FLUIDIGM CORP
Form S-1/A
September 17, 2008

Table of Contents

As filed with the Securities and Exchange Commission on September 17, 2008

Registration No. 333-150227

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 9 TO
Form S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

FLUIDIGM CORPORATION
(Exact name of Registrant as specified in its charter)

Delaware	**3826**	**77-0513190**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

7000 Shoreline Court, Suite 100
South San Francisco, CA 94080
(650) 266-6000
(Address, including zip code, and telephone number, including area code, of Registrant s principal executive offices)

Gajus V. Worthington
President and Chief Executive Officer
7000 Shoreline Court, Suite 100
South San Francisco, CA 94080
(650) 266-6000
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

David J. Segre **Robert F. Kornegay** **Asaf H. Kharal** **Wilson Sonsini Goodrich & Rosati P.C.** **650 Page Mill Road** **Palo Alto, CA 94304** **Telephone: (650) 493-9300** **Telecopy: (650) 493-6811**	**William M. Smith** **Vice President, Legal Affairs and General Counsel** **7000 Shoreline Court, Suite 100** **South San Francisco, CA 94080** **Telephone: (650) 266-6000** **Telecopy: (650) 871-7152**	**Charles K. Ruck** **B. Shayne Kennedy** **Latham & Watkins LLP** **650 Town Center Drive, 20th Floor** **Costa Mesa, CA 92626** **Telephone: (714) 540-1235** **Telecopy: (714) 755-8290**

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, as amended, check the following box. o

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. o – –

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. o – –

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. o – –

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

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

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(2)(3)
Common Stock $0.001 par value per share	97,520,000	$3,832.54

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. Includes $12,720,000 of shares that the underwriters have the option to purchase to cover over-allotments, if any.

(2) Calculated pursuant to Rule 457(o) under the Securities Act based on an estimate of the proposed maximum offering price.

(3) $3,593.00 previously paid.

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

Table of Contents

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

PROSPECTUS (Subject to Completion)
Issued September 17, 2008

5,300,000 Shares

COMMON STOCK

Fluidigm Corporation is offering 5,300,000 shares of its common stock. This is our initial public offering, and no public market currently exists for our shares. We anticipate that the initial public offering price will be between $14.00 and $16.00 per share.

We have applied to list our common stock on the NASDAQ Global Market under the symbol FLDM.

Investing in our common stock involves risks. See Risk Factors beginning on page 8.

PRICE $ A SHARE

	Price to Public	Underwriting Discounts and Commissions	Proceeds to Fluidigm Corporation

Per Share	*$*	*$*	*$*
Total	*$*	*$*	*$*

We have granted the underwriters the right to purchase up to an additional 795,000 shares of common stock to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Morgan Stanley & Co. Incorporated expects to deliver the shares to purchasers on , 2008.

MORGAN STANLEY
UBS INVESTMENT BANK
LEERINK SWANN *PACIFIC GROWTH EQUITIES, LLC*

, 2008

TABLE OF CONTENTS

You should rely only on the information contained in this prospectus and in any free writing prospectus prepared by or on behalf of us. We have not, and the underwriters have not, authorized anyone to provide you with information different from, or in addition to, that contained in this prospectus or any related free writing prospectus. This prospectus is an offer to sell only the shares offered hereby but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

Through and including, , 2008 (the 25th day after the date of this prospectus), all dealers effecting 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 and with respect to an unsold allotment or subscription.

For investors outside the United States: Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

Table of Contents

PROSPECTUS SUMMARY

This summary highlights information contained in greater detail elsewhere in this prospectus. This summary may not contain all the information that you should consider before investing in our common stock. You should read the entire prospectus carefully, including Risk Factors beginning on page 8 and our consolidated financial statements and related notes included elsewhere in this prospectus, before making an investment decision. Unless otherwise indicated, the terms Fluidigm, we, us and our refer to Fluidigm Corporation.

FLUIDIGM CORPORATION

Overview

We develop, manufacture and market proprietary Integrated Fluidic Circuit systems that significantly improve productivity in the life science industry. Our Integrated Fluidic Circuits, or IFCs, address critical industry needs by providing very large-scale integration of essential laboratory functions on a single microfabricated device. IFCs can measure, combine, diffuse, fold, mix, separate or pump nanoliter volumes of fluids with precise control and reproducibility. Based on their similarities to the integrated circuit that revolutionized the microelectronics industry, we often refer to our IFCs as integrated circuits for biology. These devices enable our customers to perform thousands of sophisticated biochemical reactions and measurements in parallel on samples smaller than the content of a single cell, while reducing the consumption of expensive laboratory chemicals. Particularly for large-scale experimentation, our IFC systems increase throughput, decrease costs and enhance sensitivity compared to conventional laboratory systems.

We have commercialized IFC systems, consisting of instrumentation, software and single-use IFCs, for a wide range of life science applications. Researchers and clinicians have successfully employed our products in achieving breakthroughs across diverse scientific disciplines such as genetic variation, cellular function and structural biology. These advances include using our systems to help detect life-threatening mutations in patients cancer cells, discover indicators of susceptibility to cancer, manage some of the world s most valuable fisheries, analyze the genetic composition of individual stem cells, identify fetal chromosomal abnormalities from maternal blood samples, analyze the aggressiveness of the avian flu virus and assess the quality of agricultural seed products. We believe that the flexible architecture of our IFC technology will lead to the development of IFC systems for a wide variety of additional markets and applications, including high-throughput DNA sequencing and molecular diagnostics.

We believe our success and continued growth prospects are attributable to the following:

Disruptive Technology. We believe we have achieved a level of miniaturization in microfluidics that allows us to integrate the components required to automate a broad range of life science applications in an area less than half the size of a credit card. Our IFCs deliver orders of magnitude improvements in cost and labor efficiencies, while being easily incorporated into existing laboratory workflows and allowing the use of broadly accepted chemistries.

Proven Customer Adoption. We have sold our IFCs to over 100 customers. These customers include many leading biotechnology and pharmaceutical companies, academic institutions and life science laboratories worldwide.

Broad Application in the Life Science Market. We have developed and commercialized IFCs for several significant life science research applications and believe that the inherent flexibility of our technology will enable the development of IFCs for a wide variety of additional markets and applications.

Strong Research and Development Capabilities and Intellectual Property Position. We have and will continue to invest substantially in research and development to increase the density, throughput and functionality of our IFCs. We have developed an extensive portfolio of intellectual property, including more than 81 issued U.S. patents and 240 patent applications pending worldwide either owned by or licensed to us.

Efficient Manufacturing and Process Development. Our sophisticated manufacturing process, which combines standard semiconductor methods with proprietary techniques, enables us to produce large quantities of IFCs to stringent quality standards. We have established our manufacturing facility in Singapore because of the availability of a skilled workforce, an extensive supplier and partner network, lower operating costs and significant government support.

Our Target Markets

The life science industry is currently facing challenges similar to those faced by the information technology industry when computational power was constrained by the inherent limitations of the vacuum tube. Life science research efforts, ranging from large-scale initiatives, such as the Human Genome Project, to more traditional academic and commercial research projects, are continuing to reveal the complex biological and chemical processes that are fundamental to living organisms. Developing and applying this knowledge increasingly requires performing experimentation on a scale and with a precision that can be achieved only through automation. However, the most common forms of life science automation rely on cumbersome robotic systems that are slow, expensive and labor intensive and, we believe, fundamentally constrain life science research. In much the same way that integrated circuits overcame the limitations of early computers by placing an increasing number of transistors on a single silicon chip, our IFCs are designed to overcome many of the limitations of conventional laboratory systems by integrating an increasing number of fluidic components on a single microfabricated IFC.

Currently, researchers and clinicians use our IFCs to perform large-scale experimentation in the fields of genomics and proteomics. Genomics is the in-depth study of the genetic makeup, or genome, of microorganisms, plants, animals and people, including analyzing variations in genes and gene activity. Proteomics is the large-scale study of the structure and function of proteins. Our IFC systems support the following types of genomic and proteomic studies:

Genotyping: determining the specific genetic traits of an individual or individuals.

Gene expression analysis: measuring the activity of genes.

Protein crystallization: determining the three-dimensional structure of proteins.

Digital PCR: quantifying scarce genetic sequences in a biological sample.

According to Strategic Directions International, in 2005 the principal segments of the genomic analysis market, gene expression and genotyping, accounted for $4.9 billion worldwide in expenditures and are expected to grow annually by 8% through 2010. We believe that our products may further be developed for use in high-throughput DNA sequencing and molecular diagnostics. High-throughput DNA sequencing is the large scale analysis of DNA sequences, including, for example, determining an organism s genome. Molecular diagnostics is a rapidly growing market that seeks to apply information learned from genomic and proteomic analysis to clinical practice in diagnosing, monitoring and treating disease.

The Fluidigm Solution

Our IFC systems are designed to overcome many of the limitations of conventional laboratory systems by enabling researchers and clinicians to rapidly perform a large number of experiments at one time and in nanoliter volumes, significantly increasing throughput, reducing reagent costs, conserving patient samples and reducing workflow complexity.

We commercially introduced our Topaz IFC system in the first quarter of 2003 and our BioMark IFC system in the fourth quarter of 2006. Our first IFC, the 1.96 Dynamic Array for our Topaz system, was introduced in the first quarter of 2003 and allowed researchers to test a single sample against 96 different reagents. In May 2008, we introduced the 96.96 Dynamic Array IFC for our BioMark system. This IFC is based on a matrix architecture that allows a researcher to test each of 96 different samples against each of 96 different reagents in parallel, and thus perform 9,216 individual experiments simultaneously.

The advantages of our IFC systems over conventional laboratory systems include:

Reduced Complexity. Loading our IFC requires orders of magnitude fewer liquid handling steps than conventional systems for the same experiment.

Table of Contents

Improved Throughput. Our most advanced IFCs can conduct up to 24 times more experiments than a conventional system can perform in a single run.

Nanoliter Precision. Our IFC systems allow researchers to dispense samples and reagents in nanoliter, or billionths of a liter, volumes, which supports high sensitivity techniques.

Reduced Reagent and Sample Requirements. Our systems operate on volumes of reagents and samples that are typically less than 1% of the volumes required by conventional systems.

Decreased Capital Cost. For high volume users, the cost of purchasing one BioMark system is much lower than the cost of purchasing the number of conventional systems required to provide the same throughput.

Ease of Adoption. Our IFC systems support widely-used chemistries and are compatible with standard laboratory equipment, allowing researchers to easily incorporate our products into their laboratory workflow and processes.

We believe that our IFC systems also offer significant advantages over other high-throughput methods for large scale experimentation. These alternative approaches have one or more limitations such as lack of flexibility, poor data quality, complex and slow workflows or high running costs. However, some of these methods are able to detect thousands of genetic markers in a single sample and may be more suitable for certain applications than our products. In addition, some of these alternative approaches are more widely adopted and better validated than our systems.

Our IFC systems address the needs of researchers and clinicians who perform large-scale studies in the areas of genomics, proteomics and molecular diagnostics. Nevertheless, researchers and clinicians may be slow to adopt our IFC systems as they are based on technology that is not yet well-established in the industry. Moreover, many of the existing laboratories have already made substantial capital investments in their existing systems and may be hesitant to abandon that investment. In addition, our IFC systems are less well suited for smaller scale research initiatives where complexity and workflow issues may be less pressing and conventional systems may be more economical. As life science research continues to evolve and is commercialized, we believe that there will be increasing demand for life science automation solutions that enable experimentation on the scale supported by our IFC systems.

Risks Affecting Us

Our business is subject to numerous risks, as more fully described in the section entitled Risk Factors immediately following this prospectus summary, including the following:

We have incurred significant losses since our inception, had an accumulated deficit of $149.1 million as of June 28, 2008 and expect to incur losses for the foreseeable future.

If our products fail to achieve and sustain market acceptance, our revenue will be adversely affected.

Our sales cycle for the BioMark and Topaz systems is lengthy and unpredictable, which makes it difficult for us to forecast revenue and could cause significant quarterly fluctuations in revenue and other operating results.

We receive a substantial portion of our revenues from a limited number of customers and other entities, and the loss of, or a significant reduction in, orders or grants from one or more of our major customers or grantors would adversely affect our operations and financial condition.

The life science industry is highly competitive and subject to rapid technological change, and we may not be able to successfully compete.

We have limited experience in producing our products, and we may experience development or manufacturing problems or delays that could limit the growth of our revenue or increase our losses.

We are dependent on single source suppliers for some of the components and materials used in our systems, and the loss of any of these suppliers could harm our business.

Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain, and we are dependent on certain licensed-in technology. In addition, our suit seeking declaratory judgments of non-infringement and invalidity against Applied BioSystems, Inc. and Applera Corporation, as well as future third-party claims of intellectual property infringement could adversely affect our operations and financial condition.

Corporate History and Information

We were incorporated in California in May 1999 as Mycometrix Corporation, changed our name to Fluidigm Corporation in April 2001 and reincorporated in Delaware in July 2007. Our principal executive offices are located at 7000 Shoreline Court, Suite 100, South San Francisco, California 94080. Our telephone number is (650) 266-6000. Our website address is www.fluidigm.com. Information contained on our website is not incorporated by reference into this prospectus, and should not be considered to be part of this prospectus.

Fluidigm, the Fluidigm logo, Topaz, BioMark, AutoInspeX, MSL and NanoFlex are trademarks or registered trademarks of Fluidigm. Other service marks, trademarks and trade names referred to in this prospectus are the property of their respective owners.

Table of Contents

THE OFFERING

Common stock offered by us	5,300,000 shares
Common stock to be outstanding after this offering	24,790,535 shares
Use of proceeds	We intend to use the net proceeds from this offering to expand our sales force, support the commercialization of our products, continue research and development, expand our facilities and manufacturing operations and for working capital and other general corporate purposes. We may also use a portion of the net proceeds to acquire other businesses, products or technologies. However, we do not have agreements or commitments for any specific acquisitions at this time. See Use of Proceeds.
Proposed NASDAQ Global Market symbol	FLDM

The number of shares of our common stock to be outstanding following this offering is based on 19,490,535 shares of our common stock outstanding as of June 28, 2008, which includes 6,785 shares of common stock subject to repurchase but excludes:

- 2,373,978 shares of common stock issuable upon exercise of options outstanding as of June 28, 2008 at a weighted average exercise price of $5.44 per share;
- 216,409 shares of common stock issuable upon the exercise of warrants outstanding as of June 28, 2008 at a weighted average exercise price of $11.41 per share, after conversion of our convertible preferred stock;
- 2,601,584 shares of common stock reserved for future issuance under our stock-based compensation plans, including 2,000,000 shares of common stock reserved for issuance under our 2008 Equity Incentive Plan, which will become effective on the date of this prospectus, and any future automatic increase in shares reserved for issuance under such plan; and

Unless otherwise indicated, this prospectus reflects and assumes the following:

- a one (1)-for-three and a half (3.5) reverse split of our outstanding common stock and convertible preferred stock, which was effected on September 16, 2008;
- the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 16,625,970 shares of common stock upon the closing of this offering;
- the filing of our amended and restated certificate of incorporation immediately prior to the effectiveness of this offering; and
- no exercise by the underwriters of their over-allotment option.

Table of Contents

SUMMARY CONSOLIDATED FINANCIAL DATA

We have derived the summary consolidated statement of operations data for the years ended December 31, 2005, December 31, 2006 and December 29, 2007 from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the summary consolidated statement of operations data for the six months ended June 30, 2007 and June 28, 2008 and the consolidated balance sheet data as of June 28, 2008 from our unaudited consolidated financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future. The following summary 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.

	Year Ended			Six Months Ended	
	December 31, 2005	December 31, 2006	December 29, 2007	June 30, 2007	June 28, 2008
				(unaudited)	
	(in thousands, except per share amounts)				
Consolidated Statement of Operations Data:					
Revenue:					
Product revenue	$ 6,076	$ 3,959	$ 4,451	$ 1,489	$ 4,382
Collaboration revenue	1,568	1,376	460	310	70
Grant revenue	30	1,063	2,364	1,198	1,068
Total revenue	7,674	6,398	7,275	2,997	5,520
Cost and expenses:					
Cost of product revenue	4,764	2,773	3,514	1,490	2,988
Research and development	11,449	15,589	14,389	7,053	7,151
Selling, general and administrative	7,955	9,699	12,898	6,183	9,843
Total costs and expenses	24,168	28,061	30,801	14,726	19,982
Loss from operations	(16,494)	(21,663)	(23,526)	(11,729)	(14,462)
Interest expense	(898)	(2,261)	(2,790)	(1,790)	(1,100)
Interest income	340	565	1,140	565	557
Other income (expense), net	30	(194)	(170)	37	(214)
Loss before provision for income taxes and cumulative effect of change in accounting principle	(17,022)	(23,553)	(25,346)	(12,917)	(15,219)
Provision for income taxes			(105)	(52)	(43)
Loss before cumulative effect of change in accounting principle	(17,022)	(23,553)	(25,451)	(12,969)	(15,262)
Cumulative effect of change in accounting principle	637				

Net loss	$ (16,385)	$ (23,553)	$ (25,451)	$ (12,969)	$ (15,262)
Net loss per share of common stock, basic and diluted(1)	$ (6.35)	$ (8.82)	$ (9.21)	$ (4.74)	$ (5.39)
Shares used in computing net loss per share of common stock, basic and diluted(1)	2,580	2,671	2,765	2,736	2,832
Pro forma net loss per share of common stock, basic and diluted(1) (unaudited)			$ (1.52)		$ (0.78)
Shares used in computing pro forma net loss per share of common stock, basic and diluted (unaudited)			16,577		19,149

Table of Contents

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

	As of June 28, 2008		
	Actual	Pro Forma(1)	Pro Forma As Adjusted(2)(3)
		(in thousands) (unaudited)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents and available-for-sale securities	$ 32,469	$ 32,469	$ 103,304
Working capital	28,644	29,913	100,748
Total assets	49,678	49,678	120,513
Total long-term debt	16,558	16,558	16,558
Convertible preferred stock warrant liabilities	1,269		
Convertible preferred stock	167,538		
Total stockholders equity (deficit)	(144,908)	23,899	94,734

(1) The pro forma balance sheet data in the table above reflects (i) the conversion of all outstanding shares of convertible preferred stock into common stock and (ii) the reclassification of the convertible preferred stock warrant liabilities to additional paid-in capital, each effective upon the closing of this offering.

