreign currency translation adjustment	—	—	—	—	—	—	—	(174)	—	(174)
Net loss	—	—	—	—	—	—	—	—	(21,856)	(21,856)
Comprehensive loss										(22,035)
Balance at December 31, 2005	157,243	$257,192	8,460	$ 1	$5,490	$(390)	$ (955)	$(179)	$(153,125)	$(149,158)

The accompanying notes are an integral part of these consolidated financial statements.

PERLEGEN SCIENCES, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2003	2004	2005
Cash flows from operating activities:			
Net loss	$(20,503)	$(15,454)	$(21,856)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	3,868	3,185	2,068
Amortization of deferred compensation and other stock-based compensation charges	282	168	1,079
Issuance of common stock for license agreement	—	—	215
Amortization of discount on investments	—	—	(14)
Inventory reserves	—	108	1,277
Loss on disposal of property and equipment	—	47	—
Non-cash interest expense	20	10	—
Changes in operating assets and liabilities:			
Accounts receivable	1,100	(2,654)	(4,322)
Grants receivable	(26)	(1,527)	350
Inventory	(3,033)	(2,096)	(1,159)
Prepaid expenses and other current assets	188	43	(220)
Other assets	21	—	(126)
Accounts payable	800	487	225
Accounts and notes payable to a related party	(7,396)	1,834	276
Accrued liabilities	(219)	(655)	349
Deferred revenue	11,210	(6,727)	2,433
Other non-current liabilities	203	134	93
Net cash used in operating activities	(13,485)	(23,097)	(19,332)
Cash flows from investing activities:			
Purchases of available-for-sale securities	—	—	(25,631)
Sales and maturities of available-for-sale securities	—	—	8,006
Purchase of property and equipment	(501)	(1,374)	(5,612)
Proceeds from repayment of note receivable from shareholder	—	166	—
Proceeds from repayment of long-term loan to shareholder	—	308	—
Net cash used in investing activities	(501)	(900)	(23,237)
Cash flows from financing activities:			
Payments on capital lease	—	(254)	(257)
Proceeds from issuance of preferred stock, net of issuance costs	25,176	—	123,790
Proceeds from issuance of common stock	106	538	719
Net cash provided by financing activities	25,282	284	124,252
Effect of foreign currency translation on cash and cash equivalents	—	—	(50)
Net increase (decrease) in cash and cash equivalents	11,296	(23,713)	81,633
Cash and cash equivalents at beginning of the year	19,981	31,277	7,564
Cash and cash equivalents at end of the year	$ 31,277	$ 7,564	$ 89,197
Supplemental disclosures of cash flow information:			
Cash paid for interest	16	2	47
Non-cash financing activities:			
Conversion of investor deposits to preferred stock	$ 6,750	$ —	$ —
Conversion of note payable to preferred stock	—	—	340
Note payable to a related party	—	963	—
Capital lease	—	711	—

The accompanying notes are an integral part of these consolidated financial statements.

1. Organization and Summary of Significant Accounting Policies

Organization and Business

Perlegen Sciences, Inc. (the ''Company'') was incorporated in Delaware as a subsidiary of Affymetrix, Inc. (''Affymetrix'') in September 2000 and began operations as a separate company in March 2001. The Company develops genetically targeted medicines intended to address significant unmet medical needs. In addition, the Company applies its genetics approach in collaborations with pharmaceutical, biotechnology and consumer product companies, governmental agencies, foundations and academic researchers.

Basis of Presentation

The consolidated financial statements of the Company have been prepared in conformity with accounting principles generally accepted in the United States and include the accounts of the Company and its wholly-owned subsidiary. All intercompany transactions and balances have been eliminated in consolidation.

Risks and Uncertainties

The Company expects to continue to incur losses and have negative cash flows from operations in the foreseeable future as it engages in the development and clinical trial activities of its products. The Company may be required to raise additional funds through public or private financings, strategic relationships, or other arrangements and cannot assure that the funding will be available on attractive terms, or at all. Additional equity financing may be dilutive to stockholders, and debt financing, if available, may involve restrictive covenants. Failure to raise capital as and when needed could have a negative impact on the Company's financial condition and business strategy, including completing clinical development programs, commercializing products and licensing targeted medicine candidates.

Unaudited Pro Forma Information

The unaudited pro forma stockholders' equity as of December 31, 2005 and pro forma net loss per share attributable to common stockholders reflect the automatic conversion of all outstanding shares of convertible preferred stock into 179,617,352 shares of common stock upon the closing of the Company's initial public offering. Common shares issued in such an initial public offering and any estimated net proceeds are excluded from such pro forma information.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires that management make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Reclassifications

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

Cash and Cash Equivalents

Cash and cash equivalents are comprised of highly liquid investments with a remaining maturity of less than three months from the date of purchase.

Restricted Cash

At December 31, 2004 and 2005, the Company maintained a certificate of deposit of $1.6 million as required under the terms of a letter of credit in connection with a facility lease (see Note 5).

Investments

The Company invests its excess cash balances primarily in auction rate securities and short-term investment grade corporate bonds and notes. The Company limits the amount of investment exposure as to institutions, maturity and investment type. The Company determines the appropriate classification of its investments at the time of purchase. The Company classifies its investments as ''Available-for-Sale'' as defined in Statement of Financial Accounting Standards (''SFAS'') No. 115, *Accounting for Certain Investments in Debt and Equity Securities,* and records such assets at estimated fair value in the balance sheet, with unrealized gains and losses, if any, reported as a component of accumulated other comprehensive income (loss) in stockholders' equity. Auction rate debt securities with interest rates that reset in less than three months but with maturity dates longer than three months, are classified as short-term investments. Based on historical experience in the financial markets as well as the Company's experience with these investments, the Company believes there is a reasonable expectation of completing a successful auction within the next year. Accordingly, the Company believes that the risk of non-redemption of these investments within a year is minimal. Debt securities are adjusted for amortization of premiums and accretion of discounts to maturity and such amortization is reported with interest income. Realized gains and losses and declines in value that are considered to be other than temporary are recognized in the Consolidated Statements of Operations. There have been no declines in value that are considered other than temporary in the year ended December 31, 2005. The cost of securities sold is determined based on the specific identification method.

Fair Value of Financial Instruments

The carrying amounts of certain of the Company's financial instruments, including cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their short maturities. Based on borrowing rates currently available to the Company for loans and capital lease obligations with similar terms, the carrying value of the Company's debt obligations approximates fair value.

Accounts and Grants Receivable

Accounts and grants receivable are recorded net of allowances for doubtful accounts. The Company re-evaluates allowances on a regular basis and adjusts its reserves as needed.