(2) The pro forma as adjusted balance sheet data in the table above also reflects the pro forma conversions and reclassifications described immediately above plus the sale of 5,300,000 shares of our common stock in this offering and the application of the net proceeds at an initial public offering price of $15.00 per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) A $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, the midpoint of the range set forth on the cover page of this prospectus, would increase (decrease) cash, cash equivalents and available-for-sale securities and each of working capital, total assets and total stockholders equity by $4.9 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase of 1.0 million shares in the number of shares offered by us would increase cash, cash equivalents, available-for-sale securities and each of working capital, total assets and total stockholders equity by approximately $14.0 million. Similarly, each decrease of 1.0 million shares in the number of shares offered by us would decrease cash, cash equivalents and available-for-sale securities and each of working capital, total assets and total stockholders equity by approximately $14.0 million. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including our consolidated financial statements and related notes, before deciding whether to purchase shares of our common stock. If any of the following risks is realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the price of our common stock could decline and you could lose part or all of your investment.

Risks Related to our Business and Strategy

We have incurred losses since inception, and we expect to continue to incur substantial losses for the foreseeable future.

We have a limited operating history and have incurred significant losses in each fiscal year since our inception, including net losses of $16.4 million, $23.6 million, $25.5 million and $15.3 million during 2005, 2006, 2007 and the six months ended June 28, 2008. As of June 28, 2008, we had an accumulated deficit of $149.1 million. These losses have resulted principally from costs incurred in our research and development programs and from our selling, general and administrative expenses. We expect to continue to incur operating and net losses and negative cash flow from operations, which may increase, for the foreseeable future due in part to anticipated increases in expenses for research and product development and expansion of our sales and marketing capabilities. Additionally, following this offering, we expect that our selling, general and administrative expenses will increase due to the additional operational and reporting costs associated with being a public company. We anticipate that our business will generate operating losses until we successfully implement our commercial development strategy and generate significant additional revenues to support our level of operating expenses. Because of the numerous risks and uncertainties associated with our commercialization efforts and future product development, we are unable to predict when we will become profitable, and we may never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase our profitability.

If our products fail to achieve and sustain sufficient market acceptance, our revenue will be adversely affected.

Our success depends, in part, on our ability to develop and market products that are recognized and accepted as reliable, enabling and cost effective. Most of our potential customers already use expensive research systems in their laboratories and may be reluctant to replace those systems. Market acceptance of our instrument systems will depend on many factors, including our ability to convince potential customers that our systems are an attractive alternative to existing technologies. Compared to other technologies, our Integrated Fluidic Circuit, or IFC, technology is new and unproven, and most potential customers have limited knowledge of, or experience with, our products. Prior to adopting our technology, potential customers generally need to devote significant effort to testing and validating our systems and benchmarking them against their current systems and performance requirements. Any failure of our systems to meet these customer benchmarks could result in customers choosing to retain their existing systems or to purchase systems other than ours.

In addition, many customers intend to publish the results of their experiments in scientific and medical journals. Therefore, it is important that our systems be perceived as accurate and reliable by the scientific and medical research community as a whole. Many factors influence the perception of a system including its use by leading research groups and the publication of their results in well regarded journals. A significant part of our sales and marketing efforts have been directed at convincing industry leaders of the advantages of our systems and encouraging such leaders to publish or present the results of their evaluation of our system. If we are unable to induce leading researchers to use our system or if such researchers are unable to achieve and publish or present significant experimental results using our system, acceptance and adoption of our systems will be slowed.

Our sales cycle is lengthy and unpredictable, which makes it difficult for us to forecast revenue and could cause significant quarterly fluctuations in revenue and other operating results.

The sales cycles for our instrument systems is lengthy, which makes it difficult for us to accurately forecast revenues in a given period, and may cause revenue and operating results to vary significantly from period to period.

Due in part to the high up-front cost associated with our systems, potential customers for our instrument systems typically need to commit significant time and resources to evaluate our technology and their decision to purchase our instruments may be further limited by budgetary constraints and several layers of internal review and approval, which are beyond our control. Even after initial approval by appropriate decision makers, the negotiation and documentation processes for a purchase can be lengthy. As a result of these factors, our sales cycle has varied widely and, in certain instances has been longer than 12 months. The complexity and variability of our sales cycle has made it difficult for us to accurately project quarterly revenues, and we have frequently failed to meet our internal quarterly projections. Moreover, we do not recognize revenue on sales of our systems until the system has been delivered to the customer and, in many instances, installed and our other revenue recognition criteria have been met. This further complicates our ability to project quarterly revenue as we may have entered into a sale agreement with a customer for a system but cannot predict when that customer will take delivery of the system and when we will be able to recognize the revenue. We expect that our sales will continue to fluctuate on a quarterly basis and that our financial results for some periods may be below those projected by securities analysts. Such fluctuations could have a material adverse effect on our business and on the price of our common stock.

Our sales efforts require significant time and effort and could hinder our ability to increase sales.

Before purchasing one of our systems, customers typically require input from one or more scientific evaluators, as well as a review by personnel with finance or operational expertise. As a result, during our sales effort, we must identify all persons involved in the purchasing decision and devote a sufficient amount of time to presenting our systems to those individuals. The newness and complexity of our products often requires us to spend substantial time and effort assisting potential customers in evaluating our instruments, including providing demonstrations and benchmarking our products against other available technologies. This process can be costly and time consuming. We expect that our sales process will become less burdensome as our products become more widely known and used. However, if this change does not occur, we will not be able to expand our sales effort as quickly as anticipated and our sales will be adversely affected.

Our future success is dependent upon our ability to expand our customer base and introduce new applications.

Our customer base is primarily composed of pharmaceutical and biotechnology companies, academic institutions and life science laboratories that perform large-scale experimentation for life science research purposes. Our success will depend in part upon our ability to increase our market share amongst these customers, attract life science research customers who do not currently perform large-scale experimentation, attract customers outside the life science research market and market new applications to existing and new customers as we develop such applications. Attracting new customers and introducing new applications requires substantial time and expense. For example, it may be difficult to identify, engage and market to customers who do not currently perform large-scale experimentation or are unfamiliar with our current applications. In addition, certain new applications that we are considering developing are not practical to perform with conventional techniques. Any failure to expand our existing customer base or launch new applications would adversely affect our ability to increase our revenues.

Our inability to develop new systems and enhance the capabilities of our IFC systems to keep pace with rapidly changing technology and customer requirements could adversely affect our business.

Our success depends on our ability to develop new applications for our IFC technology in existing and new markets, while improving the performance and cost effectiveness of our systems. New technologies, techniques or products could emerge that might offer better combinations of price and performance than our current or future product lines and systems. Existing markets for our products, including gene expression analysis, genotyping, digital polymerase chain reaction, or PCR, and proteomics, as well as potential markets for our products such as high-throughput DNA sequencing and molecular diagnostics, are characterized by rapid technological change and innovation. It is critical to our success for us to anticipate changes in technology and customer requirements and to successfully introduce new, enhanced and competitive technology to meet our customers and prospective customers needs on a timely basis. While we have planned substantial improvements to the BioMark system, including enhancing the capabilities of our IFCs, we may not be able to successfully implement these improvements. Even if we successfully implement some or all of these planned improvements, we could incur substantial development costs in doing so. We may not have adequate resources available to develop new technologies or be able to successfully introduce new applications of, or enhancements to, our systems. We cannot guarantee that we will be able to maintain technological advantages over emerging technologies in the future. If we fail to keep pace with emerging technologies, demand for our systems will not grow and may decline, and our business, revenue, financial condition and operating results could suffer materially.

We have limited resources for marketing, selling and distributing our products and we may not be able to develop a direct sales and marketing force or distribution capabilities that can meet our customers needs.

We have limited marketing, sales and distribution resources and capabilities. We sell our products primarily through our own sales force and through distributors in certain territories. Our first product line, the Topaz system for protein crystallization, was introduced for commercial sale in 2002. Our BioMark system was introduced for commercial sale in 2006.

Our future sales will depend in large part on our ability to develop and expand our direct sales force and to increase the scope of our marketing efforts. Our products are technically complex and used for highly specialized applications. As a result, we believe it is necessary to develop a direct sales force that includes people with specific scientific backgrounds and expertise and a marketing group with technical sophistication. Competition for such employees is intense. We may not be able to attract and retain personnel or be able to build an efficient and effective sales and marketing force, which could negatively impact sales of our products, and reduce our revenues and profitability.

In addition, we may seek to enlist one or more additional parties to assist with sales, distribution and customer support globally or in certain regions of the world. If we do seek to enter into such arrangements, we may not be successful in attracting desirable sales and distribution partners, or we may not be able to enter into such arrangements on favorable terms. If our sales and marketing efforts, or those of any third-party sales and distribution partners, are not successful, our technologies and products may not gain market acceptance, which would materially impact our business operations.

The life science industry is highly competitive and subject to rapid technological change, and we may not be able to successfully compete.

The markets for our products are characterized by rapidly changing technology, evolving industry standards, changes in customer needs, emerging competition, new product introductions and strong price competition. We compete with both established and development stage life science companies that design, manufacture and market instruments for gene expression analysis, genotyping, other nucleic acid detection and additional applications using well established laboratory techniques, as well as newer technologies such as bead encoded arrays, microfluidics, nanotechnology, high-throughput DNA sequencing and inkjet and photolithographic arrays. Most of our current competitors have significantly greater name recognition, greater financial and human resources, broader product lines and product packages, larger sales forces, large existing installed bases, substantial intellectual property portfolios and greater experience in research and development, manufacturing and marketing than we do. For example, companies such as Affymetrix, Applied Biosystems, BioTrove, Illumina, Roche Diagnostics and Sequenom have products that compete in certain segments of the market in which we sell our BioMark system.

Competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. In light of these advantages, even if our technology is more effective than the product or service offerings of our competitors, current or potential customers might accept competitive products and services in lieu of purchasing our technology. We anticipate that we will face increased competition in the future as existing companies and competitors develop new or improved products and as new companies enter the market with new technologies. We may not be able to compete effectively against these organizations. Increased competition is likely to result in pricing pressures, which could harm our sales, profitability or market share. Our failure to compete effectively could materially and adversely affect our business, financial condition and results of operations.

We receive a substantial portion of our revenue from a limited number of customers and other entities, and the loss of, or a significant reduction in, orders or grants from one or more of our major customers or grantors would adversely affect our operations and financial condition.

We receive a substantial portion of our revenue from a limited number of customers and grantors. We received an aggregate of approximately 37%, 44%, 38% and 27% of our total revenue from our top three customers in 2005, 2006, 2007 and the six months ended June 28, 2008. Grant revenue from the Singapore Economic Development Board, or EDB, represented 0%, 14%, 24% and 15% of our total revenue in 2005, 2006 and 2007 and the six months ended June 28, 2008. We anticipate that we will continue to be dependent on a limited number of customers and grantors for a significant portion of our revenue in the near future and in some cases the portion of our revenue attributable to certain customers or grantors may increase in the future. However, we may not be able to maintain or increase sales to our top customers or grants from our top grantors for a variety of reasons, including the following:

- our agreements with our customers and grantors do not require them to purchase a minimum quantity of our products or make a minimum amount of grants in any year;
- our customers can stop using our products with limited notice to us and suffer little or no payment penalty;
- our grants are subject to the achievement of milestones that we may not meet; and
- many of our customers have pre-existing or concurrent relationships with our current or potential competitors that may affect the customers decisions to purchase our products.

In the past, we have relied in significant part on our strategic relationships with customers that are technology leaders in our target markets. We intend to pursue the expansion of such relationships and the formation of new strategic relationships, but we cannot assure you that we will be able to do so. These relationships often require us to develop new products that may involve significant technological challenges. Our customers frequently place considerable pressure on us to meet their tight development schedules. Our grantors frequently condition their present and future grants on our compliance with certain development, hiring and local investment milestones. Accordingly, we may have to devote a substantial amount of our resources to our strategic relationships, which could detract from or delay our completion of other important development projects. Delays in development could impair our relationships with our strategic customers and grantors and negatively impact sales of the products under development or future grant activity. The loss of a key customer or grantor, a reduction in sales to any key customer, a reduction in grants from a key grantor, or our inability to attract new significant customers could seriously impact our revenue and materially and adversely affect our results of operations.

Our business depends on research and development spending levels of pharmaceutical and biotechnology companies and academic, clinical and governmental research institutions and any reduction in such spending could limit our ability to sell our products.

We expect that our revenue in the foreseeable future will be derived primarily from sales of instruments and IFCs to academic institutions, biotechnology and pharmaceutical companies and life science laboratories worldwide. Our success will depend upon their demand for and use of our products. Accordingly, the spending policies of these customers could have a significant effect on the demand for our technology. These policies may be based on a wide variety of factors, including the resources available to make purchases, the spending priorities among various types of equipment, policies regarding spending during recessionary periods and changes in the political climate. In addition, academic, governmental and other research institutions that fund research and development activities may be subject to stringent budgetary constraints that could result in spending reductions, reduced allocations or budget cutbacks, which could jeopardize the ability of these customers to purchase our system. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by these customers. For example, reductions in capital expenditures by these customers may result in lower than expected system sales and, similarly, reductions in operating expenditures by these customers could result in lower than expected sales of IFCs. These reductions and delays may result from factors that are not within our control, such as:

- changes in economic conditions;
- changes in government programs that provide funding to research institutions and companies;

changes in the regulatory environment affecting life science companies and life science research;

market-driven pressures on companies to consolidate operations and reduce costs;

mergers and acquisitions in the life science industry; and

other factors affecting research and development spending.

Any decrease in our customers budgets or expenditures or in the size, scope or frequency of capital or operating expenditures as a result of the foregoing or other factors could materially adversely affect our operations or financial condition.

If we cannot provide quality technical support, we could lose customers and our operating results could suffer.

The placement of our products at new customer sites, the introduction of our technology into our customers existing systems and ongoing customer support can be complex. Accordingly, we need highly trained technical support personnel. Hiring technical support personnel is very competitive in our industry due to the limited number of people available with the necessary biochemistry background and ability to understand our systems at a technical level. We are currently expanding our technical support staff and will need to increase it further to support expected new customers as well as the expanding needs of existing customers. If we are unable to attract, train or retain the number of highly qualified technical services personnel that our business needs, our business and prospects will suffer.

To use our products and our BioMark system in particular, customers typically need to purchase specialized reagents. Any interruption in the availability of these reagents for use in our products could limit our ability to market our products.

Our products and our BioMark system in particular, must be used in conjunction with one or more reagents designed to produce or facilitate the particular biological or chemical reaction desired by the user. Many of these reagents are highly specialized and available to the user only from a single supplier or a limited number of suppliers. Our customers typically purchase these reagents directly from the suppliers and we have no control over the supply of those materials. In addition, our products are designed to work with these reagents as they are currently formulated. We have no control of the formulation of these reagents and the performance of our products might be adversely affected if the formulation of these reagents was changed. If one or more of these reagents were to become unavailable or were reformulated, our ability to market and sell our products could be materially and adversely affected.

In addition, the use of a reagent for a particular process may be covered by one or more patents relating to the reagent itself, the use of the reagent for the particular process, the performance of that process or the equipment required to perform the process. Typically, reagent suppliers, who are either the patent holders or their authorized licensees, sell the reagents along with a license or covenant not to sue with respect to such patents. The license accompanying the sale of a reagent often purports to restrict the purposes for which the reagent may be used. If a patent holder or authorized licensee were to assert against us or our customers that the license or covenant relating to a reagent precluded its use with our systems, our ability to sell and market our products could be materially and adversely affected. For example, the current applications of our BioMark system, which represented 43% of our product revenue in 2007, involve real-time polymerase chain reaction, or PCR. The primary producers of reagents for PCR reactions are Applied Biosystems and Roche Diagnostics, who are our direct competitors, and their licensees. These PCR reagents are typically sold pursuant to limited licenses or covenants not to sue with respect to patents held by these companies. We do not have any contractual relationship with Roche Diagnostics or Applied Biosystems regarding these PCR reagents, and we cannot assure you that these reagents will continue to be available to our customers for use with our systems, or that these patent holders will not seek to enforce their patents against us, our customers, or suppliers.

Table of Contents

We are dependent on single source suppliers for some of the components and materials used in our systems, and the loss of any of these suppliers could harm our business.

We rely on single source suppliers for certain components and materials used in our systems. Of these single source suppliers, the loss of any of the following would require significant time and effort to locate and qualify an alternative source of supply:

An essential component of our BioMark system is a specialized thermal cycler that is available from a limited number of suppliers. We purchase this thermal cycler from one supplier, Eppendorf AG, which customizes it to our specifications pursuant to a supply agreement.

Our IFCs are fabricated using a specialized polymer that is available from a limited number of sources. In the past we have encountered quality issues that have reduced our manufacturing yield or required the use of additional manufacturing processes. We do not have a long term contract with our current sole supplier.

The plastic carriers that hold the core components of our IFCs need to be produced to specifications and tolerances that few manufacturers are able to meet. We have experienced quality issues in the past and, as a result, have recently switched suppliers. We do not have a long term contract with either of our current sole suppliers for particular carriers.

The reader for our BioMark system requires specialized high resolution camera lenses that are available from a limited number of sources. We do not have a long term contract with our current sole supplier.

Our reliance on these suppliers also subjects us to other risks that could harm our business, including the following:

we may be subject to increased component costs;

we are not a major customer of many of our suppliers, and these suppliers may therefore give other customers needs higher priority than ours;

we may not be able to obtain adequate supply in a timely manner or on commercially reasonable terms;

our suppliers may make errors in manufacturing components that could negatively affect the efficacy of our systems or cause delays in shipment of our systems; and

our suppliers may encounter financial hardships unrelated to our demand for components, which could inhibit their ability to fulfill our orders and meet our requirements.

We have in the past experienced supply problems with some of our suppliers, such as manufacturing errors, and may again experience problems in the future. We may not be able to quickly establish additional or replacement suppliers, particularly for our single source components. Any interruption or delay in the supply of components or materials, or our inability to obtain components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers and cause them to cancel orders or switch to competitive products.

We have limited experience in producing our products, and we may experience development or manufacturing problems or delays that could limit the growth of our revenue or increase our losses.

We have limited experience manufacturing and assembling our products in commercial quantities and we may encounter unforeseen situations that would result in delays or shortfalls. In addition, our production processes and assembly methods may have to change to accommodate any significant future expansion of our manufacturing capacity. If we are unable to keep up with demand for our products, our revenue could be impaired, market acceptance for our products could be adversely affected and our customers might instead purchase our competitors products. Our inability to successfully manufacture our products would have a material adverse effect on our operating results.

We first produced the IFCs used in our current Topaz system in June 2002 at our facility in South San Francisco. We have since moved our commercial production of IFCs to our facility in Singapore, which first produced commercial IFCs for our Topaz systems in October 2006 and first produced commercial IFCs for our BioMark system in December 2007. Production of the elastomeric block that is at the core of our IFCs is a complex process requiring advanced clean rooms, sophisticated equipment and strict adherence to procedures. Any contamination of the clean room, equipment malfunction or failure to strictly follow procedures can significantly reduce our yield in one or more batches. Such a drop in yield can greatly increase our cost to manufacture our IFCs or, in more severe cases, require us to halt the manufacture of IFCs until the problem is resolved. Identifying and resolving the cause of a drop in yield can require substantial time and resources. We have had significant yield problems in the past and cannot assure you that these types of yield issues will not occur again. Sustained yield problems would have a material adverse affect on our business, financial condition and results of operations.

In addition, developing an IFC for a new application typically requires developing a specific production process for that type of IFC. While all of our IFCs are produced using the same basic processes, significant variations are required to ensure adequate yield of any particular type of IFC. Developing such a process can be very time consuming, and any unexpected difficulty in doing so can delay the introduction of a product. For example, in the second quarter of 2006, our ability to conduct demonstrations for potential customers for our BioMark system was impaired because we were unable to produce sufficient quantities of that IFC. Though these production problems were resolved, the delay in conducting customer demonstrations resulted in the loss and delay of orders from potential customers. We cannot assure you that we will not face similar difficulties in developing new processes in the future.

If we are unable to recruit and retain key executives and scientists, we may be unable to achieve our goals.

Our performance is substantially dependent on the performance of our senior management and key scientific and technical personnel, particularly Gajus V. Worthington, our President and Chief Executive Officer. We do not maintain fixed term employment contracts with any of our employees. The loss of the services of any member of our senior management or our scientific or technical staff might significantly delay or prevent the development of our products or achievement of other business objectives by diverting management s attention to transition matters and identification of suitable replacements, if any, and could have a material adverse effect on our business. We do not maintain significant key man life insurance on any of our employees.

In addition, our research and product development efforts could be delayed or curtailed if we are unable to attract, train and retain highly skilled employees, particularly, senior scientists and engineers. To expand our research and product development efforts, we need additional people skilled in areas such as molecular and cellular biology, assay development and manufacturing. Competition for these people is intense. Because of the complex and technical nature of our system and the dynamic market in which we compete, any failure to attract and retain a sufficient number of qualified employees could materially harm our ability to develop and commercialize our technology.

We may be unable to manage our anticipated growth effectively.

The rapid growth of our business has placed a significant strain on our managerial, operational and financial resources and systems. We have increased the number of our employees from 78 at December 31, 2005 to 143 at June 28, 2008. In addition, since October 2006 we have commenced manufacturing operations in Singapore and opened sales offices in Europe and Japan. To execute our anticipated growth successfully, we must continue to attract and retain qualified personnel and manage and train them effectively. We must also upgrade our internal business processes and capabilities to create the scalability that a growing business demands.

We believe our primary commercial manufacturing facility located in Singapore is sufficient to meet our short-term manufacturing needs. The current lease for our manufacturing facility in Singapore expires in October 2011. In order to meet the long-term demand for our IFC systems, we believe that we will need to add to our existing manufacturing space in Singapore or move all of our manufacturing facilities to a new location in Singapore. Such a move will involve significant expense in connection with the establishment of new clean rooms, the movement and installation of key manufacturing equipment and modifications to our manufacturing process and we cannot assure you that such a move would not delay or otherwise adversely affect our manufacturing activities.

Table of Contents

Further, our anticipated growth will place additional strain on our suppliers and manufacturing facilities, resulting in an increased need for us to carefully monitor quality assurance. Any failure by us to manage our growth effectively could have an adverse effect on our ability to achieve our development and commercialization goals.

Our research and product development efforts may not result in commercially viable products within the timeline anticipated, if at all.

Our business is dependent on the improvement of our existing products, our development of new products to serve existing markets and our development of new products to create new markets and applications that were previously not practical with existing systems. We intend to devote significant personnel and financial resources to research and development activities designed to advance the capabilities of our IFC technology. Our IFC technology is new and complex and the behavior of fluids and surrounding compounds in a nanoscale environment is difficult to predict in advance. Though we have developed design rules for the implementation of our IFC technology, these are frequently revised to reflect new insights we have gained about the technology. In addition, we have discovered that biological or chemical reactions sometimes behave differently when implemented on IFCs rather than in a standard laboratory environment. As a result, significant research and development efforts may be required to transfer even well-understood reactions to our technology. In the past, product development projects have been significantly delayed when we encountered unanticipated difficulties in implementing a process on our IFCs. We may have similar delays in the future, and we may not obtain any benefits from our research and development activities. Any delay or failure by us to develop new products or enhance existing products would have a substantial adverse effect on our business and results of operations.

Our products, although not currently regulated, could in the future be subject to regulation by the U.S. Food and Drug Administration or other regulatory agencies.

Our products are currently labeled and sold for research purposes only and are not subject to U.S. Food and Drug Administration, or FDA, clearance or approval. However, in the future, certain of our products or related applications could be subject to the FDA s regulation, the FDA s regulatory jurisdiction could be expanded to include our products, or both. For example, if we wished to label and market our products for use in performing clinical diagnostics, FDA clearance or approval would be required. Even where a product is exempted from FDA clearance or approval, the FDA may impose restrictions on how and to whom we can market and sell our products. Obtaining FDA approval can be expensive and uncertain, generally takes several years to obtain and requires detailed and comprehensive scientific and clinical data. Notwithstanding the expense, these efforts may never result in FDA approval or clearance. Even if we were to obtain regulatory approval or clearance, it may not be for the uses we believe are important or commercially attractive. As a result, these regulations and restrictions could materially and adversely affect our business, financial condition and results of operations. Similar laws and regulations are also in effect in many foreign countries that could affect our ability to market certain products. The number and scope of these requirements are increasing. We may not be able to obtain regulatory approvals in such countries or may incur significant costs in obtaining or maintaining our foreign regulatory approvals.

Our future capital needs are uncertain and we may need to raise additional funds in the future.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents, available for sale securities balances and cash receipts generated from sales of our products, will be sufficient to meet our anticipated cash requirements for at least the next 18 months. However, we may need to raise substantial additional capital to:

- expand the commercialization of our products;

fund our operations;

continue our research and development;

defend, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights;

commercialize new products; and

acquire companies and in-license products or intellectual property.

Our future funding requirements will depend on many factors, including:

- market acceptance of our products;
- the cost of our research and development activities;
- the cost of filing and prosecuting patent applications;
- the cost of defending, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights;
- the cost and timing of regulatory clearances or approvals, if any;
- the cost and timing of establishing additional sales, marketing and distribution capabilities;
- the cost and timing of establishing additional technical support capabilities;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in businesses, products and technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

If we require additional funds in the future, such funds may not be available on acceptable terms, or at all.

We may require additional funds in the future and we may not be able to obtain such funds on acceptable terms, or at all. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets, or delay, reduce the scope of or eliminate some or all of our development programs.

If we do not have, or are not able to obtain, sufficient funds, we may have to delay development or commercialization of our products or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations. Any of these factors could harm our operating results.

Our products could have unknown defects or errors, which may give rise to claims against us and adversely affect market adoption of our systems.

Our IFC systems utilize novel and complex technology applied on a nanoliter scale and such systems may develop or contain undetected defects or errors. We cannot assure you that material performance problems, defects or errors will not arise, and as we increase the density and integration of our IFCs, these risks may increase. While we do not provide express warranties that our IFCs will meet performance expectations or be free from defects, we have done so in the past, and expect to in the future in response to customer concerns in order to preserve customer relationships and help foster continued adoption and use of our systems. We typically do provide warranties relating to other parts of our IFC systems. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating margins.

In manufacturing our products, we depend upon third parties for the supply of various components. Many of these components require a significant degree of technical expertise to produce. If our suppliers fail to produce components to specification, or if the suppliers, or we, use defective materials or workmanship in the manufacturing process, the reliability and performance of our products will be compromised.

If our products contain defects, we may experience:

- a failure to achieve market acceptance or expansion of our product sales;
- loss of customer orders and delay in order fulfillment;
- damage to our brand reputation;

- increased cost of our warranty program due to product repair or replacement;
- product recalls or replacements;
- inability to attract new customers;
- diversion of resources from our manufacturing and research and development departments into our service department; and
- legal claims against us, including product liability claims, which could be costly and time consuming to defend and result in substantial damages.

The occurrence of any one or more of the foregoing could negatively affect our business, financial condition and results of operations.

We generate a substantial portion of our revenues internationally and are subject to various risks relating to such international activities which could adversely affect our international sales and operating performance.

During 2005, 2006, 2007 and the six months ended June 28, 2008, approximately 28%, 40%, 52% and 54% of our total revenue was generated outside of North America. We believe that a significant percentage of our future revenue will come from international sources as we expand our overseas operations and develop opportunities in additional international areas. Our international business may be adversely affected by changing economic, political and regulatory conditions in foreign countries. Because the majority of our product sales are currently denominated in U.S. dollars, if the value of the U.S. dollar increases relative to foreign currencies, our products could become more costly to the international consumer and therefore less competitive in international markets, which could affect our financial performance. In addition, if the value of the U.S. dollar decreases relative to the Singapore dollar, it would become more costly in U.S. dollars for us to manufacture our products in Singapore. Furthermore, fluctuations in exchange rates could reduce our revenue, particularly with respect to grant revenue under agreements in Singapore, and affect demand for our products. Engaging in international business inherently involves a number of other difficulties and risks, including:

- required compliance with existing and changing foreign regulatory requirements and laws;
- export or import restrictions;
- laws and business practices favoring local companies;
- longer payment cycles and difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;
- political and economic instability;
- potentially adverse tax consequences, tariffs, customs charges, bureaucratic requirements and other trade barriers;
- difficulties and costs of staffing and managing foreign operations; and
- difficulties protecting or procuring intellectual property rights.

If one or more of these risks occurs, it could require us to dedicate significant resources to remedy, and if we are unsuccessful in finding a solution, our financial results will suffer.

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

Our research and development and manufacturing processes involve the controlled use of hazardous materials, including flammables, toxics, corrosives and biologics. Our operations produce hazardous biological and chemical waste products. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from these materials. In addition, our IFC systems involve the use of pressurized systems and may involve the use of hazardous materials, which could result in injury. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials. We do not currently maintain separate environmental liability coverage and any such contamination or discharge could result in significant cost to us in penalties, damages and suspension of our operations.

Table of Contents

If our facilities become inoperable, we will be unable to continue manufacturing our products and as a result, our business will be harmed until we are able to secure a new facility.

We manufacture and assemble our IFCs for commercial sale at our facility in Singapore and assemble our instrument platforms at our facilities in Singapore and South San Francisco, California. No other manufacturing or assembly facilities are currently available to us. Our facilities and the equipment we use to manufacture our products would be costly to replace and could require substantial lead time to repair or replace. The facilities 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 manufacturing for some period of time. The inability to perform our research, development and manufacturing activities, combined with our limited inventory of reserve raw materials and manufactured supplies, may result in the loss of customers or harm our reputation, and we may be unable to reestablish relationships with those customers 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.

If we fail to maintain effective internal control over financial reporting in the future, the accuracy and timing of our financial reporting may be adversely affected.

In connection with the audit of our consolidated financial statements for the years ended December 31, 2005 and 2006 we, together with our independent registered public accounting firm identified material weaknesses in our internal control over financial reporting.

The material weaknesses related to our financial statement close process, revenue recognition and accrual processes and inventory costing, cost of sales, purchases cut-off and stock-based compensation. These material weaknesses resulted in the recording of numerous audit adjustments over the two year period ending December 31, 2006. Since the date of our independent registered public accounting firm s reports on our consolidated financial statements for the years ended December 31, 2005 and 2006 and through the date of this prospectus, we have taken steps intended to remediate these material weaknesses, primarily through the hiring of additional accounting and finance personnel with technical accounting and financial reporting experience. In addition, we have implemented procedures and controls in the financial statement close process designed to improve the accuracy and timeliness in financial accounting and reporting.

In April and May 2008, we reviewed our internal control over financial reporting and concluded that we had certain significant deficiencies. A significant deficiency is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of a company s financial reporting. The significant deficiencies identified by us related to: our controls for the consolidation and elimination entries relating to intercompany transfer pricing and elimination of intercompany profits embedded in deferred costs of our Japanese subsidiary; our controls for applying SFAS 123R to option grants with non-standard vesting terms and validation of stock compensation expenses calculated by our option tracking software; and our controls and procedures for the valuation of inventory.

We do not know the specific time frame that we will require to remediate the significant deficiencies identified. In addition, we expect to incur some incremental costs associated with this remediation. If we fail to enhance our internal control over financial reporting to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act of 2002, or Sarbanes-Oxley Act, we may be unable to report our financial results accurately and prevent fraud. While we expect to remediate the significant deficiencies, we cannot assure you that we will be able to do so in a timely manner, which could impair our ability to accurately and timely report our financial position, results of operations or cash flows.

No material weaknesses in internal control over financial reporting were identified in our April and May 2008 review. However, our management and independent registered public accounting firm did not perform an evaluation of our internal control over financial reporting as of any date in accordance with the provisions of Section 404 of the Sarbanes-Oxley Act. Had we and our independent registered public accounting firm performed an evaluation of our internal control over financial reporting in accordance with the provisions of Section 404 of the Sarbanes-Oxley Act, additional control deficiencies may have been identified by management or our independent registered public accounting firm.

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

We have never operated as a public company. As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act, as well as new rules subsequently implemented by the Securities and Exchange Commission and the NASDAQ Global Market, have imposed various new requirements on public companies, including requiring changes in corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these new compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these new rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage.

In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, commencing in 2009, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal control over financial reporting that are deemed to be material weaknesses. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management time on compliance-related issues. We currently do not have an internal audit group and we will evaluate the need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by the NASDAQ Global Market, the Securities and Exchange Commission or other regulatory authorities, which would require additional financial and management resources.

Some of our programs are partially supported by government grants, which may be reduced, withdrawn, delayed or reclaimed.

We have received and may continue to receive funds under research and economic development programs funded by the governments of Singapore and the United States. Funding by these governments may be significantly reduced or eliminated in the future for a number of reasons. For example, some U.S. programs are subject to a yearly appropriations process in Congress. Similarly, our grants from the Singapore government are part of an official policy to develop a life science industry in Singapore; that policy could change or the role of grants in it could be reduced or eliminated at any time. In addition, we may not receive funds under existing or future grants because of budgeting constraints of the agency administering the program. A restriction on the government funding available to us would reduce the resources that we would be able to devote to existing and future research and development efforts. Such a reduction could delay the introduction of new products and hurt our competitive position.

Our agreements with the Singapore Economic Development Board, or EDB, provide that our continued eligibility for incentive grant payments from EDB is subject to our satisfaction of agreed upon targets for increasing levels of research, development and manufacturing activity in Singapore, including the use of local service providers, the hiring of personnel in Singapore, the incurrence of eligible expenses in Singapore, our receipt of new equity investment and our achievement of certain milestones relating to new product development or completion of specific manufacturing process objectives. These agreements further provide EDB with the right to demand repayment of a portion of past grants in the event that we did not meet our obligations under the applicable agreements. Based on correspondence with EDB, we believe that we have satisfied the conditions applicable to our EDB grant revenue through June 28, 2008.

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

In general, under Section 382 of the Internal Revenue Code, a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change net operating losses or NOLs to offset future

Table of Contents

taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this offering, our ability to utilize NOLs could be further limited by Section 382 of the Internal Revenue Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Internal Revenue Code. We may not be able to utilize a material portion of the NOLs reflected on our balance sheet and for this reason, we have fully reserved against the value of our NOLs on our balance sheet.

Risks Related to Intellectual Property

Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain.

Our commercial success may depend in part on our ability to protect our intellectual property and proprietary technologies. We rely on patent protection, where appropriate and available, as well as a combination of copyright, trade secret and trademark laws, and nondisclosure, confidentiality and other contractual restrictions to protect our proprietary technology. However, these legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Our pending U.S. and foreign patent applications may not issue as patents or may not issue in a form that will be advantageous to us. Any patents we have obtained or do obtain may be subject to re-examination, reissue, opposition or other administrative proceeding, or may be challenged in litigation, and such challenges could result in a determination that the patent is invalid or unenforceable. In addition, competitors may be able to design alternative methods or devices that avoid infringement of our patents. To the extent our intellectual property, including licensed intellectual property, offers inadequate protection, or is found to be invalid or unenforceable, we are exposed to a greater risk of direct competition. If our intellectual property does not provide adequate protection against our competitors products, our competitive position could be adversely affected, as could our business. Both the patent application process and the process of managing patent disputes can be time consuming and expensive. Furthermore, the laws of some foreign countries may not protect our intellectual property rights to the same extent as do the laws of the United States.

The patent positions of life science companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies patents has emerged to date in the United States. The laws of some non-U.S. countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement of our patents. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business. Changes in either the patent laws or in interpretations of patent laws in the United States or other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. For example:

We might not have been the first to make the inventions covered by each of our pending patent applications.

We might not have been the first to file patent applications for these inventions.

Others may independently develop similar or alternative products and technologies or duplicate any of our products and technologies.

It is possible that none of our pending patent applications will result in issued patents, and even if they issue as patents, they may not provide a basis for commercially viable products, or may not provide us with any competitive advantages, or may be challenged and invalidated by third parties.