Concentrations of Risk

Cash equivalents, investments and accounts receivable are financial instruments that potentially subject the Company to concentrations of credit risk. Most of the Company's cash and cash equivalents as of December 31, 2005 are deposited with financial institutions in the United States and Company policy restricts the amount of credit exposure to any one issuer and to any one type of investment.

The following table sets forth accounts receivable from customers comprising 10% or more of the Company's total accounts receivable at December 31, 2004 and 2005 and revenue from customers comprising 10% or more of the Company's revenue for the years ended December 31, 2003, 2004 and 2005:

	Percentage of accounts receivable December 31,		Percentage of revenue Year ended December 31,		
	2004	2005	2003	2004	2005
Affymetrix			77%		
National Institutes of Health				10%	38%
Customer A	38%	11%			
Customer B	23%				
Customer C	15%				
Customer D	12%				
Customer E		45%			
Customer F		26%			
Customer G			14%		
Customer H				25%	13%
Customer I				11%	

The Company has historically not experienced significant credit losses from accounts receivable.

The Company's services require customized components that currently are available from a limited number of sources. The Company obtains certain key components used to perform its services from a single vendor, Affymetrix, who is a related party. No assurance can be given that these or other product components will be available in sufficient quantities at acceptable costs in the future.

Inventories

Inventories are stated at the lower of cost (determined on a specific cost identification basis) or market. Inventory includes raw materials that may be used in the research and development process and such items are expensed as consumed. Provisions for slow moving, excess and obsolete inventories are provided based on planned usage, product expiration, historical experience and inventory levels.

Contract costs related to raw materials are recorded to work in process on the balance sheet as the materials are used, not to exceed the related revenue, and subsequently recognized as cost of contract revenue at the time the revenue is recognized. Contract direct labor and overhead costs are expensed to cost of contract revenue in the period incurred. All costs related to research revenue are expensed in the period incurred.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation, subject to review of impairment, and depreciated over the estimated useful lives of the assets (generally three years) using the straight-line method. Amortization of leasehold improvements is computed over the shorter of the lease term or the estimated useful life of the related assets. Costs associated with maintenance and repairs to property and equipment are expensed as incurred.

Intangible Assets

Purchased patents and licenses are stated at cost. The rights related to the Company's license agreement are amortized over their estimated useful life (13 years) and will be fully amortized by December 31, 2015. The cost of the license agreement was $857,200 and the Company has amortized $214,344 through December 31,

2005. Amortization expense related to the Company's license agreement was approximately $64,300 for each of the years ending December 31, 2003, 2004 and 2005. Future amortization will continue at a rate of approximately $64,300 a year.

Impairment of Long-Lived Assets

The Company assesses the recoverability of its long-lived assets in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. If indicators of impairment exist, the Company assesses the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, the Company measures the future discounted cash flows associated with the use of the asset and adjusts the value of the asset accordingly. The Company has not recognized any impairment losses through December 31, 2005.

Revenue Recognition

The Company recognizes revenue in accordance with the guidelines established by SEC Staff Accounting Bulletin No. 104 (''SAB 104''). Under SAB 104, revenue cannot be recorded until all the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; the seller's price to the buyer is fixed or determinable; and collectibility is reasonably assured.

Contract revenue is recognized at the time data is delivered to the customer. In those cases in which the Company makes a partial delivery, the Company measures performance and recognizes revenue based on the percentage of the data delivered to the total data to be delivered under the contract. In the case of SNP genotyping contracts, the contract value is divided by the total number of genotypes to be delivered multiplied by the number of genotypes delivered. Payments received in advance of delivery are recorded as deferred revenue until earned. Contingent payments for additional deliverables, milestones or royalties are not recognized as revenue until such time as the related deliverables have occurred or the royalties have been earned. Research revenue consists of amounts earned under research agreements involving government grants and is recognized in the period during which the related costs are incurred and the Company becomes entitled to reimbursement.

The Company assesses collectibility based on a number of factors, including past transaction history with the customer and the creditworthiness of the customer. If a determination is made that collection of a payment is not reasonably assured, the Company defers revenue recognition until the time collection becomes reasonably assured, which is generally upon receipt of payment.

In 2005 the Company changed its method of recognizing revenue for genetic analysis contracts. Previously, the Company measured the proportionate performance for genetic analysis contracts on the basis of data generated during the analysis process. In reconsidering the best measure of progress for genetic analysis contracts, the Company believes that data delivery to the customer is preferable based upon the objectivity of the measure and consideration of the customer's view of performance. Management also considers the revised policy to be more comparable with the policies of certain other publicly traded companies with similar activities. The financial statements for the two years ended December 31, 2004 have been retroactively restated to reflect a consistent application of the new accounting method.

Research and Development

Expenditures relating to research and development are expensed in the period incurred and include costs incurred under research grants.

Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs were approximately $593,000 for the year ended December 31, 2005. The Company incurred no advertising costs in the years ended December 31, 2003 and 2004.

Income Taxes

The Company accounts for income taxes in accordance with the liability method. A deferred income tax asset or liability is computed for the expected future impact of differences between the financial reporting and tax bases of assets and liabilities, as well as the expected future tax benefit to be derived from tax loss and credit carryforwards. Deferred income tax expense is generally the net change during the year in the deferred income tax asset or liability. Valuation allowances are established when realizability of deferred tax assets is uncertain. The effect of tax rate changes is reflected in the income provision in the period in which such changes are enacted.

Foreign Currency Translation

The functional currency of the Company's wholly-owned subsidiary is their local currency (Japanese yen). Accordingly, all balance sheet accounts of these operations are translated to U.S. dollars using the exchange rate in effect at the balance sheet date, and revenues and expenses are translated using the average exchange rate in effect during the period. The gains and losses from foreign currency translation of the subsidiary's financial statements are recorded directly as a separate component of stockholders' equity under the caption ''Accumulated other comprehensive income (loss).'' Foreign currency transaction gains and losses, which have not been significant to date, are included in our consolidated statements of operations.

Stock-Based Compensation

As permitted by SFAS No. 123, *Accounting for Stock-Based Compensation* (''SFAS 123''), the Company has elected to apply Accounting Principles Board (''APB'') Opinion No. 25, *Accounting for Stock Issued to Employees* (''APB 25''), and related interpretations, to account for stock options granted to employees and directors. Under APB 25, compensation expense is recognized over the vesting period of the option to the extent that the fair value of the stock exceeds the exercise price of the stock option at the date of grant.