We may not develop additional proprietary products and technologies that are patentable.

The patents of others may have an adverse effect on our business.

We apply for patents covering our products and technologies and uses thereof, as we deem appropriate. However, we may fail to apply for patents on important products and technologies in a timely fashion or at all.

In addition to pursuing patents on our technology, we take steps to protect our intellectual property and proprietary technology by entering into confidentiality agreements and intellectual property assignment agreements with our employees, consultants, corporate partners and, when needed, our advisors. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized disclosure. Monitoring unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time consuming, and the outcome would be unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets.

We depend on certain technologies that are licensed to us. We do not control these technologies and any loss of our rights to them could prevent us from selling our products.

We rely on licenses in order to be able to use various proprietary technologies that are material to our business, including our core integrated fluidic circuit and multi-layer soft lithography technologies. We do not own the patents that underlie these licenses. Our rights to use these technologies and employ the inventions claimed in the licensed patents are subject to the negotiation of, continuation of and compliance with the terms of those licenses. In some cases, we do not control the prosecution, maintenance, or filing of the patents to which we hold licenses, or the enforcement of these patents against third parties. Some of our patents and patent applications were either acquired from another company who acquired those patents and patent applications from yet another company, or are licensed from a third party. Thus, these patents and patent applications are not written by us or our attorneys, and we did not have control over the drafting and prosecution. The former patent owners and our licensors might not have given the same attention to the drafting and prosecution of these patents and applications as we would have if we had been the owners of the patents and applications and had control over the drafting and prosecution. We cannot be certain that drafting and/or prosecution of the licensed patents and patent applications by the licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. Enforcement of our licensed patents or defense or any claims asserting the invalidity of these patents is often subject to the control or cooperation of our licensors. Certain of our licenses contain provisions that allow the licensor to terminate the license upon specific conditions. Our rights under the licenses are subject to our continued compliance with the terms of the license, including the payment of royalties due under the license. Termination of these licenses could prevent us from marketing some or all of our products. Because of the complexity of our products and the patents we have licensed, determining the scope of the license and related royalty obligation can be difficult and can lead to disputes between us and the licensor. An unfavorable resolution of such a dispute could lead to an increase in the royalties payable pursuant to the license. If a licensor believed we were not paying the royalties due under the license or were otherwise not in compliance with the terms of the license, the licensor might attempt to revoke the license. If such an attempt were successful, we might be barred from producing and selling some or all of our products.

We are subject to certain U.S. government regulations because we have licensed technologies that were developed with U.S. government grants. In accordance with these regulations, these licenses provide that products embodying the technologies will be manufactured substantially in the United States. If this domestic manufacturing requirement is not met, the government agency that funded the relevant grant is entitled to exercise specified rights, referred to as march-in rights, which if exercised would allow the government agency to require the licensors or us to grant a non-exclusive, partially exclusive or exclusive license in any field of use to a third party designated by such agency. As of June 28, 2008, most of the instrumentation components of our IFC systems were manufactured in the United States and all commercial IFC components were manufactured in Singapore, though this division of manufacturing activities could change in the future. All of our IFC system revenue is dependent upon the availability of IFCs, which incorporate technology developed with U.S. government grants. As there is limited judicial or administrative guidance with respect to the interpretation or application of the U.S. manufacturing requirement, we are uncertain as to whether the current division of manufacturing for our IFC systems is in compliance with the requirement. The federal regulations allow the funding government agency to grant, at the request of the licensors of such technology, a waiver of the domestic manufacturing requirement. Waivers may be requested prior to any government notification. We are assisting the licensors of these technologies with the analysis of the domestic manufacturing requirement, and we believe that at least one of our licensors will be requesting a waiver with our assistance. If it were to be determined that we are in violation of the domestic manufacturing requirement and a waiver of such requirement was either not requested or not granted, then the U.S. government could exercise its march-in rights. In addition, these licenses contain provisions relating to compliance with this domestic manufacturing requirement. If it were to be determined that we are not in compliance with these provisions and such non-compliance constituted a material breach of the licenses, the licenses could be terminated. Either the exercise of march-in rights or the termination of one or more of our licenses could materially adversely affect our business, operations and financial condition.

We may be involved in lawsuits to protect or enforce our patents and proprietary rights and to determine the scope, coverage and validity of others proprietary rights.

Litigation may be necessary to enforce our patent and proprietary rights and/or to determine the scope, coverage and validity of others proprietary rights. Litigation on these matters has been prevalent in our industry and we expect that this will continue. To determine the priority of inventions, we may have to initiate and participate in interference and re-examination proceedings declared by the U.S. Patent and Trademark Office that could result in substantial legal fees and could substantially affect the scope of our patent protection. Also, our intellectual property may be subject to significant administrative and litigation proceedings such as invalidity, unenforceability and opposition proceedings against our patents. The outcome of any litigation or interference proceeding might not be favorable to us, and we might not be able to obtain licenses to technology that we require. Even if such licenses are obtainable, they may not be available at a reasonable cost. In addition, if we resort to legal proceedings to enforce our intellectual property rights or to determine the validity, scope and coverage of the intellectual property or other proprietary rights of others, the proceedings could be burdensome and expensive, even if we were to prevail. Any litigation that may be necessary in the future could result in substantial costs and diversion of resources and could have a material adverse effect on our business, operating results or financial condition.

For example, on June 4, 2008 we received a letter from Applied Biosystems, Inc., one of our competitors, asserting that our BioMark System for gene expression analysis infringes upon U.S. Patent No. 6,814,934, or the 934 patent, and its foreign counterparts in Europe and Canada, owned by Applied Biosystems parent company, Applera Corporation. In response to this letter, we filed suit against Applied Biosystems and Applera in federal district court in the Southern District of New York seeking declaratory judgments of non-infringement and invalidity of the 934 patent. In response to our action, Applied Biosystems and Applera may file suit against us in this and other jurisdictions asserting that our products infringe the 934 patent or other proprietary rights held by them, or they may seek to dismiss or move our suit. Applied Biosystems has recently announced that it expects to be acquired by Invitrogen Corporation. This may make it more difficult for us to predict the direction of discussions and litigation among the parties.

We have entered into an agreement with Applied Biosystems that provides for a stay of our proceedings against Applied Biosystems and Applera and provides further that neither party may initiate or expressly threaten to initiate any further patent litigation proceedings against the other during the term of the agreement. Either party may terminate the agreement and request that the stay be lifted anytime after September 20, 2008 by providing seven business days prior written notice to the other. The deadline for Applied Biosystems and Applera to respond to our complaint is extended to 14 calendar days after the lifting of the stay. If the agreement is not terminated sooner by one or both of the parties, the agreement will terminate on December 15, 2008.

Litigation, other proceedings or third party claims of intellectual property infringement could require us to spend significant time and money and could prevent us from selling our products or services or impact our stock price.

Our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. Applied Biosystems, one of our competitors, has asserted that our BioMark System for gene expression analysis infringes upon Applera s 934 patent, and we have filed suit against Applied Biosystems and Applera seeking declaratory judgments of non-infringement and invalidity of the Applera patent. Other third parties have asserted and may assert in the future that we are employing their proprietary technology without authorization. Competitors may assert that our products infringe their intellectual property rights as part of a business strategy to impede our successful entry into those markets. For example, numerous significant intellectual property issues have been litigated between existing and new participants in the PCR market, including litigation initiated by Applied Biosystems, Inc. In addition, our competitors and others may have patents or may in the future obtain patents and claim that use of our products infringes these patents. As we move into new markets and applications for our products, incumbent participants in such markets may assert their patents and other proprietary rights against us as a means of slowing our entry into such markets or as a means to extract substantial license and royalty payments from us.

Patent infringement suits can be expensive, lengthy and disruptive to business operations. We could incur substantial costs and divert the attention of our management and technical personnel in prosecuting or defending against any claims. There can be no assurance that we will prevail in our suit against Applied Biosystems and Applera in our defense of any claims brought against us by Applied Biosystems or Applera or in any other suit initiated against us by third parties. If we do not prevail in our suit against Applied Biosystems and Applera and we are unable to secure any required licenses from such parties, we could be precluded from selling our BioMark products, which comprised 43% of our total product revenue in 2007 and 61% of our total product revenue for the six months ended June 28, 2008. Parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products, and could result in the award of substantial damages against us, including treble damages and attorneys fees and costs in the event that we are found to be a willful infringer of third party patents. In addition, our agreements with some of our suppliers, distributors, customers and other entities with whom we do business may require us to defend or indemnify these parties to the extent they become involved in infringement claims against us, including the claims described above. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify any of these third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, operating results, or financial condition. In the event of a successful claim of infringement against us, we may be required to obtain one or more licenses from third parties, which we may not be able to obtain at a reasonable cost, if at all. In addition, we could encounter delays in product introductions while we attempt to develop alternative methods or products to avoid infringing third-party patents or proprietary rights. Defense of any lawsuit or failure to obtain any required licenses on favorable terms could prevent us from commercializing our products, and the risk of a prohibition on the sale of any of our products could adversely affect our ability to grow and gain market acceptance for our products.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our employees former employers.

Many of our employees were previously employed at universities or other life science companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent our ability to commercialize certain potential products, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to Our Common Stock and this Offering

We expect that our stock price will fluctuate significantly, and you may not be able to resell your shares at or above the initial public offering price.

Prior to this offering, there has been no public market for shares of our common stock. We cannot predict the extent to which investor interest in our company will lead to the development of an active trading market on the NASDAQ Global Market or otherwise or how liquid that market might become. If an active trading market does not develop, you may have difficulty selling any of our shares of common stock that you buy. We and the underwriters will determine the initial public offering price of our common stock through negotiation. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, the trading price of our common stock following this offering may be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include:

- actual or anticipated quarterly variation in our results of operations or the results of our competitors;
- announcements by us or our competitors of new commercial products, significant contracts, commercial relationships or capital commitments;
- issuance of new or changed securities analysts reports or recommendations for our stock;
- developments or disputes concerning our intellectual property or other proprietary rights;
- commencement of, or our involvement in, litigation;
- market conditions in the life science sector;
- any major change in our Board or management; and
- general economic conditions and slow or negative growth of our markets.

The trading market for our common stock will rely in part on the research and reports that equity research analysts publish about us and our business. We do not control these analysts or the content and opinions included in their reports. Securities analysts may elect not to provide research coverage of our common stock after the completion of this offering, and such lack of research coverage may adversely affect the market price of our common stock. The price of our stock could decline if one or more equity research analysts downgrade our stock or if those analysts issue other unfavorable commentary or cease publishing reports about us or our business. If one or more equity research analysts ceases coverage of our company, we could lose visibility in the market, which in turn could cause our stock price to decline.

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

The initial public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock immediately after this offering. Therefore, if you purchase our common stock in this offering, you will incur an immediate dilution of $11.18 in net tangible book value per share as of June 28, 2008 from the price you paid, based on an assumed initial public offering price of $15.00 per share, the mid-point of the range set forth on the cover page of this prospectus. In addition, new investors who purchase shares in this offering will contribute approximately 32% of the total amount of equity capital raised by us through the date of this offering, but will only own approximately 21% of the outstanding share capital and approximately 21% of the voting rights. The exercise of outstanding options and warrants will result in further dilution. For a further description of the dilution that you will experience immediately after this offering, see Dilution.

Future sales of shares by existing stockholders could cause our stock price to decline.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based on shares outstanding as of June 28, 2008, upon completion of this offering, we will have outstanding a total of 24,790,535 shares of common stock, assuming no exercise of the underwriters over-allotment option. Of these shares, only the 5,300,000 shares of common stock sold in this offering by us will be freely tradable, without restriction, in the public market immediately after the offering. Each of our directors and officers, and certain of our stockholders, have entered into lock-up agreements with the underwriters that restrict their ability to sell or transfer their shares. The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus, although they may be extended for up to an additional 34 days under certain circumstances. Our underwriters, however, may, in their sole discretion, permit our officers, directors and other current stockholders who are subject to the contractual lock-up to sell shares prior to the expiration of the lock-up agreements. After the lock-up agreements expire, based on shares outstanding as of June 28, 2008, up to an additional 19,490,535 shares of common stock will be eligible for sale in the public market, 5,849,026 of which are held by directors and executive officers and will be subject to volume limitations under Rule 144 under the Securities Act and various vesting agreements. In addition, 2,373,978 shares of common stock that are subject to outstanding options as of June 28, 2008 will become eligible for sale in the public market to the extent permitted by the provisions of various vesting agreements, the lock-up agreements and Rules 144 and 701 under the Securities Act. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

Our directors and executive officers will continue to have substantial control over us after this offering and could limit your ability to influence the outcome of key transactions, including changes of control.

Our executive officers, directors and their affiliates will beneficially own or control approximately 22.79% of the outstanding shares of our common stock, following the completion of this offering. Accordingly, these executive officers, directors and their affiliates, acting as a group, will have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of our assets or any other significant corporate transactions. These stockholders may also delay or prevent a change of control of us, even if such a change of control would benefit our other stockholders. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors perception that conflicts of interest may exist or arise.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our certificate of incorporation and bylaws, as amended and restated upon the closing of this offering, may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws to become effective upon completion of this offering include provisions that:

authorize our Board of Directors to issue, without further action by the stockholders, up to 20,000,000 shares of undesignated preferred stock;

require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;

specify that special meetings of our stockholders can be called only by our Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President;

establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our Board of Directors;

establish that our Board of Directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered terms;

provide that our directors may be removed only for cause;

provide that vacancies on our Board of Directors may be filled only by a majority of directors then in office, even though less than a quorum;

specify that no stockholder is permitted to cumulate votes at any election of directors; and

require a super-majority of votes to amend certain of the above-mentioned provisions.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board of Directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us.

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

We will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates and cause the price of our common stock to decline.

Table of Contents

We have never paid dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future.

We have paid no cash dividends on any of our classes of capital stock to date, have contractual restrictions against paying cash dividends and currently intend to retain our future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes forward-looking statements that relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Words such as, but not limited to, believe, expect, anticipate, estimate, intend, plan, targets, likely, will, would, could, and similar expressio negative of those expressions or phrases identify forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on our projections of the future that are subject to known and unknown risks and uncertainties and other factors that may cause our actual results, level of activity, performance or achievements expressed or implied by these forward-looking statements, to differ. The sections in this prospectus entitled Risk Factors, Management s Discussion and Analysis of Financial Condition and Results of Operations and Business, as well as other sections in this prospectus, discuss some of the factors that could contribute to these differences.

Other unknown or unpredictable factors also could harm our results. Consequently, actual results or developments anticipated by us may not be realized or, even if substantially realized, may not have the expected consequences to, or effects on, us. Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements. Except as required by law, we undertake no obligation to update or revise publicly any of the forward-looking statements after the date of this prospectus.

This prospectus contains market data that we obtained from industry sources. These sources do not guarantee the accuracy or completeness of the information. Although we believe that the industry sources are reliable, we have not independently verified the information. The market data include projections that are based on a number of other projections. While we believe these assumptions to be reasonable and sound as of the date of this prospectus, actual results may differ from the projections.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of 5,300,000 shares of our common stock that we are selling in this offering will be $70.8 million, based on an assumed initial public offering price of $15.00 per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A $1.00 increase (decrease) in the assumed initial public offering price would increase (decrease) the net proceeds to us by $4.9 million, after deducting estimated underwriting discounts and commissions and estimated offering expenses, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. An increase of 1.0 million shares in the number of shares offered by us would increase the net proceeds to us by $14.0 million. Similarly, a decrease of 1.0 million shares in the number of shares offered by us would decrease the net proceeds to us by $14.0 million. If the underwriters over-allotment option is exercised in full, we estimate that we will receive net proceeds of $81.9 million.

Of the net proceeds that we will receive from this offering, we expect to use approximately:

- $26.0 million for sales and marketing initiatives, including significantly expanding our sales force, to support the ongoing commercialization of our products;

- $16.0 million for research and product development activities;

- $2.0 million to expand our facilities and manufacturing operations; and

- the balance for working capital and other general corporate purposes.

We may also use a portion of our net proceeds to acquire and invest in complementary products, technologies or businesses; however, we currently have no agreements or commitments to complete any such transaction and are not involved in negotiations to do so. Pending these uses, we intend to invest our net proceeds from this offering primarily in investment-grade, interest-bearing instruments.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. The amount and timing of our expenditures will depend on several factors, including cash flows from our operations and the anticipated growth of our business. Accordingly, our management will have broad discretion in the application of the net proceeds and investors will be relying on the judgment of our management regarding the application of the proceeds from this offering. We reserve the right to change the use of these proceeds as a result of certain contingencies such as the results of our commercialization efforts, competitive developments, opportunities to acquire products, technologies or businesses and other factors.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all future earnings for the operation and expansion of our business and, therefore, we do not anticipate declaring or paying cash dividends in the foreseeable future. In addition, we are subject to several covenants under our debt arrangements that place restrictions on our ability to pay dividends. The payment of dividends will be at the discretion of our Board of Directors and will depend on our results of operations, capital requirements, financial condition, prospects, contractual arrangements, any limitations on payment of dividends present in our current and future debt agreements, and other factors that our Board of Directors may deem relevant.

Table of Contents

CAPITALIZATION

The following table sets forth our capitalization as of June 28, 2008:

on an actual basis;

on a pro forma basis to give effect to (1) the conversion of all outstanding shares of convertible preferred stock into common stock pursuant to an action by written consent to such conversion we have obtained from the holders of our preferred stock and (2) the reclassification of the convertible preferred stock warrant liabilities to additional paid-in capital, each effective upon the closing of this offering; and

on a pro forma as adjusted basis to also give effect to the pro forma conversions and reclassifications described above and the sale of 5,300,000 shares of our common stock in this offering and the application of the net proceeds at the assumed initial public offering price of $15.00 per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table together with Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes included elsewhere in this prospectus.

	As of June 28, 2008		
	Actual	Pro Forma (unaudited)	Pro Forma as Adjusted[1]
	(in thousands, except per share amounts)		
Long-term debt, net of current portion	$ 10,477	$ 10,477	$ 10,477
Convertible preferred stock warrant liabilities	1,269		
Convertible preferred stock issuable in series: $0.0035 par value, 17,176 shares authorized, 16,626 shares issued and outstanding (actual); no shares authorized, issued or outstanding (pro forma and pro forma as adjusted)	167,538		
Stockholders equity (deficit):			
Common stock: $0.0035 par value, 24,967 shares authorized, 2,858 shares issued and outstanding (actual); $0.0035 par value, 24,967 shares authorized, 19,484 shares issued and outstanding (pro forma); $0.001 par value, 300,000 shares authorized, 24,784 shares issued and outstanding (pro forma as adjusted)	10	68	25
Preferred stock: $0.0035 par value, no shares authorized, issued or outstanding (actual and pro forma); $0.001 par value, 20,000 shares authorized, no shares issued or outstanding (pro forma as adjusted)			
Additional paid-in capital[1]	4,383	173,132	244,010
Accumulated other comprehensive loss	(241)	(241)	(241)
Accumulated deficit	(149,060)	(149,060)	(149,060)

Total stockholders equity (deficit)[1]		(144,908)		23,899		94,734
Total capitalization[1]	$	34,376	$	34,376	$	105,211

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, the midpoint of the range set forth on the cover page of this prospectus, would increase (decrease) each of additional paid-in capital, total stockholders equity and total capitalization by $4.9 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each increase of 1.0 million shares in the number of shares offered by us, together with a $1.00 increase in the assumed offering price of $15.00 per share, would increase additional paid-in capital, total stockholders equity and total capitalization by approximately $19.8 million. Similarly, each decrease of

Table of Contents

1.0 million shares in the number of shares offered by us, together with a $1.00 decrease in the assumed offering price of $15.00 per share, would decrease additional paid-in capital, total stockholders equity and total capitalization by approximately $17.9 million. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and terms of this offering determined at pricing.

The table above excludes the following shares:

2,373,978 shares of common stock issuable upon exercise of options outstanding as of June 28, 2008 at a weighted average exercise price of $5.44 per share;

216,409 shares of common stock issuable upon the exercise of warrants outstanding as of June 28, 2008 at a weighted average exercise price of $11.41 per share, after conversion of our convertible preferred stock;

2,601,584 shares of common stock reserved for future issuance under our stock-based compensation plans, including 2,000,000 shares of common stock reserved for issuance under our 2008 Equity Incentive Plan, and any future increase in shares reserved for issuance under such plan, each of which will become effective on the date of this prospectus; and

6,785 shares of common stock that were legally issued and outstanding but were not included in stockholders deficit as of June 28, 2008 pursuant to accounting principles generally accepted in the United States, as these shares were subject to a right of repurchase by us.

Table of Contents

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the amount per share paid by purchasers of shares of common stock in this initial public offering and the pro forma as adjusted net tangible book value per share of common stock immediately after completion of this offering.

Our pro forma net tangible book value as of June 28, 2008 in the amount of $23.9 million, or $1.23 per share, was based on the total number of shares of our common stock outstanding as of June 28, 2008, after giving effect to (1) the conversion of all outstanding shares of our convertible preferred stock into common stock and (2) the reclassification of the convertible preferred stock warrant liabilities to additional paid-in capital, each effective upon the closing of this offering.

After giving effect to our sale of 5,300,000 shares of common stock in this offering at an assumed initial public offering price of $15.00 per share, the midpoint of the range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses, our pro forma as adjusted net tangible book value as of June 28, 2008 would have been $94.7 million, or $3.82 per share. This represents an immediate increase in net tangible book value of $2.59 per share to existing stockholders and an immediate dilution in net tangible book value of $11.18 per share to purchasers of common stock in this offering, as illustrated in the following table:

Assumed initial public offering price per share		$ 15.00
Pro forma net tangible book value per share as of June 28, 2008	$ 1.23	
Increase in pro forma as adjusted net tangible book value per share attributable to new investors	2.59	
Pro forma as adjusted net tangible book value per share after this offering		3.82
Pro forma dilution per share to new investors in this offering		$ 11.18

Each $1.00 increase (decrease) in the assumed public offering price of $15.00 per share, the midpoint of the range set forth on the cover of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value by approximately $4.9 million, or approximately $0.20 per share, and the pro forma dilution per share to investors in this offering by approximately $0.80 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. An increase of 1.0 million shares in the number of shares offered by us, together with a $1.00 increase in the assumed offering price of $15.00 per share, would result in a pro forma as adjusted net tangible book value of approximately $114.5 million, or $4.44 per share, and the pro forma dilution per share to investors in this offering would be $11.56 per share. Similarly, a decrease of 1.0 million shares in the number of shares offered by us, together with a $1.00 decrease in the assumed public offering price of $15.00 per share, would result in an pro forma as adjusted net tangible book value of approximately $76.8 million, or $3.23 per share, and the pro forma dilution per share to investors in this offering would be $10.77 per share. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

If the underwriters over-allotment option is exercised in full, the pro forma as adjusted net tangible book value per share after this offering would be $4.14 per share, the increase in pro forma as adjusted net tangible book value per share to existing stockholders would be $2.91 per share and the dilution to new investors purchasing shares in this offering would be $10.86 per share.

Table of Contents

The following table presents on a pro forma as adjusted basis as of June 28, 2008, after giving effect to the automatic conversion of all outstanding shares of convertible preferred stock into common stock, the differences between the existing stockholders and the purchasers of shares in this offering with respect to the number of shares purchased from us, the total consideration paid, which includes net proceeds received from the issuance of common and convertible preferred stock, cash received from the exercise of stock options, the value of any stock issued for services and the proceeds from the issuance of convertible promissory notes which were subsequently converted to shares of convertible preferred stock, and the average price paid per share (in thousands, except per share amounts and percentages):

	Shares Purchased		Total Consideration		Average Price
	Number	Percent	Amount	Percent	Per Share
Existing stockholders	19,484	78.6%	$ 170,570	68.2%	$ 8.75
New investors	5,300	21.4	79,500	31.8	$ 15.00
Totals	24,784	100.0%	$ 250,070	100.0%	

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $15.00 per share, the midpoint of the range set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid to us by new investors and total consideration paid to us by all stockholders by $5.3 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. An increase of 1.0 million shares in the number of shares offered by us would increase the total consideration paid to us by new investors and total consideration paid to us by all stockholders by $15.0 million. Similarly, a decrease of 1.0 million shares in the number of shares offered by us would decrease the total consideration paid to us by new investors and total consideration paid to us by all stockholders by $15.0 million.

If the underwriters exercise their over-allotment option in full, our existing stockholders would own 76.2% and our new investors would own 23.8% of the total number of shares of our common stock outstanding after this offering.

The table above excludes the following shares:

2,373,978 shares of common stock issuable upon exercise of options outstanding as of June 28, 2008 at a weighted average exercise price of $5.44 per share;

216,409 shares of common stock issuable upon the exercise of warrants outstanding as of June 28, 2008 at a weighted average exercise price of $11.41 per share, after conversion of our convertible preferred stock;

2,601,584 shares of common stock reserved for future issuance under our stock-based compensation plans, including 2,000,000 shares of common stock reserved for issuance under our 2008 Equity Incentive Plan, and any future increase in shares reserved for issuance under such plan, each of which will become effective on the date of this prospectus; and

6,785 shares of common stock that were legally issued and outstanding but were not included in stockholders deficit as of June 28, 2008 pursuant to accounting principles generally accepted in the United States, as these shares were subject to a right of repurchase by us.

To the extent that any of these options or warrants are exercised, new options are issued under our stock-based compensation plans or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering.

SELECTED CONSOLIDATED FINANCIAL DATA

We have derived the selected consolidated statement of operations data for the years ended December 31, 2005, December 31, 2006 and December 29, 2007 and the selected consolidated balance sheet data as of December 31, 2006 and December 29, 2007 from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the summary consolidated statement of operations data for the six months ended June 30, 2007 and June 28, 2008 and the consolidated balance sheet data as of June 28, 2008 from our unaudited consolidated financial statements included elsewhere in this prospectus. We have derived the selected consolidated statement of operations data for the years ended December 31, 2003 and 2004 and the selected consolidated balance sheet data as of December 31, 2003, 2004 and 2005 from our audited consolidated financial statements not included in this prospectus. Our historical results are not necessarily indicative of the results to be expected for any future period. The following 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.

	Year Ended					Six Months Ended	
	December 31, 2003	December 31, 2004	December 31, 2005	December 31, 2006	December 29, 2007	June 30, 2007	June 28, 2008
						(Unaudited)	
	(in thousands, except per share amounts)						
Consolidated Statement of Operations Data:							
Revenue:							
Product revenue	$ 3,133	$ 4,603	$ 6,076	$ 3,959	$ 4,451	$ 1,489	$ 4,382
Collaboration revenue		366	1,568	1,376	460	310	70
Grant revenue		70	30	1,063	2,364	1,198	1,068
Total revenue	3,133	5,039	7,674	6,398	7,275	2,997	5,520
Costs and expenses:							
Cost of product revenue	1,918	3,362	4,764	2,773	3,514	1,490	2,988
Research and development	11,218	9,608	11,449	15,589	14,389	7,053	7,151
Selling, general and administrative	7,263	8,690	7,955	9,699	12,898	6,183	9,843
Total costs and expenses	20,399	21,660	24,168	28,061	30,801	14,726	19,982
Loss from operations	(17,266)	(16,621)	(16,494)	(21,663)	(23,526)	(11,729)	(14,462)
Interest expense	(305)	(508)	(898)	(2,261)	(2,790)	(1,790)	(1,100)
Interest income	267	291	340	565	1,140	565	557
			30	(194)	(170)	37	(214)

Other income (expense), net							
Loss before provision for income taxes and cumulative of change in accounting principle	(17,304)	(16,838)	(17,022)	(23,553)	(25,346)	(12,917)	(15,219)
Provision for income taxes					(105)	(52)	(43)
Loss before cumulative effect of change in accounting principle	(17,304)	(16,838)	(17,022)	(23,553)	(25,451)	(12,969)	(15,262)
Cumulative effect of change in accounting principle			637				
Net loss	$ (17,304)	$ (16,838)	$ (16,385)	$ (23,553)	$ (25,451)	$ (12,969)	$ (15,262)
Net loss per share of common stock, basic and diluted(1)	$ (7.77)	$ (6.93)	$ (6.35)	$ (8.82)	$ (9.21)	$ (4.74)	$ (5.39)
Shares used in computing net loss per share of common stock, basic and diluted(1)	2,227	2,430	2,580	2,671	2,765	2,736	2,832

(1) Please see Note 2 to our consolidated financial statements for an explanation of the method used to calculate basic and diluted net loss per share of common stock.

Table of Contents

	As of					
	December 31, 2003	December 31, 2004	December 31, 2005	December 31, 2006	December 29, 2007	June 28, 2008 (unaudited)
	(in thousands)					
Consolidated Balance Sheet Data:						
Cash and cash equivalents and available-for-sale securities	$ 28,874	$ 12,520	$ 19,659	$ 25,518	$ 40,363	$ 32,469
Working capital	23,689	9,710	14,764	23,939	38,754	28,644
Total assets	34,908	20,150	27,750	36,493	54,776	49,678
Long-term debt	5,261	6,111	16,800	12,838	9,362	16,558
Convertible promissory notes				13,072	4,997	
Convertible preferred stock warrant liabilities			814	223	468	1,269
Convertible preferred stock	75,072	76,596	88,966	112,295	162,082	167,538
Total stockholder s deficit	(49,812)	(65,471)	(83,154)	(106,172)	(130,331)	(144,908)

34

Table of Contents

MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of the financial condition and results of our operations should be read in conjunction with the consolidated financial statements and related notes included elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled Risk Factors included elsewhere in this prospectus.

Overview

We develop, manufacture and market proprietary Integrated Fluidic Circuit systems that significantly improve productivity in the life science industry. Our Integrated Fluidic Circuits, or IFCs, enable the simultaneous performance of thousands of biochemical measurements in extremely minute volumes. We created this integrated circuit for biology by miniaturizing, integrating and automating sophisticated liquid handling processes on a single microfabricated device. Particularly in large-scale experimentation, our IFC systems, consisting of instrumentation, software and single-use IFCs, increase throughput, decrease costs and enhance sensitivity compared to conventional laboratory systems. We have sold our IFCs to over 100 customers, including many leading biotechnology and pharmaceutical companies, academic institutions, and life science laboratories worldwide.

We have commercialized IFC systems for a wide range of life science applications, including our BioMark system for gene expression analysis, genotyping and digital PCR, and our Topaz system for protein crystallization. Researchers and clinicians have successfully employed our products to help achieve breakthroughs in the fields of genetic variation, cellular function and structural biology. We believe that the broad applicability of our IFC technology will lead to the development of IFC systems for a wide variety of additional markets and applications, including high-throughput DNA sequencing and molecular diagnostics.

We were founded in 1999. In the first quarter of 2003, we introduced our first product line, the Topaz system for protein crystallization based on our first generation Topaz IFC. In subsequent years, we enhanced the capability of the Topaz system by introducing IFCs with increased throughput. Prior to 2007, Topaz system products accounted for substantially all of our product revenue. In the fourth quarter of 2006, we announced the commercial availability of our BioMark system. We currently sell two types of single-use IFCs for use with the BioMark system, the Dynamic Array for gene expression and genotyping and the Digital Array for digital PCR.

We have incurred significant losses since our inception, including net losses of $16.4 million, $23.6 million, $25.5 million and $15.3 million in 2005, 2006, 2007 and the six months ended June 28, 2008. As of June 28, 2008, we had an accumulated deficit of $149.1 million. We sell our IFC systems around the world. For 2007 and the six months ended June 28, 2008, customers in North America accounted for approximately 48% and 46% of our total revenue, European customers accounted for 10% and 17% and Asia-Pacific customers accounted for 42% and 37%. We distribute our systems through our direct field sales and support organizations located in North America, Europe and Asia-Pacific and through distributors or sales agents in several European and Asia-Pacific countries. Our manufacturing operations are located in Singapore and South San Francisco. Our facility in Singapore fabricates all of our IFCs for commercial sale and some IFCs for our own research and development purposes and assembles certain elements of our BioMark and Topaz instrumentation. Our South San Francisco facility also assembles certain elements of our BioMark and Topaz instrumentation and fabricates IFCs for our own research and development purposes.

Since 2002, we have received significant revenue from government grants. Our most significant grant relationship has been with the Singapore Economic Development Board, or EDB. The EDB, an agency of the Government of Singapore, promotes research, development and manufacturing activities in Singapore and associated employment of Singapore nationals by providing incentive grants to companies willing to conduct operations in Singapore and satisfy the requirements of EDB s government programs. Under our agreements with EDB, we are eligible to receive incentive grant payments from EDB, provided we satisfy agreed upon targets for increasing levels of research, development and manufacturing activity in Singapore, including the use of local service providers, the hiring of personnel in Singapore, local spending in Singapore, our receipt of new equity investment, and our achievement of agreed upon targets relating to new product development or completion of specific manufacturing process objectives. If we satisfy the grant conditions, we receive incentive grant payments equal to a portion of the qualifying expenses we incur in Singapore, relating to salaries, overhead, outsourcing and subcontracting expenses, operating expenses and royalties paid. Expenses not qualifying for the incentive grant program include raw materials purchases. We submit requests to EDB for incentive grant payments on a quarterly basis, and these requests are subject to EDB s review and our satisfaction of the grant conditions. Together these agreements provide for incentive funding eligibility through 2011, subject to our compliance with the requirements of these agreements.

In addition, we have entered into collaboration and license agreements with other parties that generally provide us with up-front and periodic milestone fees or fees based on agreed upon rates for time incurred by our research staff.

Fiscal Year Presentation

During the year ended December 29, 2007, we adopted a 52 or 53 week year convention for our fiscal years and, therefore, our 2007 fiscal year ended on December 29, 2007 and the first six month periods of 2007 and 2008 ended on June 30, 2007 and June 28, 2008. Future fiscal years will end on the last Saturday in December of each year. Prior to the adoption of this method, we reported our fiscal years on a calendar basis. The fiscal years discussed in this management s discussion and analysis of financial condition and results of operations ended on December 31, 2005, December 31, 2006 and December 29, 2007.

Critical Accounting Policies, Significant Judgments and Estimates

Our consolidated financial statements and the related notes included elsewhere in this prospectus are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Changes in the accounting estimates are reasonably likely to occur from period to period. Accordingly, actual results could differ significantly from the estimates made by our management. We evaluate our estimates and assumptions on an ongoing basis. To the extent that there are material differences between these estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected.

We believe that the following critical accounting policies involve a greater degree of judgment and complexity than our other accounting policies. Accordingly, these are the policies we believe are the most critical to understanding and evaluating our consolidated financial condition and results of operations.

Revenue Recognition

We generate revenue from sales of our products and services, collaboration agreements and government grants. Our products consist of single-use IFCs, various instruments and software related to our BioMark and Topaz systems. Our services include system installation, training and customer support services. We also have entered into a number of research and development contracts and have received government grants to conduct research and development activities.

We record revenue in accordance with the guidelines established by the Securities and Exchange Commission, or SEC, Staff Accounting Bulletin No. 104, *Revenue Recognition*, or SAB 104. In addition, we have concluded that software included with certain of our instruments is essential to their functionality. In these instances, we apply AICPA Statement of Position 97-2, *Software Revenue Recognition*, or SOP 97-2. If the arrangement includes IFCs, we use the separation criteria in EITF Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables,* to separate revenues related to IFCs, which are non-software related deliverables, from software related deliverables. Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services rendered, the price to the buyer is fixed or determinable and collectibility is reasonably assured. The evaluation of these revenue recognition criteria requires significant management judgment. For instance, we use judgment to assess collectibility based on factors such as the customer s creditworthiness and past collection history, if applicable. If we determine that collection of a payment is not reasonably assured, revenue recognition is deferred until the time collection becomes reasonably assured, which is generally upon receipt of payment. We also use judgment to assess whether a price is fixed or determinable by reviewing contractual terms and conditions related to payment terms.

In 2007, and thereafter, no right of return existed for our products. In prior years, if an agreement included a right of return, the related revenue was deferred until the right had lapsed. Historically, we have not experienced any significant returns of our products. Also, accruals are provided for estimated warranty expenses at the time that the associated revenue is recognized. We use judgment to estimate these accruals and, if we were to experience an increase in warranty claims or if costs of servicing our products under warranty were greater than our estimates, our gross margins could be adversely affected in future periods.