Pro forma information regarding net loss is required by SFAS 123 and has been determined as if the Company had accounted for its employee stock options under the fair value method of that statement. The fair value for these options was estimated at the dates of grant using the minimum-value method with the following weighted-average assumptions for 2003, 2004 and 2005:

	Years ended December 31,		
	2003	2004	2005
Weighted average risk-free interest rate	2.52%	2.96%	3.77%
Expected dividend yield	0%	0%	0%
Estimated life (in years)	5	5	5
Weighted average fair value of options granted per share	$0.04	$0.04	$0.32

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the vesting period. The Company's pro forma information is as follows (in thousands except per share amounts):

	Years ended December 31,		
	2003	2004	2005
Net loss as reported	$(20,503)	$(15,454)	$(21,856)
Add: Employee stock-based compensation expense recorded	267	125	221
Less: Total employee stock-based compensation expense determined under the fair value method	(337)	(204)	(439)
Pro forma net loss	$(20,573)	$(15,533)	$(22,074)
Basic and Diluted net loss per common share:			
As reported	$ (8.39)	$ (3.73)	$ (3.25)
Pro forma	$ (8.42)	$ (3.75)	$ (3.28)

In December 2004, the Financial Accounting Standards Board (FASB) issued FASB Statement No. 123 (revised 2004), *Share-Based Payment* (''SFAS 123R''), which is a revision of SFAS 123. This statement supersedes APB 25, and amends FASB Statement No. 95, *Statement of Cash Flows*. Generally, the approach in SFAS 123R is similar to the approach described in SFAS 123; however, SFAS 123R requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure is no longer an alternative. The Company will adopt SFAS 123R using the prospective transition method beginning on January 1, 2006. Under the prospective transition method, the Company will continue to account for stock options outstanding as of December 31, 2005 using the accounting principles originally applied to those options. For stock options and awards granted subsequent to December 31, 2005, the Company will calculate compensation expense based on the grant-date fair value estimated in accordance with SFAS 123R.

The Company accounted for share-based payments awarded to employees through December 31, 2005 using APB 25's intrinsic value method and, as such, recognized no compensation expense for employee stock options granted with exercise prices equal to or greater than the fair value of the Company's common stock on the date of the grant. Accordingly, the adoption of SFAS 123R's fair value method is expected to result in significant non-cash charges which will increase the Company's reported operating expenses, however, it will have no impact on its cash flows. The impact of adoption of SFAS 123R cannot be predicted at this time because it will depend on the level of share-based payments granted in the future and the option pricing model the Company chooses to use to value the options.

Options granted to consultants are accounted for in accordance with SFAS No. 123 and Emerging Issues Task Force, or EITF No. 96-18, *Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*. The Company applies the Black-Scholes option pricing model to determine the estimated fair value of such options, which are periodically remeasured as they vest, with the resulting value recognized as an expense over the period of services received.

Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive loss. Other comprehensive loss includes unrealized gains and losses on the Company's available-for-sale securities and foreign currency translation adjustments. The Company has disclosed comprehensive loss as a component of stockholders' equity.

Net Loss per Share

Basic net loss per share is computed using the weighted-average number of shares of common stock outstanding during the period, less any shares subject to repurchase. Diluted net loss per share is computed using the weighted average number of common and potentially dilutive shares from stock options using the treasury stock method and the conversion of preferred shares using as the as-if converted method. However, for all periods presented, diluted net loss per share is the same as basic net loss per share because the Company reported a net loss and therefore the inclusion of potentially dilutive shares would be antidilutive. The pro forma basic and diluted net loss per share calculations assume the conversion of all outstanding shares of preferred stock into shares of common stock using the as-if-converted method as of January 1, 2005 or the date of issuance if later.

	Years ended December 31		
	2003	2004	2005
	(in thousands except per share amounts)		
Historical net loss per share:			
Numerator:			
Net loss	$(20,503)	$(15,454)	$(21,856)
Denominator:			
Weighted-average common shares outstanding	5,332	5,648	7,240
Less: Weighted-average unvested common shares subject to repurchase	(2,888)	(1,502)	(508)
Denominator for basic and diluted net loss per share	2,444	4,146	6,732
Basic and diluted net loss per share	$ (8.39)	$ (3.73)	$ (3.25)
Pro Forma net loss per share (unaudited):			
Numerator:			
Net loss			$(21,856)
Denominator:			
Shares used above			6,732
Pro forma adjustments to reflect assumed weighted average effect of conversion of preferred stock			128,339
Denominator for basic and diluted net loss per share			135,071
Basic and diluted net loss per share			$ (0.16)
Historical outstanding dilutive securities not included in diluted net loss per share calculation:			
Convertible preferred stock (assuming conversion, using appropriate conversion ratio to common shares)	94,178	94,178	179,617
Common shares subject to repurchase	2,595	1,163	88
Options to purchase common stock	8,696	10,980	13,667
	105,469	106,321	193,372

Recent Accounting Pronouncements

In March 2004, the EITF reached a consensus on EITF No. 03-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments*. EITF No. 03-1 provides guidance regarding disclosures about unrealized losses on available-for-sale debt and equity securities accounted for under SFAS No. 115. The guidance for evaluating whether an investment is other-than-temporarily impaired should be applied in other-than-temporary impairment evaluations made in reporting periods beginning after June 15, 2004. In September 2004, the EITF delayed the effective date for measurement and recognition guidance. In June 2005, the FASB decided not to provide additional guidance on the meaning of other-than-temporary impairment under EITF No. 03-1 and directed the staff to issue FASB Staff Position paper, or FSP 115-1, *The Meaning of Other-Than-Temporary Impairment and Its Application to Certain Investments* (''FSP 115-1''). FSP 115-1 will replace the accounting guidance on the determination of whether an investment is other-than-temporarily impaired as set forth in EITF 03-1 with references to existing other-than-temporary impairment guidance. FSP 115-1 will be effective for other-than-temporary impairment analyses conducted in periods beginning after December 15, 2005. The Company does not believe the adoption of FSP 115-1 will have a material impact on its financial condition or results of operations.

In November 2004, the FASB issued SFAS No. 151, *Inventory Costs, an amendment of ARB No. 43, Chapter 4*. SFAS No. 151 clarifies the accounting for abnormal amounts of unallocated overhead resulting from abnormally low production (or idle capacity), freight, handling costs and spoilage. SFAS No. 151 requires that those items be recognized as current-period charges and that allocation of fixed production overhead to the costs of conversion be based on the normal capacity of the production facilities. SFAS No. 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005. The Company does not believe the adoption of SFAS No. 151 will have a material impact on its financial condition or results of operations.

2. Balance Sheet Account Details

Investments consist of the following (in thousands):

	As of December 31, 2005			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Market Value
Auction rate securities	$13,650	$ —	$ —	$13,650
Corporate bonds	2,999	—	(5)	2,994
Federal agencies	990	—	—	990
Total	$17,639	$ —	$ (5)	$17,634

As of December 31, 2005, all investments, other than auction rate securities, mature within one year. The company held no investments as of December 31, 2004.