Some of our sales contracts which include items such as our BioMark instrument systems or our Topaz readers involve the delivery or performance of multiple products and services within contractually binding arrangements. Significant contract interpretation is sometimes required to determine the appropriate accounting, including whether the deliverables specified in a multiple element arrangement should be treated as separate units of accounting for revenue recognition purposes, and, if so, how the price should be allocated among the elements, when to recognize revenue for each element, and the period over which revenue should be recognized. We use judgment to evaluate whether a delivered item has value on a stand-alone basis prior to delivery of the remaining items by determining whether we have made separate sales of such items or whether the undelivered items are essential to the functionality of the delivered items. Further, we use judgment to evaluate whether there is vendor-specific objective evidence, or VSOE, of fair value of the undelivered items, determined by reference to stand-alone sales of such items. We recognize revenue for delivered elements only when we determine that the fair values of undelivered elements are known. For a multiple element arrangement that includes both IFCs and instruments we separate these elements into separate units of accounting as we consider these elements to have standalone value to the customer. We recognize revenue for the IFCs under SAB 104 and the instruments under SAB 104 or SOP 97-2, as applicable. If the fair value of any undelivered item related to instruments and software included in a multiple element arrangement cannot be objectively determined, revenue will be deferred until all items are delivered, or until fair value can objectively be determined for any remaining undelivered items. However, if the only such undelivered element is post-contract customer support services, such as maintenance agreements for which VSOE has not been established, the entire revenue is recognized ratably over the service period. Recognition of revenue from these arrangements generally begins upon installation of the instruments as installation is deemed essential to the functionality of the instruments. The corresponding costs of products sold related to multiple element arrangements are also deferred and amortized over the same period.

Our deferred revenue balance increased by $1.6 million during 2007 and decreased by $0.3 million during the six months ended June 28, 2008. The increase during 2007 was primarily due to the increase in sales of our BioMark instrument systems, all of which included maintenance agreements. We expect to establish VSOE for post-contract customer support during the second half of 2008 as we enter into renewal agreements for maintenance with our customers upon the expiration of the initial agreements. If we are able to establish VSOE for post-contract customer support, our deferred revenue balance will decrease in future periods.

Changes in judgments and estimates regarding application of these revenue recognition guidelines as well as changes in facts and circumstances including the establishment of VSOE of fair value could result in a change in the timing or amount of revenue recognized in future periods.

Revenue from the sales of our products that are not part of a multiple element arrangement is recognized when no significant obligations remain undelivered and collection of the receivables is reasonably assured, which is generally upon shipment of the product and transfer of title to the customer.

We have entered into collaboration research and development arrangements that generally provide us with up-front and periodic milestone fees or fees based on agreed upon rates for time incurred by our research staff. Revenue is recognized either ratably over the term of the agreement or as time is incurred on the project. Revenue from government grants is for the achievement of agreed upon milestones and expenditures and is recognized in the period in which the related costs are incurred, provided that the conditions under which the government grants are awarded have been substantially met and only perfunctory obligations remain outstanding.

Stock-Based Compensation

Prior to January 1, 2006, we accounted for our stock options granted to employees using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*, or APB 25, and related interpretations as permitted by Statement of Financial Accounting Standards, or SFAS No. 123, *Accounting for Stock-Based Compensation*, or SFAS 123, and SFAS No. 148, *Accounting for Stock-Based Compensation Transaction and Disclosure*, or SFAS 148. Accordingly, any compensation cost relating to stock options was recorded on the date of the grant in stockholders equity as deferred compensation and was thereafter amortized to expense over the vesting period of the grant, which was generally four years. We amortized deferred stock-based compensation using the multiple option method as prescribed by FASB Interpretation No. 28, *Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans*, or FIN 28, over the option vesting period using an accelerated amortization schedule.

Effective January 1, 2006, we adopted the fair value recognition provisions of SFAS No. 123 (revised 2004), *Share-Based Payment*, or SFAS 123(R), which requires companies to measure the cost of employee services received in exchange for an award of equity instruments, including stock options, based on the grant date fair value of the award. The fair value is estimated using the Black-Scholes option-pricing model. The resulting cost is recognized over the period during which an employee is required to provide service in exchange for the award, usually the vesting period.

We adopted SFAS 123(R) using the prospective-transition method as all prior grants were measured using the minimum value method for the pro forma disclosures previously required by SFAS 123. The prospective-transition method requires us to continue to apply APB 25 in future periods to equity awards outstanding at the date of our adoption of SFAS 123(R) on January 1, 2006. Under the prospective-transition method, any compensation costs that will be recognized from January 1, 2006 will include only: (a) compensation cost for all stock-based awards granted prior to, but not yet vested as of, December 31, 2005, based on the intrinsic value method in accordance with the provisions of ABP 25; and (b) compensation cost for all stock-based awards granted or modified subsequent to December 31, 2005, net of estimated forfeitures, based on the grant date fair value estimated in accordance with the provisions of SFAS 123(R). We amortize the fair value of stock-based compensation under SFAS 123(R) on a straight-line basis. In accordance with the prospective-transition method as prescribed under SFAS 123(R), results for prior periods are not restated.

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

We use the Black-Scholes option-pricing model to calculate the fair value of our options on the grant date. This model requires inputs such as expected term, expected volatility and risk-free interest rate. Further, the forfeiture rate also affects the amount of aggregate compensation. These inputs are subjective and generally require significant judgment.

Our expected volatility is derived from the historical volatilities of several unrelated public companies within the life science industry because we have little information on the volatility of the price of our common stock since we have no trading history. When making the selections of our industry peer companies to be used in the volatility calculation, we also considered the stage of development, size and financial leverage of potential comparable companies. Our historical volatility is weighted based on certain qualitative factors and combined to produce a single volatility factor. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon

U.S. Treasury notes with maturities approximately equal to each grant s expected life. Given our limited history to accurately estimate the expected lives for the various employee groups, we used the simplified method as provided by Staff Accounting Bulletin No. 107, *Share Based Payment*. The simplified method is calculated as the average of the time-to-vesting and the contractual life of the options.

Table of Contents

Beginning on January 1, 2006 upon the adoption of SFAS 123(R), the fair value of each new employee option awarded was estimated on the grant date for the periods below using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	2006	**2007**	**Six Months Ended June 28, 2008**
Expected volatility	72.8%	63.0%	53.8%
Expected life	6.1 years	6.0 years	6.0 years
Risk-free interest rate	4.8%	4.4%	3.2%
Dividend yield	0%	0%	0%

If in the future we determine that another method is more reasonable, or if another method for calculating these input assumptions is prescribed by authoritative guidance, and, therefore, should be used to estimate expected volatility or expected life, the fair value calculated for our stock options could change significantly. Higher volatility and longer expected lives result in an increase to stock-based compensation expense determined at the date of grant. Stock-based compensation expense affects our cost of revenue, research and development expense, and selling, general and administrative expense.

We estimate our forfeiture rate based on an analysis of our actual forfeitures and will continue to evaluate the appropriateness of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover behavior and other factors. Quarterly changes in the estimated forfeiture rate can have a significant effect on reported stock-based compensation expense, as the cumulative effect of adjusting the rate for all expense amortization is recognized in the period the forfeiture estimate is changed. If a revised forfeiture rate is higher than the previously estimated forfeiture rate, an adjustment is made that will result in a decrease to the stock-based compensation expense recognized in the consolidated financial statements. If a revised forfeiture rate is lower than the previously estimated forfeiture rate, an adjustment is made that will result in an increase to the stock-based compensation expense recognized in the consolidated financial statements. The effect of forfeiture adjustments during 2006, 2007 and the six months ended June 28, 2008 was insignificant. We will continue to use judgment in evaluating the expected term, volatility and forfeiture rate related to our own stock-based compensation on a prospective basis and incorporating these factors into the Black-Scholes option-pricing model.

Also required for the fair value calculation of the options is the fair value of the underlying common stock. We have historically granted stock options with exercise prices no less than the fair market value of our common stock as determined at the date of grant by our Board of Directors with input from management. The following table summarizes, by grant date, the number of stock options granted since January 1, 2007 and the associated per share exercise price, which equaled the fair value of our common stock for each of these grants.

Grant Date	**Number of Options Granted**	**Exercise Price and Fair Value Per Share of Common Stock**
May 8, 2007	460,966	$ 4.76
September 20, 2007	28,766	$ 4.83
December 28, 2007	93,705	$ 8.40
February 7, 2008	206,709	$ 8.40

April 24, 2008	546,711	$	11.16
June 26, 2008	24,426	$	11.97

Given the absence of an active market for our common stock prior to this offering, our Board of Directors determined the fair value of our common stock for our grants of stock options. Our Board of Directors determined the estimated fair value of our common stock based in part on an analysis of relevant metrics, including the following:

- the prices of our convertible preferred stock sold to outside investors in arms-length transactions;

- the rights, preferences and privileges of our convertible preferred stock relative to those of our common stock;

Table of Contents

the rights of freestanding warrants and other similar instruments related to shares that are redeemable;

our operating and financial performance;

the hiring of key personnel;

the introduction of new products;

our stage of development;

the fact that the option grants involve illiquid securities in a private company;

the risks inherent in the development and expansion of our products and services; and

the likelihood of achieving a liquidity event, such as an initial public offering or sale of our company given prevailing market conditions.

From January 2007 through June 2008, our Board of Directors performed contemporaneous valuations of our common stock for each grant of stock options during this period.

The valuations were prepared using the market approach and the income approach to estimate our aggregate enterprise value at each valuation date. The market approach measures the value of a company through the analysis of recent sales of comparable companies. Consideration is given to the financial condition and operating performance of the company being valued relative to those of publicly traded companies operating in the same or similar lines of business. When choosing the comparable companies to be used for the market approach, we focused on companies in the life science industry. Some of the specific criteria used to select comparable companies within this industry include the business description, business size, projected growth, financial condition and historical earnings. The income approach measures the value of a company as the present value of its future economic benefits by applying an appropriate risk-adjusted discount rate to expected cash flows, based on forecasted revenue and costs. We prepared a financial forecast for each valuation report to be used in the computation of the enterprise value for both the market approach and the income approach. The financial forecasts took into account our past experience and future expectations. The risks associated with achieving these forecasts were assessed in selecting the appropriate discount rate. There is inherent uncertainty in these estimates.

In assessing the fair value of our common stock, our Board of Directors applied an equal weighting to the value indications presented by the income approach and market approach. In order to arrive at the estimated fair value of our common stock, the indicated enterprise value of our company calculated at each valuation date was allocated to the shares of convertible preferred stock and the warrants to purchase these shares, and shares of common stock and the options to purchase these shares using an option-pricing methodology. The option-pricing method treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company s securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceed the value of the liquidation preference at the time of a liquidity event, such as a strategic sale, merger or initial public offering, assuming the enterprise has funds available to make a liquidation preference meaningful and collectable by the holders of preferred stock. The common stock is modeled as a call option on the underlying equity value at a predetermined exercise price. In the model, the exercise price is based on a comparison with the total equity value rather than, as in the case of a regular call option, a comparison with a per share stock price. Thus, common stock is considered to be a call option with a claim on the enterprise at an exercise price equal to the remaining value immediately after the preferred stock is liquidated. The option-pricing method uses the Black-Scholes option-pricing model to price the call options. This model defines the securities fair values as functions of the current fair value of a company and uses assumptions such as the anticipated timing of a potential liquidity event and the estimated volatility of the equity securities. The anticipated timing of a liquidity event utilized in these valuations was based on then-current plans and estimates of our Board of Directors and management regarding a liquidity event. Estimates of the volatility of our stock were based on available information on the volatility of capital stock of comparable publicly traded companies. This approach is consistent with the methods outlined in the AICPA Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. Also, we considered the fact that our stockholders cannot freely trade our common stock in the public markets. Therefore, the estimated fair value of our common stock at each grant date reflected a non-marketability discount.

Table of Contents

There is inherent uncertainty in these estimates and if we had made different assumptions than those described above, the amount of our stock-based compensation expense, net loss and net loss per share amounts could have been significantly different.

Our Board of Directors performed a contemporaneous valuation in order to determine the fair value of our common stock for the grant of options on May 8, 2007 which indicated a fair value of $4.76 per share for our common stock. Our Board of Directors performed a second contemporaneous valuation in order to update the determination of the fair value of our common stock for the grant of options on September 20, 2007 which indicated a fair value of $4.83 per share for our common stock. The increase in the fair value between the contemporaneous valuation performed for the grant of options on May 8, 2007 and the date of this contemporaneous valuation was minimal, however, it relates mostly to a slight decrease in the non-marketability discount rate and the time to a liquidity event. Our Board of Directors performed another contemporaneous valuation in order to update the determination of the fair value of our common stock for the grant of options on December 28, 2007 which indicated a fair value of $8.40 per share for our common stock. The increase in the fair value between the contemporaneous valuation performed for the grant of options on September 20, 2007 and December 28, 2007 valuation relates mostly to the decrease in the non-marketability discount rate, the risk-adjusted discount and the time to a liquidity event. Our Board of Directors performed contemporaneous valuations in order to update the determination of the fair value of our common stock for the grant of options on April 24, 2008, which indicated a fair value of $11.16 per share for our common stock, and for the grant of options on June 26, 2008, which indicated a fair value of $11.97 per share for our common stock. The increase in fair value between the contemporaneous valuation performed for the grant of options on December 28, 2007 and April 24, 2008 relates primarily to the increase in our enterprise value as we moved closer to achieving our projected financial goals, achieved significant milestones in new product developments and expanded into new market applications. In addition, in April 2008, our Board of Directors approved the filing of a registration statement for the initial public offering of our common stock. The increase in fair value between the contemporaneous valuation performed for the grant of options on April 24, 2008 and June 26, 2008 relates to the increase in our enterprise value reflecting continued progression toward achieving our projected financial goals, significant new product launches and geographical expansion of our sales capabilities.

We recorded stock-based compensation of $5,000, $0.1 million, $0.7 million and $1.0 million during 2005, 2006, 2007 and the six months ended June 28, 2008. Included in these amounts was employee stock-based compensation of $0, $0.1 million, $0.5 million and $0.9 million, and nonemployee stock-based compensation of $5,000, $59,000, $0.2 million and $0.1 million during 2005, 2006, 2007 and the six months ended June 28, 2008. In future periods, stock-based compensation expense is expected to increase as a result of our existing unrecognized stock-based compensation and as we issue additional stock-based awards to continue to attract and retain employees and nonemployee directors. Certain of our stock options are granted to officers with vesting acceleration features based upon the achievement of certain performance milestones. The timing of the attainment of these milestones may affect the timing of expense recognition under SFAS No. 123(R). Additionally, SFAS 123(R) requires that we recognize compensation expense only for the portion of stock options that are expected to vest. If the actual rate of forfeitures differs from that estimated by management, we may be required to record adjustments to stock-based compensation expense in future periods. As of December 29, 2007 and June 28, 2008, we had $1.7 million and $5.1 million of unrecognized stock-based compensation costs related to stock options granted under our 1999 Stock Option Plan, which is expected to be recognized over an average period of 2.9 years for both periods.

Accounting for Income Taxes

Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. We have recorded a full valuation allowance on our net deferred tax assets as of December 31, 2006, December 29, 2007 and June 28, 2008 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.

We adopted FASB Interpretation No. 48, *Accounting for Uncertainties in Income Taxes an interpretation of FASB Statement No. 109*, or FIN 48, effective January 1, 2007. FIN 48 requires us to recognize the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will

41

be sustained upon examination. Upon adoption, the Company recorded a charge of $75,000 as a cumulative effect of a change in accounting principle in the accumulated deficit during 2007.

Inventory Valuation

We record adjustments to inventory for potentially excess, obsolete or impaired goods in order to state inventory at net realizable value. The business environment in which we operate is subject to rapid changes in technology and customer demand. We regularly review inventory for excess and obsolete products and components, taking into account product life cycle and development plans, product expiration and quality issues, historical experience and our current inventory levels. If actual market conditions are less favorable than anticipated, additional inventory adjustments could be required.

Warrants to Purchase Convertible Preferred Stock

We account for freestanding warrants related to shares that are redeemable in accordance with FASB Staff Position No. 150-5, *Issuer s Accounting Under FASB Statement No. 150 for Freestanding Warrants and Other Similar Instruments on Shares That Are Redeemable*, or FSP 150-5, an interpretation of SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. Under FSP 150-5, freestanding warrants to purchase shares of our convertible preferred stock are classified as liabilities on the consolidated balance sheets at fair value because the warrants may conditionally obligate us to transfer assets at some point in the future. The warrants are subject to remeasurement at each balance sheet date, and any change in fair value will be recognized as a component of other income (expense), net in the consolidated statements of operations. We estimated the fair value of these warrants at the respective balance sheet dates using the Black-Scholes option-pricing model. A number of our assumptions used in the Black-Scholes option-pricing model, especially the market value and the expected volatility, are highly judgmental and could differ materially in the future.

We will continue to record adjustments to the fair value of the warrants until they are exercised, expire or, upon the closing of this offering, become warrants to purchase shares of our common stock, wherein the warrants will no longer be subject to FSP 150-5. At that time, the then-current aggregate fair value of these warrants will be reclassified from current liabilities to additional paid-in capital, a component of stockholders equity, and we will cease to record any related periodic fair value adjustments. Upon the closing of this offering, the preferred stock warrants will be converted into common stock warrants with the same exercise prices and expiration dates.

Results of Operations

Revenue

The following table presents our revenue by source for each period presented (in thousands).

				Six Months Ended	
	2005	**2006**	**2007**	**June 30, 2007**	**June 28, 2008**
Revenue:					
Product revenue	$ 6,076	$ 3,959	$ 4,451	$ 1,489	$ 4,382
Collaboration revenue	1,568	1,376	460	310	70
Grant revenue	30	1,063	2,364	1,198	1,068

Total revenue	$ 7,674	$ 6,398	$ 7,275	$ 2,997	$ 5,520

We generate revenue from sales of our products, collaboration agreements and government grants. Our products consist of single-use IFCs, various instruments, software and service related to our BioMark and Topaz systems. We also have entered into a number of research and development contracts and have received government grants to conduct research and development activities.

Total Revenue

Our total revenue increased $2.5 million, or 84%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007. Total revenue increased $0.9 million, or 14%, for 2007 as compared to 2006, and decreased by $1.3 million, or 17%, for 2006 as compared to 2005. Total revenue from our five largest customers comprised 48%, 56%, 47% and 37% of revenue in 2005, 2006, 2007 and the six months ended June 28, 2008.

As we expand our business through Europe and Asia, we expect our sales from outside of North America to increase as a percentage of our revenue. The following table presents our revenue by geography based on the billing address of our customers for each period presented (in thousands).

							Six Months Ended			
	2005		**2006**		**2007**		**June 30, 2007**		**June 28, 2008**	
United States	$ 5,557	72%	$ 3,807	60%	$ 3,492	48%	$ 1,231	41%	$ 2,530	46%
Singapore		0%	879	14%	1,972	27%	889	30%	1,027	19%
Japan	1,274	17%	1,492	23%	732	10%	162	5%	543	10%
Europe	545	7%	189	3%	735	10%	631	21%	953	17%
Other	298	4%	31	0%	344	5%	84	3%	467	8%
Total	$ 7,674	100%	$ 6,398	100%	$ 7,275	100%	$ 2,997	100%	$ 5,520	100%

Product Revenue

We derive product revenue from sales to biotechnology and pharmaceutical companies, academic institutions and life science laboratories worldwide. These sales are generally made through direct sales personnel to customers in North America, Asia Pacific and most of Europe and through distributors in parts of Europe and the Asia-Pacific region.

Product revenue increased by $2.9 million, or 194%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007. Revenue from our BioMark instrument systems and related IFCs increased by $2.4 million, and revenue from our Topaz instrument systems and related IFCs increased by $0.5 million. We sold 10 BioMark instrument systems and 5 Topaz instrument systems in the six months ended June 28, 2008 compared to 6 BioMark instrument systems and 6 Topaz instrument systems in the six months ended June 30, 2007. Our deferred product revenue balance decreased from $2.7 million as of December 29, 2007 to $2.6 million as of June 28, 2008 and increased from $0.6 million as of December 31, 2006 to $2.0 million as of June 30, 2007. We recognized $1.8 million of the deferred product revenue balance as of December 29, 2007 during the six months ended June 28, 2008 and $0.3 million of the deferred product revenue balance as of December 31, 2006 during the six months ended June 30, 2007.

Product revenue for 2007 increased by $0.5 million, or 12%, compared to 2006. Revenues from our BioMark instrument systems and related IFCs which were introduced in late 2006 increased by $1.3 million, as we sold 14 BioMark instrument systems during 2007 compared to three BioMark instrument systems during 2006. This increase, however, was mostly offset by a decrease of $1.2 million related to a decrease in the sales of our Topaz IFCs. The unit sales of our Topaz instrument systems remained constant as we sold 10 Topaz instrument systems during both 2006 and 2007. In addition, our deferred product revenue balance increased from $0.6 million at December 31, 2006 to $2.7 million at December 29, 2007 as we sold more BioMark instrument systems as part of multiple element arrangements for which we did not have VSOE on post-contract support. We recognized $0.4 million of the deferred product revenue balance at December 31, 2006 during 2007. We expect the current portion of our deferred product revenue balance as of December 29, 2007 in the amount of $2.3 million will be recognized as product revenue during 2008. Product revenue for 2006 decreased by $2.1 million, or 35%, when compared to 2005. The decrease was primarily due to a decrease in the sales of our Topaz instrument systems as we sold 10 Topaz instrument systems during 2006 compared to 16 Topaz instrument systems during 2005; however, sales of our Topaz IFCs remained relatively consistent with 2005.

The increase in sales of our BioMark instrument systems in 2007 and the concurrent decrease in sales of our Topaz systems reflect the refocusing of our product development and sales and marketing efforts, beginning in

2005, to focus on the larger markets served by our BioMark instrument systems. Since then, we have reduced new Topaz product introductions. We will continue to manufacture and sell our Topaz instrument systems and IFCs and we expect unit sales of Topaz instrument systems and IFCs in 2008 and future periods to be consistent with or slightly lower than the 2006 and 2007 levels. We expect unit sales of our BioMark instrument systems and IFCs to increase in 2008.

Collaboration Revenue

We receive payments from third parties under research and development contracts. Fixed-fee research and development contracts generally provide us with up-front and periodic milestone-based fees. Variable-fee research and development contracts generally provide us with fees based on an agreed-upon rate for time incurred by our research staff.

Collaboration revenue decreased $0.2 million, or 77%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007. The decrease relates to the completion of one of our development agreements in the first quarter of 2007. Collaboration revenue for 2007 decreased by $0.9 million, or 67%, compared to 2006. This decrease was primarily due to the completion of one of our collaboration agreements during 2006 that accounted for $1.0 million of our 2006 collaboration revenue. Collaboration revenue for 2006 decreased by $0.2 million, or 12%, compared to 2005. The decrease was primarily due to the termination of one of our collaboration agreements in December 2005. We expect collaboration revenue to continue to decrease due to the completion of our current collaboration agreements during 2008.

Grant Revenue

We receive payments in the form of grants from certain government entities. Government grants are agreements that generally provide incentive grant payments for specified research and development activities over a contractually defined period.

Grant revenue decreased $0.1 million, or 11%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007. The decrease relates to the reduction in activity for the National Institutes of Health, or NIH, grant agreement that terminated in June 2008. Grant revenue for 2007 increased by $1.3 million, or 122%, when compared to 2006, and our grant revenue for 2006 increased by $1.0 million when compared to 2005. These increases were primarily due to the addition of a grant from the NIH, which was entered into in June 2006, and grants from EDB, which were entered into in October 2005 and February 2007. We recognized revenue from the 2005 EDB grant in the amount of $0.9 million during 2006, $1.1 million during 2007 and $0.6 million for the six months ended June 28, 2008. In addition, we recognized revenue in the amount of $0.6 million during 2007 and $0.2 million during the six months ended June 28, 2008 from the 2007 EDB grant. Under our incentive grant agreements with EDB, eligible expenses incurred by us in Singapore were $4.0 million in 2006, $4.5 million in 2007 and $1.9 million in the six months ended June 28, 2008. Also, we recognized revenue from the NIH grant in the amount of $0.2 million during 2006 and $0.6 million during 2007.

Our agreements with EDB provide that grants extended to us in the past and future grants are subject to our operation of increasing levels of research, development and manufacturing in Singapore, including the use of local service providers, the hiring of personnel in Singapore, the incurrence of research and development expenses in Singapore, our receipt of new investment in our company and our achievement of certain agreed upon milestones relating to the development of our products. Development and manufacturing milestones achieved during the three years ended December 29, 2007 included completion of feasibility studies and prototype development, establishment of manufacturing lines, implementation of quality control improvements, manufacturing process simplification and cost improvements and manufacturing yield improvements for our Topaz and BioMark IFCs and related systems. These agreements further provide EDB with the right to demand repayment of a portion of past grants in the event that we did not meet our obligations under the applicable agreements. Based on correspondence with EDB, we believe we have satisfied the conditions applicable to our EDB grant revenue through June 28, 2008.

Although the NIH grant is scheduled to terminate in June 2008, we expect grant revenue from the EDB research grants to increase in 2008 and remain at such levels through 2011. As a result, we expect our total grant revenue in 2008 through 2011 to be consistent with 2007 levels.

Table of Contents

Cost of Product Revenue and Gross Margin

The following table presents our cost of revenue and gross margin for each period presented (in thousands).

				Six Months Ended	
	2005	2006	2007	June 30, 2007	June 28, 2008
Cost of product revenue	$ 4,764	$ 2,773	$ 3,514	$ 1,490	$ 2,988
Gross margin	22%	30%	21%	0%	32%

Cost of product revenue includes manufacturing costs incurred in the production process, including component materials, assembly labor and overhead, testing, installation, warranty, packaging and delivery costs. In addition, cost of product revenue includes royalty expenses for licensed technologies included in our products, provisions for warranties and stock-based compensation expense. Costs related to collaboration and government grant revenue are included in research and development expense.

Cost of product revenue increased $1.5 million, or 100%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007. The increase related to the increase in product revenue from both higher instrument and IFC sales. Cost of product revenue in the first six months of 2007 was adversely affected by start-up costs for our new Singapore manufacturing facility and underutilized capacity as we transitioned manufacturing from the United States to Singapore. Cost of product revenue for 2007 increased $0.7 million, or 27%, compared to 2006, primarily driven by higher instrument sales, start-up costs for our new Singapore manufacturing facility and underutilized capacity as we transitioned manufacturing from the United States to Singapore. Cost of product revenue for 2006 decreased by $2.0 million, or 42%, when compared to 2005, primarily driven by a decrease in sales of our Topaz instruments during 2006. We expect our unit costs to decline in future periods as a result of our ongoing efforts to automate our manufacturing processes and expected increases in production volumes and yields. However, improvement in unit costs may be offset by increasing price competition, which could cause our gross margins to fluctuate from year-to-year and quarter-to-quarter.

Operating Expenses

The following table presents our operating expenses for each period presented (in thousands):

				Six Months Ended	
	2005	2006	2007	June 30, 2007	June 28, 2008
Operating expenses:					
Research and development	$ 11,449	$ 15,589	$ 14,389	$ 7,053	$ 7,151
Selling, general and administrative	7,955	9,699	12,898	6,183	9,843
Total operating expenses	$ 19,404	$ 25,288	$ 27,287	$ 13,236	$ 16,994

Research and Development

Research and development expense consists primarily of personnel costs, independent contractor costs, prototype expenses and other allocated facilities and information technology expenses. We have made substantial investments in research and development since our inception. Our research and development efforts have focused primarily on the tasks required to optimize our technologies and to support commercialization of the products and services derived from these technologies.

Research and development expense decreased $0.1 million, or 1%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007. The decrease relates to a decrease of $0.2 million in supply costs and $0.3 million in license costs partially offset by a $0.7 million increase in compensation costs due to increased research and development headcount. Research and development expense decreased in 2007 by $1.2 million, or 8%, compared to 2006, primarily due to decreased contractor costs of $0.6 million and decreased research and development license costs of $0.3 million. Research and development expense for 2006 increased by $4.1 million, or 36%, compared to 2005, primarily due to increased compensation costs of $2.1 million due mostly to a significant increase in research and development headcount and $0.1 million related to the adoption of SFAS 123(R) during 2006, $0.6 million attributable to increased contractor expenses and $0.6 million in increased license costs and royalties. We believe that our continued investment in research and development is essential to a long-term competitive position and expect these expenses, including stock-based compensation, to increase in future periods.

Selling, General and Administrative

Selling, general and administrative expense consists primarily of personnel costs for our sales and marketing, business development, finance, legal, human resources and general management, as well as professional services, such as legal and accounting services.

Selling, general and administrative expense increased $3.7 million, or 59%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007. The increase relates to a $0.6 million increase for accounting and consulting services, a $1.7 million increase in compensation costs due to increased head count, a $0.6 million increase in patent filings, a $0.3 million increase in advertising and promotions, and a $0.2 million increase in supplies. Selling, general and administrative expense for 2007 increased by $3.2 million, or 33%, compared to 2006, primarily due to increased compensation costs of $1.4 million due mostly to an increase in headcount and a $0.3 million increase in stock-based compensation over 2006, an increase of $1.8 million in spending primarily for accounting and legal services, $0.3 million resulting from increased advertising and promotions, and $0.2 million attributable to increased supplies for customer demonstrations. However, this increase was partially offset by a decrease of $0.6 million due to fewer patent filings. Selling, general administrative expense for 2006 increased by $1.7 million, or 22%, compared to 2005, primarily due to increased compensation costs of $0.7 million due to an increase in headcount, an increase of $0.6 million in spending primarily for accounting and legal services, and $0.4 million due to the filing of additional patents. We expect selling, general and administrative expense, including stock-based compensation, to significantly increase in 2008 and future periods as we continue to grow our sales, technical support, marketing and administrative headcount, support increased product sales, broaden our customer base and incur additional costs to support the growth in our business.

Interest Income and Expense

We receive interest income from our cash and cash equivalents and our available-for-sale security balances held with certain financial institutions. Conversely, we incur interest expense from our long-term debt and convertible promissory notes and the amortization of our debt discounts related to these items. The following table presents our interest income and expense for each period presented (in thousands).

				Six Months Ended	
	2005	2006	2007	June 30, 2007	June 28, 2008
Interest income	$ 340	$ 565	$ 1,140	$ 565	$ 557
Interest expense	(898)	(2,261)	(2,790)	(1,790)	(1,100)

Interest income decreased by $8,000, or 1%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007. Interest income for 2007 increased by $0.6 million compared to 2006. The increase in interest income was due to higher cash and available-for-sale securities balances during 2007 as compared to 2006. Interest income for 2006 increased by $0.2 million compared to 2005. The increase in interest income was also primarily due to higher cash and available-for-sale securities balances during 2006 as compared to 2005. We expect interest income to increase as we invest a portion of the net proceeds from this offering in available-for-sale securities.

Interest expense decreased $0.7 million, or 39%, for the six months ended June 28, 2008 compared to the six months ended June 30, 2007 due to lower average debt balance due to conversion of the $10.0 million promissory notes in March 2007. Interest expense for 2007 increased by $0.5 million compared to 2006. The increase was primarily due to higher debt balances during 2007 as compared to 2006 primarily due to the $5.0 million convertible promissory note issued in April 2007. Interest expense for 2006 increased by $1.4 million compared to 2005. The increase was primarily due to higher debt balances from the $13.0 million loan and security agreement that was fully drawn by December 2005. In February 2008, this loan and security agreement was amended to provide us with an additional credit line in the amount of $10.0 million. We borrowed the full $10.0 million under this additional credit line in June 2008 and, as a result, we expect our interest expense to increase in future periods.

Cumulative Effect of Change in Accounting Principle

Upon adoption of FSP 150-5 on July 1, 2005, we reclassified the fair value of warrants to purchase shares of our convertible preferred stock from stockholders equity to liabilities and recorded a cumulative effect of a change in accounting principle in the amount of $0.6 million during 2005 in the statement of operations.

Liquidity and Capital Resources

Sources of Liquidity

As of June 28, 2008, we had $29.0 million of cash and cash equivalents and $3.5 million of available-for-sale securities. As of June 28, 2008, our working capital was $28.6 million, and we had an accumulated deficit of $149.1 million. Since our inception, we have principally funded our operations through issuances of convertible preferred stock, which has provided us with aggregate net proceeds of $167.5 million, of which $20.0 million was provided by entities affiliated with EDB in the form of convertible promissory notes that converted into convertible preferred stock. We have also received significant funding in the form of loans that have provided us with aggregate net proceeds of $26.6 million.

We have received funding in the form of grants from government entities, the most significant of which have been associated with two grant agreements with EDB that have helped support the establishment and operation of our Singapore manufacturing, research and development facilities in October 2005.

The maximum amount of grant revenue available to us under our first grant agreement with EDB from June 28, 2008 through July 31, 2010 is SG$5.2 million (approximately US$3.8 using a June 28, 2008 exchange rate), and the maximum amount of grant revenue available to us under our second grant agreement with EDB from June 28, 2008 through May 31, 2011 is SG$2.5 million (approximately US$1.8 million). To maintain eligibility for incentive grant payments under these agreements, we are required to achieve development and manufacturing milestones as agreed to by the parties. In addition, to maintain eligibility for incentive grant payments under our first grant agreement, we are required to incur annual spending in Singapore of at least SG$6.5 million (approximately US$4.8 million) in 2008 and 2009 and at least SG$8.0 million (approximately US$5.9 million) in 2010. To maintain eligibility for grant payments under our second grant agreement, we are required to incur annual spending in Singapore of at least SG$6.5 million (approximately US$4.8 million) for the 12 months ending May 31, 2009 and 2010 and at least SG$9.0 million (approximately US$6.6 million) for the 12 months ending May 31, 2011. For this purpose, spending in Singapore includes overhead, salaries, outsourcing and subcontracting expenses, operating expenses and royalties paid, with limited exceptions such as raw materials purchases. Expenditures that are used to satisfy the requirements of one grant agreement are not eligible for satisfaction of the other grant agreement. To qualify for payment under the second grant agreement, expenditures must relate to the development of instrumentation for our IFC systems and not our IFCs themselves. Our first grant agreement also requires that we employ at least 24 research scientists and engineers in Singapore by December 31, 2009, and our second grant agreement requires that we employ at least 10 new research scientists and engineers in Singapore by May 31, 2009, that we employ at least 12 new research scientists and engineers in Singapore by May 31, 2011 and that we maintain at least 12 research scientists and engineers in total until May 31, 2013. The requirements of the second grant agreement may only be satisfied by personnel employed in the research and development of IFC instrumentation. As of June 28, 2008, we employed 16 research scientists and engineers involved in the research and development of our IFCs and 10 research scientists and engineers involved in the research and development of related instrumentation in Singapore. We cannot assure you that we will take all actions required to remain eligible for grants under our agreements with EDB and, in the event that we do not comply with such requirements, whether intentionally or unintentionally, we may not receive further grants under such agreements. In the event that we do not receive grant funding from EDB in the future, we do not believe that our liquidity would be materially affected.

We have entered into multiple convertible note purchase agreements with Biomedical Sciences Investment Fund Pte. Ltd., or BMSIF, pursuant to which we issued convertible notes and received proceeds in the amount of

$20.0 million through June 28, 2008. BMSIF is wholly-owned by EDB Investments Pte. Ltd., whose parent entity is EDB. Ultimately, each of these entities is controlled by the government of Singapore. As of June 28, 2008, there were no outstanding principal and accrued interest balances for our convertible note purchase agreements with BMSIF as the final remaining note was converted into shares of our Series E preferred stock in April 2008.

In November 2002, we entered into a master security agreement with a lender under which we borrowed $3.6 million to be used for purchases of capital equipment, software and tenant improvements. The outstanding principal and accrued interest balance for this loan was paid in February 2008. Upon full payment of the debt in February 2008, restricted cash in the amount of $0.5 million was released by the lender.