	As of December 31,	
	2004	2005
Raw materials	$2,151	$3,426
Work in process	2,870	1,457
Total	$5,021	$4,883

Property and equipment consist of the following (in thousands):

	As of December 31,	
	2004	2005
Laboratory equipment	$ 5,442	$ 8,312
Computer equipment and software	5,337	7,026
Furniture and fixtures	2,024	2,161
Leasehold improvements	1,202	2,029
	14,005	19,528
Accumulated depreciation and amortization	(11,225)	(13,221)
Total	$ 2,780	$ 6,307

Depreciation and amortization expense was $3.8 million, $3.1 million and $2.0 million for the years ended December 31, 2003, 2004 and 2005, respectively.

Accrued liabilities consist of the following (in thousands):

	As of December 31,	
	2004	2005
Compensation	$1,457	$1,877
Professional fees	441	381
Taxes	298	428
Other	147	2
Total	$2,343	$2,688

3. Related Party Transactions

Affymetrix

In connection with the Company's capitalization in March 2001, the Company issued 35,800,000 shares of Series A preferred stock to Affymetrix. As of December 31, 2004 and 2005, Affymetrix held an ownership interest in the Company of 39.4% and 25.4%, respectively. In exchange for the Series A preferred stock, and concurrent with the issuance thereof, the Company and Affymetrix entered into numerous agreements, some of which were amended and restated in January 2003.

- Under the *Intellectual Property Transfer and License Agreement – Affymetrix to Perlegen,* Affymetrix assigned to the Company their right, title and interest in certain patents relating to the Company's technology. Subject to certain restrictions on use and manufacture, Affymetrix also granted to the Company certain additional rights and non-exclusive licenses for the use of licensed technology by the Company. The Company is obligated to pay Affymetrix usage royalties under this agreement.

- Under the *Supply Agreement,* Affymetrix agreed to sell the Company microarrays at its fully burdened cost of manufacturing for certain activities. Under the agreement, the Company had a minimum purchase obligation until March 2004, with a minimum payment resulting from any shortfall of such specified purchase amounts. The term of the Supply Agreement runs through January 2011.

- Under the *Internal Use License Agreement,* the Company obtained a nonexclusive, non-transferable, non-sublicensable license to use certain Affymetrix patents for internal use of array makers to make microarrays from such array makers for internal uses including expression analysis using internally

manufactured chips. The Company is obligated to pay usage royalties to Affymetrix under this agreement.

- Under the *Intellectual Property Transfer and License Agreement – Perlegen to Affymetrix,* the Company assigned to Affymetrix certain patents relating to microarray design, manufacturing techniques, layouts and packaging. The Company also granted Affymetrix certain worldwide nonexclusive licenses relating to assay techniques and methodologies useful with microarrays, and its PCR primer technology patents and know-how developed by the Company. The Company will receive royalties from Affymetrix based on future net sales of products using certain rights granted to Affymetrix.

In addition, in December 2002, the Company and Affymetrix entered into the SNP Database Agreement, which was subsequently amended in January 2003, under which Affymetrix obtained exclusive rights to use the Company's SNP database. In connection with the SNP Database Agreement and the amendments of the other agreements in January 2003, Affymetrix paid the Company $15.0 million in cash and granted the Company an additional $3.0 million credit to be applied against royalty payments owed to Affymetrix under the Intellectual Property Transfer and License Agreement — Affymetrix to Perlegen. Under the terms of the SNP database agreement, up to $6.0 million of this payment was repayable to Affymetrix if the Company shared its SNP database with others. The Company's repayment obligation declined over the passage of time in amounts as described in the agreement. The Company recorded $9.0 million of the $15.0 million as royalty revenue immediately and the $6.0 million was recorded as deferred revenue and subsequently recognized as royalty revenue as the repayment obligation declined. In October 2004, the Company granted access to a portion of the SNP database to third parties and as a result was required to refund Affymetrix $963,389. The Company signed a note payable to Affymetrix for this amount, and as of December 31, 2004 and 2005, the Company owed Affymetrix $963,389 and $198,595, respectively, under this note.

The Company recognized royalty revenue from Affymetrix of $10.8 million, $2.0 million and $1.3 million in the years ended December 31, 2003, 2004 and 2005, respectively.

For the years ended December 31, 2003, 2004 and 2005, costs related to purchases of product, royalties and shortfall payments to Affymetrix were (in thousands):

	Years Ended December 31,		
	2003	2004	2005
Purchase of product	$ 8,790	$3,649	$ 8,142
Royalties	95	1,516	3,001
Shortfall payments	2,414	—	—

At December 31, 2004 and 2005, amounts due to Affymetrix totaled $3.8 million and $4.1 million, respectively.

In June 2005, the Company entered into a Genotyping Collaboration Subcontract Agreement with Affymetrix. Affymetrix had executed a separate agreement whereby they agreed to provide genotyping services to a third party. Pursuant to the Subcontract Agreement, the Company agreed to perform such genotyping services. Affymetrix agreed to supply the Company with the microarrays, reagents and certain other equipment necessary to perform the genotyping. No revenue has been recognized by the Company under this agreement as of December 31, 2005.

Other Related Party Transactions

In 2001, the Company loaned $300,000 to an employee in exchange for a note secured by a former employee's home and bearing interest at a rate of 4.76%. Upon the employee's termination in 2004, the Company forgave the accrued interest and the employee repaid the full amount of the note. Also in 2001, the

Company loaned three employees a total of $656,400 in exchange for full-recourse promissory notes more fully described in Note 6.

The Company performed genotyping for four current holders of the Company's preferred stock in the amounts of $2.6 million, $11.4 million and $6.3 million in the years ended December 31, 2003, 2004 and 2005, respectively. Accounts receivable at December 31, 2004 and 2005 include $0.1 million and $2.3 million from one and two current holders of the Company's preferred stock, respectively.

4. Convertible Note Payable

In 2002, the Company entered into a consulting services agreement, $340,000 of which was paid through the issuance of a convertible interest bearing note. The note was converted at the option of the holder into 217,948 shares of Series C preferred stock in February 2005.

5. Commitments and Contingencies

Capital Lease

In January 2004, the Company entered into a lease for the purchase of capital equipment. As of December 31, 2005 the remaining balance owed under the lease was $200,000 and was payable in January 2006. Cost and accumulated depreciation of equipment under this capital lease was $711,203 and $197,556, respectively, at December 31, 2004 and $711,203 and $434,622, respectively, at December 31, 2005.

Operating Leases

In October 2001, the Company entered into a 10 year lease for its Mountain View, CA facility. Under the terms of the lease, the Company established a $1.6 million letter of credit as security and paid rent of $2.2 million for the first year with an annual increase of $69,811 in each subsequent year. The Company also leases office space in McLean, Virginia under a non-cancelable operating lease that expires in October 2007. At December 31, 2005, annual future minimum payments under these operating leases are as follows (in thousands):

2006	$ 2,531
2007	2,588
2008	2,595
2009	2,664
2010	2,734
2011 and thereafter	2,327
Total	$15,439

Rent expense is recorded on a straight-line basis over the term of the lease. The difference between rent expense and amounts paid under the lease agreement is recorded as deferred rent on the consolidated balance sheets. Rent expense was $2.5 million, $2.6 million and $2.6 million for the years ended December 31, 2003, 2004 and 2005, respectively.

Indemnifications

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representation and warranties and provide for general indemnifications. The Company's exposure under these agreements is unknown because it involves future claims that may be made against the Company in the future, but have not yet been made. To date, the Company has not paid any claims or been required to defend

any action related to its indemnification obligations. However, the Company may record charges in the future as a result of these indemnification obligations.

In accordance with our bylaws, the Company has indemnification obligations to its officers and directors for certain events or occurrences, subject to certain limits, while they are serving at the Company's request in such capacity. There have been no claims to date and the Company has a Director and Officer Insurance Policy that enables it to recover a portion of any amounts paid for future claims.

6. Convertible Preferred Stock and Stockholders' Deficit

Convertible Preferred Stock

At December 31, 2004 and 2005, the Company was authorized to issue 100,000,000 and 159,806,668 shares of convertible preferred stock, respectively. A summary of convertible preferred stock issued and outstanding as of December 31, 2004 and 2005 is as follows:

December 31, 2004:

	Designated Shares	Shares Issued and Outstanding	Per Share Liquidation Preference	Aggregate Liquidation Preference
Series A	35,800,000	35,800,000	$3.60	$128,880,000
Series B	30,800,000	28,127,000	$3.60	101,257,200
Series C	33,400,000	20,661,720	$1.56	32,232,283
	100,000,000	84,588,720		$262,369,483

December 31, 2005:

	Designated Shares	Shares Issued and Outstanding	Per Share Liquidation Preference	Aggregate Liquidation Preference	Conversion Ratio	As Converted Shares
Series A	35,800,000	35,800,000	$3.60	$128,880,000	1.35	48,330,000
Series B	28,127,000	28,127,000	$3.60	101,257,200	1.35	37,971,424
Series C	20,879,668	20,879,668	$1.56	32,572,282	1.00	20,879,668
Series D	50,000,000	47,436,260	$1.56	74,000,566	1.00	47,436,260
Series D-1	25,000,000	25,000,000	$2.00	50,000,000	1.00	25,000,000
	159,806,668	157,242,928		$386,710,048		179,617,352

Private placements of Series A, B, C, D and D-1 convertible preferred stock resulted in net proceeds of $3,580, $101.1 million, $32.3 million, $73.8 million and $50.0 million, respectively.

Each share of convertible preferred stock is convertible into common stock based on conversion ratios set forth above, subject to adjustment for dilution, and has the same voting rights as the number of common shares into which it is convertible. Each share of convertible preferred stock will automatically convert into common shares upon the earlier of:

i. The closing of an underwritten public offering pursuant to an effective registration statement under the Securities act of 1933, as amended, yielding net proceeds of at least $35,000,000 and in which the Company is valued at least at $250,000,000 before consideration of shares to be sold in such offering, or

ii. The date of consent of two thirds of the outstanding preferred stockholders, consenting together as a class.

If and when declared by the Board of Directors, and in preference to dividends on the common stock, the holders of convertible preferred stock are entitled to receive noncumulative dividends at a rate of 8% per annum. As of December 31, 2005, the Company has not declared any dividends.

In the event of any liquidation, dissolution or winding up of the Company, holders of Series A, B, C, D and D-1 convertible preferred stock shall have a liquidation preference prior to payment to holders of common stock of $3.60, $3.60, $1.56, $1.56 and $2.00 per share, respectively, plus any declared but unpaid dividends. After the payment to the holders of preferred stock, the remaining assets of the Company shall be distributed to the holders of the convertible preferred stock and common stock pro rata according to the number of shares outstanding on an as-converted basis.

A merger, reorganization or sale of substantially all the assets of the Company in which the stockholders of the Company immediately prior to the transaction possess less than 50 percent of the voting power of the surviving entity immediately after the transaction shall be deemed to be a liquidation, dissolution or winding up of the Company. As these redemption events are outside the control of the Company, all shares of preferred stock have been presented outside permanent equity in accordance with EITF topic D-98, *Classification and Measurement of Redeemable Securities*.

Common stock

The majority of the outstanding shares of common stock have been issued to the founders, directors, employees and consultants of the Company. In connection with certain stock purchase agreements, the Company has the option to repurchase, at the original issuance price, the unvested shares in the event of termination of employment or engagement. Shares under these agreements generally vest over 4 years. As of December 31, 2005, 87,500 shares of common stock were subject to repurchase.

In conjunction with the Series D-1 convertible preferred stock issuance, the Company obtained a right to require Pfizer, Inc. to purchase up to $25 million of common stock following an initial public offering of the Company's common stock at a price per share equal to or greater than the Series D-1 issuance price. Pfizer would not be obligated to purchase any shares which would result in them owning more than 19% of the Company's common stock. The right expires December 22, 2006.

Stock Options

In 2002, the Company adopted the 2002 Equity Incentive Plan (the ''2002 Plan''), which superseded the 2001 Stock Option and Incentive Plan (the ''2001 Plan''). Stock options and other awards outstanding under the 2001 Plan remain outstanding and exercisable pursuant to the terms of the 2001 Plan. Under the 2002 Plan, the Company may grant awards to purchase shares of common stock to employees, officers, directors and consultants. Incentive and nonstatutory stock options may be granted at prices not less than 100% and 85% of the fair market value as determined by the Board of Directors, respectively, except in the case of a sale to a stockholder with 10% or more of the outstanding shares of the Company, in which case the purchase price will not be less than 110% of the fair market value. Options generally vest at a rate of 25% per year over four years and generally expire 10 years from the date of grant.

A summary of the Company's stock option activity from December 31, 2002 through December 31, 2005 follows:

		Outstanding Options	
	Shares Available for Grant	Number of Shares	Weighted-Average Exercise Price
Outstanding at December 31, 2002	12,071,992	5,538,605	$0.46
Granted	(4,634,000)	4,634,000	0.40
Exercised	—	(245,500)	0.43
Cancelled	1,231,250	(1,231,250)	0.50
Outstanding at December 31, 2003	8,669,242	8,695,855	0.43
Granted	(4,585,250)	4,585,250	0.40
Exercised	—	(1,296,338)	0.44
Cancelled	1,004,525	(1,004,525)	0.42
Outstanding at December 31, 2004	5,088,517	10,980,242	0.42
Increase in authorized shares	2,000,000	—	
Granted	(6,053,250)	6,053,250	0.40
Exercised	—	(1,691,700)	0.43
Cancelled	1,674,650	(1,674,650)	0.40
Outstanding at December 31, 2005	2,709,917	13,667,142	0.41

The following summarizes information about options outstanding as of December 31, 2005:

Exercise price	Options outstanding	Weighted average remaining life in years	Options exercisable and vested
$0.36	497,250	5.32	497,250
$0.40	11,917,750	8.24	2,463,063
$0.50	1,252,142	6.49	821,436
	13,667,142	7.98	3,781,749

The weighted average exercise price of options exercisable and vested at December 31, 2004 and 2005 was $0.44 and $0.42 per share, respectively.

Notes Receivable

In 2001, the Company issued 4,200,000 shares of common stock pursuant to a grant of restricted stock under the 2001 Plan at a price of $0.0001 per share to three of the Company's founders. To assist with the satisfaction of the resulting income tax obligation, the Company loaned $195,000 each to two of the founders in exchange for full-recourse promissory notes from the founders bearing interest at 4.76% due quarterly. Interest on these notes is forgiven as long as the stockholders remain employed by the Company. In March 2006, the Company received full repayment of the promissory notes.

In 2001, the Company loaned $266,400 to an employee for the exercise of options to purchase 740,000 shares of common stock in exchange for a full-recourse promissory note bearing interest at 6% compounded annually. Upon termination of employment in February 2004, principal and interest of $166,500 related to

vested common stock was repaid. The remaining unvested portion of the stock was repurchased by the Company, through the cancellation of the remaining note.

Deferred Stock Compensation

In connection with the issuance of 4,200,000 shares to the Company's founders, the Company recorded deferred stock-based compensation of $1,511,580 in 2001 representing the difference between the purchase price and the estimated fair value of the stock. This deferred stock-based compensation was amortized over the vesting period of the stock and the resulting expense was $266,511, $125,189 and $23,025 for the years ended December 31, 2003, 2004 and 2005, respectively.

The fair value of the common stock for options granted was originally estimated by the Company's board of directors, with input from management. In connection with the Company's proposed initial public offering, the Company obtained a contemporaneous valuation as of December 31, 2005 and a retrospective valuation as of April 30, 2005 and retrospectively assessed the fair value of its common stock. A number of objective and subjective factors were considered in determining the fair value of the Company's common stock, including the pricing of convertible preferred stock, the superior preferences and rights of the Company's convertible preferred stock over the common stock, important operational events, such as the licensing of the Company's first compound, the risk and non-liquid nature of the common stock, and underlying market conditions. The Company's retrospective analysis of the fair value of its stock price utilizes a predominantly linear growth assumption between the dates of the valuations. As a result of such valuations, the Company determined options were issued in 2005 with exercise prices below the estimated fair value of the Company's common stock on the date of grant.

In accordance with APB 25, the Company has recorded deferred stock-based compensation for the difference between the exercise price of the stock option and the estimated fair value of the Company's common stock at the date of grant. Deferred compensation is recorded as a reduction of stockholders' equity and is amortized to expense on a straight-line basis over the period during which the options vest or the Company's right to repurchase the stock lapses, generally over four years. During the year ended December 31, 2005, the Company recorded deferred stock-based compensation related to these options of $1,153,200 and amortization of deferred stock-based compensation expense of $198,068.

Prior to April 11, 2005, the exercise price of the Company's employee stock options equaled the fair value of the common stock on the date of grant. Information on employee stock options granted between April 11, 2005 and December 31, 2005 is summarized as follows:

Date of Issuance	Number of Options Granted	Exercise Price	Fair value Estimate per Common Share	Intrinsic Value per Option Share
April 11, 2005 — April 31, 2005	3,232,500	$0.40	$0.67	$0.27
May 1, 2005 — May 31, 2005	155,500	0.40	0.73	0.33
June 1, 2005 — June 30, 2005	122,500	0.40	0.79	0.39
July 1, 2005 — July 31, 2005	115,500	0.40	0.85	0.45
August 1, 2005 — August 31, 2005	16,000	0.40	0.91	0.51
September 1, 2005 — September 30, 2005	43,000	0.40	0.97	0.57
October 1, 2005 — October 31, 2005	56,000	0.40	1.03	0.63
November 1, 2005 — November 30, 2005	125,000	0.40	1.09	0.69
December 1, 2005 — December 31, 2005	—	0.40	1.15	0.75

Stock Options Granted to Non-employees

The Company has granted options to consultants in exchange for services performed. In accordance with EITF No. 96-18, the Company periodically remeasures the fair value of stock options granted to non-employees and recognizes the related expense during their vesting period. During the years ended December 31, 2004 and 2005, the Company granted options to purchase common stock of 1,125,000 and 1,600,000, respectively, to non-employees. No options were granted to non-employees in the year ended December 31, 2003. Stock options granted to non-employees resulted in expense of $15,643, $43,344 and $857,956 for the years ended December 31, 2003, 2004 and 2005, respectively. Expense related to options held by nonemployees for the year ended December 31, 2005 was calculated using the Black-Scholes option pricing model with the following weighted average assumptions: a risk-free rate of return of 4.25%, an expected life of 10 years, expected volatility of 75%, and no dividends.

Shares Reserved for Future Issuance

At December 31, 2005, the Company has reserved shares of common stock for future issuance as follows (in thousands):

Conversion of convertible preferred stock	179,617,352
2002 Equity Incentive Plan	16,377,059
	195,994,411

7. License and Collaborative Agreements

License Agreement

In April 2005, the Company entered into a license agreement with Mitsubishi Pharma Corporation (''Mitsubishi''). Under the agreement, the Company received exclusive worldwide rights, excluding Asia, to develop and commercialize PGX-510 (netoglitazone) for the treatment of type II diabetes and other metabolic disorders. Mitsubishi received an upfront payment of $1.0 million and 320,513 shares of the Company's common stock, valued at $214,744, which the Company recorded as licensing expense in research and development. The Company is required to make future milestone payments upon achievement of various clinical or regulatory events and the Company is obligated to pay a royalty on net sales of licensed products in its territory. Mitsubishi is required to make royalty payments on net sales in its territory to Perlegen.

Government Research Grants

The Company has been awarded grants from the National Institutes of Health (''NIH'') for various research and development projects. The Company's federal government research projects provide for the reimbursement of qualified expenses for research and development as defined under the terms of each grant.

8. Retirement Plan

The Company has a 401(k) savings plan covering substantially all of its employees. Company contributions to the plan are discretionary and contributions of $343,653, $372,091 and $476,651 were made during the years ended December 31, 2003, 2004 and 2005, respectively.

9. Income Taxes

Due to the Company's operating loss, there was no provision for federal or state income taxes for the years ended December 31, 2003, 2004 and 2005; however, the Company's Japanese subsidiary was profitable and recorded $102,075 as income tax expense.

Significant components of the Company's deferred tax assets as of December 31, 2004 and December 31, 2005 are shown below (in thousands).

	As of December 31,	
	2004	2005
Deferred tax assets:		
Net operating loss carryforwards	$48,616	$56,327
Research and development credit carryforwards	11,861	13,795
Accruals and reserves	1,419	2,190
Depreciation and amortization	1,933	1,750
Other	—	80
Gross deferred tax assets	63,829	74,142
Valuation allowance	(63,829)	(74,062)
Net deferred tax assets	$ —	$ 80

During the years ended December 31, 2004 and 2005, the valuation allowance increased by $6,068 and $10,233, respectively.

The components of the provision for income taxes are as follows:

	For the years ended December 31,		
	2003	2004	2005
Current:			
Foreign	$ —	$ —	$182
	—	—	182
Deferred:			
Foreign	—	—	(80)
	—	—	(80)
Income tax provision	$ —	$ —	$102

As of December 31, 2005, the Company had federal and state tax net operating loss carryforwards of approximately $142.2 million and $114.0 million, respectively. The federal and state tax loss carryforwards will begin expiring in fiscal year 2021 and 2008 respectively, unless previously utilized. The Company also has federal and state research and development tax credit carryforwards of approximately $8.4 million and $8.0 million, respectively, which will begin to expire in fiscal year 2021, unless previously utilized, except for the state research and development tax credit, which can be carried forward indefinitely.

Pursuant to Sections 382 and 383 of the Internal Revenue Code, annual use of the Company's net operating loss and credit carryforwards may be limited in the event of a cumulative ownership change of more than 50 percentage points within a three-year period.

As of December 31, 2004 and 2005, the Company had U.S. deferred tax assets of approximately $63.8 million and $74.1 million, respectively. Realization of the deferred tax assets is dependent on future taxable income, if any, the amount and timing of which are uncertain. Accordingly, a valuation allowance has been established as of December 31, 2004 and 2005 to offset the U.S. deferred tax assets, as realization of such assets has not met the ''more likely than not'' threshold.

10. Segment Information and Geographic Data

The Company has determined that, in accordance with SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information* it operates in one segment as it only reports operating results on an aggregate basis to the chief operating decision maker of the Company. The Company had sales to customers located in the following regions for the years ended December 31, 2003, December 31, 2004 and December 31, 2005 (in thousands):

	Years Ended December 31,		
	2003	2004	2005
United States	$13,969	$24,962	$28,537
Europe	—	2,808	8,252
Asia	—	—	3,675
Total	$13,969	$27,770	$40,464

As of December 31, 2003, 2004 and 2005, 100%, 100% and 78%, respectively, of the Company's long-lived assets were maintained in the United States of America. As of December 31, 2005, 22% of the Company's long-lived assets were maintained in Japan.

11. Subsequent Events

2006 Equity Incentive Plan

In March 2006, the Company's board of directors adopted the 2006 Equity Incentive Plan (the ''2006 Plan''), subject to stockholder approval. The 2006 Plan will become effective upon the completion of the Company's initial public offering and provides for the granting of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, performance units, deferred stock units and dividend equivalents to our employees, outside directors and consultants of the Company. The plan also provides for the automatic periodic grant of nonstatutory stock options to our non-employee directors. Any shares which have been reserved but not issued under the 2002 Plan will become shares reserved for issuance under the 2006 Plan up to a maximum of 20,000,000 shares, and any shares returned to the 2002 Plan or 2001 Plan as a result of termination of options issued thereunder, up to a maximum of 20,000,000 shares also will become shares reserved for issuance under the 2006 Plan. The 2006 Plan also provides for annual increases in the number of shares available for issuance thereunder on the first day of each fiscal year, beginning on January 1, 2007.

Shares

Common Stock

PROSPECTUS

, 2006

Joint-Book Running Managers

LEHMAN BROTHERS

DEUTSCHE BANK SECURITIES

Co-Managers

PIPER JAFFRAY

ALLEN & COMPANY LLC

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. Other Expenses of Issuance and Distribution.

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of the common stock being registered hereby. All amounts are estimates except the SEC registration fee, the NASD filing fee and The NASDAQ National Market listing fee.

	Amount to be Paid
SEC registration fee	$ 12,305
NASD filing fee	12,000
The NASDAQ National Market listing fee	100,000
Blue Sky fees and expenses	10,000
Printing and engraving expenses	250,000
Legal fees and expenses	800,000
Accounting fees and expenses	320,000
Transfer Agent and Registrar fees	5,000
Miscellaneous	90,695
Total	$1,600,000

ITEM 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law 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 the current law.

Article IX of our amended and restated certificate of incorporation provides that we may indemnify directors, officers, employees and agents to the fullest extent permissible under Delaware law. In addition, Article IX of our amended and restated certificate of incorporation provides that the liability of our directors for monetary damages shall be eliminated to the fullest extent permissible under Delaware law.

Article IX of our bylaws provides that we shall indemnify directors and officers acting on our behalf to the fullest extent permissible under Delaware law if such person acted in good faith and in a manner reasonably believed to be in or not opposed to our best interest and, with respect to any criminal action or proceeding, such person had no reason to believe his or her conduct was unlawful.

We have entered into indemnification agreements with our directors and executive officers, in addition to indemnification provided for in our bylaws, and intend to enter into indemnification agreements with any new directors and executive officers in the future.

The Underwriting Agreement (Exhibit 1.1 hereto) provides for indemnification by the underwriters of us and our executive officers and directors, and by us of the underwriters, for certain liabilities, including liabilities arising under the Securities Act.

We have purchased and intend to maintain insurance on behalf of any person who is or was a director or officer of our company against any loss arising from any claim asserted against him or her and incurred by him or her in any such capacity, subject to certain exclusions.

See also the undertakings set out in response to Item 17 herein.

ITEM 15. Recent Sales of Unregistered Securities.

In the past three years, we have issued and sold the following securities as adjusted for the -for- reverse stock split:

1. From March 2003 through March 2006, we granted options to purchase shares of our common stock at a weighted-average exercise price of per share.

2. From February 1, 2005 to February 23, 2005, we issued and sold to 81 accredited investors an aggregate of shares of Series D convertible preferred stock (convertible into an aggregate shares of common stock) at a purchase price per share of .

3. On February 2, 2005, we issued to one accredited investor shares of Series C convertible preferred stock (convertible into an aggregate of shares of common stock) at a purchase price per share of pursuant to the conversion of a convertible promissory note.

4. On December 22, 2005, we issued and sold to one accredited investor shares of Series D-1 convertible preferred stock (convertible into an aggregate of shares of common stock) at a purchase price per share of .

The sales of the above securities were deemed to be exempt from registration under the Securities Act with respect to items 2 through 4 above in reliance on Section 4(2) of the Securities Act, or Regulation D promulgated thereunder, and with respect to item 1 above in reliance on Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving a public offering or transactions pursuant to compensatory benefit plans and contracts relating to compensation as provided under such Rule 701. The recipients of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates issued in such transactions. All recipients had adequate access, through their relationships with us, to information about us.

ITEM 16. Exhibits and Financial Statement Schedules.

(a) Exhibits.

EXHIBIT INDEX

Exhibit Number	Description
1.1*	Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation of the Registrant as currently in effect as amended by the Certificate of Amendment dated March 1, 2006.
3.2*	Amended and Restated Certificate of Incorporation of the Registrant to be effective prior to the offering.
3.3	Form of Amended and Restated Certificate of Incorporation of the Registrant to be effective upon closing of the offering.
3.4	Bylaws of the Registrant as currently in effect.
3.5	Bylaws of the Registrant to be effective upon closing of the offering.
4.1*	Specimen Common Stock certificate of the Registrant.
4.2	Second Amended and Restated Registration Rights Agreement, dated February 1, 2005, by and among the Registrant and certain stockholders.
4.3	Amendment No. 1 to Second Amended and Restated Registration Rights Agreement, dated December 22, 2005, by and among the Registrant and certain stockholders.
5.1*	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.1	Form of Indemnification Agreement for directors and executive officers.
10.2	2001 Stock Option and Incentive Plan and forms of agreements thereunder.
10.3	2002 Equity Incentive Plan and forms of agreements thereunder.

Exhibit Number	Description
10.4*	2006 Equity Incentive Plan and forms of agreements thereunder.
10.5	Second Amended and Restated Stockholders' Agreement, dated February 1, 2005, by and among the Registrant and certain stockholders.
10.6	Amendment No. 1 to Second Amended and Restated Stockholders' Agreement, dated December 22, 2005, by and among the Registrant and certain stockholders.
10.7	Amendment No. 2 to Second Amended and Restated Stockholders' Agreement, dated March 1, 2006, by and among the Registrant and certain stockholders.
10.8	Office Lease Agreement, dated September 26, 2001, by and between the Registrant and Britannia Hacienda VIII, LLC (successor in interest to Ca-Shoreline Technology Park Limited Partnership which was successor by conversion to EOP-Shoreline Technology Park, L.L.C.) for office space located at 2021 Stierlin Court, Mountain View, California, as amended by Commencement Letter dated October 13, 2003 and First Amendment dated June 11, 2004.
10.9*	Amended and Restated Intellectual Property Transfer and License Agreement, effective January 23, 2003 (Affymetrix to the Registrant), by and between the Registrant and Affymetrix, Inc.
10.10*	Amended and Restated Intellectual Property Transfer and License Agreement, effective January 23, 2003 (the Registrant to Affymetrix), by and between the Registrant and Affymetrix, Inc.
10.11*	Amended and Restated Supply Agreement, effective January 15, 2003, by and between the Registrant and Affymetrix, Inc.
10.12*	License Agreement, dated April 11, 2005, as amended on August 1, 2005, by and between the Registrant and Mitsubishi Pharma Corporation.
10.13*	Collaborative Research Agreement, dated December 15, 2005, by and between the Registrant and Pfizer Inc. and its Affiliates.
10.14*	Collaboration Agreement, dated January 10, 2003, as amended on May 12, 2004 and March 9, 2005, by and between the Registrant and Unilever UK Central Resources Limited.
21.1	List of Subsidiaries.
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.
23.2*	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (See Exhibit 5.1).
24.1	Power of Attorney (see page II-5).

* To be filed by amendment.

(b) Report of Independent Registered Public Accounting Firm on Financial Statement Schedule.

Schedule II — Valuation and Qualifying Accounts

Schedules not listed above have been omitted because they are inapplicable or the requested information is shown in the financial statements of the registrant or notes thereto.

Report of Independent Registered Public Accounting Firm
on
Financial Statement Schedule

To the Board of Directors and Stockholders
Perlegen Sciences, Inc.

Our audits of the consolidated financial statements referred to in our report dated April 6, 2006 appearing in the registration statement on Form S-1 of Perlegen Sciences, Inc. also included an audit of the financial statement schedule of Valuation and Qualifying Accounts. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PricewaterhouseCoopers LLP
San Jose, California
April 6, 2006

PERLEGEN SCIENCES, INC.

VALUATION AND QUALIFYING ACCOUNTS

Reserve for excess and obsolete inventory (in thousands)	Balance at Beginning of Period	Additions	Deductions	Balance at End of Period
Year ended December 31, 2003	$ —	$ —	$ —	$ —
Year ended December 31, 2004	—	108	—	108
Year ended December 31, 2005	108	1,277	(78)	1,307

ITEM 17. Undertakings.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing 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.

Insofar as indemnification by the Registrant for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described in Item 14 or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act 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 and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the 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 shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act, 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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Mountain View, State of California, on the 10th day of April, 2006.

Perlegen Sciences, Inc.

By: /s/ BRADLEY A. MARGUS
Bradley A. Margus
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Bradley A. Margus and William W. Sims, and each of them acting individually, as his true and lawful attorneys in fact and agents, with full power of each to act alone, with full powers of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign the Registration Statement filed herewith and any and all amendments to said Registration Statement (including post effective amendments and any related registration statements thereto filed pursuant to Rule 462 and otherwise), and file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys in fact and agents, with full power of each to act alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys in fact and agents, or his or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this amendment to registration statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ BRADLEY A. MARGUS Bradley A. Margus	Chief Executive Officer and Director (Principal Executive Officer)	April 10, 2006
/s/ WILLIAM W. SIMS William W. Sims	Chief Financial Officer (Principal Accounting Officer)	April 10, 2006
/s/ STEPHEN P.A. FODOR Stephen P.A. Fodor, Ph.D.	Director	April 10, 2006
/s/ WILLIAM W. BRADLEY William W. Bradley	Director	April 10, 2006
/s/ HOWARD FURST Howard Furst, M.D.	Director	April 10, 2006
/s/ MARTHA H. MARSH Martha H. Marsh	Director	April 10, 2006

Signature	Title	Date
/s/ SATORU IINO Satoru Iino	Director	April 10, 2006
/s/ MAXINE F. SINGER Maxine F. Singer, Ph.D.	Director	April 10, 2006
/s/ JOHN A. YOUNG John A. Young	Director	April 10, 2006

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