In March 2005, we entered into a loan and security agreement with a lender under which we borrowed $13.0 million to be used for general corporate purposes. We are currently making equal monthly payments of $0.3 million towards the loan which is to be paid off in February 2010. The loan is subject to prepayment penalties if paid off prior to 2010. In February 2008, this loan and security agreement was amended to provide us with an additional credit line in the amount of $10.0 million that we could draw upon until July 1, 2008 for general corporate purposes. In June 2008, the Company drew down the $10,000,000. The loan will bear interest at 11.5% per annum. Interest only payments will be made monthly through the remainder of 2008 with monthly payments of principal and interest in the amount of $369,000, beginning in January 2009, to be made through June 2011. The agreement also requires a final payment in the amount of $650,000 in June 2011. As of June 28, 2008, the outstanding principal and accrued interest balance for this loan and security agreement was $16.6 million, net of unamoritized debt discounts of $0.4 million.

The loan and security agreement contains customary covenants that, among other things, require us to deliver both annual audited and periodic unaudited financial statements by specified dates and maintain collateral on company premises and restrict our ability, without the consent of the lender, to incur additional debt, pay dividends or make certain other distributions, or payments in respect of our capital stock, engage in transactions with affiliates or engage in the sale, lease or license of our assets outside of the ordinary course of business. As of June 28, 2008, we were in compliance with the above covenants with the exception of the timely delivery of our audited financial statements for 2007. In this instance, we obtained a waiver from the lender and subsequently complied with the covenant. We are currently unaware of any circumstances that would prevent us from complying with these covenants in the future.

Net Cash Used in Operating Activities

We derive cash flows from operations primarily from cash collected from the sale of our products and related services, collaboration agreements and grants from certain government entities. Our cash flows from operating activities are also significantly influenced by our use of cash for operating expenses to support the growth of our business. We have historically experienced negative cash flows from operating activities as we have expanded our business and built our infrastructure domestically and internationally and we expect this trend to continue for the foreseeable future as our business grows and we continue to expand into new markets.

Net cash used by operating activities was $16.0 million for the six months ended June 28, 2008. Net cash used by operating activities primarily consisted of a net loss of $15.3 million, changes in our operating assets and liabilities in the amount of $3.2 million and foreign exchange gain in the amount of $0.1 million, which were partially offset by non-cash expense items such as depreciation and amortization of our property and equipment in the amount of $0.8 million, adjustments to the fair value of convertible preferred stock warrants in the amount of $0.4 million, amortization of debt discounts and issuance cost of $0.4 million, and stock-based compensation in the amount of $1.0 million.

Net cash used by operating activities was $21.8 million during 2007. Net cash used by operating activities primarily consisted of a net loss of $25.5 million, which was partially offset by non-cash expense items such as depreciation and amortization of our property and equipment in the amount of $1.6 million, amortization of debt discounts in the amount of $0.5 million, stock-based compensation in the amount of $0.7 million, and changes in our operating assets and liabilities in the amount of $0.4 million.

Net cash used by operating activities was $22.3 million during 2006. Net cash used by operating activities primarily consisted of a net loss of $23.6 million and changes in our operating assets and liabilities in the amount of $1.2 million. The cash used by operating activities for these items was partially offset by non-cash expense items such as depreciation and amortization of our property and equipment in the amount of $1.4 million, amortization of our debt discounts in the amount of $0.1 million, stock-based compensation in the amount of $0.1 million, and the issuance of convertible preferred stock under a license agreement in the amount of $0.6 million.

Net cash used by operating activities was $14.3 million during 2005. Net cash used by operating activities primarily consisted of a net loss of $16.4 million. The cash used by operating activities was partially offset by non-cash expense items such as depreciation and amortization of our property and equipment in the amount of $1.3 million and increases in our operating assets and liabilities in the amount of $1.4 million.

Net Cash Used in Investing Activities

Historically, our primary investing activities have consisted of capital expenditures for laboratory, manufacturing and computer equipment and software to support our expanding infrastructure and work force; restricted cash related to leased space and lending agreements; and purchases, sales and maturities of our available-for-sale securities. We expect to continue to expand our manufacturing capability, primarily in Singapore, and expect to incur additional costs for capital expenditures related to these efforts in 2008.

We generated $3.2 million of cash in investing activities for the six months ended June 28, 2008 primarily from maturities of available-for-sale securities in the amount of $4.3 million, sales of available-for-sale securities in the amount of $3.0 million and a reduction of restricted cash of $0.6 million, partially offset by purchases of available-for-sale securities in the amount of $4.5 million and purchases of capital equipment of $0.2 million.

We used $6.7 million of cash in investing activities during 2007, primarily for purchases of available-for-sale securities in the amount of $6.3 million and $1.0 million for capital expenditures related to purchases of equipment, including $0.6 million for our Singapore manufacturing facility, partially offset by maturities of available-for-sale securities in the amount of $0.5 million.

We used $2.9 million of cash in investing activities during 2006, primarily for capital expenditures in the amount of $2.9 million related to purchases of equipment, including $1.9 million for our Singapore manufacturing facility.

During 2005, investing activities provided cash of $6.8 million. This cash was generated primarily from sales and maturities of available-for-sale securities in the amount of $8.9 million, partially offset by purchases of available-for-sale securities in the amount of $0.5 million and capital expenditures in the amount of $1.7 million. Our capital expenditures during 2005 included $0.8 million related to purchases of manufacturing equipment for our Singapore facility, which began operations during the year.

Net Cash Provided by Financing Activities

Historically, we have principally funded our operations through issuances of convertible preferred stock.

During the six months ended June 28, 2008, we generated $7.6 million of cash from financing activities primarily due to proceeds from our amended loan and security agreement in the amount of $10.0 million, partially offset by repayment of long-term debt. During 2007, we generated $37.6 million of cash from financing activities primarily due to $35.9 million of net proceeds from sales of our Series E preferred stock and $5.0 million of proceeds from the issuance of convertible promissory notes, partially offset by repayments of our long-term debt in the amount of $3.5 million. During 2006, we generated approximately $31.1 million of cash from financing activities primarily due to $22.0 million of net proceeds from sales of our Series E preferred stock and $13.0 million of proceeds from the issuance of convertible promissory notes, partially offset by repayments of our long-term debt in the amount of $4.0 million. During 2005, we generated approximately $23.0 million of cash from financing activities, primarily due to $10.0 million of net proceeds from sales of our Series D preferred stock and $14.7 million of net proceeds from the issuance of long-term debt, partially offset by repayments of our long-term debt in the amount of $1.7 million.

Table of Contents

Capital Resources

We believe our existing cash and cash equivalents, available-for-sale securities, amounts available under current credit lines and the net proceeds from this offering, will be sufficient to meet our working capital and capital expenditure needs for at least the next 18 months. However, we may need to raise substantial additional capital to expand the commercialization of our products, fund our operations, continue our research and development, defend, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights, commercialize new products and acquire companies and in-license products or intellectual property. Our future funding requirements will depend on many factors, including market acceptance of our products, the cost of our research and development activities, the cost of filing and prosecuting patent applications, the cost of defending, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights, the cost and timing of regulatory clearances or approvals, if any, the cost and timing of establishing additional sales, marketing and distribution capabilities, the cost and timing of establishing additional technical support capabilities, the effect of competing technological and market developments, and the extent to which we acquire or invest in businesses, products and technologies, although we currently have no commitments or agreements relating to any of these types of transactions. We currently expect to use the proceeds from this offering to expand our sales force, to support the ongoing commercialization of our products, for research and product development activities, to expand our facilities and manufacturing operations, and for working capital and other general corporate purposes. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the proceeds from this offering or the amounts that we will actually spend on the uses set forth above.

We may require additional funds in the future and we may not be able to obtain such funds on acceptable terms, or at all. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets, or delay, reduce the scope of or eliminate some or all of our development programs. If we do not have, or are not able to obtain, sufficient funds, we may have to delay development or commercialization of our products or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations. Any of these factors could harm our operating results.

Off-Balance Sheet Arrangements

Since our inception, we have not had any off-balance sheet arrangements as defined in Item 303(a)(4) of the Securities and Exchange Commission s Regulation S-K.

Contractual Obligations and Commitments

The following summarizes our contractual obligations as of December 29, 2007 (in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	Thereafter
Operating lease obligations	$ 4,459	$ 1,436	$ 2,782	$ 241	$

Long-term debt	10,908	4,478	6,430		
Convertible promissory notes	5,278		5,278		
Purchase obligations	1,015	435	580		
Total	$ 21,660	$ 6,349	$ 15,070	$ 241	$

Our operating lease obligations relate to leases for our current headquarters and leases for office space for our foreign subsidiaries. Principal and interest on our convertible promissory notes are convertible into shares of our Series E preferred stock at the lender s election, at any time, or upon our election upon the achievement of certain milestones or automatically upon the completion of this offering. Purchase obligations consist of contractual and legally binding commitments to purchase goods. We have entered into several patent license agreements in which we are obligated to pay annual license maintenance fees, non-refundable license issuance fees and royalties as a percentage of sales for the sale or sublicense of products using the licensed technology.

We have entered into several license and patent agreements. Under these agreements, we pay annual license maintenance fees, nonrefundable license issuance fees, and royalties as a percentage of net sales for the sale or sublicense of products using the licensed technology. If we elect to maintain these license agreements, we will pay aggregate annual fees of $315,000 in 2008 and $270,000 per year until 2027. Future payments related to these license agreements have not been included in the contractual obligations table above as the period of time over which the future license payments will be required to be made, and the amount of such payments are indeterminable.

On March 7, 2003 we entered into a Master Closing Agreement with Oculus Pharmaceuticals, Inc. and the UAB Research Foundation, or UAB, related to certain intellectual property and technology rights licensed by us from UAB. Pursuant to the agreement, we are obligated to issue UAB shares of our common stock with a value equal to $1.5 million upon the achievement of a certain milestone and based upon the fair market value of our common stock at the time the milestone is achieved. We currently do not anticipate achieving this milestone in the foreseeable future and do not anticipate issuing these shares.

Our manufacturing operations in Singapore, which commenced in October 2005, have generated incentive grant payments from EDB for our research, development and manufacturing activity in Singapore. To remain eligible for future incentive grant payments, we are required to maintain a significant and increasing manufacturing and research and development presence in Singapore. Under our current grant agreements with EDB, we expect our spending related to these grant agreements to increase in order to maintain our manufacturing facility in Singapore. Future expenditures related to these grant agreements have not been included in the contractual obligations table above as the amounts of future expenditures, if any, and the timing of when they will be incurred are still indeterminable.

Subsequent to our year ended December 29, 2007, the remaining outstanding principal and accrued interest balance for a master security agreement in the amount of $1.1 million was paid in February 2008. The loan was originally scheduled to be repaid in monthly installments though July 2009 and, accordingly, was reflected in the table above as such. Also, the convertible promissory notes noted in the table above were converted into shares of our Series E preferred stock during April 2008 in accordance with the convertible note purchase agreements with BMSIF. In June 2008, we drew an additional $10.0 million from our amended loan and security agreement.

Recent Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurement*, or SFAS 157, which defines and establishes a framework for measuring the fair value of assets and liabilities when required or permitted by other standards within generally accepted accounting principles in the United States but does not require any new fair value measurements. SFAS 157 also expands disclosures about fair value measurements. SFAS 157 is effective for all financial statements issued for fiscal years beginning after November 15, 2007. However, in February 2008 the FASB issued FSP No. 157-2, or FSP 157-2 which delays the effective date of SFAS 157 in accordance with the provisions in FSP 157-2 as of January 1, 2008. The adoption of SFAS 157 did not have a significant impact on our consolidated financial statements and the resulting fair values calculated in accordance with SFAS 157 were not significantly different than the fair values that would have been calculated in accordance with the previous guidance.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, or SFAS 159, including an amendment of SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, which allows an entity to choose to measure certain financial instruments and liabilities at fair value. Subsequent measurements for the financial instruments and liabilities an entity elects to measure at fair value will be recognized in earnings. SFAS 159 also establishes additional disclosure requirements. SFAS 159 is effective for fiscal years beginning after November 15, 2007. The adoption of SFAS 159 did not have a significant impact on our consolidated financial statements.

In December 2007, the FASB ratified EITF Issue No. 07-1, *Accounting for Collaborative Agreements*, or EITF 07-1, which addresses the accounting for participants in collaborative agreements, defined as contractual arrangements that involve a joint operating activity, that are conducted without the creation of a separate legal entity. EITF 07-1 requires participants in a collaborative agreement to make separate disclosures for each period a statement of operations is presented regarding the nature and purpose of the agreement, the rights and obligations under the agreement, the accounting policy for the agreement, and the classification of and amounts arising from the agreement between participants. These arrangements involve two or more parties who are both active participants in the activity and that are exposed to significant risks and rewards dependent on the commercial success of the activity. EITF 07-1 provides that a company should report the effects of adoption as a change in accounting principle through retrospective application to all periods and requires specific additional disclosures. EITF 07-1 is effective for interim and annual reporting periods beginning after December 15, 2008. We are currently assessing the impact the adoption of EITF 07-1 will have on our consolidated financial statements.

In June 2007, the FASB ratified EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities*, or EITF 07-3. EITF 07-3 provides clarification surrounding the accounting for nonrefundable research and development advance payments, whereby such payments should be recorded as an asset when the advance payment is made and recognized as an expense when the research and development activities are performed. EITF 07-3 is effective for interim and annual reporting periods beginning after December 15, 2007. We adopted EITF 07-3 as of December 30, 2007. The adoption of EITF 07-3 did not have a significant impact on our consolidated financial statements.

Quantitative and Qualitative Disclosures about Market Risk

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in foreign currency exchange rates and interest rates. We do not hold or issue financial instruments for trading purposes.

Foreign Currency Exchange Risk

As we expand internationally our results of operations and cash flows will become increasingly subject to fluctuations due to changes in foreign currency exchange rates. Our revenue is generally denominated in the local currency of the contracting party. Historically, the substantial majority of our revenue has been denominated in U.S. dollars. Our expenses are generally denominated in the currencies in which our operations are located, which is primarily in the United States, with a portion of expenses incurred in Singapore where our other manufacturing facility is located. Our results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates. Fluctuations in currency exchange rates could harm our business in the future. The effect of a 10% adverse change in exchange rates on foreign denominated cash, receivables and payables as of June 28, 2008 would have been approximately $0.4 million foreign exchange loss recognized as a component of other expense within our consolidated statement of operations. To date, we have not entered into any foreign currency hedging contracts although we may do so in the future.

Interest Rate Sensitivity

We had cash and cash equivalents of $25.0 million, $34.1 million and $29.0 million and available-for-sale securities of $0.5 million, $6.3 million and $3.5 million as of December 31, 2006, December 29, 2007 and June 28, 2008. These amounts were held primarily in cash on deposit with banks, money market funds, commercial paper, corporate notes or notes from government-sponsored agencies, which are short-term. Cash and cash equivalents and available-for-sale securities are held for working capital purposes and restricted cash amounts are held as letters of credit for collateral for a security agreement with a lender and for our facility lease agreements. Due to the short-term nature of these investments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. Declines in interest rates, however, will reduce future investment income. If overall interest rates had decreased by 10% during 2007 or the six months ended June 28, 2008, our interest income would not have been materially affected.

As of December 31, 2006, December 29, 2007 and June 28, 2008, the principal amount of our long-term debt outstanding was $12.8 million, $9.4 million and $16.6 million and the principal and accrued interest amount of our convertible promissory notes outstanding was $13.1 million, $5.0 million and $0. The interest rates on a small portion of our long-term debt and convertible promissory notes are fixed, however, a portion of our long-term debt outstanding has interest rates that are variable and adjust periodically until December 31, 2008 based on the prime rate however, thereafter the interest rates are fixed. If overall interest rates had increased by 10% during 2007 or the six months ended June 28, 2008, our interest expense would not have been materially affected.

Fair Value of Financial Instruments

We do not have material exposure to market risk with respect to investments as our investments consist primarily of highly liquid securities that approximate their fair values due to their short period of time to maturity. We do not use derivative financial instruments for speculative or trading purposes, however, we may adopt specific hedging strategies in the future.

Controls and Procedures

In January 2008, in connection with the audit of our consolidated financial statements for 2005 and 2006, we determined that we had material weaknesses relating to our financial statement close and accrual process, revenue recognition, inventory costing, cost of sales, purchases cut-off and stock-based compensation. A material weakness is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company s annual or interim financial statements will not be prevented or detected on a timely basis by the company s internal controls. These material weaknesses were as follows:

- we did not have a sufficient number of personnel in the accounting and finance department with sufficient proficiency and technical accounting expertise;
- we did not have effective controls in place or designed to evaluate the accounting implications of our business transactions during 2005 and 2006 and to determine if such matters had been properly accounted for in a timely manner; and
- we had not designed or maintained effective operating controls over the financial statement close and reporting process in order to ensure the accurate and timely preparation of our financial statements in accordance with generally accepted accounting principles.

These material weaknesses resulted in the recording of numerous audit adjustments for 2005 and 2006. We have taken steps intended to remediate these material weaknesses through:

- the hiring of additional accounting and finance personnel with technical accounting and financial reporting experience, including Vikram Jog, our new Chief Financial Officer, who joined us in February 2008;
- the engagement of a consulting firm to provide further accounting expertise to complement the skills of our existing team;
- the engagement of an accounting firm to advise us on local and international tax planning and compliance;
- the hiring of an experienced finance manager for Fluidigm Singapore Pte. Ltd., who joined us in May 2008;

increased scheduled communication and coordination among our finance teams in the United States and our foreign subsidiaries;

enhanced coordination among, and training of, accounting, sales, technical support and legal personnel on transactional issues;

enhancements to our financial statement close process and financial close calendar to help enable processes and procedures to be completed on a timely basis; and

installation of common accounting software and systems in our U.S. and Singapore offices.

Table of Contents

In April and May 2008, following the audit of our consolidated financial statements for 2007 and the review of our financial statements for the three months ended March 29, 2008, we reviewed our internal control over financial reporting and concluded that we had certain significant deficiencies, none of which were determined to be material weaknesses. A significant deficiency is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of a company s financial reporting. These significant deficiencies were as follows:

