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

**AMENDMENT NO. 3 TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

FLUIDIGM CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

3826
(Primary Standard Industrial
Classification Code Number)

77-0513190
(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)

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

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

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

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

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

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

Large accelerated filer

Accelerated filer

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

Smaller reporting company

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.

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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 it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, Dated January 28, 2011



**5,172,414 Shares
Common Stock**

This is the initial public offering of Fluidigm Corporation. We are offering 5,172,414 shares of our common stock. We anticipate that the initial public offering price will be between \$13.50 and \$15.50 per share. We intend 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 10.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

	<u>Per Share</u>	<u>Total</u>
Public offering price	\$	\$
Underwriting discounts and commissions(1)	\$	\$
Proceeds, before expenses, to Fluidigm Corporation	\$	\$

(1) We refer you to "Underwriting" beginning on page 139 for additional information regarding total underwriter compensation.

We have granted the underwriters the right to purchase up to 775,862 additional shares of common stock to cover over-allotments.

The underwriters expect to deliver the shares on or about _____, 2011.

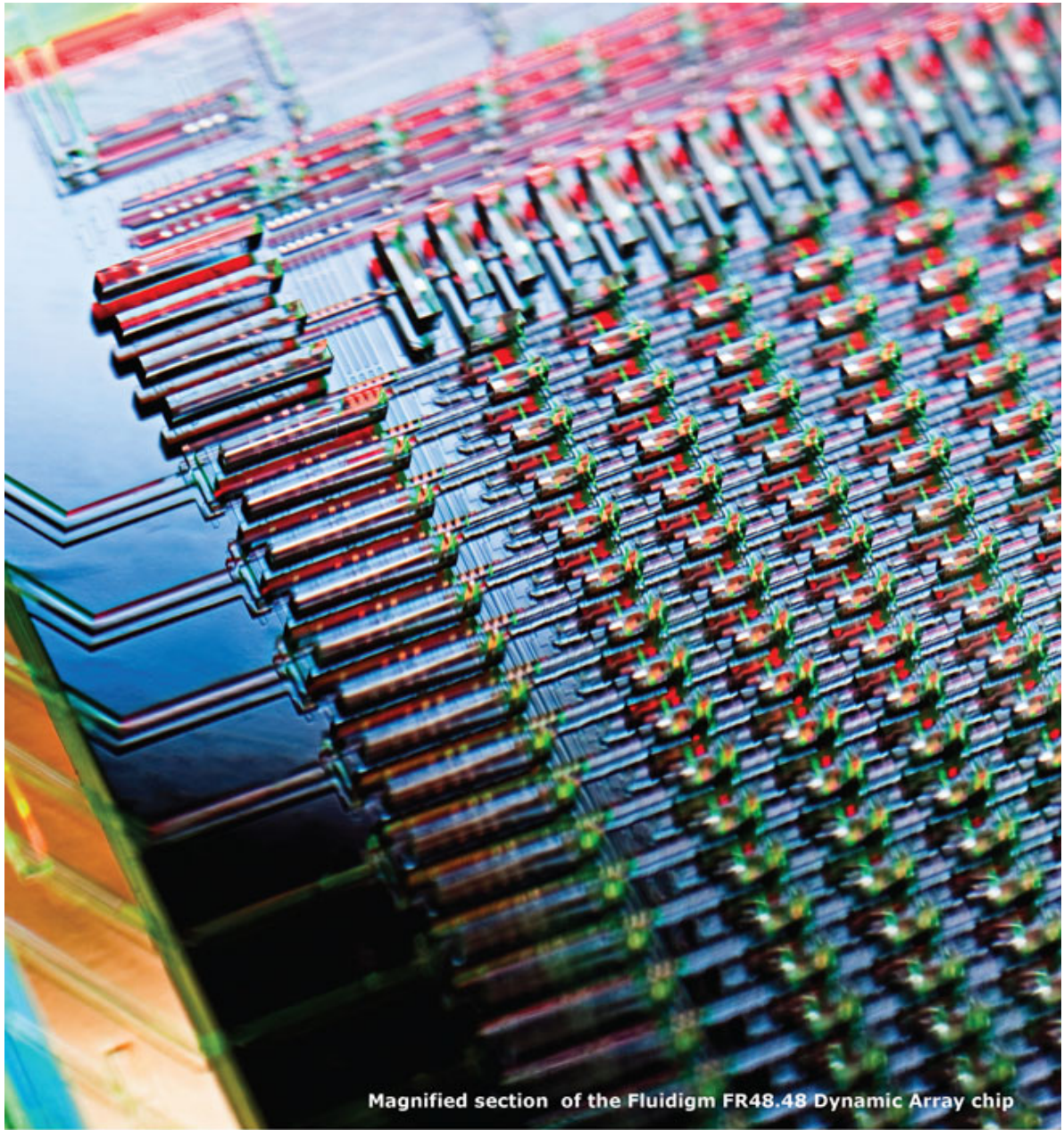
Deutsche Bank Securities

Cowen and Company

The date of this prospectus is _____, 2011

Piper Jaffray

Leerink Swann



Magnified section of the Fluidigm FR48.48 Dynamic Array chip

Fluidigm 

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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.

Dealer Prospectus Delivery Obligation

Through and including _____, 2011 (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.

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 10 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 microfluidic systems for growth markets in the life science and agricultural biotechnology, or Ag-Bio, industries. Our proprietary microfluidic systems consist of instruments and consumables, including chips and reagents. These systems are designed to significantly simplify experimental workflow, increase throughput and reduce costs, while providing the excellent data quality demanded by customers. In addition, our proprietary technology enables genetic analysis that in many instances was previously impractical. We actively market three microfluidic systems including eight different commercial chips to leading pharmaceutical and biotechnology companies, academic institutions, diagnostic laboratories and Ag-Bio companies. We have sold systems to over 200 customers in over 20 countries worldwide.

To achieve and exploit advances in life science research, Ag-Bio and molecular diagnostics, laboratories need robust systems that deliver increased throughput and simpler workflows at decreased costs. Our microfluidic systems are designed to overcome many of the limitations of conventional laboratory systems by integrating an increasing number of fluidic components on a single microfabricated chip. Our technology enables our customers to perform and measure thousands of sophisticated biochemical reactions on samples smaller than the content of a single cell, while utilizing minute volumes of reagents and samples. Similarly, for next generation DNA sequencing, our systems enable rapid preparation of multiple samples in parallel at low cost.

We have successfully commercialized our BioMark and EP1 systems for genetic analysis and our Access Array system for next generation DNA sequencing sample preparation. Researchers and clinicians have successfully employed our products to help achieve breakthroughs in a variety of fields, including genetic variation, cellular function and structural biology. These include using our microfluidic systems to help detect life-threatening mutations in patients’ cancer cells, discover cancer associated biomarkers, analyze the genetic composition of individual stem cells, identify fetal chromosomal abnormalities and assess the quality of agricultural seed products. We believe our Access Array system resolves a critical workflow bottleneck that exists in all commercial next generation DNA sequencing platforms. We expect that the versatility of our microfluidic technology will enable us to develop additional applications across a wide variety of markets.

We have grown our revenue from \$6.4 million in 2006, to \$25.4 million in 2009 and \$23.2 million in the nine months ended September 30, 2010, during which time our product margin has increased from 30% in 2006, to 51% in 2009 and to 62% for the nine months ended September 30, 2010. We have incurred significant net losses since our inception, including net losses of \$23.6 million in 2006, \$19.1 million in 2009 and \$13.8 million during the nine months ended September 30, 2010, with an accumulated deficit of \$196.2 million as of September 30, 2010.

We attribute our success and continued growth prospects to the following:

- *Disruptive and Enabling Technology.* Our microfluidic systems, which are broadly compatible with existing lab equipment and chemistries, enable users to perform 24 times more gene expression experiments than conventional microplate systems, at one time and in nanoliter volumes, delivering

meaningful improvements in cost, capability, time and accuracy over conventional methods of laboratory and industrial research. In addition, our technology enables scientists to perform experiments that we believe are impractical using conventional systems, such as digital PCR experiments, where our systems enable users to perform 36,960 simultaneous reactions on a single chip.

- *Commercially Validated High Margin Business Model.* We have an installed base of over 250 instruments which generate high margin recurring revenue from consumables, including chips and reagents. Our product margins are supported by our highly efficient manufacturing operations that are based in Singapore and take advantage of the skilled workforce, supplier and partner networks and government support available there.
- *Leadership Positions in Multiple High Growth Markets.* We believe our microfluidic systems are well positioned to address numerous applications in the life science and Ag-Bio markets, including single cell genomics, digital PCR, agricultural genotyping and sample preparation for next generation DNA sequencing.
- *Significant Growth Opportunities in Additional Markets.* Researchers have successfully used our microfluidic systems in such diverse fields as immunoassays, high throughput drug screening, chemical synthesis, pharmacogenomics, systems biology, synthetic biology, stem cell research, cell culture and cellular assays. Our proprietary technology is broadly applicable to biotechnology automation and could be further developed for a wide variety of additional applications, including molecular diagnostics. Through further expansion of our assay and reagent offerings, we intend to provide more comprehensive solutions across all of our target markets.
- *Strong Research and Development Capabilities and Intellectual Property Position.* We are a pioneer in the development of microfluidic systems and have a demonstrated ability to advance systems from concept through commercialization. We have developed an extensive portfolio of intellectual property, including more than 110 issued U.S. patents and 220 patent applications pending worldwide either owned by or licensed to us.
- *Well-Published and Loyal Customer Base that Expands Market Awareness of our Products.* Since January 2009, users of our systems have published over 60 peer-reviewed articles regarding experiments using our technology. We actively market our products to thought leaders in their respective fields and have found references from existing customers to be an important factor in marketing our solutions to prospective customers.

Our Target Markets

The current markets for our products include life science research and Ag-Bio. Total expenditures in the life science research and Ag-Bio markets described below are projected to exceed \$4.3 billion by 2015. In addition, we are developing products for use in molecular diagnostics and other markets.

Life Science Research

Our primary area of focus within life science research is genomics, the study of genes and their functions. Gene expression and genotyping are studied through a combination of various technology platforms that characterize gene function and genetic variation. These platforms rely on polymerase chain reaction, or PCR, amplification to generate exponential copies of a DNA sample to provide sufficient signal to facilitate detection. Real-time quantitative PCR, or real-time qPCR, is a more advanced form of PCR that makes it possible to identify the number of copies of DNA present in a sample. We are currently focused on the following applications:

- *Gene Expression Analysis.* Measures the activity of genes to identify genetic variations that may correspond to predisposition of disease or response to therapeutics;

- *Genotyping.* Determines DNA sequence variants, such as single nucleotide polymorphisms, or SNPs, across individual genomes to assess the correlation of specific genotypes to physical traits of interest;
- *Digital PCR.* Discretely quantifies the amount of nucleic acid present in a sample, facilitating assays that require much greater precision than currently provided by conventional PCR techniques, including measuring variations in the number of copies of a gene found in a genome, or copy number variation;
- *Single Cell Analysis.* Performs gene expression analysis on single cells to further understand how biological systems operate at the cellular level; and
- *Sample Preparation for Next Generation DNA Sequencing.* Isolates, amplifies and tags target molecules to simplify library preparation, increasing the efficiency of next generation DNA sequencing platforms for applications such as targeted resequencing.

Agricultural Biotechnology

Industrial customers in Ag-Bio typically analyze the genomes of tens of thousands to hundreds of thousands of seeds or livestock annually in cost-sensitive production environments. Commercially viable genetic analysis tools in Ag-Bio must be inexpensive, easy to use and provide extremely high throughput.

Molecular Diagnostics

Molecular diagnostic tests are used in clinical practice to diagnose, classify or monitor a disease; determine a patient's susceptibility to a disease; or monitor a patient's response to therapy, by detecting one or more biomarkers in a patient sample. Within molecular diagnostics, our initial area of focus is in non-invasive prenatal diagnostics, or NIPD, for fetal aneuploidies, for which the most reliable diagnostic tests currently available are invasive and carry significant risks to the fetus. In collaboration with Novartis Vaccines & Diagnostics, Inc., or Novartis V&D, we are developing a microfluidic system to target this application. This system is in its early stage of development and, prior to commercialization, FDA approval or clearance may be required.

The Fluidigm Solution

Our proprietary microfluidic systems are designed to significantly simplify experimental workflow, increase throughput, reduce costs, provide excellent data quality and in many instances enable genetic analysis that was previously impractical. Our microfluidic systems empower researchers and commercial customers to rapidly perform significantly more experiments or prepare significantly more samples—all at one time and in nanoliter volumes—with a combination of speed and accuracy that we believe cannot be achieved with other systems. Our systems deliver these advantages through the integration of sophisticated nanoliter fluid handling in an easy-to-use format that is compatible with most existing laboratory workflows and chemistries. Our systems are used in existing and emerging life science research and Ag-Bio markets, and we believe our systems and technology may be suitable for applications in additional markets. A significant portion of our research and development efforts are currently focused on potential applications of our technology in molecular diagnostics and we expect such development focus to continue.

We believe that our microfluidic systems have a number of compelling advantages over conventional microplate systems and other competing platforms including:

- *Data Quality.* Our microfluidic systems provide exceptionally high quality data. In genotyping, our systems achieve greater than 99% call rate and call accuracy. For gene expression, our systems achieve 6 orders of magnitude of dynamic range with inter- and intra-chip reproducibility at correlation coefficients greater than 0.99.

- *Improved Throughput.* Our base BioMark system can generate over 27,000 gene expression data points per day and high throughput configurations of our system can generate over 110,000 data points per day, with a time to first result measured in hours. Some competing systems may offer comparable data points per day, but may take up to a week for first results. Other systems offer comparable time to first result, but produce fewer data points per day, often with lower data quality. Our improved throughput reduces the time and cost associated with complex experiments and expands the number and range of experiments that may be conducted.
- *Ease of Use.* Loading our 96.96 Dynamic Array chip requires 192 pipetting steps as compared to 18,432 steps required to load the number of 384 well microplates required for the same experiment. Difficulties encountered with some competing systems include manual sample loading and chip alignment that often results in lower throughput. We believe our microfluidic systems' efficient workflow reduces time, cost and potential for error.
- *Flexibility.* Our chips are built on input frames that are compatible with most commonly used laboratory systems, including existing robotic pipetting systems, bar code readers, plate handling systems and other equipment. Our chips are also designed to work with standard chemistries, including TaqMan and other reagents. In addition, our chips give researchers the flexibility to develop and load their own assays, unlike some competing products that can be used only to analyze specific genes or that are supplied pre-configured with fixed content.
- *Nanoliter Precision.* Our microfluidic systems allow users to dispense samples and reagents in microliter volumes which are automatically partitioned, combined or mixed in nanoliter and sub-nanoliter volumes. In addition to cost and workflow benefits, this capability makes it practical for users to conduct certain high sensitivity, low volume techniques, such as digital PCR and single cell analysis.
- *Cost Effectiveness.* We believe our high throughput systems offer a compelling cost benefit for high volume users. Our systems consume reagents in nanoliter volumes, have the ability to conduct thousands of parallel experiments on one chip and offer customers the flexibility to use lower cost reagents as needed.

Our microfluidic 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. In addition, for very large-scale association or survey projects, researchers may choose to use other tools, such as microarrays, that have the ability to measure thousands of genetic markers with a single device. 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 microfluidic systems.

Products

We provide complete microfluidic systems consisting of instruments and consumables, including chips and reagents. Our systems are easily incorporated into our customers’ laboratory environments and analysis workflow. For example, our chips are the same size and shape as standard 384 microplates and other chip consumables, which facilitates the loading and handling of our chips by standard laboratory equipment. Each of our chips includes an elastomeric, or rubber-like, core that contains an extensive network of microfluidic components that deliver samples and reagents to thousands of nanoliter volume chambers where individual assays are performed. Our primary product offerings are summarized in the table below:

Product	Product Description	Applications
Instruments		
BioMark System	Real-time qPCR instrument, bundled analysis software and chip loading platforms	Digital PCR, SNP Genotyping, Gene Expression
EP1 System	Real-time qPCR instrument, bundled analysis software and chip loading platforms	Digital PCR, SNP Genotyping
Access Array System	Sample preparation system that facilitates parallel amplification of 48 unique samples	Next Generation DNA Sequencing
Consumables		
Dynamic Array Chips	Microfluidic chip based on matrix architecture (where each sample is paired with each assay), allowing users to generate up to 9,216 real-time qPCR reactions simultaneously	Real-time qPCR, SNP Genotyping, Gene Expression
Digital Array Chips	Microfluidic chip based on partitioning architecture, allowing users to divide 48 separate samples into 770 smaller samples	Digital PCR, Gene Expression, Copy Number Variation, Mutation Detection
Access Array Chips	Microfluidic chip that facilitates parallel amplification, barcoding and tagging of 48 unique samples	Next Generation DNA Sequencing
Multi-use Chips	Reusable microfluidic chip that can be used up to five times and is able to produce up to 11,520 genotypes over its lifespan	SNP Genotyping

Strategy

We intend to continue growing as a global leader in providing microfluidic systems to the life science research and Ag-Bio markets. Our business strategy includes the following elements:

- Increase market penetration of our microfluidic systems;
- Increase recurring consumables revenue through instrument sales and product innovation;
- Provide assays and design services that leverage our system strengths in key application areas;

- Provide expanded offerings that complement and support our core technology offerings;
- Leverage our proprietary technology to address new markets;
- Provide superior customer service;
- Enhance chip manufacturing efficiency; and
- Continue to develop our technology and intellectual property position.

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 losses since inception, and we expect to continue to incur substantial losses for the foreseeable future;
- If our products fail to achieve and sustain sufficient market acceptance, our revenue will be adversely affected;
- Our financial results may vary significantly from quarter-to-quarter due to a number of factors, which may lead to volatility in our stock price;
- Our future success is dependent upon our ability to expand our customer base and introduce new applications;
- The life science research and Ag-Bio markets are highly competitive and subject to rapid technological change, and we may not be able to successfully compete;
- We need to expand our resources for marketing, selling and distributing our products and we may not be able to expand our direct sales and marketing force or distribution capabilities to adequately address our customers’ needs;
- Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain; and
- 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.

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, “BioMark,” “Dynamic Array,” “Digital Array,” “Access Array,” “EP1,” “FC1,” “TOPAZ,” “FLUIDLINE,” “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.

THE OFFERING

Common stock offered by us	5,172,414 shares
Common stock to be outstanding after this offering	18,589,649 shares (or 19,365,511 if the underwriters exercise their over-allotment option)
Use of proceeds	We intend to use the net proceeds from this offering for sales and marketing activities, including expansion of our sales force to support the ongoing commercialization of our products; for research and product development activities; for facilities improvements and purchase of manufacturing and other equipment; and for working capital and other general corporate purposes. We also intend to use a portion of the proceeds of this offering to repay approximately \$5.0 million in principal plus accrued interest on promissory notes issued by us in January 2011, of which, notes with an aggregate principal amount of approximately \$1.77 million are held by entities affiliated with certain of our directors, executive officers and holders of more than 5% of a class of our voting stock. See "Certain Relationships and Related Party Transactions—2011 Note Financing." 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. 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 13,417,235 shares of our common stock outstanding as of January 11, 2011 and excludes:

- 2,183,537 shares of common stock issuable upon exercise of options outstanding as of January 11, 2011, at a weighted average exercise price of \$5.00 per share;
- 538,759 shares of common stock issuable upon the exercise of warrants outstanding as of January 11, 2011, at a weighted average exercise price of \$12.46 per share, after conversion of our convertible preferred stock;
- 4,272,096 shares of common stock reserved for future issuance under our stock-based compensation plans, including 1,250,000 shares of common stock reserved for issuance under our 2011 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
- 172 shares of common stock that were issued and outstanding but would not be included in stockholders' deficit January 11, 2011 pursuant to accounting principles generally accepted in the United States, as these shares were subject to a right of repurchase by us.

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

- a 1-for-1.73 reverse stock split of our outstanding stock to be effected prior to the closing of this offering;
- the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 11,480,406 shares of common stock upon the closing of this offering;
- the filing of our eighth amended and restated certificate of incorporation immediately upon the closing of this offering; and
- no exercise by the underwriters of their over-allotment option.

SUMMARY CONSOLIDATED FINANCIAL DATA

We have derived the summary consolidated statement of operations data for the years ended December 29, 2007, December 27, 2008 and December 31, 2009 from our audited consolidated financial statements included elsewhere in this prospectus. The report of our independent registered public accounting firm on our consolidated financial statements for the year ended December 31, 2009, which appears elsewhere in this prospectus, includes an explanatory paragraph that describes an uncertainty about our ability to continue as a going concern. We have derived the summary consolidated statement of operations data for the nine months ended September 30, 2009 and 2010, and the consolidated balance sheet data as of September 30, 2010 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.

	<u>Year Ended</u>			<u>Nine Months Ended</u>	
	<u>December 29, 2007</u>	<u>December 27, 2008</u>	<u>December 31, 2009</u>	<u>September 30, 2009</u>	<u>September 30, 2010</u>
(in thousands, except per share data)					
Consolidated Statement of Operations Data:					
Revenue:					
Product revenue	\$ 4,451	\$ 13,364	\$ 23,599	\$ 16,369	\$ 20,883
Collaboration revenue	460	70	—	—	975
Grant revenue	2,364	1,913	1,813	1,420	1,347
Total revenue	<u>7,275</u>	<u>15,347</u>	<u>25,412</u>	<u>17,789</u>	<u>23,205</u>
Costs and expenses:					
Cost of product revenue	3,514	8,364	11,486	8,404	7,999
Research and development	14,389	14,015	12,315	9,249	10,097
Selling, general and administrative	12,898	22,511	19,648	14,386	17,672
Total costs and expenses	<u>30,801</u>	<u>44,890</u>	<u>43,449</u>	<u>32,039</u>	<u>35,768</u>
Loss from operations	(23,526)	(29,543)	(18,037)	(14,250)	(12,563)
Interest expense	(2,790)	(2,031)	(2,876)	(1,849)	(1,620)
Gain (loss) from changes in the fair value of convertible preferred stock warrants, net	(245)	769	(135)	180	210
Interest income	1,140	766	37	33	7
Other income (expense), net	75	393	1,833	189	284
Loss before income taxes	(25,346)	(29,646)	(19,178)	(15,697)	(13,682)
(Provision) benefit for income taxes	(105)	147	50	(3)	(142)
Net loss	<u>\$ (25,451)</u>	<u>\$ (29,499)</u>	<u>\$ (19,128)</u>	<u>\$ (15,700)</u>	<u>\$ (13,824)</u>
Net loss per share of common stock, basic and diluted(1)	<u>\$ (15.93)</u>	<u>\$ (17.85)</u>	<u>\$ (11.02)</u>	<u>\$ (9.24)</u>	<u>\$ (7.37)</u>
Shares used in computing net loss per share of common stock, basic and diluted(1)	<u>1,598</u>	<u>1,653</u>	<u>1,736</u>	<u>1,699</u>	<u>1,876</u>
Pro forma net loss per share available to common stockholders, basic and diluted (unaudited)(1)			<u>\$ (2.54)</u>		<u>\$ (1.97)</u>
Shares used in computing pro forma net loss per share available to common stockholders, basic and diluted (unaudited)(1)			<u>11,393</u>		<u>12,124</u>

(1) Please see Note 2 to our audited consolidated financial statements for an explanation of the method used to calculate basic and diluted net loss per share and basic and diluted pro forma net loss per share of common stock for the year ended December 31, 2009. Please see Note 1 to our interim condensed consolidated financial statements for an explanation of the method used to calculate basic and diluted net loss per share and basic and diluted pro forma net loss per share of common stock for the nine months ended September 30, 2010.

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	As of September 30, 2010		
	Actual	Pro Forma(1) (in thousands)	Pro Forma As Adjusted(2)(3)
Consolidated Balance Sheet Data:			
Cash and cash equivalents	\$ 5,083	\$ 10,052	\$ 73,302
Working capital	6,817	8,338	75,431
Total assets	22,090	27,059	90,309
Total long-term debt	14,610	14,610	14,610
Convertible preferred stock warrants	397	—	—
Convertible preferred stock	184,549	—	—
Total stockholders' (deficit) equity	(186,395)	(323)	66,770
(1)	Reflects on a pro forma basis (i) our issuance and sale in January 2011 of promissory notes in an aggregate principal amount of \$5.0 million; (ii) our issuance in January 2011 of warrants to purchase an aggregate of 103,182 shares of our Series E-1 preferred stock at an exercise price of \$0.02 per share, the net exercise of such warrants and the conversion of such Series E-1 preferred stock into common stock immediately prior to the consummation of this offering; (iii) the filing of our sixth amended and restated certificate of incorporation which adjusted the conversion rate of Series E preferred stock from 1-to-1 to 1-to-1.3; (iv) the conversion of all outstanding shares of convertible preferred stock into common stock; and (v) the reclassification of the convertible preferred stock warrant liabilities to additional paid-in capital, each effective upon the closing of this offering.		
(2)	Reflects (i) the pro forma conversions and reclassifications described above, (ii) the sale of shares of our common stock in this offering at the assumed initial public offering price of \$14.50 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, and (iii) the repayment of the notes issued by us in January 2011.		
(3)	A \$1.00 increase (decrease) in the assumed initial public offering price of \$14.50 per share, the midpoint of the range set forth on the cover page of this prospectus, would increase (decrease) cash and cash equivalents and each of working capital, total assets and total stockholders' equity by \$4.9 million, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. Each increase of 1.0 million shares in the number of shares offered by us would increase cash and cash equivalents and each of working capital, total assets and total stockholders' equity by approximately \$13.6 million. Similarly, each decrease of 1.0 million shares in the number of shares offered by us would decrease cash and cash equivalents and each of working capital, total assets and total stockholders' equity by approximately \$13.6 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 \$25.5 million, \$29.5 million, \$19.1 million and \$13.8 million during 2007, 2008, 2009 and the nine months ended September 30, 2010, respectively. As of September 30, 2010, we had an accumulated deficit of \$196.2 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 significant 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 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 most competing technologies, our microfluidic technology is relatively new, and most potential customers have limited knowledge of, or experience with, our products. Prior to adopting our microfluidic systems, some potential customers may need to devote time and effort to testing and validating our systems. 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. Historically, 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 continue to induce leading researchers to use our systems or if such researchers are unable to achieve and publish or present significant experimental results using our systems, acceptance and adoption of our systems will be slowed.

Our financial results may vary significantly from quarter-to-quarter due to a number of factors, which may lead to volatility in our stock price.

Our quarterly revenue and results of operations have varied in the past and may continue to vary significantly from quarter-to-quarter. This variability may lead to volatility in our stock price as research analysts and investors respond to these quarterly fluctuations. These fluctuations are due to numerous factors, including: fluctuations in demand for our products; changes in customer budget cycles and capital spending; seasonal variations in customer operations; tendencies among some customers to defer purchase decisions to the end of the quarter; the large unit value of our systems; changes in our pricing and sales policies or the pricing and sales policies of our competitors; our ability to design, manufacture and deliver products to our customers in a timely and cost-effective manner; quality control or yield problems in our manufacturing operations; our ability to timely obtain adequate quantities of the components used in our products; new product introductions and enhancements by us and our competitors; unanticipated increases in costs or expenses; and fluctuations in foreign currency exchange rates. For example, in 2008 and 2009, we experienced higher sales in the fourth quarter than in the first quarter of the next fiscal year as a result of one or more of the factors described above. The foregoing factors are difficult to forecast, and these, as well as other factors, could materially and adversely affect our quarterly and annual results of operations. In addition, a significant amount of our operating expenses are relatively fixed due to our manufacturing, research and development, and sales and general administrative efforts. Any failure to adjust spending quickly enough to compensate for a revenue shortfall could magnify the adverse impact of such revenue shortfall on our results of operations. Our results of operations may not meet the expectations of research analysts or investors, in which case the price of our common stock could decrease significantly.

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, biotechnology and Ag-Bio companies, academic institutions and life science laboratories that perform analyses for research and commercial purposes. Our success will depend in part upon our ability to increase our market share among these customers, attract additional customers outside of these markets 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 are unfamiliar with the current applications of our systems. In addition, certain new applications that we are considering developing are not commonly performed with conventional techniques and therefore may require additional sales efforts to create customer awareness of the utility of these applications. Any failure to expand our existing customer base or launch new applications would adversely affect our ability to increase our revenues.

The life science research and Ag-Bio markets are 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 research and Ag-Bio companies that design, manufacture and market instruments for gene expression analysis, genotyping, PCR, 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, larger existing installed bases, larger intellectual property portfolios and greater experience and scale in research and development, manufacturing and marketing than we do. For example, companies such as Affymetrix, Inc., Agilent Technologies, Inc., Caliper Life Sciences, Inc., Illumina, Inc., Life Technologies Corporation, Luminex Corporation, Roche Applied Science, NanoString Technologies, Inc., RainDance Technologies, Inc., Sequenom, Inc. and WaferGen Biosystems, Inc. have products that compete in certain segments of the market in which we

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sell our products, including gene expression analysis, genotyping and sequencing. In addition, a number of other companies and academic groups are in the process of developing novel technologies for life science markets.

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 have limited experience in marketing, selling and distributing our products, and we need to expand our direct sales and marketing force or distribution capabilities to adequately address our customers' needs.

We have limited experience in marketing, selling and distributing our products. Our BioMark and EP1 systems for genomic analysis were introduced for commercial sale in 2006 and 2008, respectively. Our Access Array system for sample preparation was introduced for commercial sale in 2009. We may not be able to market, sell and distribute our products effectively enough to support our planned growth.

We sell our products primarily through our own sales force and through distributors in certain territories. Our future sales will depend in large part on our ability to develop and substantially 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 continue to enlist one or more sales representatives and distributors 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 representatives and distributors, 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 representatives and distributors, are not successful, our technologies and products may not gain market acceptance, which would materially impact our business operations.

Our business depends on research and development spending levels of pharmaceutical, Ag-Bio 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 our microfluidic systems and chips to academic institutions and biotechnology, Ag-Bio 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

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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 our microfluidic systems and chips. 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 and Ag-Bio companies engaged in research and commercial activities;
- differences in budget cycles across various geographies and industries;
- market-driven pressures on companies to consolidate operations and reduce costs;
- mergers and acquisitions in the life science and Ag-Bio industries; 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 and adversely affect our operations or financial condition.

We may not be able to develop new systems or enhance the capabilities of our existing microfluidic systems to keep pace with rapidly changing technology and customer requirements.

Our success depends on our ability to develop new applications for our 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 single cell analyses, as well as potential markets for our products such as high-throughput DNA sequencing and molecular diagnostics applications, 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. Developing and implementing new technologies will require us to incur substantial development costs and we may not have adequate resources available to 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. While we have planned improvements to our BioMark, EP1 and Access Array systems, we may not be able to successfully implement these improvements. 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. Even if we successfully implement some or all of these planned improvements, we cannot guarantee that our current and potential customers will find our enhanced systems to be an attractive alternative to existing technologies, including our current products.

Emerging market opportunities may not develop as quickly as we expect.

The application of our technologies to molecular diagnostics, single cell analysis, digital PCR and sample preparation for next generation DNA sequencing are emerging market opportunities. We believe these opportunities will take several years to develop or mature and we cannot be certain that these market opportunities will develop as we expect. Although we believe that there will be applications of our technologies in these markets, there can be no certainty of the technical or commercial success our technologies will achieve in such markets. Our success in the emerging markets of molecular diagnostics, single cell analysis, digital PCR and sample preparation for next generation DNA sequencing may depend to a large extent on our ability to successfully market and sell products using our technologies. In addition, in the case of molecular diagnostics, we will need to obtain regulatory approval for such products in the United States and in overseas markets.

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 microfluidic systems technology. Our 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 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 our systems rather than in a standard laboratory environment. As a result, research and development efforts may be required to transfer certain reactions to our systems. In the past, product development projects have been significantly delayed when we encountered unanticipated difficulties in implementing a process on our systems. 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 sales cycles are lengthy and variable, which makes it difficult for us to forecast revenue and other operating results.

The sales cycles for our systems are 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 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. In addition, the novelty 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. 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 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.

We may rely on strategic partnerships for research and development and commercialization purposes.

We have entered into and may continue to enter into strategic partnerships, including collaborations, joint ventures and alliances with other participants in the life science, Ag-Bio and molecular diagnostics industries. For example, in 2010, we entered into a collaboration agreement in molecular diagnostics and a co-marketing agreement in next generation sequencing. If any of our strategic partners were to change their business strategies or development priorities, or encounter research and development obstacles, they may no longer be willing or able to participate in such strategic partnerships which could have a material adverse effect on our business, financial condition and results of operations. In addition, we may not control the strategic partnerships in which we participate. We may also have certain obligations, including some limited funding obligations or take or pay obligations, with regard to our strategic partnerships, joint ventures and alliances. We may be required to

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relinquish important rights, including intellectual property rights, and control over the development of our product candidates, assume product or other liabilities associated with the use of our products in diagnostic and other applications, agree to restrictions on the use or applications of our products, or otherwise be subject to terms unfavorable to us.

Under our collaboration agreements with Novartis Vaccines & Diagnostics, Inc., or Novartis V&D, our capabilities in digital PCR are being developed for potential in-vitro diagnostics applications, with an initial focus on the development of an NIPD test for fetal aneuploidies. These agreements provide Novartis V&D with an option to exclusively license our technology in the primary field of non-invasive testing for fetal aneuploidies and the secondary field of non-invasive testing of genetic abnormality, disease or condition in a fetus or in a pregnant woman (other than as tested in the primary field), RhD genotyping or carrier status in a pregnant woman and the genetic carrier status of a prospective mother and her male partner. Under these agreements, except with Novartis V&D, we cannot, directly or in collaboration with a third party, use, develop or sell any products or services in the primary field or the secondary field, other than for research applications in the secondary field. The agreements contain technical feasibility milestones in 2010 and 2011 and may be terminated by Novartis V&D at any time. At Novartis V&D's option, these agreements can be extended to encompass further research, development and commercialization of our products in the primary and secondary fields described above, which could take several years or more to complete. The agreements provide that if a test is commercialized, we would supply the required systems and chips for performance of such test.

Our agreements and efforts with Novartis V&D are in their early stages and are subject to numerous conditions, contingencies, development challenges, milestones, royalty and license fees, indemnification obligations, termination rights, change of control and default provisions and regulatory approvals. There can be no assurance that this collaboration will lead to technology, products or services, that such technology, products or services will receive market acceptance, that we will realize any material revenue or other benefits from this collaboration or that the benefits will exceed our costs.

If our facility becomes 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 all of our products for commercial sale at our facility in Singapore. No other manufacturing or assembly facilities are currently available to us. Our facility 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 facility may be harmed or rendered inoperable by natural or man-made disasters, including earthquakes, flooding and power outages, which may render it difficult or impossible for us to perform our research, development and 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.

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 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; and
- further our research and development.

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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 cannot assure you that we will be able to obtain additional 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.

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

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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 52% of our product revenue in 2009, involve real-time polymerase chain reaction, or PCR. Leading suppliers of reagents for PCR reactions include Life Technologies and Roche Applied Science, 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 supply agreements for 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.

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. To effectively support potential new customers and the expanding needs of current customers, we will need to substantially expand our technical support staff. 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.

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:

- The chips used in our microfluidic systems 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 reader for our BioMark system requires specialized high resolution camera lenses and other components that are available from a limited number of sources.

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 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 quality control and 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 may experience development or manufacturing problems or delays that could limit the growth of our revenue or increase our losses.

We have been manufacturing and assembling our products in significant commercial quantities since 2006, and we may encounter unforeseen situations that would result in delays or shortfalls in our production. 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.

All of our commercial products are manufactured at our facility in Singapore. We began commercial production of our chips in Singapore in October 2006 and have transitioned the commercial production of our microfluidic systems to Singapore as well. Production of the elastomeric block that is at the core of our chips 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. We have in the past experienced variations in yields due to such factors. Such a drop in yield can increase our cost to manufacture our chips or, in more severe cases, require us to halt the manufacture of our chips until the problem is resolved. Identifying and resolving the cause of a drop in yield can require substantial time and resources.

In addition, developing a chip for a new application may require developing a specific production process for that type of chip. While all of our chips are produced using the same basic processes, significant variations may be required to ensure adequate yield of any particular type of chip. Developing such a process can be very time consuming, and any unexpected difficulty in doing so can delay the introduction of a product.

Our shipments of products to customers are subject to delays or cancellation due to work stoppages or slowdowns, piracy, damage to shipping facilities caused by weather or terrorism, and congestion due to inadequacy of shipping equipment and other causes.

Because all our products are manufactured at our facility in Singapore, we rely on shipping providers to deliver our products to our customers. To the extent that there are disruptions or delays in shipping our products from Singapore or off-loading our products upon arrival at their destination due to labor disputes, tariff or World Trade Organization-related disputes, piracy, physical damage to shipping facilities or equipment caused by severe weather or terrorist incidents, congestion at shipping facilities, inadequate equipment to load, dock and offload our products or energy-related tie-ups or otherwise, or for other reasons, product shipments to our customers will be delayed. Depending on the severity of such consequences, this may have an adverse effect on our financial condition and results of operations.

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

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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.

Adverse conditions in the global economy and disruption of financial markets may significantly harm our revenue, profitability and results of operations.

The global economy has been experiencing a significant economic downturn, and global credit and capital markets have experienced substantial volatility and disruption. Volatility and disruption of financial markets could limit our customers' ability to obtain adequate financing or credit to purchase and pay for our products in a timely manner or to maintain operations, which could result in a decrease in sales volume that could harm our results of operations. General concerns about the fundamental soundness of domestic and international economies may also cause our customers to reduce their purchases. Changes in governmental banking, monetary and fiscal policies to address liquidity and increase credit availability may not be effective. Significant government investment and allocation of resources to assist the economic recovery of sectors which do not include our customers may reduce the resources available for government grants and related funding for life science, Ag-Bio and molecular diagnostics research and development. Continuation or further deterioration of these financial and macroeconomic conditions could significantly harm our sales, profitability and results of operations.

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 131 at December 29, 2007 to 198 at September 30, 2010. 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 commercial manufacturing facility located in Singapore is sufficient to meet our short-term manufacturing needs. The current leases for our manufacturing facility in Singapore expire at various times from October 2011 through July 2013. In order to meet the long-term demand for our microfluidic 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 in 2012. 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.

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.

Demand for our technology could be reduced by legal, social and ethical concerns surrounding the use of genetic information and biological materials.

Our products may be used to provide genetic information or analyze biological materials from humans, agricultural crops and other living organisms. The information obtained from our products could be used in a variety of applications, which may have underlying legal, social and ethical concerns, including the genetic engineering or modification of agricultural products, testing for genetic predisposition for certain medical conditions and stem cell research. Governmental authorities could, for safety, social or other purposes, call for limits on or impose regulations on the use of genetic testing or the use of certain biological materials. Such concerns or governmental restrictions could limit the use of our products, which could have a material adverse effect on our business, financial condition and results of operations.

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

Our products are currently labeled and sold to biotechnology and pharmaceutical companies, academic institutions, and life sciences laboratories for research purposes only, and not diagnostic procedures. As a research only products, they are not subject to regulation as medical devices by the U.S. Food and Drug Administration, or FDA, or comparable agencies of other countries. However, if we change the labeling of our products in the future to include diagnostic applications, our products or related applications could be subject to the FDA's pre- and post-market regulations. For example, if we wish to label and market our products for use in performing clinical diagnostics, we would first need to obtain FDA premarket clearance or approval. Obtaining FDA clearance or approval can be expensive and uncertain, generally takes several months to years to obtain, and may require 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.

Further, FDA may expand its jurisdiction over our products or the products of our customers, which could impose restrictions on our ability to market and sell our products. For example, our customers may use our research use only products in their own laboratory developed tests, or LDTs, for clinical diagnostic use. FDA has historically exercised enforcement discretion in not enforcing the medical device regulations against LDTs. However, the FDA could assert jurisdiction over some or all LDTs, which may impact our customers' uses of our products. A significant change in the way that the FDA regulates our products or the LDTs that our customers develop may require us to change our business model in order to maintain compliance with these laws. The FDA recently held a meeting in July 2010, during which it indicated that it intends to reconsider its policy of enforcement discretion and to begin drafting a new oversight framework for LDTs. If the FDA imposes significant changes to the regulation of LDTs, or modifies its approach to our research use only tests which may be used by our customers for clinical use, it could reduce our revenues or increase our costs and adversely affect our business, prospects, results of operations or financial condition.

Finally, we may be required to proactively achieve compliance with certain FDA regulations as part of our contracts with customers or as part of our collaborations with third parties. In addition, we may voluntarily seek to conform our manufacturing operations to the FDA's good manufacturing practice regulations for medical devices, known as the Quality System Regulation, or QSR. The QSR is a complex regulatory scheme that governs the methods and documentation covering the design, testing, control, manufacturing, labeling, quality assurance, packaging, storage and shipping of medical device products. The FDA enforces the QSR through periodic unannounced inspections of registered manufacturing facilities. The failure to take satisfactory corrective action in response to an adverse QSR inspection could result in enforcement actions, including a public warning letter, a shutdown of manufacturing operations, a product recall, civil or criminal penalties or other sanctions, which could in turn cause our sales and business to suffer.

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 microfluidic 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 microfluidic systems, these risks may increase. While we do not provide express warranties that our microfluidic systems 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 microfluidic systems. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating margins.

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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 2007, 2008, 2009 and the nine months ended September 30, 2010, approximately 45%, 48%, 46% and 42%, respectively, of our product revenue was generated from sales to customers located outside of the United States. 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. In addition, all of our commercial products are manufactured in Singapore. 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;

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- 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 microfluidic 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.

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.

If we fail to maintain effective internal control over financial reporting in the future, the accuracy and timing of our financial reporting may be impaired, which could adversely affect our business and our stock price.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, with respect to our 2011 fiscal year, 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. Grant agreements currently in place with the Singaporean government are set to expire in May 2011. 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 September 30, 2010.

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 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.

Our independent registered public accounting firm has expressed doubt about our ability to continue as a going concern.

Based on our cash balances as of December 31, 2009 and our projected spending in 2010 and without giving effect to our receipt of the proceeds of this offering, our independent registered public accounting firm has included in their audit opinion for the year ended December 31, 2009 a statement with respect to our ability to continue as a going concern. If we became unable to continue as a going concern, we may have to liquidate our assets and the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

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 depends 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 sufficient to protect our proprietary technology and gain or keep our competitive advantage. 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 companies in the life science and Ag-Bio industries 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; and
- 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.

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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 may be involved in lawsuits to protect or enforce our patents and proprietary rights, to determine the scope, coverage and validity of others' proprietary rights, or to defend against third party claims of intellectual property infringement that could require us to spend significant time and money and could prevent us from selling our products or services or impact our stock price.

Litigation may be necessary for us 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 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, re-examination and opposition proceedings against our patents. The outcome of any litigation or other proceeding is inherently uncertain and 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. We could therefore incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins. Further, we could encounter delays in product introductions, or interruptions in product sales, as we develop alternative methods or products.

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.

Our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. Numerous significant intellectual property issues have been litigated, and will likely continue to be litigated, between existing and new participants in the PCR market and 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. Third parties may assert that we are employing their proprietary technology without authorization. For example, on June 4, 2008 we received a letter from Applied Biosystems, Inc., now Life Technologies Corporation, 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. The '934 patent is owned by Applied Biosystems, LLC. In response to this letter, we filed suit against Applied Biosystems and Applied in federal district court in the Southern District of New York seeking declaratory judgment of non-infringement and invalidity of the '934 patent. Applied Biosystems and Applied answered our complaint and asserted a counterclaim against us, alleging infringement of the '934 patent. Pursuant to a joint stipulation, the claims and counterclaims were dismissed on January 13, 2009, without prejudice to the parties' claims, which can be reasserted.

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.

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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, and may harm our reputation. There can be no assurance that we will prevail in any suit initiated against us by third parties. Furthermore, 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 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.

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.

We engage in discussions regarding possible commercial, licensing and cross-licensing agreements with third parties from time to time. For example, we have engaged in such discussions with Caliper Life Sciences regarding its microfluidic patent portfolio and we have engaged in such discussions with Life Technologies regarding the '934 patent and other patents owned by the parties, including patents in the field of digital PCR. There can be no assurance that these discussions will lead to the execution of commercial license or cross-license agreements or that such agreements will be on terms that are favorable to us. If these discussions do not lead to the execution of mutually acceptable agreements, one or more of the parties involved in such discussions could resort to litigation to protect or enforce its patents and proprietary rights or determine the scope, coverage and validity of the proprietary rights of others. In addition, if we enter into cross-licensing agreements, there is no assurance that we will be able to effectively compete against others who are licensed under our patents.

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 the technology we license 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

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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.

Our rights to use the technology we license is subject to the validity of the owner's 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. Legal action could be initiated against the owners of the intellectual property that we license. Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent these other companies or institutions from continuing to license intellectual property that we may need to operate our business.

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 manufacturing restrictions related to licensed technologies that were developed with the financial assistance of U.S. governmental grants.

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 are subject to domestic manufacturing requirements. 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. All of our microfluidic systems revenue is dependent upon the availability of our chips, which incorporate technology developed with U.S. government grants. As of December 2010, all of our commercial products, including microfluidic systems and chips are manufactured at our facility in Singapore. 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 have assisted the licensors of these technologies with the analysis of the domestic manufacturing requirement, and, in December 2008, one of the licensors applied for a waiver of the domestic manufacturing requirement with respect to certain patents. In July 2009, the funding government agency granted the requested waiver of the domestic manufacturing requirement for a three year period commencing in July 2009. If in the future it were to be determined that we are in violation of the domestic manufacturing requirement and additional waivers of such requirement were 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 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 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 or Ag-Bio 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, Ag-Bio and molecular diagnostics sectors;
- failure to complete significant sales;
- manufacturing disruptions that could occur if we were unable to successfully expand our production in our current or an alternative facility;
- any future sales of our common stock or other securities;
- any major change to the composition of our Board or management; and
- general economic conditions and slow or negative growth of our markets.

The stock market in general, and market prices for the securities of technology-based companies like ours in particular, have from time to time experienced volatility that often has been unrelated to the operating performance of the underlying companies. A certain degree of stock price volatility can be attributed to being a newly public company. These broad market and industry fluctuations may adversely affect the market price of our common stock, regardless of our operating performance. In several recent situations where the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the

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company that issued the stock. If any of our stockholders were to bring a lawsuit against us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management and harm our operating results.

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

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 currently have and may never obtain research coverage by equity research analysts. Equity research 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. In the event we obtain equity research analyst coverage, we will not have any control of the analysts or the content and opinions included in their reports. The price of our stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

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

The initial public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock immediately prior to this offering. Therefore, if you purchase our common stock in this offering, you will incur an immediate dilution of \$10.93 in pro forma as adjusted net tangible book value per share as of September 30, 2010 from the price you paid, based on an assumed initial public offering price of \$14.50 per share, the midpoint 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 28.5% of the total amount of equity capital raised by us through the date of this offering, but will only own approximately 27.7% of the outstanding share capital and approximately 27.7% of the voting rights. In addition, we have issued options and warrants to acquire common stock at prices below the initial public offering price. To the extent outstanding options and warrants are ultimately exercised, there will be further dilution to investors who purchase shares in this offering. In addition, if the underwriters exercise their over-allotment option or if we issue additional equity securities, investors purchasing shares in this offering will experience additional 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 January 11, 2011, upon completion of this offering, we will have outstanding a total of 18,589,649 shares of common stock, assuming no exercise of the underwriters' over-allotment option. Of these shares, only the 5,172,414 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 January 11, 2011, up to an additional 13,417,235 shares of common stock will be eligible for sale in the public market, 3,995,189 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, 909,850 shares of common stock that are subject to outstanding options as of January 11, 2011 will become eligible for sale in the public market to the extent permitted by the provisions of various vesting

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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.

Following the completion of this offering, our executive officers, directors and their affiliates will beneficially own or control approximately 26% of the outstanding shares of our common stock, assuming no exercise of the underwriters' over-allotment option. 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. For information regarding the ownership of our outstanding stock by our executive officers and directors and their affiliates, see "Principal Stockholders."

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 10,000,000 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 three year 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. We intend to use the net proceeds from this offering for sales and marketing activities, including expansion of our sales force to support the ongoing commercialization of our products; for research and product development activities; for facilities improvements and the purchase of manufacturing and other equipment; to repay \$5.0 million plus accrued interest in promissory notes issued by us in January 2011 and 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. We have not allocated these net proceeds for any specific purposes. We might not be able to yield a significant return, if any, on any investment of these net proceeds. You will not have the opportunity to influence our management's decisions on how to use the net proceeds from this offering, and 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.

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.

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 expressions or phrases, or the 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 5,172,414 shares of our common stock that we are selling in this offering will be \$68.3 million, based on an assumed initial public offering price of \$14.50 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 \$13.6 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 \$13.6 million. If the underwriters' over-allotment option is exercised in full, we estimate that we will receive additional net proceeds of \$10.6 million.

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

- \$15.0 million for sales and marketing activities, including expansion of our sales force to support the ongoing commercialization of our products;
- \$12.0 million for research and product development activities;
- \$4.0 million for facility improvements and the purchase of manufacturing and other equipment;
- \$5.0 million for repayment of principal plus accrued interest on promissory notes issued by us in January 2011; and
- the balance for working capital and other general corporate purposes.

The promissory notes bear interest at 8% and mature upon the closing of this offering. Approximately \$1.77 million of the promissory notes are held by entities affiliated with certain of our directors, executive officers and holders of more than 5% of our outstanding capital stock. (See "Certain Relationships and Related Party Transactions—2011 Note Financing").

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.

CAPITALIZATION

The following table sets forth our capitalization as of September 30, 2010:

- on an actual basis;
- on a pro forma basis to give effect to:
 - our issuance and sale in January 2011 of promissory notes in an aggregate principal amount of \$5,000,000;
 - our issuance in January 2011 of warrants to purchase an aggregate of 103,182 shares of our Series E-1 preferred stock at an exercise price of \$0.02 per share, the net exercise of such warrants and the conversion of such Series E-1 preferred stock into common stock immediately prior to the consummation of this offering;
 - the filing of our sixth amended and restated certificate of incorporation, which adjusted the conversion rate of our Series E preferred stock from 1-to-1 to 1-to-1.3;
 - the conversion of all outstanding shares of convertible preferred stock into common stock; and
 - the reclassification of the convertible preferred stock warrant liabilities to additional paid-in capital, each effective upon the closing of this offering.
- on a pro forma as adjusted basis to also give effect to (i) the pro forma conversions and reclassifications described above (ii) the sale of 5,172,414 shares of our common stock in this offering at the assumed initial public offering price of \$14.50 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, and (iii) the repayment of the notes issued by us in January 2011.

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 September 30, 2010		
	Actual	Pro Forma (unaudited, in thousands, except per share amounts)	Pro Forma as Adjusted(1)
Long-term debt, net of current portion	\$ 11,590	\$ 11,590	\$ 11,590
Convertible preferred stock warrant liabilities	397	—	—
Convertible preferred stock issuable in series: \$0.001 par value, 11,562 shares authorized, 10,297 shares issued and outstanding (actual); no shares authorized, issued or outstanding (pro forma); 10,000 shares authorized, no shares issued and outstanding (pro forma as adjusted)	184,549	—	—
Stockholders’ equity (deficit):			
Common stock: \$0.001 par value, 16,909 shares authorized, 1,934 shares issued and outstanding (actual); \$0.001 par value, 16,909 shares authorized, 13,518 shares issued and outstanding (pro forma); \$0.001 par value, 200,000 shares authorized, 18,690 shares issued and outstanding (pro forma as adjusted)	2	14	19
Preferred stock: \$0.001 par value, no shares authorized, issued or outstanding (actual); 10,000 shares authorized, no shares issued and outstanding (pro forma and pro forma as adjusted)	—	—	—
Additional paid-in capital(1)	10,604	196,697	264,942
Accumulated other comprehensive loss	(752)	(752)	(752)
Accumulated deficit	(196,249)	(196,282)	(197,439)
Total stockholders’ (deficit) equity(1)	(186,395)	(323)	66,770
Total capitalization(1)	\$ 10,141	\$ 11,267	\$ 78,360

(1) A \$1.00 increase (decrease) in the assumed initial public offering price of \$14.50 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

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capitalization by \$4.9 million, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. Each increase of 1.0 million shares in the number of shares offered by us would increase additional paid-in capital, total stockholders' equity and total capitalization by approximately \$13.6 million. Similarly, each decrease of 1.0 million shares in the number of shares offered by us, would decrease additional paid-in capital, total stockholders' equity and total capitalization by approximately \$13.6 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:

- 1,846,622 shares of common stock issuable upon exercise of options outstanding as of September 30, 2010, at a weighted average exercise price of \$4.19 per share;
- 434,572 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2010, at a weighted average exercise price of \$18.11 per share, after conversion of our convertible preferred stock;
- 4,272,096 shares of common stock reserved for future issuance under our stock-based compensation plans, including 1,250,000 shares of common stock reserved for issuance under our 2011 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
- 241 shares of common stock that were issued and outstanding but were not included in stockholders' deficit as of September 30, 2010, pursuant to accounting principles generally accepted in the United States, as these shares were subject to a right of repurchase by us.

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 deficit as of September 30, 2010 in the amount of \$0.3 million, or \$0.02 per share, was based on the total number of shares of our common stock outstanding as of September 30, 2010, after giving effect to:

- our issuance in January 2011 of warrants to purchase an aggregate of 103,182 shares of our Series E-1 preferred stock, the net exercise of such warrants and the conversion of such Series E-1 preferred stock into common stock immediately prior to the consummation of this offering;
- our issuance and sale in January 2011 of promissory notes in an aggregate principal amount of \$5.0 million;
- the filing of our sixth amended and restated certificate of incorporation, which adjusted the conversion rate of our Series E preferred stock from 1-to-1 to 1-to-1.3; and
- the conversion of all outstanding shares of convertible preferred stock into common stock and 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 5,172,414 shares of common stock in this offering at an assumed initial public offering price of \$14.50 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 September 30, 2010 would have been \$66.7 million, or \$3.57 per share. This represents an immediate increase in net tangible book value of \$3.59 per share to existing stockholders and an immediate dilution in net tangible book value of \$10.93 per share to purchasers of common stock in this offering, as illustrated in the following table:

Assumed initial public offering price per share	\$14.50
Pro forma net tangible book deficit per share as of January 7, 2011	(0.02)
Increase in pro forma as adjusted net tangible book value per share attributable to new investors	<u>3.59</u>
Pro forma as adjusted net tangible book value per share after this offering	3.57
Pro forma dilution per share to new investors in this offering	<u>\$10.93</u>

Each \$1.00 increase (decrease) in the assumed public offering price of \$14.50 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 \$0.26 per share, and the pro forma dilution per share to investors in this offering by approximately \$11.67 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, would result in a pro forma as adjusted net tangible book value of approximately \$80.4 million, or \$4.08 per share, and the pro forma dilution per share to investors in this offering would be \$10.42 per share. Similarly, a decrease of 1.0 million shares in the number of shares offered by us, would result in a pro forma as adjusted net tangible book value of approximately \$53.1 million, or \$3.00 per share, and the pro forma dilution per share to investors in this offering would be \$11.50 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.

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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 \$3.97 per share, the increase in pro forma as adjusted net tangible book value per share to existing stockholders would be \$3.99 per share and the dilution to new investors purchasing shares in this offering would be \$10.53 per share.

The following table presents on the pro forma as adjusted basis described above as of September 30, 2010, 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(1)		Average Price per Share
	Number	Percent	Amount	Percent	
Existing stockholders	13,518	72%	188,246	72%	13.93
New investors	5,172	28	75,000	28	14.50
Totals	18,690	100.0%	\$263,246	100%	\$ 14.08

(1) Each \$1.00 increase (decrease) in the assumed initial public offering price of \$14.50 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 \$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. 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 \$13.6 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 \$13.6 million.

If the underwriters exercise their over-allotment option in full, our existing stockholders would own 68% and our new investors would own 32% of the total number of shares of our common stock outstanding after this offering.

The table above excludes the following shares:

- 1,846,622 shares of common stock issuable upon exercise of options outstanding as of September 30, 2010, at a weighted average exercise price of \$4.19 per share;
- 434,572 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2010, at a weighted average exercise price of \$18.11 per share, after conversion of our convertible preferred stock;
- 4,272,096 shares of common stock reserved for future issuance under our stock-based compensation plans, including 1,250,000 shares of common stock reserved for issuance under our 2011 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
- 241 shares of common stock that were issued and outstanding but were not included in stockholders' deficit as of September 30, 2010, 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 29, 2007, December 27, 2008 and December 31, 2009, and the selected consolidated balance sheet data as of December 27, 2008 and December 31, 2009 from our audited consolidated financial statements included elsewhere in this prospectus. The report of our independent registered public accounting firm on our consolidated financial statements for the year ended December 31, 2009, which appears elsewhere in this prospectus, includes an explanatory paragraph that describes an uncertainty about our ability to continue as a going concern. We have derived the selected consolidated statement of operations data for the nine months ended September 30, 2009 and 2010, and the selected consolidated balance sheet data as of September 30, 2010 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, 2005 and 2006 and the selected consolidated balance sheet data as of December 31, 2005 and 2006 and December 29, 2007 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					Nine Months Ended	
	December 31, 2005	December 31, 2006	December 29, 2007	December 27, 2008	December 31, 2009	September 30, 2009	September 30, 2010
(in thousands, except per share amounts)							
Consolidated Statement of Operations Data:							
Revenue:							
Product revenue	\$ 6,076	\$ 3,959	\$ 4,451	\$ 13,364	\$ 23,599	\$ 16,369	\$ 20,883
Collaboration revenue	1,568	1,376	460	70	—	—	975
Grant revenue	30	1,063	2,364	1,913	1,813	1,420	1,347
Total revenue	7,674	6,398	7,275	15,347	25,412	17,789	23,205
Costs and expenses:							
Cost of product revenue	4,764	2,773	3,514	8,364	11,486	8,404	7,999
Research and development	11,449	15,589	14,389	14,015	12,315	9,249	10,097
Selling, general and administrative	7,955	9,699	12,898	22,511	19,648	14,386	17,672
Total costs and expenses	24,168	28,061	30,801	44,890	43,449	32,039	35,768
Loss from operations	(16,494)	(21,663)	(23,526)	(29,543)	(18,037)	(14,250)	(12,563)
Interest expense	(898)	(2,261)	(2,790)	(2,031)	(2,876)	(1,849)	(1,620)
Gain (loss) from changes in the fair value of convertible preferred stock warrants, net	72	(139)	(245)	769	(135)	180	210
Interest income	340	565	1,140	766	37	33	7
Other income (expense), net	(42)	(55)	75	393	1,833	189	284
Loss before income taxes and cumulative of change in accounting principle	(17,022)	(23,553)	(25,346)	(29,646)	(19,178)	(15,697)	(13,682)
(Provision) benefit for income taxes	—	—	(105)	147	50	(3)	(142)
Loss before cumulative effect of change in accounting principle	(17,022)	(23,553)	(25,451)	(29,499)	(19,128)	(15,700)	(13,824)
Cumulative effect of change in accounting principle	637	—	—	—	—	—	—
Net loss	\$ (16,385)	\$ (23,553)	\$ (25,451)	\$ (29,499)	\$ (19,128)	\$ (15,700)	\$ (13,824)
Net loss per share of common stock, basic and diluted(1)	\$ (10.99)	\$ (15.25)	\$ (15.93)	\$ (17.85)	\$ (11.02)	\$ (9.24)	\$ (7.37)
Shares used in computing net loss per share of common stock, basic and diluted(1)	1,491	1,544	1,598	1,653	1,736	1,699	1,876
Pro forma net loss per share available to common stockholders, basic and diluted (unaudited)(1)					\$ (2.54)		\$ (1.97)
Shares used in computing pro forma net loss per share available to common stockholders, basic and diluted (unaudited)(1)					11,393		12,124

(1) Please see Note 2 to our audited consolidated financial statements for an explanation of the method used to calculate basic and diluted net loss per share and basic and diluted pro forma net loss per share of common stock for the year ended December 31, 2009. Please see Note 1 to our interim condensed consolidated financial statements for an explanation of the method used to calculate basic and diluted net loss per share and basic and diluted pro forma net loss per share of common stock for the nine months ended September 30, 2010.

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	As of					
	<u>December 31,</u> <u>2005</u>	<u>December 31,</u> <u>2006</u>	<u>December 29,</u> <u>2007</u>	<u>December 27,</u> <u>2008</u>	<u>December 31,</u> <u>2009</u>	<u>September 30,</u> <u>2010</u>
	(in thousands)					
Consolidated Balance Sheet Data:						
Cash, cash equivalents and available for sale securities	\$ 19,659	\$ 25,518	\$ 40,363	\$ 17,796	\$ 14,602	\$ 5,083
Working capital	14,764	23,939	38,754	20,704	21,354	6,817
Total assets	27,750	36,493	54,776	32,354	32,153	22,090
Total long-term debt	16,800	12,838	9,362	15,212	14,461	14,610
Convertible promissory notes	—	13,072	4,997	—	—	—
Convertible preferred stock warrants	814	223	468	141	616	397
Convertible preferred stock	88,966	112,295	162,082	167,538	183,845	184,549
Total stockholders' deficit	(83,154)	(106,172)	(130,331)	(158,339)	(173,619)	(186,395)

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 microfluidic systems for growth markets in the life science and agricultural biotechnology, or Ag-Bio, industries. Our proprietary microfluidic systems consist of instruments and consumables, including chips and reagents. These systems are designed to significantly simplify experimental workflow, increase throughput and reduce costs, while providing the excellent data quality demanded by customers. In addition, our proprietary technology enables genetic analysis that in many instances was previously impractical. We actively market three microfluidic systems including eight different commercial chips to leading pharmaceutical and biotechnology companies, academic institutions, diagnostic laboratories and Ag-Bio companies. We have sold systems to over 200 customers in over 20 countries worldwide.

Our total revenue grew from \$6.4 million in 2006 to \$25.4 million in 2009 and was \$23.2 million in the nine months ended September 30, 2010. We have incurred significant net losses since our inception in 1999 and, as of September 30, 2010, our accumulated deficit was \$196.2 million.

In 2003, we introduced our first product line, the TOPAZ system for protein crystallization. In the fourth quarter of 2006, we launched our BioMark system for gene expression analysis, genotyping and digital PCR. In the third quarter of 2008, we launched our EP1 system for SNP genotyping and digital PCR. In the third quarter of 2009, we launched our Access Array system for target enrichment that is compatible with all currently marketed next generation DNA sequencers. In the third quarter of 2010, we launched our multi-use chips for high-throughput genotyping. Our systems are based on one or more chips designed for particular applications and include specialized instrumentation and software, as well as reagents for certain applications.

We distribute our microfluidic systems through our direct sales force and support organizations located in North America, Europe and Asia-Pacific and through distributors or sales agents in several European, Latin American and Asia-Pacific countries. Our manufacturing operations are located in Singapore. Our facility in Singapore manufactures our instruments and fabricates all of our chips for commercial sale and some chips for our own research and development purposes. Our South San Francisco facility fabricates chips for our own research and development purposes.

Since 2002, we have received 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 certain agreed upon targets. Our agreements with EDB provide for incentive funding eligibility through May 2011. From January 1, 2007 through September 30, 2010, we recognized \$6.0 million of grant revenue from EDB.

Fiscal Year Presentation

Our 2007 and 2008 fiscal years were based on a 52- or 53-week convention and, accordingly, our 2007 fiscal year refers to the year ended on December 29, 2007, and our 2008 fiscal year refers to the year ended on

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December 27, 2008. During 2009, we adopted the calendar year as our fiscal year and, accordingly, our 2009 fiscal year refers to the year ended on December 31, 2009.

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 accounting estimates may 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. Our accounting policies are more fully described in Note 2 of the notes to our audited consolidated financial statements and Note 1 of the notes to our interim consolidated financial statements included elsewhere in this prospectus.

Revenue Recognition

We generate revenue from sales of our products, license arrangements, research and development contracts, collaboration agreements and government grants. Our products consist of instruments and consumables, including chips and reagents, related to our microfluidic systems. Product revenue includes services for instrument installation, training and customer support services. We also have entered into collaboration, license, and research and development contracts and have received government grants to conduct research and development activities.

Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been 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 receipt of payment. We also use judgment to assess whether a price is fixed or determinable including but not limited to, reviewing contractual terms and conditions related to payment terms.

Some of our sales contracts, which include those for our BioMark systems, involve the delivery or performance of multiple products or 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 related sales price should be allocated among the elements, when to recognize revenue for each element, and the period over which revenue should be recognized. Revenue recognition for contracts with multiple deliverables is based on the individual units of accounting determined to exist in the contract. A delivered element is considered a separate unit of accounting when the delivered element has value to the customer on a stand-alone basis. Elements are considered to have stand-alone value when they are sold separately or when the customer could resell the element on a stand-alone basis.

We recognize revenue for delivered elements only when we determine that the fair values of undelivered elements are known. If the fair value of an undelivered element cannot be objectively determined, revenue will

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be deferred until all elements are delivered, or until fair value can objectively be determined for any remaining undelivered elements. We use judgment to evaluate whether there is vendor specific objective evidence, or VSOE, of fair value of the undelivered elements, determined by reference to stand-alone sales of such elements.

For a multiple element arrangement that includes both chips and instruments, we separate these elements into separate units of accounting as we consider these elements to have stand alone value to the customer. We do not sell software separately; however, we offer post-contract software support services for certain of our instruments that contain software that is essential to their functionality. If the only undelivered element is post-contract software support services for which VSOE has not been established, the entire arrangement consideration is recognized ratably over the service period. The corresponding costs of products sold under multiple element revenue arrangements are recognized consistent with the related revenue recognition.

During 2007 and the six months ended June 28, 2008, we did not have VSOE of fair value for post-contract software support services. Therefore revenue and the corresponding costs were deferred and recognized over the post-contract software support period.

Beginning in the third quarter of 2008, we established VSOE of fair value for post-contract software support services and began recognizing revenue for the fair value of the delivered element of an arrangement upon installation.

Until the third quarter of 2009, installation was considered to be essential to the functionality of our BioMark instruments and, accordingly, revenue recognition for these instruments began upon installation.

During the third quarter of 2009, we began shipping our BioMark instruments in a fully assembled and calibrated form and concluded that installation was no longer essential to the functionality of these instruments. The installation process for our instruments may be performed by the customer or an independent third party. Therefore, we treat the instruments and installation as separate units of accounting. As a result, beginning in the fourth quarter of 2009, instrument revenue is recognized upon delivery, provided that other applicable revenue recognition criteria have been satisfied. Installation revenue is recognized when the installation service is complete.

Revenues from the sales of our products that are not part of multiple element arrangements are recognized when no significant obligations remain undelivered and collection of the receivables is reasonably assured, which is generally when delivery has occurred. Delivery occurs when there is a transfer of title and risk of loss passes to the customer.

Accruals for estimated warranty expenses are provided for 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 cost of product revenue could be adversely affected in future periods.

We have entered into collaboration and 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. For collaboration and research and development agreements, up-front fees are generally recognized over the term of the agreement; milestone fees are generally recognized when the milestones are achieved; and fees based on agreed-upon rates for time incurred by our research staff are recognized as time is incurred on the project.

Revenue from government grants relates to 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. With respect to the EDB grants, we receive incentive grant payments upon satisfaction of grant conditions in amounts equal to a portion of the qualifying expenses we incur in Singapore. Qualifying expenses

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include 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.

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

Stock-Based Compensation

We 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 of options on the grant date is estimated using the Black-Scholes option-pricing model, which requires the use of certain subjective assumptions including expected term, volatility, risk-free interest rate and the fair value of our common stock. These assumptions generally require significant judgment.

The resulting costs, net of estimated forfeitures, are recognized over the period during which an employee is required to provide service in exchange for the award, usually the vesting period. We amortize the fair value of stock-based compensation on a straight-line basis over the requisite service periods.

For performance-based stock options, we recognize stock-based compensation over the requisite service periods using the accelerated attribution method.

We account for stock options issued to nonemployees 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 change in value, if any, is recognized as expense during the period the related services are rendered.

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. These historical volatilities are 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. We estimate the expected lives of employee options using the simplified method as the mid-point of the expected time-to-vest and the contractual term. For out of the money option grants, we estimate the expected lives based on the mid-point of the expected time to a liquidity event and the contractual term.

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 assumptions:

	Fiscal Year			Nine Months Ended September 30,	
	2007	2008	2009	2009	2010
Expected volatility	63.0%	53.8%	59.1%	55.0%	59.3%
Expected life	6.0 years	6.0 years	5.7 years	6.1 years	5.8 years
Risk-free interest rate	4.4%	3.2%	2.4%	1.6%	2.1%
Dividend yield	0%	0%	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

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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 product 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 was insignificant during 2007, 2008, 2009 and the nine months ended September 30, 2010. We will continue to use judgment in evaluating the expected term, volatility and forfeiture rate related to our stock-based compensation.

Also required to compute the fair value calculation of options is the fair value of the underlying common stock. We have historically granted stock options with exercise prices no less than the fair 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 from January 1, 2009 through September 30, 2010 and the associated per share exercise price, which was not less than the fair value of our common stock for each of these grants.

<u>Grant Date</u>	<u>Number of Options Granted</u>	<u>Exercise Price Per Share of Common Stock</u>	<u>Fair Value Per Share of Common Stock</u>
November 17, 2009	300,764	\$ 4.08	\$ 4.08
December 23, 2009	800,633	\$ 4.45	\$ 4.45
January 28, 2010	56,820	\$ 4.45	\$ 4.45
May 6, 2010	149,479	\$ 4.45	\$ 3.15
August 26, 2010	163,728	\$ 4.45	\$ 3.43

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

- the contemporaneous valuations of our common stock by an unrelated third party;
- 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;
- the rights of freestanding warrants and other similar instruments related to shares that are redeemable;
- our operating and financial performance;
- our capital resources and financial condition;
- 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

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

For all grants of stock options during the periods for which financial statements are included in this prospectus, our board of directors determined the fair value of our common stock based on an evaluation of the factors discussed above as of the date of each grant, including a contemporaneous unrelated third-party valuation of our common stock.

The unrelated third-party valuations were prepared using the income or discounted cash flow approach to estimate our aggregate enterprise value at each valuation date. 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 date to be used in the computation of the enterprise value for 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 order to arrive at the estimated fair value of our common stock, the indicated enterprise value of our company calculated at each valuation date using the income approach 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, marketability, cost of capital 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, the valuation firm 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.

There is inherent uncertainty in these estimates and if we or the valuation firm 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 obtained contemporaneous valuations from an unrelated third-party valuation firm in connection with each of the following grants, which it considered together with the other factors discussed above, to determine the fair value of our common stock on each grant date. Our board of directors determined a fair value of \$4.08 per share of our common stock for grants made on November 17, 2009. For the grant of options on December 23, 2009 and January 28, 2010, our board determined a fair value of \$4.45 per share of our common stock on both such dates. The increase in fair value between November 17, 2009 and the grants on December 23, 2009 and January 28, 2010 related primarily to the passage of time which meant that future cash

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flows were discounted over a shorter period under the income approach. For the grant of options on May 6, 2010, our board determined a fair value of \$3.15 per share of our common stock; however, options were granted by our board on May 6, 2010 at a price per share of \$4.45 based on the board's decision to maintain equality in exercise price with the recipients of grants on December 23, 2009. The decrease in fair value between January 28, 2010 and May 6, 2010 related to lower sales projections, lower cash balances, an increase in the discount for lack of marketability and a longer assumed holding period. For the grant of options on August 26, 2010, our Board determined a fair value of \$3.43 per share of our common stock on the grant date; however, again options were granted with an exercise price per share of \$4.45. The increase in fair value between May 6, 2010 and August 26, 2010 related to an increase in our sales projections and a decrease in the discount for lack of marketability due to a shorter assumed holding period.

In November 2009, we offered our eligible stock option holders the opportunity to exchange eligible options for new options with an exercise price per share equal to the fair market value of our common stock on December 23, 2009. In approving the exchange offer, our board of directors noted that the principal purpose of our equity compensation program is to attract and retain personnel required for the success of our business and that a large number of optionees held options to purchase shares of our common stock with exercise prices well above the then-current fair market value of our common stock, and, as a result, our equity compensation program was not having the intended effect of attracting and motivating personnel. Our board of directors concluded that the exchange offer would encourage the continued service of valued service providers critical to our continued success. Options that were eligible to participate in the offer were those that were granted with an exercise price greater than \$4.08 per share and remained outstanding and unexercised on December 22, 2009, the expiration date of the offer. All employees (including officers), directors, and consultants as of the commencement date of the offer, were eligible to participate provided they remained service providers through December 22, 2009. Approximately 801,000 options were exchanged. New options granted had similar terms and conditions as the exchanged options, except that the exercise price per share of the new options is equal to the per share fair value of our common stock on December 23, 2009 of \$4.45 and the new options were subject to an additional three months of vesting. The exchange resulted in incremental stock based compensation expense of \$0.7 million of which \$0.4 million was recognized immediately on December 23, 2009 and \$0.3 million will be recognized over the remaining vesting periods, which range from three months to four years from December 23, 2009.

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 since we recognize compensation expense only for the portion of stock options that are expected to vest.

We recorded stock-based compensation of \$0.7 million, \$2.0 million, \$2.1 million, \$1.2 million and \$1.3 million during 2007, 2008, 2009, the nine months ended September 30, 2009 and the nine months ended September 30, 2010, respectively. As of September 30, 2010, we had \$2.1 million of unrecognized stock-based compensation costs, which are expected to be recognized over an average period of 2.0 years.

Accounting for Income Taxes

We use the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. 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 deferred tax assets. Our provision for income taxes generally consists of tax expense related to current period earnings. As part of the process of preparing our consolidated financial statements, we continuously monitor the circumstances impacting the expected realization of our deferred tax assets for each

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jurisdiction. We consider all available evidence, including historical operating results in each jurisdiction, expectations and risks associated with estimates of future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for a valuation allowance. To the extent a deferred tax asset cannot be recognized a valuation allowance is established to reduce our deferred tax assets to the amount that is more likely than not to be realized. We have recorded a full valuation allowance on our deferred tax assets due to uncertainties related to our ability to utilize our deferred tax assets in the foreseeable future. These deferred tax assets primarily consist of net operating loss carryforwards and research and development tax credits. We intend to maintain this valuation allowance until sufficient evidence exists to support its reduction. We make estimates and judgments about our future taxable income that are based on assumptions that are consistent with our plans and estimates. Should the actual amounts differ from our estimates, the amount of our valuation allowance could be materially impacted. Changes in these estimates may result in significant increases or decreases to our tax provision in a period in which such estimates are changed which in turn would affect net income.

Inventory Valuation

We record adjustments to inventory for potentially excess, obsolete, slow-moving or impaired goods in order to state inventory at its 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 to purchase shares of our convertible preferred stock as liabilities 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 is 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.

We will continue to record adjustments to the fair value of the warrants until they are exercised, expire or, upon the closing of an initial public offering, become warrants to purchase shares of our common stock, at which time the warrants will no longer be accounted for as a liability. 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 changes in fair value.

Results of Operations

Revenue

We generate revenue from sales of our products, collaboration agreements and government grants. Our product revenue consists of sales of instruments and related services, and consumables, including chips and reagents. We also have entered into collaboration agreements, research and development contracts and have received government grants to conduct research and development activities.

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

	Fiscal Year			Nine Months Ended September 30,	
	2007	2008	2009	2009	2010
Revenue:					
Instruments	\$2,682	\$10,477	\$17,318	\$12,523	\$14,032
Consumables	1,769	2,887	6,281	3,846	6,851
Product revenue	4,451	13,364	23,599	16,369	20,883
Collaboration revenue	460	70	—	—	975
Grant revenue	2,364	1,913	1,813	1,420	1,347
Total revenue	\$7,275	\$15,347	\$25,412	\$17,789	\$23,205

The following table presents our product revenue by geography and as a percentage of total product revenue by geography based on the billing address of our customers for each period presented (in thousands).

	Fiscal Year						Nine Months Ended September 30,			
	2007		2008		2009		2009		2010	
United States	\$2,426	55%	\$ 6,912	52%	\$12,630	54%	\$ 8,260	50%	\$12,028	58%
Europe	735	17%	3,172	24%	4,885	21%	3,365	21%	4,768	23%
Japan	732	16%	1,645	12%	3,172	13%	2,741	17%	1,568	8%
Asia Pacific	558	12%	1,431	11%	2,162	9%	1,369	8%	2,053	10%
Other	—	—%	204	1%	750	3%	634	4%	466	1%
Total	\$4,451	100%	\$13,364	100%	\$23,599	100%	\$16,369	100%	\$20,883	100%

Grant revenue is primarily generated in Singapore. Collaboration revenue is primarily generated in the United States. As we expand our business in Europe, Latin America and Asia Pacific, we expect our product revenue from outside of the United States to increase as a percentage of our total product revenue.

Our customers include pharmaceutical and biotechnology companies, academic research institutions, diagnostic laboratories and Ag-Bio companies worldwide. Total revenue from our five largest customers in each of the periods presented comprised 48%, 32%, 20% and 18% of revenue in 2007, 2008, 2009, and the nine months ended September 30, 2010, respectively.

Comparison of the Nine Months Ended September 30, 2009 and September 30, 2010

Total Revenue

Total revenue increased \$5.4 million, or 30%, to \$23.2 million for the nine months ended September 30, 2010 as compared to \$17.8 million for the nine months ended September 30, 2009.

Product Revenue

Product revenue increased by \$4.5 million, or 28%, to \$20.9 million for the nine months ended September 30, 2010 as compared to \$16.4 million for the nine months ended September 30, 2009. The increase is primarily due to the \$3.0 million, or 78%, increase in consumables revenue resulting from the higher installed base of instruments. In addition, instrument revenue increased by \$1.5 million, or 12%. Instrument sales volume increased by 44% primarily driven by our Access Array system, which launched in the second half of 2009. Average instrument selling prices were generally lower for the nine months ended September 30, 2010 compared to the same period in 2009 due to increased sales of the Access Array instrument which has a lower average selling price compared to our BioMark and EP1 instruments.

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We expect unit sales of both instruments and consumables to continue to increase in future periods as we continue our efforts to grow our customer base and expand our geographic market coverage. However, we expect our average selling prices of our instruments to fluctuate over time based on product mix.

Collaboration Revenue

Collaboration revenue was \$1.0 million for the nine months ended September 30, 2010, resulting from a fixed-fee research and development agreement that we entered into in May 2010. The arrangement provided for an up-front fee of \$750,000 that is being amortized over the term of the agreement, currently projected to be approximately 15 months. The arrangement also provides for milestone payments for the design and development of product prototypes, which payments have been and are expected to be recognized as we achieve each milestone. In September 2010, we achieved two milestones and received two milestone payments totaling an additional \$750,000. We expect to receive additional milestone fees as and when we achieve additional milestones, as specified in the agreement. In the nine months ended September 30, 2009, we did not have any research and development arrangements in place.

Grant Revenue

Grant revenue consists of incentive grants from government entities, primarily EDB. Grant revenue decreased \$0.1 million, or 5%, to \$1.3 million for the nine months ended September 30, 2010 compared to \$1.4 million for the nine months ended September 30, 2009. The decrease relates to a reduction in activity for the EDB grant agreement as we reach certain milestones. Under our incentive grant agreements with EDB, eligible expenses incurred by us in Singapore were \$3.4 million for the nine months ended September 30, 2010 and \$2.7 million in the nine months ended September 30, 2009.

Our agreements with EDB provide that grants extended to us are subject to our operation of increasing levels of research, development and manufacturing in Singapore, including the use of local service providers, the hiring and training 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 include completion of feasibility studies and prototype development, establishment of manufacturing lines, process automation and manufacturing yield improvements for our chips and related instruments. These agreements further provided 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 our obligations applicable to our EDB grant revenue through September 30, 2010.

We expect total grant revenue for 2010 and future periods to decrease compared to 2009 as the first of our EDB grant agreements was completed during 2010 and the second EDB grant agreement will be completed in 2011.

Cost of Product Revenue

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

	Nine Months Ended September 30,	
	2009	2010
Cost of product revenue	\$8,404	\$7,999
Product margin	49%	62%

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

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Cost of product revenue decreased \$0.4 million, or 5%, to \$8.0 million for the nine months ended September 30, 2010 from \$8.4 million for the nine months ended September 30, 2009. Cost of product revenue as a percentage of related revenue was 38% for the nine months ended September 30, 2010 compared to 51% for the nine months ended September 30, 2009. The decrease in cost of product revenue was primarily due to lower material costs as we sourced more components from local vendors in Asia, improved overhead absorption from increased volumes and improved yields on our chips, and decreased provisions for slow moving and excess and obsolete inventory.

We expect the unit costs of our products to decline in future periods as a result of our ongoing efforts to improve our manufacturing processes coupled with expected increases in production volumes and yields.

Operating Expenses

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

	Nine Months Ended September 30,	
	2009	2010
Research and development	\$ 9,249	\$10,097
Selling, general and administrative	14,386	17,672
Total operating expenses	<u>\$23,635</u>	<u>\$27,769</u>

Research and Development

Research and development expense consists primarily of personnel costs, independent contractor costs, prototype and material 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 enhance our technologies and to support development and commercialization of new and existing products and services.

Research and development expense increased \$0.8 million, or 9%, to \$10.1 million for the nine months ended September 30, 2010 compared to \$9.2 million for the nine months ended September 30, 2009. The increase relates primarily to increased headcount related costs of \$0.5 million and increased consumption of supplies and consumables of \$0.3 million associated with new product introductions and related development and testing. We believe that our continued investment in research and development is essential to our long-term competitive position and expect these expenses 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 \$3.3 million, or 23%, to \$17.7 million for the nine months ended September 30, 2010, compared to \$14.4 million for the nine months ended September 30, 2009. The increase was primarily due to increased compensation costs and related expenses of \$2.0 million resulting from increased headcount to support our business and revenue growth, increased advertising and promotional costs of \$0.3 million to support our new product introductions and to increase market awareness, increased legal and professional fees of \$0.5 million, and an increase in our provision for bad debt expense of \$0.3 million. We expect selling, general and administrative expense to increase in future periods as we continue to grow our sales,

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technical support, marketing and administrative headcount, support increased product sales, broaden our customer base and incur additional costs to support our expanded global footprint and the overall growth in our business. We also expect legal, accounting and compliance costs to increase upon becoming a public company.

Interest Expense, Interest Income and Other Income and Expense, Net

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

	Nine Months Ended September 30,	
	2009	2010
Interest expense	\$(1,849)	\$(1,620)
Interest income	33	7
Gains from changes in the fair value of convertible preferred stock warrants, net	180	210
Other income (expense), net	189	284

Interest expense decreased \$0.2 million, or 12%, to \$1.6 million for the nine months ended September 30, 2010 compared to \$1.8 million for the nine months ended September 30, 2009 due to the interest incurred on \$10.7 million of convertible notes issued in August 2009 which was converted into convertible preferred stock in November 2009. We expect interest expense to decrease in 2011 as we expect to begin repayment of our outstanding debt.

Gains from changes in the fair value of preferred stock warrants increased \$30,000, or 17%, to \$210,000 for the nine months ended September 30, 2010 from \$180,000 in the nine months ended September 30, 2009 due to a decrease in the warrant liability fair value.

Interest income decreased by \$26,000, or 79%, for the nine months ended September 30, 2010 compared to the nine months ended September 30, 2009 due to the decrease in our cash balances during 2010. We expect interest income to increase in 2011 as we invest a portion of the net proceeds from this offering.

Other income (expense) for the nine months ended September 30, 2010 was relatively consistent with the nine months ended September 30, 2009 and primarily consists of foreign currency exchange gains and losses.

Comparison of Years Ended December 27, 2008 and December 31, 2009

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

	Fiscal Year	
	2008	2009
Revenue:		
Instruments	\$10,477	\$17,318
Consumables	2,887	6,281
Product revenue	13,364	23,599
Collaboration revenue	70	—
Grant revenue	1,913	1,813
Total revenue	<u>\$15,347</u>	<u>\$25,412</u>

Total Revenue

Total revenue increased \$10.1 million, or 66%, to \$25.4 million for 2009 as compared to \$15.4 million for 2008.

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Product Revenue

Product revenue increased by \$10.2 million, or 77%, to \$23.6 million for 2009 as compared to \$13.4 million for 2008. Instrument revenue increased by \$6.8 million, or 65% primarily due to a \$7.9 million increase in BioMark and EP1 instrument revenue, despite lower average selling prices, partially offset by a \$1.1 million decrease in Topaz instrument revenue. Instrument sales volume increased by 173% due primarily to sales of our BioMark instruments and, in part, to sales of our EP1 instruments, which began in the third quarter of 2008. In addition, consumables revenue increased by \$3.4 million, or 118%, resulting from the higher installed base of instruments. Our deferred product revenue balance decreased from \$1.7 million at December 27, 2008 to \$1.0 million at December 31, 2009. The decrease was primarily due to the recognition of revenue on previously deferred sales beginning in the third quarter of 2008.

Grant Revenue

Grant revenue decreased \$0.1 million, or 5%, to \$1.8 million for 2009 compared to \$1.9 million for 2008. The decrease related to a \$0.3 million reduction in activity for a grant agreement with the National Institutes of Health, or NIH, which terminated in June 2008 and a decrease of \$0.2 million in EDB grants, partially offset by a new grant for \$0.3 million entered into in April 2009 with the California Institute for Regenerative Medicine, or CIRM. EDB grant revenue was \$1.5 million during 2009, compared to \$1.7 million during 2008. Under our incentive grant agreements with EDB, eligible expenses incurred by us in Singapore were \$3.7 million in 2009 and \$3.7 million in 2008.

Cost of Product Revenue

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

	Fiscal Year	
	2008	2009
Cost of product revenue	\$8,364	\$11,486
Product margin	37%	51%

Cost of product revenue increased \$3.1 million, or 37%, to \$11.5 million for 2009 compared to \$8.4 million for 2008 primarily due to increases in instrument sales related to our BioMark, EP1 and, to a lesser extent, our Access Array systems. Cost of product revenue as a percentage of product revenue was 49% in 2009 as compared to 63% in 2008. The decrease was primarily due to lower material costs especially for tooling, improved overhead absorption from increased volumes and improved yields on our chips, product efficiencies resulting from transitioning our instrument manufacturing operations from South San Francisco to Singapore, and reduced material costs as we sourced more components from local vendors in Asia, partially offset by increased provisions for slow moving and excess and obsolete inventory.

Operating Expenses

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

	Fiscal Year	
	2008	2009
Operating expenses:		
Research and development	\$14,015	\$12,315
Selling, general and administrative	22,511	19,648
Total operating expenses	<u>\$36,526</u>	<u>\$31,963</u>

Research and Development

Research and development expense decreased \$1.7 million, or 12%, to \$12.3 million for 2009 compared to \$14.0 million for 2008. The decrease primarily related to decrease in compensation costs of \$0.3 million due to a

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decrease in research and development headcount as we transitioned certain of our engineering efforts to our facility in Singapore, a decrease in facility and information technology allocations of \$0.4 million as our research and development organization occupied less space in our South San Francisco facility following the transition of certain activities to Singapore and a decrease in consumption of supplies and consumables of \$0.7 million.

Selling, General and Administrative

Selling, general and administrative expense decreased \$2.9 million, or 13%, to \$19.6 million for 2009 compared to \$22.5 million for 2008. The decrease was primarily due to initial public offering related costs of \$3.4 million recognized in 2008 following the withdrawal of our previous offering in September 2008, a decrease in audit and tax related fees of \$0.7 million, a decrease in consulting costs of \$0.5 million and a decrease in advertising and promotion costs of \$0.4 million. The initial public offering related costs consisted primarily of legal and accounting services and had previously been capitalized. The overall decrease was partially offset by a \$1.9 million increase in compensation related costs associated with our increased headcount and an increase in stock-based compensation expense of \$0.1 million.

Interest Expense, Interest Income and Other Income and Expense, Net

The following table presents our interest income, interest expense, and other income and expense, net for each period presented (in thousands):

	Fiscal Year	
	2008	2009
Interest expense	\$(2,031)	\$(2,876)
Interest income	766	37
Gain (loss) from changes in the fair value of convertible preferred stock warrants, net	769	(135)
Other income (expense), net	393	1,833

Interest expense increased \$0.8 million, or 42%, to \$2.9 million for 2009 compared to \$2.1 million for 2008 due to the interest expense related to the issuance of \$10.7 million in convertible notes in August 2009.

Interest income decreased by \$0.7 million, or 95%, to \$37,000 for 2009 compared to \$0.8 million for 2008. The decrease in interest income reflects the decrease in our cash and cash equivalents balances during 2009.

Gain (loss) from changes in the fair value of convertible preferred stock warrants decreased by \$0.9 million, or 118%, to a \$0.1 million loss for 2009 compared to a \$0.8 million gain in 2008 due to changes in the fair value of our warrant liability.

Other income (expense) in 2009 increased \$1.4 million, or 366%, to \$1.8 million in 2009 from \$0.4 million in 2008 primarily due to income recognized from our grant of a sub-license to certain intellectual property in 2009.

Comparison of Years Ended December 29, 2007 and December 27, 2008

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

	Fiscal Year	
	2007	2008
Revenue:		
Instruments	\$2,682	\$10,477
Consumables	1,769	2,887
Product revenue	4,451	13,364
Collaboration revenue	460	70
Grant revenue	2,364	1,913
Total revenue	<u>\$7,275</u>	<u>\$15,347</u>

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Total Revenue

Total revenue increased \$8.1 million, or 111%, to \$15.3 million for 2008 as compared to \$7.3 million for 2007.

Product Revenue

Product revenue increased by \$9.0 million, or 202%, to \$13.4 million for 2008 compared to \$4.5 million for 2007. Revenue from instruments increased by \$7.9 million, or 293%, primarily due to higher demand for our BioMark instruments, resulting in an increase in BioMark instrument sales volume of 164%. Revenue from consumables increased by \$1.1 million, or 64%, primarily due to our higher installed base of instruments. Our deferred product revenue balance decreased from \$2.7 million at December 29, 2007 to \$1.7 million at December 27, 2008. The decrease was primarily due to the recognition of revenue on previously deferred sales beginning in the third quarter of 2008.

Collaboration Revenue

Collaboration revenue decreased \$0.4 million, or 85%, to \$70,000 for 2008 from \$0.5 million for 2007, primarily due to the completion of one of our development agreements during 2007.

Grant Revenue

Grant revenue decreased \$0.5 million, or 19%, to \$1.9 million for 2008 compared to \$2.4 million for 2007. The decrease related to a \$0.3 million reduction in activity under an NIH grant agreement that terminated in June 2008 and a \$0.2 million decrease in grant revenue from EDB. Under our incentive grant agreements with EDB, eligible expenses incurred by us in Singapore were \$4.4 million in 2007 and \$3.7 million in 2008.

Cost of Product Revenue

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

	Fiscal Year	
	2007	2008
Cost of product revenue	\$3,514	\$8,364
Product margin	21%	37%

Cost of product revenue increased \$4.9 million, or 138%, to \$8.4 million for 2008 compared to \$3.5 million for 2007, 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 as a percentage of product revenue was 79% in 2007 compared to 63% in 2008. The decrease was due to the adverse effect of underutilized production capacity in 2007 as we transitioned manufacturing from the United States to Singapore.

Operating Expenses

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

	Fiscal Year	
	2007	2008
Operating expenses:		
Research and development	\$14,389	\$14,015
Selling, general and administrative	12,898	22,511
Total operating expenses	<u>\$27,287</u>	<u>\$36,526</u>

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Research and Development

Research and development expense decreased \$0.4 million, or 3%, to \$14.0 million in 2008 from \$14.4 million for 2007, primarily due to a decrease in contractor costs of \$0.4 million, a decrease in headcount related costs of \$0.3 million and a decrease in license costs of \$0.1 million, partially offset by higher stock-based compensation of \$0.3 million for new hire stock option grants.

Selling, General and Administrative

Selling, general and administrative expense increased by \$9.6 million, or 75%, to \$22.5 million for 2008 from \$12.9 million for 2007 primarily due to costs related to our previously proposed initial public offering that was withdrawn of \$3.4 million, increased compensation costs of \$4.0 million related to increased headcount, an increase in stock-based compensation of \$0.9 million, an increase of \$0.9 million in spending primarily for accounting and legal services to support our global expansion and an increase of \$0.4 million for advertising and promotions.

Interest Expense, Interest Income and Other Income and Expense, net

The following table presents interest expense, interest income and other income and expense, net for each period presented (in thousands).

	Fiscal Year	
	2007	2008
Interest expense	\$(2,790)	\$(2,031)
Interest income	1,140	766
Gain (loss) from changes in the fair value of convertible preferred stock warrants, net	(245)	769
Other income (expense), net	75	393

Interest expense decreased by \$0.8 million, or 27%, to \$2.0 million for 2008 compared to \$2.8 million for 2007. The decrease was primarily due to a lower average debt balance following the conversion of \$10.0 million of promissory notes in March 2007 and the impact of a convertible promissory note of \$5.0 million issued in April 2007. Interest expense for 2008 included interest accrued on \$10.0 million in borrowings on our credit line during June 2008.

Interest income for 2008 decreased by \$0.4 million, or 33%, to \$0.8 million for 2008 compared to \$1.1 million for 2007. The decrease in interest income was due to lower cash and cash equivalents and lower interest rates during 2008 as compared to 2007.

Liquidity and Capital Resources

Sources of Liquidity

As of September 30, 2010, we had \$5.1 million of cash and cash equivalents compared to \$14.6 million as of December 31, 2009. As of September 30, 2010, our working capital totaled \$6.8 million. Since our inception, we have principally funded our operations through issuances of convertible preferred stock, which have provided us with aggregate net proceeds of \$184.8 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 and \$10.7 million in other loans that were converted into preferred stock. We have also received significant funding in the form of non-convertible loans that have provided us with aggregate net proceeds of \$26.6 million. As of September 30, 2010, we had an accumulated deficit of \$196.2 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.

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Our first grant agreement with EDB was completed in July 2010. The maximum amount of grant revenue available to us under our second grant agreement with EDB from September 30, 2010 through May 31, 2011 is SG\$1.1 million (approximately US\$0.8 million) although we expect actual grant revenue to be significantly lower.

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\$4.7 million) for the 12 months ended May 31, 2009 and for the twelve months ended May 31, 2010 and at least SG\$9.0 million (approximately US\$6.5 million) for the 12 months ending May 31, 2011. We met our annual spending requirements in Singapore for the 12 months ended May 31, 2009 and May 31, 2010.

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 systems and not our chips.

Our first grant agreement required that we employ at least 23 research scientists and engineers in Singapore by December 31, 2009. Our second grant agreement required that we employ at least 10 new research scientists and engineers in Singapore by May 31, 2009 and that we employ at least 12 new research scientists and engineers in Singapore by May 31, 2011, which may only be satisfied by personnel employed in the research and development of our instruments. In addition, we are required to employ at least 12 research scientists and engineers until May 31, 2013, which may be satisfied by personnel employed in the research and development of either chips or instruments.

As of September 30, 2010, we employed 23 research scientists and engineers involved in the research and development of our chips and 12 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 \$21.6 million through September 30, 2010. 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 September 30, 2010, 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 convertible preferred stock in November 2009.

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. The loan interest rate was 11.5% per annum and the maturity date was February 2010. The loan was 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, we drew down the \$10.0 million. Interest only payments were made monthly through the remainder of 2008 with monthly payments of principal and interest in the amount of \$0.4 million, beginning in January 2009, to be made through June 2011. The agreement also required a final payment in the amount of \$0.7 million in June 2011, which has been accreted as interest expense over the term of the loan.

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In March 2009, we combined and restructured the loan and security agreement discussed above. The restructured loan and security agreement had a final repayment date of March 1, 2012. The interest rate under the loan was 13.5% per annum. Interest only payments were made monthly through February 1, 2010. Commencing on March 1, 2010, we began making monthly payments of \$0.6 million for principal and interest with an additional final payment of \$2.1 million due in March 2012. The agreement also required payment of fees on March 1, 2012 in the amount of \$0.2 million, which, along with the \$2.1 million final payment, were being accreted as interest expense over the term of the loan. We were subject to a prepayment fee in the amount of 1.5% of the outstanding principal amount being prepaid. In connection with the execution of this loan and security agreement, we issued a warrant to purchase 41,288 shares of Series E convertible preferred stock at \$24.22 per share. The fair value of the warrant resulted in a debt discount that is being amortized to interest expense over the life of the agreement.

In June 2010, we amended the loan and security agreement discussed above. The restructured loan and security agreement has a maturity date of February 2013. The loan bears interest at 13.5% per annum with interest only payments due monthly through February 2011. Commencing in March 2011, we will begin making monthly payments of \$0.6 million for principal and interest with an additional payment of \$2.1 million due in March 2012. The agreement also requires payment of fees in March 2012 in the amount of \$0.2 million. The combined additional payment and fees of \$2.3 million are being accreted as interest expense through the maturity date of February 2013. We are subject to a prepayment fee in the amount of 1.0% of the outstanding principal amount being prepaid. In connection with the execution of this loan and security agreement, we issued to the lender a warrant to purchase 57,784 shares of Series E-1 convertible preferred stock at \$12.11 per share. The fair value of the warrant resulted in a debt discount that is being amortized to interest expense over the life of the agreement. In addition, we amended warrants previously issued to this lender by reducing the exercise price of all of their warrants to \$12.11 per share and extending the term of one warrant. As a result of the warrant amendments, these warrants were revalued resulting in an increase in the value of \$0.1 million which resulted in an additional debt discount that will be amortized to interest expense over the life of the agreement.

As of September 30, 2010, the outstanding principal and accrued interest balance for this loan and security agreement was \$14.6 million, net of unamortized debt discounts of \$0.2 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 September 30, 2010, we were in compliance with the above covenants with the exception of the timely delivery of audited financial statements for 2009 for which we have received a waiver through December 31, 2010.

In August 2009, we entered into a convertible Note and Warrant Purchase Agreement, or Note, with existing investors to provide us with cash proceeds of \$10.7 million. In connection with the Note, we issued warrants to purchase 220,176 shares of Series E convertible preferred stock at \$24.22 per share. The fair value of the warrants resulted in a debt discount of \$0.3 million. The Note was scheduled to mature on December 31, 2009, with interest accruing on the outstanding principal amount for the first 60 days at a rate equal to 1% per month and at a rate equal to 2% per month after the first 60 days, compounded monthly. In November 2009, the noteholders converted the outstanding principal amount and accrued interest totaling \$11.0 million into 455,525 shares of Series E convertible preferred stock which were issued upon the conversion at a price of \$24.22 per share.

In July 2010, we offered holders of preferred stock warrants with an exercise price over \$12.11 per share the opportunity to amend those warrants to lower the exercise price to \$12.11 per share. The amended warrants would be exercisable for Series E-1 convertible preferred stock and would receive one common share for each preferred share purchased, subject to the warrant holder's agreement to immediately exercise the warrants in full

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and for cash. The offer expired in August 2010 with warrants to purchase 57,724 shares of preferred stock exercised. As a result of this offer, we received gross proceeds of \$0.7 million and issued 57,724 shares of both Series E-1 convertible preferred stock and common stock. The rights, preferences, and other terms of the Series E-1 convertible preferred stock were identical to those of our Series E convertible preferred stock, except the liquidation preference of the Series E-1 convertible preferred stock was \$12.11 per share.

The following table presents our cash flow summary for each period presented (in thousands):

	Fiscal Year			Nine Months Ended September 30,	
	2007	2008	2009	2009	2010
<i>Cash flow summary</i>					
Net cash used in operating activities	\$(21,759)	\$(28,720)	\$(19,513)	\$(14,388)	\$(9,247)
Net cash (used in) provided by investing activities	(6,740)	6,001	(688)	(610)	(999)
Net cash provided by financing activities	37,555	6,325	16,939	9,529	664
Net increase (decrease) in cash and cash equivalents	\$ 9,059	\$(16,281)	\$ (3,194)	\$ (5,421)	\$(9,519)

Net Cash Used in Operating Activities

We derive cash flows from operations primarily from cash collected from the sale of our products, collaboration and license 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 this may continue in the future.

Net cash used in operating activities was \$9.2 million during the nine months ended September 30, 2010. Net cash used in operating activities primarily consisted of our net loss of \$13.8 million, changes in our operating assets and liabilities in the amount of \$2.4 million, and non-cash income adjustment to the fair value of convertible preferred stock warrants of \$0.2 million, which was partially offset by non-cash expense items such as stock-based compensation of \$1.3 million, depreciation and amortization of our property and equipment of \$0.9 million and amortization of debt discounts and issuance cost of \$0.3 million.

Net cash used in operating activities was \$14.4 million during the nine months ended September 30, 2009. Net cash used in operating activities primarily consisted of our net loss of \$15.7 million, changes in our operating assets and liabilities in the amount of \$1.2 million, and non-cash income adjustment to the fair value of convertible preferred stock warrants of \$0.2 million, which was partially offset by non-cash expense items such as stock-based compensation of \$1.2 million, depreciation and amortization of our property and equipment of \$1.3 million and amortization of debt discounts and issuance cost of \$0.2 million.

Net cash used in operating activities was \$19.5 million during 2009. Net cash used in operating activities primarily consisted of our net loss of \$19.1 million, changes in our operating assets and liabilities in the amount of \$2.7 million, non-cash income from the licensing of technology of \$1.8 million, and non-cash income adjustment to the fair value of convertible preferred stock warrants of \$0.1 million, which was partially offset by non-cash expense items such as stock-based compensation of \$2.1 million, depreciation and amortization of our property and equipment of \$1.6 million and amortization of debt discounts and issuance cost of \$0.3 million.

Net cash used in operating activities was \$28.7 million during 2008. Net cash used in operating activities primarily consisted of a net loss of \$29.5 million, non-cash expense adjustment to the fair value of convertible preferred stock warrants of \$0.8 million, which was partially offset by changes in our operating assets and liabilities in the amount of \$2.5 million and non-cash expense items such as stock-based compensation of \$2.0 million, depreciation and amortization of our property and equipment of \$1.5 million and amortization of debt discounts of \$0.5 million.

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Net cash used in operating activities was \$21.8 million during 2007. Net cash used in 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 of \$1.6 million, stock-based compensation of \$0.7 million, amortization of debt discounts of \$0.5 million, and changes in our operating assets and liabilities in the amount of \$0.4 million.

Net Cash (Used in) Provided by 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 future periods.

We used \$1.0 million of cash in investing activities during the nine months ended September 30, 2010 for purchases of capital equipment to support our infrastructure and manufacturing operations of \$1.1 million partially offset by the release of \$0.1 million from restricted cash for a sub-lease that expired.

We used \$0.6 million of cash in investing activities during the nine months ended September 30, 2009 for net purchases of capital equipment to support our infrastructure and manufacturing operations.

We used \$0.7 million of cash in investing activities during 2009 for purchases of capital equipment to support our infrastructure and manufacturing operations of \$0.8 million partially offset by proceeds of \$0.1 million from disposals of property and equipment.

We generated \$6.0 million of cash from investing activities during 2008 primarily from maturities of available for sale securities of \$7.8 million, sales of available-for-sale securities of \$3.0 million, restricted cash of \$0.6 million, which was partially offset by purchases of available-for-sale securities of \$4.5 million and capital expenditures of \$0.9 million primarily to support our Singapore manufacturing facility.

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

Net Cash Provided by Financing Activities

Historically, we have principally funded our operations through issuances of convertible preferred stock and long term debt.

We generated \$0.7 million of cash from financing activities during the nine months ended September 30, 2010 primarily from exercises of preferred warrants.

We generated \$9.5 million of cash from financing activities during the nine months ended September 30, 2009 primarily from proceeds from our issuance of convertible promissory notes of \$10.5 million partially offset by our repayment of debt of \$1.0 million.

We generated \$16.9 million of cash from financing activities during 2009 primarily from proceeds from the issuance of convertible promissory notes, net of issuance costs, of \$10.5 million and proceeds from the issuance of convertible preferred stock, net of issuance costs, of \$7.4 million, partially offset by the repayment of long-term debt of \$1.0 million.

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During 2008, we generated \$6.3 million of cash from financing activities primarily due to proceeds from our amended loan and security agreement of \$10.0 million, partially offset by repayments of our long-term debt of \$3.9 million.

During 2007, we generated \$37.6 million of cash from financing activities primarily due to net proceeds from issuance of preferred stock of \$35.9 million and net proceeds from the issuance of convertible promissory notes of \$5.0 million, partially offset by repayments on long-term debt of \$3.5 million.

Capital Resources

At December 27, 2008, December 31, 2009 and September 30, 2010, our working capital was \$20.7 million, \$21.4 million and \$6.8 million, respectively, including cash and cash equivalents of \$17.8 million, \$14.6 million and \$5.1 million respectively. We currently anticipate that we will need additional cash resources in the near term to fund increases in net operating assets to support our expected growth. In addition, beginning in March 2011, we will commence making principal payments on our long-term debt, following the end of the interest-only period in February 2011. Monthly payments, which are currently \$0.2 million, will increase to \$0.6 million in March 2011. In December 2010, we entered into a bank line of credit agreement that is collateralized by our accounts receivable and provides us the ability to draw up to \$4.0 million. In January 2011, we raised \$4.8 million through the issuance of subordinated secured promissory notes and warrants to our existing stockholders. During the years ended December 29, 2007, December 27, 2008 and December 31, 2009 and the nine months ended September 30, 2010, our capital expenditures were \$1.0 million, \$0.9 million, \$0.8 million and \$1.1 million, respectively. Our capital expenditures were approximately \$1.5 million in 2010 and we are estimating capital expenditures to be higher in 2011 primarily for the expansion of our manufacturing capacity, research and development equipment and sales demonstration and product support units to service our global customer base.

We believe our existing cash and cash equivalents 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 additional capital to expand the commercialization of our products, fund our operations and further our research and development activities. 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 for sales and marketing initiatives, including significantly expanding our sales force, to support the ongoing commercialization of our products; for research and product development activities; for expansion of our facilities and manufacturing operations; for repayment of the promissory notes issued by us in January 2011; and 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.

Based on our cash and cash equivalents balances as of December 31, 2009, our projected spending in 2010 and without taking into account our receipt of the proceeds of this offering, our independent registered public accounting firm has included in their audit opinion for the year ended December 31, 2009 a statement with respect to our ability to continue as a going concern. However, our financial statements have been prepared assuming we will continue to operate as a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business.

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

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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.

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 September 30, 2010 (in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	Thereafter
Operating lease obligations	\$ 4,118	\$ 1,039	\$ 2,587	\$ 491	\$ —
Long-term debt	17,692	5,020	12,672	—	—
Purchase obligations	2,809	2,809	—	—	—
Total	<u>\$24,619</u>	<u>\$ 8,868</u>	<u>\$15,259</u>	<u>\$ 491</u>	<u>\$ —</u>

Our operating lease obligations relate to leases for our current headquarters and leases for office space for our foreign subsidiaries. Purchase obligations consist of contractual and legally binding commitments to purchase goods.

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 \$0.3 million 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.

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In September 2010, we entered into a new lease for our headquarters in South San Francisco, California. The new lease expires in April 2015 and includes a renewal option for an additional three years. We received a \$0.4 million lease incentive which will be recognized as a reduction of rent expense on a straight-line basis over the term of the new lease.

Recent Accounting Pronouncements

Information with respect to recent accounting pronouncements is included in Note 1 of the notes to our consolidated financial statements included elsewhere in this prospectus.

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 December 31, 2009 and September 30, 2010 would not have been material. To date, we have not entered into any material foreign currency hedging contracts although we may do so in the future.

Interest Rate Sensitivity

We had cash and cash equivalents of \$5.1 million as September 30, 2010. 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 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 the periods presented, our interest income would not have been materially affected.

As of September 30, 2010, the principal amount of our long-term debt outstanding was \$14.6 million and the principal and accrued interest amount of our convertible promissory notes outstanding was \$0.2 million. The interest rates on our long-term debt and convertible promissory notes are fixed. If overall interest rates had increased by 10% during the periods presented, our interest expense would not have been materially affected.

Fair Value of Financial Instruments

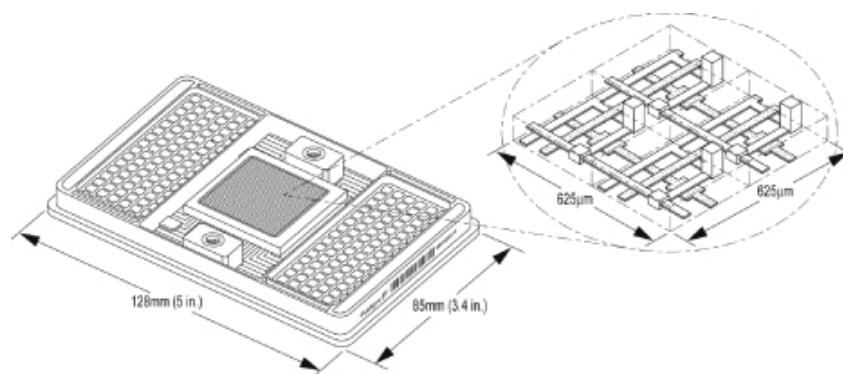
We do not have material exposure to market risk with respect to investments as our investments consist primarily of highly liquid securities that approximate their fair values due to their short period of time to maturity. We do not use derivative financial instruments for speculative or trading purposes,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

BUSINESS

Overview

We develop, manufacture and market microfluidic systems for growth markets in the life science and agricultural biotechnology, or Ag-Bio, industries. Our proprietary microfluidic systems consist of instruments and consumables, including chips and reagents. These systems are designed to significantly simplify experimental workflow, increase throughput and reduce costs, while providing the excellent data quality demanded by customers. In addition, our proprietary technology enables genetic analysis that in many instances was previously impractical. We actively market three microfluidic systems including eight different commercial chips to leading pharmaceutical and biotechnology companies, academic institutions, diagnostic laboratories and Ag-Bio companies. We have sold systems to over 200 customers in over 20 countries worldwide.

To achieve and exploit advances in life science research, Ag-Bio and molecular diagnostics, laboratories need robust systems that deliver increased throughput and simpler workflows at decreased costs. Our microfluidic systems are designed to overcome many of the limitations of conventional laboratory systems by integrating an increasing number of fluidic components on a single microfabricated chip. Our technology enables our customers to perform and measure thousands of sophisticated biochemical reactions on samples smaller than the content of a single cell, while utilizing minute volumes of reagents and samples. Similarly, for next generation DNA sequencing, our systems enable rapid preparation of multiple samples in parallel at low cost.



Schematic of our 96.96 Dynamic Array chip including an enlarged section showing four of the chip's 9,216 test chambers.

We have successfully commercialized our BioMark and EP1 systems for genetic analysis and our Access Array system for next generation DNA sequencing sample preparation. Researchers and clinicians have successfully employed our products to help achieve breakthroughs in a variety of fields, including genetic variation, cellular function and structural biology. These include using our microfluidic systems to help detect life-threatening mutations in patients' cancer cells, discover cancer associated biomarkers, analyze the genetic composition of individual stem cells, identify fetal chromosomal abnormalities and assess the quality of agricultural seed products. We believe, our Access Array system resolves a critical workflow bottleneck that exists in all commercial next generation DNA sequencing platforms. We expect that the versatility of our microfluidic technology will enable us to develop additional applications across a wide variety of markets.

We have grown our revenue from \$6.4 million in 2006, to \$25.4 million in 2009 and \$23.2 million in the nine months ended September 30, 2010, during which time our product margin has increased from 30% in 2006, to 51% in 2009 and to 62% for the nine months ended September 30, 2010. We have incurred significant net losses since our inception, including net losses of \$23.6 million in 2006, \$19.1 million in 2009 and \$13.8 million during the nine months ended September 30, 2010, with an accumulated deficit of \$196.2 million as of September 30, 2010.

Our Target Markets

The current markets for our products include life science research and Ag-Bio. Total expenditures in life science research and Ag-Bio in the markets described below are projected to exceed \$4.3 billion by 2015. In addition, we are developing products for use in molecular diagnostics and other markets.

Life Science Research

Our primary area of focus within life science research is genetic analysis, the study of genes and their functions. The sum total of the hereditary material of an organism is known as its genome, which is commonly organized into functional units known as genes. Analysis of variations in genomes, genes and gene activity in and between organisms can provide tremendous insight into their health and functioning. There are several forms of genetic analysis in use today including gene expression analysis, genotyping, digital PCR and DNA sequencing.

Gene expression and genotyping are studied through a combination of various technology platforms that characterize gene function and genetic variation. These platforms rely on polymerase chain reaction, or PCR, amplification to generate exponential copies of a DNA sample to provide sufficient signal to facilitate detection. Real-time quantitative PCR, or real-time qPCR, is a more advanced form of PCR that makes it possible to identify the number of copies of DNA present in a sample. Real-time qPCR often utilizes TaqMan, which is a proprietary chemistry developed by Roche Molecular Systems Inc.

The scale of genetic research varies widely. At the low end, researchers sometimes examine a limited number of genetic variations in a relatively small population. At the upper end, researchers may perform genome wide association studies where hundreds of thousands of possible genetic variations are examined across thousands or tens of thousands of samples. Because of the inherent complexity of biological systems, it is rare for researchers to be able to discover scientifically relevant information by examining just a few genetic variations. On the other hand, the result of many genome wide association studies is simply the identification of a more limited set of genetic variations that need to be examined in a larger population. As a result, some of the most productive life science research is done at a mid-multiplex scale, where tens or hundreds of genetic variations are examined in hundreds or thousands of samples.

We target the following specific areas of life science research, and our products are used for mid-multiplex research or applications of a similar scale:

Gene Expression Analysis. This form of genetic analysis focuses on measuring gene expression. The genome is typically made up of DNA, except in some viruses which utilize RNA. Typically, the process of gene expression involves the generation of RNA copies of specific regions of the genome by a process known as transcription. Such RNA copies are known as messenger RNAs. This messenger RNA may then be translated by the cell into a protein which may affect the activity of the cell or the larger organism. One prevalent form of gene expression analysis measures the levels of messenger RNA in a cell, in order to determine how the activity of particular genes or sets of genes affect the cell or the organism. According to a Kalorama Information report, the gene expression profiling market globally was approximately \$1.1 billion in 2006, \$425 million of which was attributable to real-time qPCR, and is expected to grow to over \$2.4 billion by 2012, representing a compounded annual growth rate of 14%.

Genotyping. Genotyping involves the analysis of variations across individual genomes. A common application of genotyping focuses on analyzing variations of single nucleotides, known as a single nucleotide polymorphism, or SNP. In SNP genotyping studies, statistical analyses are performed to determine whether a SNP or group of SNPs are associated with a particular characteristic, such as propensity for a disease. Haplotyping is an application of genotyping in which SNPs located at different loci on the same chromosome are studied simultaneously. According to a Kalorama Information report, the SNP genotyping market globally was approximately \$735 million in 2008, \$300 million of which was attributable to real-time qPCR or mid-multiplex platforms, and is expected to grow to \$1.3 billion in 2014, representing a compounded annual growth rate of 10%.

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Digital PCR. Digital PCR allows researchers to detect nucleic acid sequences that are present in sample concentrations that are too small to be accurately measured by conventional methods. Digital PCR typically relies on standard PCR techniques, but increases their sensitivity by dividing a sample into hundreds or thousands of smaller samples and performing a PCR assay on each such sample. The ability to count the presence or absence of amplification in this assay format allows for absolute quantitative measurement capabilities. As a result, digital PCR can perform much more precise detection of rare mutations, popularly known as needle-in-a-haystack detection, gene expression or copy number measurements as compared to real-time qPCR. Digital PCR has the potential to enable early detection of diseases and other conditions, thereby improving prospects for effective treatment.

Single Cell Analysis. Single cell analysis is an emerging area of genetic research that requires specialized tools and techniques. Genetic research typically involves the analysis of samples containing thousands of cells and many different cell types. When such samples are studied using gene expression analysis, the results obtained reflect a rough average of the activity of all of the cells in the sample. Recently, researchers have demonstrated that this approach often masks critical differences in gene expression levels between different cell types and even between individual cells of the same type. In addition, in the fields of in-vitro fertilization and stem cell research, researchers are often required to examine single cells because the number of cells available for analysis is inherently limited. The scope of this research has often been constrained because the small amount of genetic material in a single cell prevents conventional methods from analyzing the activity of more than a few genes. In addition, large numbers of samples are required to determine the heterogeneous signatures of sub-populations of cells and large studies like these can be prohibitively expensive when performed on conventional platforms. According to a Select Biosciences report, the single cell analysis market globally was approximately \$69 million in 2009 and expected to grow to \$576 million in 2015, representing a compounded annual growth rate of 42%.

Sample Preparation for Next Generation DNA Sequencing. Through a process known as sequencing, researchers are able to determine the particular order of nucleotide bases that comprise all or a portion of a particular genome. In the last few years, researchers have begun to use next generation DNA sequencers to rapidly and cost-effectively sequence large portions of the genomes of many individuals and identify genetic variations that correlate with particular characteristics. Next generation DNA sequencing technologies have dramatically reduced the cost and processing time for genetic sequencing, but to be utilized effectively, require large numbers of unique samples. In addition, next generation DNA sequencing requires new sample preparation methodologies including adding identification tags to each segment of each individual sample that is to be sequenced. These sample preparation and tagging processes, known as target enrichment, are complex and require precise measurement and manipulation of minute quantities of DNA and reagents. Based on an industry report, we estimate that at the end of 2010 there was an installed base of approximately 2,100 next generation DNA sequencing systems.

Agricultural Biotechnology

Genetic analysis techniques such as SNP genotyping have become increasingly useful in Ag-Bio applications such as wildlife population studies, agricultural quality control and commercial genetic engineering. These applications typically require the analysis of hundreds or thousands of SNPs to achieve representative samples and attain useful information. Due to these demands, commercially viable genetic analysis tools in Ag-Bio must be inexpensive, easy to use and able to provide extremely high throughput. Below a certain cost per data point, we believe Ag-Bio customers would choose to analyze the genome of each animal or sample. Based on the number of livestock slaughtered in the United States annually and our understanding of the price per data point required for broad adoption among Ag-Bio customers, we estimate the annual market opportunity to be greater than \$400 million for livestock customers alone. We believe the market opportunity for genotyping in seeds may represent a similar market opportunity.

Molecular Diagnostics

Recent advances in genetic analysis technology are increasingly being used for clinical applications. Techniques such as SNP genotyping, gene expression analysis and other genetic correlation studies are used to identify disease susceptibility and to diagnose, classify and monitor disease progression. Molecular diagnostic tests based on measuring these genetic markers have the potential to be much more accurate and robust than conventional diagnostics. Within molecular diagnostics, an area of significant unmet clinical need is NIPD for fetal aneuploidies, since the most reliable diagnostic tests currently available are invasive and carry risks to the fetus. Current physician guidelines recommend that all pregnant woman receive aneuploidy screening in the first trimester. Based on the number of births in the United States and the percentage of women that receive prenatal care, we believe that the potential market for an accurate non-invasive diagnostic test could be more than \$1 billion annually in the United States alone. Markets in the European Union, India and China could represent significant additional demand. In collaboration with Novartis Vaccines & Diagnostics, Inc., or Novartis V&D, we are developing a microfluidic system to target this NIPD market for fetal aneuploidies.

The Limitations of Existing Laboratory Systems

Academic, clinical and industrial researchers are increasingly performing genetic analysis on large sample sizes and assay sets. These experiments are typically performed using systems consisting of 384 well or larger microplates, pipetting stations, robotic plate movers and other elements of laboratory equipment. However, these conventional systems require an extremely complex workflow involving thousands of pipetting steps, hundreds of microplates and, despite the use of robotics, extensive human intervention. Such complexity limits the throughput of laboratories and increases the possibility of errors and variability between experiments. In addition, these systems typically are unable to perform experiments with low fluid volumes, leading to excessive consumption of reagents and inconsistent results.

In response to the limitations of conventional systems, numerous other methods of genetic analysis, including microarrays, pre-formatted arrays, bead arrays, microdroplets and mass spectrometer analysis have been developed. However, each of these high-throughput methods has one or more limitations that reduce its utility particularly for mid-multiplex experimentation.

Microarrays, pre-formatted arrays and bead arrays all lack flexibility because researchers must specify the assays they wish to perform at the time the products are ordered. This in turn limits researchers' ability to refine their assay panel during the course of a study. In addition, if researchers wish to use assay panels other than a manufacturer's standard panels, they must wait for a customized product to be produced.

The quality of the data produced by microarrays, pre-formatted arrays and mass spectrometer analysis is insufficient for certain research activities. For genotyping studies, data quality is typically measured by call rate, which is the frequency of a reading with respect to a particular SNP. Both pre-formatted arrays and mass spectrometer analysis generally have call rates lower than real-time qPCR performed in microplates. For gene expression studies, it is often important to measure expression levels over a broad dynamic range to capture all or most of the variation found among subjects. Microarrays, pre-formatted arrays, bead arrays or mass spectrometer analysis cannot measure gene expression levels over as broad a dynamic range as real-time qPCR performed in microplates.

The workflow for bead arrays and mass spectrometer analysis is complex, time consuming and costly. For example, standard protocols often require multiple complex operations to be performed over several days by skilled technicians. Also, certain pre-formatted arrays require significant manual intervention, which significantly increases costs and potential for error.

These methods can also be very costly for mid-multiplex experimentation. For example, a single microarray or bead array is capable of analyzing thousands of genes from a single sample. These devices have been successfully used for surveying the genome to discover basic patterns of genetic variation. These surveys are

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commonly performed on tens or hundreds of samples and are intended to identify a subset of genes for further investigation. However, for validation studies, which typically require the analysis of thousands or tens of thousands of samples, the high per sample cost of microarrays and bead arrays often make them uneconomical. Similarly, the high initial setup costs for mass spectrometry analysis generally make it economically feasible only for very large-scale studies.

While the cost and processing time for genetic sequencing has plummeted with next generation DNA sequencing technologies, improvements in sample preparation has lagged to the extent that sample preparation now represents the major bottleneck from both a cost and time perspective in the sequencing process. Microdroplet technologies have been proposed as a means to accelerate the sample preparation and tagging process for next generation DNA sequencing. However, this technique can process only one sample at a time, is expensive and cannot be validated prior to sequencing.

The limitations of existing technologies become even more acute when clinicians attempt to translate scientific research into commercial molecular diagnostics. Given the nature of their operations, commercial clinical laboratories need systems that can test large numbers of patient samples at low cost and with minimal labor requirements. Moreover, many of the most promising research studies rely on measuring each sample across tens or even hundreds of genetic markers to diagnose or classify a disease. We believe that using standard microplate technology to make multiple measurements on a large number of samples is often too complex and expensive for most clinical laboratories. Similarly, many of the limitations of microarrays, pre-formatted arrays, bead arrays and microdroplets also impact their ability to provide a broadly acceptable molecular diagnostic solution. As a result, the molecular diagnostic tests adopted by clinical laboratories have generally been relatively simple or have required specialized machines to perform. Diagnostic approaches that require measuring large numbers of genetic markers are generally not available or are available only from a diagnostic laboratory that specializes in the particular test.

Researchers, clinicians and commercial users need more robust systems that deliver increased throughput and simpler workflows with decreased costs.

The Fluidigm Solution

Our proprietary microfluidic systems are designed to significantly simplify experimental workflow, increase throughput, reduce costs, provide excellent data quality and in many instances enable genetic analysis that was previously impractical. Our microfluidic systems empower researchers and commercial customers to rapidly perform significantly more experiments or prepare significantly more samples—all at one time and in nanoliter volumes—with a combination of speed and accuracy that we believe cannot be achieved with other systems. Our systems deliver these advantages through the integration of sophisticated nanoliter fluid handling in an easy-to-use format that is compatible with most existing laboratory workflows and chemistries. Our systems are used in existing and emerging life science research and Ag-Bio markets, and we believe there are significant growth opportunities in additional markets. A significant portion of our research and development efforts are currently focused on potential applications of our technology in molecular diagnostics, and we expect such development focus to continue.

We believe that our microfluidic systems have a number of compelling advantages over microplate systems and other mid-multiplex platforms including:

- *Data Quality.* Our microfluidic systems provide exceptionally high quality data. In genotyping, our systems achieve greater than 99% call rate and call accuracy. For gene expression, our systems achieve 6 orders of magnitude of dynamic range with inter- and intra-chip reproducibility at correlation coefficients greater than 0.99.
- *Improved Throughput.* Our base BioMark system can generate over 27,000 genotyping data points per day and our high throughput configurations of our systems can generate over 110,000 data points per

day, with a time to first result measured in hours. Some competing systems may offer comparable data points per day, but may take longer for first results. Other systems offer comparable time to first result, but produce fewer data points per day, and often with lower data quality. Our improved throughput reduces the time and cost associated with complex experiments and expands the number and range of experiments that may be conducted.

- *Ease of Use.* Loading our 96.96 Dynamic Array chip requires 192 pipetting steps as compared to 18,432 steps required to load the number of 384 well microplates required for the same experiment. Difficulties encountered with some competing systems include manual sample loading and chip alignment that often results in lower throughput. We believe our microfluidic systems' efficient workflow reduces time, cost and potential for error.
- *Flexibility.* Our chips are built on input frames that are compatible with most commonly used laboratory systems, including existing robotic pipetting systems, bar code readers, plate handling systems and other equipment. Our chips are also designed to work with standard chemistries, including TaqMan and other reagents. In addition, our chips give researchers the flexibility to develop and load their own assays, unlike some competing products that can be used only to analyze specific genes or that are supplied pre-configured with fixed content.
- *Nanoliter Precision.* Our microfluidic systems allow users to dispense samples and reagents in microliter volumes which are automatically partitioned, combined or mixed in nanoliter and sub-nanoliter volumes. In addition to cost and workflow benefits, this capability makes it practical for users to conduct certain high sensitivity, low volume techniques, such as digital PCR and single cell analysis.
- *Cost Effectiveness.* We believe our high throughput systems offer a compelling cost benefit for high volume users. Our systems consume reagents in nanoliter volumes, have the ability to conduct thousands of parallel experiments on one chip, and offer customers the flexibility to use lower cost reagents as needed.

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We provide complete microfluidic systems consisting of instruments and consumables, including chips and reagents. Our systems are easily incorporated into our customers' laboratory environments and analysis workflow. For example, our chips are the same size and shape as standard 384 well microplates and other chip consumables, which facilitate the loading and handling of our chips by standard laboratory equipment. Each of our chips includes an elastomeric, or rubber-like, core that contains an extensive network of microfluidic components that deliver samples and reagents to thousands of nanoliter volume chambers where individual assays are performed. Our primary product offerings are summarized in the table below:

Product	Product Description	Applications
Instruments		
BioMark System	Real-time PCR instrument, bundled analysis software and chip loading platforms	Digital PCR, SNP Genotyping, Gene Expression
EP1 System	Real-time PCR instrument, bundled analysis software and chip loading platforms	Digital PCR, SNP Genotyping
Access Array System	Sample preparation system that facilitates parallel amplification of 48 unique samples	Next Generation DNA Sequencing
Consumables		
Dynamic Array Chips	Microfluidic chip based on matrix architecture, allowing users to generate up to 9,216 real-time qPCR reactions simultaneously	Real-time qPCR, SNP Genotyping, Gene Expression
Digital Array Chips	Microfluidic chip based on partitioning architecture, allowing users to divide each of 48 separate samples into 770 smaller samples	Digital PCR, Gene Expression, Copy Number Variation, Mutation Detection
Access Array Chips	Microfluidic chip that facilitates parallel amplification, barcoding and tagging of 48 unique samples	Next Generation DNA Sequencing
Multi-use Chips	Reusable microfluidic chip that can be used up to five times and is able to produce up to 11,520 genotypes over its lifespan	SNP Genotyping

Current Commercial Applications

We believe our microfluidic systems offer distinct advantages for mid-multiplex analysis in each of our target markets:

Life Science Research

Gene Expression and Genotyping. Our systems provide researchers a flexible and easy to use tool for generating high quality data. Competing technologies, such as pre-formatted arrays, bead arrays and microarrays,

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are limited and inflexible because they require nucleic acid sequences on the device to be pre-specified when the chip or other consumable is manufactured. In contrast, our microfluidic systems allow researchers to utilize and easily tailor their assays to meet their experimental needs, which can shorten the analytical cycle for a given study to hours instead of weeks. We believe our systems also offer meaningful cost savings because they operate on nanoliter volumes of reagents and samples, which are between 0.5% and 1.0% of the amount required by conventional microplate systems.

For example, a consortium consisting of a major research university, a fertility clinic and a regenerative medicine and research group has utilized our systems to conduct research in in-vitro fertilization. By performing individual expression profile analyses, this group has discovered a set of factors implicated in the survival and maturation of human eggs, leading to improved success in fertility clinics.

Digital PCR. Our BioMark and EP1 systems can be used for digital PCR, a process in which samples are partitioned into minute reaction volumes containing individual DNA strands to enable digital counting for more accurate DNA quantification. Because of their lack of precision, such as in pipetting nanoliter volumes it is not practical to perform digital PCR using conventional microplate systems. With our systems, digital PCR has been used for a number of different applications, including absolute quantification, determination of genomic copy number variation and detection of rare mutations. Although several competitors are currently developing digital PCR systems, we were the first to introduce and successfully commercialize a digital PCR system in 2006. For example, pharmaceutical and biotechnology companies are taking advantage of the increased sensitivity enabled by our digital PCR technology to detect genetic mutations that are linked to drug efficacy and monitor cancer remission.

Single Cell Analysis. The integrated workflow and precision of our systems enable researchers to perform gene expression analysis on single cells on a scale that is impractical with conventional systems. Information gathered on cell activities has traditionally been obtained from populations of cells due to technological limitations on the ability to examine each individual cell. Our systems are able to precisely divide the limited amount of sample material extractable from a single cell into a multitude of divisions, and then accurately assay each such minute division. The high throughput of our systems allows researchers to analyze thousands of cells in this manner. For example, our base BioMark system can deliver over 27,000 single cell data points in one day. Providing the combination of high throughput and data quality necessary for single cell analysis presents significant challenges that we believe most conventional systems are unable to address in a practical manner.

For example, our BioMark system has been used to help identify specific signatures of cancer stem cells, at the single cell level. Researchers believe that cancer stem cells are precursors to tumors and are often manifested well in advance of other tumor markers. By detecting and identifying such cells, researchers believe they can diagnose and treat cancer at a much earlier stage than with conventional methods. In addition, our BioMark system has been used to identify signatures of induced pluripotent stem, or iPS, cells. These iPS cells may have multiple applications in life science research and therapeutics. Similarly, our BioMark system has also been used to identify signatures of immune system cells, both pre- and post- exposure to antigens, to gain insight into improved vaccines and disease treatments. As of September 30, 2010, over 50 of our customers were using our systems to perform single cell analysis.

Sample Preparation for Next Generation DNA Sequencing. To efficiently use next-generation sequencers to perform validation or other studies, researchers need to be able to prepare and tag samples from tens or hundreds of individuals prior to the samples being processed by the sequencers. Using conventional methods, this preparation and tagging must be done separately for each individual sample being processed, a laborious process that could take several days or more for a typical validation study. The streamlined workflow and flexibility of our systems address this critical workflow bottleneck by allowing samples from up to 48 individuals to be prepared and tagged in approximately four hours.

For example, a leading cancer research institute has utilized our Access Array system in conjunction with their next generation DNA sequencing platform to analyze key oncology genes across large cohorts of cancer

samples. We believe such studies will advance the understanding of cancer etiology and potentially lead to the development of improved cancer treatments. As of September 30, 2010, 35 customers had purchased our Access Array system.

Agricultural Biotechnology

Ag-Bio customers require systems that can quickly and accurately analyze a large number of samples, such as tissue from livestock populations or seeds from a production lot, in a cost efficient manner. The streamlined workflow of our systems allows customers to genotype a set of samples in approximately three hours as opposed to a day or more, which is the time required to prepare and run a set of samples on bead array systems. In addition, the call rate for our systems is much higher than for pre-formatted arrays or mass spectrometry, and our products offer significant cost advantages over competing systems.

For example, our BioMark system is being used to help create disease resistant strains of staple food crops for developing nations. Recently, certain genetic indicators have been identified that quickly and accurately fingerprint crops. By systematically analyzing over 300 specific genetic markers, the BioMark system is helping our customer produce and deliver seeds that will grow into plants more likely to survive, leading to improved yields. This success has led to increased adoption of the BioMark system, which is now used to selectively breed other desirable food qualities and drive agricultural efficiency and natural resource conservation. As of September 30, 2010, over 35 of our customers were using our systems for Ag-Bio applications.

Potential Future Applications

The inherent design flexibility of our core technology allows us to build microfluidic systems that can provide significant benefits in a wide range of fields and industries. We believe these features could lead to a number of different commercial applications including:

Molecular Diagnostics. Life science research is revealing additional diseases and conditions that can be diagnosed, evaluated and monitored by measuring panels of gene expression levels, SNPs, proteins or other biomarkers. Validating these research findings and translating them into clinically available tests often requires life science automation systems that are able to measure multiple biomarkers efficiently in a large number of patient samples. Our existing microfluidic systems are able to measure certain nucleic acid biomarkers that are commonly used in these tests, and in the future, we expect to develop additional systems to measure other relevant biomarkers.

We believe that the high-throughput, flexibility and simplified workflow of our microfluidic systems could make them an attractive solution for validating and commercializing a wide range of molecular diagnostic tests being developed by researchers. Our microfluidic systems have not been cleared or approved by the U.S. Food and Drug Administration, or FDA, for use in any molecular diagnostic tests and we cannot currently market them for the purpose of performing molecular diagnostic tests. We are currently developing a microfluidic system with Novartis V&D for NIPD for fetal aneuploidies. A commonly used diagnostic procedure for fetal aneuploidies is amniocentesis, which typically costs approximately \$1,500 to \$2,000 per test. Our system is in its early stages of development and we have not made any submissions to the FDA regarding the system or determined whether FDA clearance or approval will be required.

Other Applications. We believe that the inherent design flexibility of our core microfluidic technology allows us to perform sophisticated biochemical processes relevant to a wide range of fields and industries. We are developing our microfluidic technology for additional applications, including:

- *Single Cell Capture and Processing.* Researchers have increasingly focused on the study of single cells to better understand complex biological processes. We plan to apply our technology to make it

easier to capture single cells and to increase the range of methods that can be used to interrogate a single cell.

- *Protein Assays.* While the analysis of mRNA and DNA gives insight into the activity of biological systems, most biological activity in cells is carried out by proteins. We have developed a chip that allows quantitation of 18 proteins within 48 samples simultaneously. We believe that the sensitivity and specificity of this chip will be highly valuable to the life science research industry. In addition, we have demonstrated PCR-based protein quantification using commercially available reagents on our BioMark system.
- *Cell Culture and Assays.* We are developing an integrated microfluidic chip that enables cell culture to be performed in a highly automated fashion in a microfluidic environment. Our co-founder, Dr. Stephen Quake, recently used a prototype of our cell culture microfluidic chip to perform single cell studies of cell signaling, and published these results in the journal *Nature*.
- *Sample Preparation for Next Generation DNA Sequencing.* In addition to the Access Array system, we have demonstrated a general architecture with the ability to use bead based purification steps in-chip, allowing sequential reactions with purification steps in between. While we have no immediate plans to commercialize this architecture, it may find utility in automated library prep for de novo next generation DNA sequencing.

Our microfluidic systems address the needs of researchers and clinicians who perform mid-multiplex experimentation in the areas of genetics, Ag-Bio and molecular diagnostics. In particular, for validation studies or projects of a similar scale, our microfluidic systems substantially reduce cost, simplify workflow and increase throughput as compared to conventional microplate systems. Nevertheless, researchers may be slow to adopt our microfluidic systems as they are based on technology that, compared to conventional technology, is new and less 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. While we believe our systems provide significant cost-savings, the initial price of our instruments and the price of our chips is higher than conventional systems and standard 384 well microplates. Our microfluidic 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. In addition, for very large-scale association or survey projects, researchers may choose to use microarrays because of the ability of those products to measure thousands of genetic markers with a single device. 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 microfluidic systems.

Strategy

We intend to continue growing as a global leader in providing microfluidic systems to the life science research and Ag-Bio markets. Our business strategy includes the following elements:

Increase Penetration of our Microfluidic Systems. Our sales and marketing efforts have established our systems as leading solutions for certain high-throughput life science research applications. A growing number of companies and leading researchers around the world have recognized the benefits of our technical platform and are becoming much more visible in their support and endorsement of our products and technologies to their professional colleagues. From our inception through October 2010, the results of experiments based upon our microfluidic systems have been published in 116 peer-reviewed articles, 66 of which have been published since the beginning of 2009. We intend to leverage the growing market awareness of our current product offerings with enhanced sales and marketing efforts that include adding sales representatives in new geographies, accessing sales and marketing efforts of large partners through co-marketing agreements, continuing to build relationships with thought leaders in our target markets and helping our current supporters to become more visible to potential new customers.

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Increase Recurring Consumables Revenue through Instrument Sales and Product Innovation. We intend to drive consumables revenue growth by increasing the number of installed instruments, integrating other value added operations and sample handling abilities into our chip architecture, increasing customer usage by decreasing the cost-per-data point and developing systems for additional applications. We have increased our installed base from 15 systems as of December 31, 2007 to over 250 systems as of September 30, 2010.

Provide Assays and Design Services that Leverage our System Strengths in Key Application Areas. We provide assay design services that enable the use of our Access Array system to prepare samples for next generation DNA sequencing. In addition, we provide or are developing assay content for specific application areas, including cancer research, organ rejection, stem cell gene expression and other areas with potential clinical utility. We plan to expand these offerings to include chemistries for gene expression, particularly for single cell analysis and genotyping. We believe these chemistries will increase the flexibility of our chips as well as improve cost per-assay and performance in our microfluidic platform.

Provide Expanded Offerings that Complement and Support our Core Technology Offerings. We intend to expand our product offerings to address additional stages of our customers' workflow. We believe we can enhance the utility of our microfluidic system by providing additional workflow components to our customers, including sample preparation systems to isolate, partition and amplify samples prior to analysis, and software and data analysis tools for downstream applications.

Leverage our Proprietary Technology to Address New Markets. We believe our technology is broadly applicable to biotechnology automation and could be further developed for a wide variety of additional applications, including protein expression analysis, new types of sample preparation cell culture and analysis and molecular diagnostics. Within molecular diagnostics, our initial area of focus is in NIPD for fetal aneuploidies, for which no approved non-invasive diagnostic currently exists.

Provide Superior Customer Service. We have a domestic and international direct sales force and support organization that offers technical solutions and customer support. Through direct relationships with our customers, we believe we are able to better understand their needs and apprise them of new product offerings and technological advances in our current systems, related instrumentation and software, while maintaining a consistent marketing message and high level of customer service. A key component of our value proposition is having capable, specialized, technical staff available to ensure that our customers are not only using our tools in an optimized fashion, but also designing experiments and choosing methodologies that will result in an optimized protocol in terms of both time and expense. We intend to expand the staff dedicated to customer service and support in important commercial geographies and in our headquarters.

Enhance Chip Manufacturing Efficiency. We intend to enhance our manufacturing efficiency through improvements in our existing processes, development of new chip designs and implementation of new manufacturing methods in order to improve our manufacturing yields and reduce our manufacturing costs. We believe that these improvements will enable us to deliver additional value to our customers and maintain or enhance our advantages over competing systems.

Continue to Develop our Technology and Intellectual Property Position. Our products are based on a set of related proprietary technologies that we have either developed internally or licensed from third parties. We intend to continue making significant investments in research and development to further expand and deepen our technological base. At the same time, we intend to maintain and strengthen our intellectual property position through the continued filing and prosecution of patents in the United States and internationally and through the in-licensing of third party intellectual property as appropriate.

Products

We actively sell three microfluidic systems, BioMark, EP1 and Access Array. These systems are based on one or more chips designed for particular applications and include specialized instrumentation and software. All

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of our systems include chip controllers that control the activation of valves, loading of reagents, and recovery or wash steps within the chips. Each chip controller comes with software to control chip and instrument operations for particular applications. The BioMark system includes a real-time PCR machine that comprises a thermal cycler for PCR and a fluorescence reader that can detect the results of reactions over time. The EP1 system includes stand-alone thermal cyclers and an end-point fluorescence reader. The EP1 thermal cycler supports fast PCR enabling the performance of high-throughput SNP genotyping. The BioMark and EP1 systems both include software to analyze, annotate and archive the data produced by the reader. The Access Array system includes a stand-alone thermal cycler and two chip controllers. We provide an extensive set of protocols and application notes with all of our systems to support specific scientific applications. All of our systems are designed to be compatible with standard laboratory automation equipment.

The BioMark System for Genetic Analysis

Our BioMark system performs high-throughput gene expression analysis, SNP genotyping, single cell analysis and digital PCR using TaqMan, EvaGreen dye and other chemistries.

Fluidigm Dynamic Array Chips. Our Fluidigm 96.96 Dynamic Array chip is based on a matrix architecture and is capable of individually assaying 96 samples against 96 reagents, generating 9,216 reactions on a single chip. Our Fluidigm 48.48 Dynamic Array chip is based on the same architecture and is capable of individually assaying 48 samples against 48 reagents, generating 2,304 reactions. One version of each chip is optimized to perform gene expression analysis and another is optimized for genotyping. All assays are performed in volumes of 10 nanoliters or less. In 2010, we introduced the reusable FR 48.48 Dynamic Array chip. This chip is based upon the same matrix architecture as our standard 48.48 Dynamic Array chip, but can be cleaned by the customer and used up to 5 times. In 2011, we expect to introduce an enhanced reusable chip capable of assaying 192 samples against 24 reagents.

Fluidigm Digital Array Chips. Our Fluidigm 48.770 Digital Array chip is based on partitioning architecture that divides each of up to 48 separate samples into 770 microscopic samples and then performs a PCR or other assay for each divided sample in 1 nanoliter or smaller volume. Our 12.765 Digital Array chip is based on the same architecture and divides up to 12 samples into 765 parts. These chips can be used for digital PCR applications such as rare mutation detection or copy number variation analysis.

BioMark Instrumentation and Software. Our chip controllers for the BioMark system fully automate the setup of Dynamic Array and Digital Array chips for real-time qPCR-based experiments and include software for implementing and tracking experiments. Our BioMark reader controls the PCR process and detects the fluorescent signals generated using a white light source, emission and excitation filters, precision lenses, a thermal cycler and a digital camera. In 2011, we expect to introduce an enhanced version of our BioMark reader that will have a faster thermal cycler, doubling throughput compared to our existing BioMark reader. We also offer various software packages that provide data analysis following data collection. Our analysis software shows data as a color-coded map of every position on the chip, such as for amplification curves and as numeric tabular data.

The EP1 System

The EP1 system performs SNP genotyping and end-point digital PCR using TaqMan, EvaGreen dye and other chemistries. Our EP1 System uses the same Dynamic Array and Digital Array chips that are used by our BioMark system. Because of its high throughput and focus on genotyping, the EP1 system is a preferred choice by our Ag-Bio customers for field implementation. In addition, we believe our reusable FR48.48 Dynamic Array chip and future reusable chips may be widely adopted by our Ag-Bio customers because they can substantially reduce the cost per data point for high volume users.

EP1 Instrumentation and Software. The chip controllers for the EP1 system fully automate the setup of chips for end-point SNP genotyping and digital PCR experiments, and include software for implementing and

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tracking experiments. Our EP1 reader detects fluorescent signals generated in our chips using a light source, emission and excitation filters, precision lenses and a digital camera. Our FC1 Cycler performs fast thermal cycling for chips and enables up to 12 Dynamic Array chips to be run per day. We also offer various software packages that provide data analysis following data collection. Our analysis software shows data as color-coded map of every position on the chip, cluster maps showing results for every assay, and as numeric tabular data.

The Access Array System

The Access Array system enables automated sample preparation and tagging, at a cost of \$10 per sample or less, for all currently marketed next generation DNA sequencers. We believe the Access Array system is the only high throughput target enrichment system currently on the market that is capable of simultaneously processing multiple samples. The Access Array system can be used in conjunction with our BioMark system to provide real-time monitoring of amplification steps.

Fluidigm Access Array Chips. Our Fluidigm 48.48 Access Array chip is based on an architecture similar to that of the Dynamic Array chip, but is designed to enable recovery of reaction products from the chip. This chip combines up to 48 samples with 48 primer sets prior to PCR amplification. This is accomplished with only 96 pipetting steps as compared to approximately 7,000 pipetting steps that would be required by conventional systems. After amplification, all 48 PCR products for each sample are recovered in a pool. When PCR primers are designed to include DNA tags for specific sequencers and DNA barcodes for each sample, samples from the Access Array chip can be loaded directly into the sequencer. The DNA barcodes can then be used to identify products from each sample from the sequence data. In addition, we have shown that we have been able to combine up to 10 unique primer pairs per primer set, allowing up to 480 samples per chip, which can then be tagged for specific sequencers in a secondary step.

Access Array Instrumentation. The Access Array system is comprised of two chip controllers and a single stand-alone thermal cycler. This system can load Access Array chips, amplify and tag the regions of interest, and recover the sample for loading into a next generation DNA sequencer.

Access Array Barcode Libraries and Access Array Content Service. We provide optimized barcoding primers, or Access Array Barcode Libraries, for use with Roche and Illumina sequencing platforms. When used with the 48.48 Access Array chip, the barcode library enables the user to pool products of different samples, perform amplification of all samples in parallel, and then sequence the pooled samples as a single sample. We also offer the Access Array Content Service to provide validated custom primer sets for users.

The TOPAZ System for Protein Crystallization

The TOPAZ System allows users to screen protein samples against a set of reagents in order to determine the optimum conditions for crystallizing a protein. While we currently offer TOPAZ systems and chips for sale, we do not actively market this system.

Technology

Our products are based on a tiered set of related proprietary technologies that we have either developed internally or licensed from third parties.

Multi-Layer Soft Lithography

Our chips are manufactured using a technology known as multi-layer soft lithography, or MSL. Using MSL technology, we are able to create valves, chambers, channels and other fluidic components on our chips at high density. We combine these components in complex arrangements that allow nanoliter quantities of fluids or drops to be precisely manipulated within the chip. Unlike most prior microfluidic technologies, our chips do not

rely on electricity, magnetism or similar approaches to control fluid movement. Rather, they control fluid flow with valves. The most important components on our chips are our NanoFlex valves, which are created by the intersection of two channels on adjacent layers. When the valve is open, fluid is able to flow through the lower or “flow” channel. When the upper or “control” channel is pressurized, the material separating the two channels is deflected into the lower channel, closing the valve and stopping fluid flow. If pressure is removed from the control channel, the channels return to their original form, and the valve is again open. The elastomeric properties of microfluidic chip cores allow our NanoFlex valves to form a reliable seal and cycle through millions of openings and closings.

The elastomer we currently use for our commercial products is a form of silicone rubber known as polydimethylsiloxane, or PDMS, but we have researched other materials with different properties for specific purposes. PDMS is transparent, which allows the fluids and their contents to be easily monitored with a variety of existing optical technologies, such as bright field, phase contrast or fluorescence microscopy. The gas permeability of PDMS allows the reliable metering of fluids with near picoliter precision by eliminating the bubble problems encountered by most other microfluidic technologies: in essence, we are able to pump fluids into closed reaction chambers at sufficient pressure to drive any air out of the chamber directly through the chamber walls. This gas permeability also supports maintenance of cells in cell culture conditions. PDMS offers a favorable environment for many biochemical reactions, including PCR and cell culture.

We have developed commercial manufacturing processes to fabricate valves, channels, vias and chambers with dimensions in the 10 to 100 micron range, at high density and with high yields. For research purposes, we have created devices with both substantially smaller and larger features. Though our manufacturing is based on standard semiconductor manufacturing technologies and techniques, we have also developed novel processes for mold fabrication that enable mass production of high density chips with nanoliter volume features. These processes are sufficiently robust that new microfluidic designs can often be built using existing fabrication techniques, allowing for rapid innovation of new chip designs without needing manufacturing process or equipment changes.

Microfluidic Chips

Our chips incorporate several different types of technology that together enable us to use MSL to rapidly design and deploy new microfluidic applications.

Microfluidic Components. The first level of our chip technology is a library of components that perform basic microfluidic functions. We have proven designs for numerous elements, such as pumps, mixers, separation columns, control logic and reaction chambers. These are readily integrated to create circuits capable of performing a wide range of biochemical reactions. Even when it is necessary to integrate multiple elements to perform a particularly complex reaction, the area taken up on a circuit for a single reaction is small compared to our typical overall chip core size of three centimeters by three centimeters. As a result, we are routinely able to develop chips that perform thousands of reactions per square centimeter.

Architectures. The second level of our chip technology comprises the architectures we have designed to exploit our ability to conduct thousands of reactions on a single chip. The first of these is the Dynamic Array, a matrix architecture that allows multiple different samples and multiple different reagents to be loaded onto a single chip and then combined so that there is an isolated reaction between each sample and each reagent. The primary advantage of this architecture is that each sample and reagent is only handled by a pipette once per chip rather than once per reaction, as is the case with conventional microplate-based technologies. For example, a single 96.96 Dynamic Array chip can perform a total of 9,216 unique reactions between 96 samples and 96 reagents with only 192 pipetting steps. With conventional microplate-based technologies, the same experiment would require about 18,432 pipetting steps and at least 24 conventional microplates. Our Sample Processor architecture allows us to bring similar benefits to reactions which require export of the reaction product and more complex (multi-step) reactions. For example, our Access Array chip automates sample preparation for targeted

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resequencing by amplifying 48 genetic regions on each of 48 samples and exporting each prepared sample. Our Digital Array architecture allows a sample to be split into hundreds to tens of thousands of smaller samples. Separate reactions can then be conducted on each of the smaller samples. The cell processor automates cell seeding, culture, combinatorial dosing with multiple reagents, and export for further analysis.

Interface and Handling Frames. The third level of our chip technology involves the interaction of our chips with the actual laboratory environment. The core elastomeric block at the center of our chip is surrounded by specially designed frames that are able to deliver samples and reagents to the blocks. These frames are the same size as standard 384 well microplates and have sample and reagent input ports laid out in a standard 384 well microplate format. As a result, our chips can be loaded with standard laboratory pipetting robots and can be used with standard plate handling equipment. These frames also transmit the pressure and control signals from our instruments to the chip.

Technological Advances. In the second quarter of 2002, we sold the first prototype of our 1.48 chip for our Topaz system, which featured 22 valves capable of 2.5 assays per square centimeter. Today we sell 48,770 Digital Array chips, with over 4,000 valves capable of more than 4,000 assays per square centimeter, a 181-fold increase in valve density and a 1,600-fold increase in assay capability. In our research and development laboratory, we have built and tested fully functional Digital Array chips capable of performing substantially more assays.

We have added capabilities to our chips in addition to increasing the density. In 2010, we employed our sample processor architecture to create the FR48.48 reusable Dynamic Array chips. With cleaning, each chip may be used five times, reducing the cost of each assay.

We also recently developed a second generation interface technology, which increases our number of chip control signals, or states, by nearly a factor of 10 (from 4 to 36). Since the number of chip states is approximately 2 raised to the power of the number of control signals, this represents a billion-fold increase in the number of states a chip may be set to; this advance means that the complexity of reactions that our chips may run is no longer meaningfully limited by the number of control lines. We expect to implement this architecture on commercial products in 2011.

Software and Instrumentation

We have developed instrumentation technology to load samples and reagents onto our chips and to control and monitor reactions within our chips. Our line of chip controllers consists of commercial pneumatic components and both custom and commercial electronics. They apply precise control of multiple pressures to move fluid and control valve states in an microfluidic chip. Our BioMark system consists of a custom thermal cycler packaged with a sophisticated fluorescence imaging system. Our FC1 cycler is a custom thermal cycler capable of very rapid cycling: 45 cycles in 30 minutes. Our EP-1 instrument is a fluorescence reader designed for endpoint imaging, suitable for digital PCR and genotyping applications. All of these instruments are designed to be easily introduced into standard automated lab environments.

We have developed specialized software packages to manage and analyze the unusually large amounts of data produced by our systems. Our BioMark system's gene expression analysis software automatically measures individual real-time qPCR reactions from fluorescent images and generates amplification threshold crossing values allowing researchers to readily perform complete normalized comparative gene expression analysis across large numbers of samples and assays. Similarly, our SNP Genotyping Analysis software automatically clusters fluorescent intensities from individual genotype reactions and makes genotype calls across individual and multiple chip runs. The Digital PCR Analysis software automatically calculates absolute copy number and copy number ratios from digital PCR experiments. Our Melting Curve Analysis software supports genotyping from data collected on the BioMark reader.

Protocols and Assays Design

We provide protocols to guide our customers in the use of our products with commonly available molecular biology reagents for the analysis of their specific samples types. The set of protocols we offer are regularly expanded. For gene expression, we initially provided a protocol for TaqMan real-time reagents for general gene expression analysis. We now offer a protocol specifically for single cell analysis. We have also expanded the choices of reagents for our customers. In early 2010 we released a protocol for EvaGreen, a DNA binding dye for gene expression measurements with excellent data quality and a very low cost per assay. We also released protocols for the use of our microfluidic systems with Qiagen GmbH gene expression panels and Thermo-Fisher Solaris assays. For genotyping, we developed a protocol for using KASPar assays in the BioMark system.

PCR assay reagents need to be specific to the gene targets of interest. Since our systems analyze many gene targets at once, the process of designing a set of assays may delay the implementation experiments or require the use of expensive pre-designed assays. To address this issue we have developed a computational method for rapid-turn PCR assay design. This process allows us to provide customers with validated assays for their targets of interest. We have commercialized this service for our Access Array customers and are developing the service for other applications.

In 2011, we plan on releasing assay design and custom content delivery systems for gene expression and genotyping that will allow customers to specify genes or SNP sites of interest and match them to region-specific primers, enabling our existing systems to amplify specific genetic regions of interest. We believe these assay design and content delivery systems will represent an improvement over conventional pre-defined panels by allowing customization based on cellular pathways or biological areas of interest.

In 2011, we plan on releasing gene expression and genotyping chemistries together with assay design services and pre-defined content. We expect these offerings will provide low-cost alternatives to chemistries such as Taqman and allow customers to use chips in more flexible ways. By specifying genes or SNP sites of interest and matching them to region specific primers, customers using our existing systems will be able to amplify specific genetic regions of interest at reduced cost without sacrificing data quality. In addition, these chemistries allow for more flexible formatting of samples and assays. For example, rather than using our 96.96 Dynamic Array chip to test 96 samples versus 96 assays, these new chemistries will allow customers to assay 1,152 samples versus 8 assays or 24 samples versus 384 assays.

Sales and Marketing

We distribute our instruments and supplies via direct field sales and support organizations located in North America, Europe and Japan and through distributors or sales agents in parts of Europe, Latin America and the Asia-Pacific region outside of Japan. Our domestic and international sales force informs our current and potential customers of current product offerings, new product introductions, and technological advances in our microfluidic systems, workflows, and notable research being performed by our customers or ourselves. As our primary point of contact in the marketplace, our sales force focuses on delivering a consistent marketing message and high level of customer service, while also attempting to help us better understand our customer needs. As of September 30, 2010, we have 59 people employed in sales, sales support and marketing, including 32 sales representatives and technical pre-sales specialists located in the field. Over half of this staff is located in the United States and dedicated to North American customers. We intend to significantly expand our sales, support and marketing efforts in the future.

Our sales and marketing efforts are targeted at laboratory directors and principal investigators at leading companies and institutions who need reliable life science automation solutions for their business or commercial purposes. We seek to increase awareness of our products among our target customers through regular contact, participation in tradeshow, on customer site seminars, academic conferences and dedicated company gatherings attended by prominent users and prospective customers from various institutions.

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Our systems are relatively new to the market place and require a capital investment. As a result our sales process often involves numerous interactions and demonstrations with multiple people within an organization. Some potential customers conduct in-depth evaluations of the system including running experiments on our system and competing systems. In addition, in most countries, sales to academic or governmental institutions require participation in a tender process involving preparation of extensive documentation and a lengthy review process. As a result of these factors and the budget cycles of our customers, our sales cycle, the time from initial contact with a customer to our receipt of a purchase order, can often be 12 months or longer.

Commercial Alliances

Co-Marketing Agreements for Next Generation Sequencing

We have entered into an agreement to co-market our Access Array system with 454 Life Sciences, a division of F. Hoffman-La Roche Ltd., a manufacturer of leading next generation DNA sequencing platforms. Per our agreement, we may bundle our Access Array sample preparation system with our co-marketer's next generation DNA sequencing technologies. This agreement enables us to disseminate the benefits of using the products in combination, engage in co-operative marketing and messaging, including select dual presence at trade shows and technical seminars, perform selective specialization or utilization of each respective company's channel for promotional or sales activity and educate the direct and indirect distribution channels of both companies, in each case without any minimum sales, volume or other financial obligations of either party. The agreement does not preclude us from engaging in other activities of similar or related interest with other participants in the sequencing technology market and may be terminated by either party with notice. We have entered into a similar co-marketing agreement with another manufacturer of next generation DNA sequencing platforms. This second agreement is in its early stages, does not contain any minimum performance obligations of the parties and may be terminated at anytime by either party with notice.

Non-invasive Prenatal Diagnostics Collaboration

We entered into a set of related agreements with Novartis V&D, in May 2010. Under these agreements, our capabilities in digital PCR are being developed for potential in-vitro diagnostics applications, with an initial focus on the development of an NIPD test for fetal aneuploidies. These agreements provide Novartis V&D with an option to exclusively license our technology in the primary field of non-invasive testing for fetal aneuploidies and the secondary field of non-invasive testing of genetic abnormality, disease or condition in a fetus or in a pregnant woman (other than as tested in the primary field), RhD genotyping or carrier status in a pregnant woman and the genetic carrier status of a prospective mother and her male partner. Under these agreements, except with Novartis V&D, we cannot, directly or in collaboration with a third party, use, develop or sell any products or services in the primary field or the secondary field, other than for research applications in the secondary field. The agreements contain certain initial technical feasibility milestones to be attained in 2010 and 2011, and provide for milestone payments to us upon our execution and satisfaction of milestones with aggregate payments totaling \$3,000,000. At Novartis V&D's option, these agreements can be extended to encompass further research, development and commercialization of our products in the primary and secondary fields described above, which could take several years or more to complete. If the agreements are extended, we will negotiate additional technical feasibility milestones and milestone payments with Novartis V&D. In addition, the agreements provide for payments to us upon Novartis V&D's exercise of its option to license our technology and upon our meeting a specified product development milestone. These additional payments total \$3,000,000. The term of the development portion of the agreements will extend until attainment of all existing and to-be-negotiated technical feasibility milestones, but will automatically terminate if Novartis V&D does not exercise its option to license our technology within 90 days of our attainment of the initial technical feasibility milestones. In addition, the agreements may be terminated at any time in Novartis V&D's sole discretion and, by us, at certain times, if Novartis V&D elects not to proceed with the development program. The agreements provide that if a test is commercialized, we would supply the required systems and chips for performance of such test.

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Customers

We have sold our BioMark, EP1 and Access Array systems to leading pharmaceutical and biotechnology companies, academic institutions, diagnostic laboratories and Ag-Bio companies. As of September 30, 2010, we have sold over 250 of these systems to customers in over 20 countries. The following is a representative list of our largest end-use customers by number of installed Biomark and EP1 systems in each of our current target markets:

Customer	Market	Application
National Cancer Institute / National Institute of Allergy and Infectious Diseases	Life Science Research	Genotyping Gene Expression Analysis Single Cell Analysis Next Generation Sequencing Digital PCR
Stanford University	Life Science Research	Gene Expression Analysis Single Cell Analysis Digital PCR Next Generation Sequencing
MedImmune, LLC	Life Science Research	Gene Expression Analysis
Tokyo University	Life Science Research	Single Cell Analysis Digital PCR
Genentech, Inc.	Life Science Research	Gene Expression Digital PCR
Novartis	Life Science Research	Digital PCR Gene Expression
Bayer CropScience AG	Ag-Bio	Genotyping
Alaska Department of Fish and Game	Ag-Bio	Genotyping

Manufacturing

Our manufacturing operations are located in Singapore and fabricate all of our microfluidic systems and instrumentation for commercial sale, as well as for internal research and development purposes. Our Singapore facility commenced operations in October 2005 and established full process capability for the Topaz chip in June 2006 and for our first Dynamic Array chip, the 48.48 Dynamic Array chip in October 2006. During 2009, we moved all of our manufacturing for commercial products to Singapore.

We established our manufacturing facility in Singapore to take advantage of the skilled workforce, supplier and partner network, lower operating costs and government support available there. Our microfluidic system manufacturing process includes photolithography and fabrication technologies that are very similar to those used in the fabrication of semiconductor chips. As a result, we are able to hire from a pool of skilled manpower created by the existing semiconductor industry in Singapore. Similarly, the Singapore semiconductor industry has created a broad network of potential suppliers and partners for our manufacturing operations. We are able to locally source a large proportion of the raw materials required in our processes and have been able to collaborate with local engineering companies to develop enabling technologies chip fabrication.

Our manufacturing operations in Singapore have been supported by grants from the Singapore Economic Development Board, or EDB, which provides incentive grant payments for research, development and manufacturing activity in Singapore. Our arrangements with EDB require us to maintain a significant and increasing manufacturing and research and development presence in Singapore.

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We expect that our existing manufacturing capacity for instrumentation and chips is sufficient to meet our needs at least through mid-2012. However, we are considering developing additional capacity to ensure that all or most of our products are produced by at least two different facilities. We believe that having dual sources for our products would help mitigate the potential impact of a production disruption at any one of our facilities and that such redundancy may be required by our customers in the future. We have not determined the timing or location of any additional manufacturing capacity.

We rely on a limited number of suppliers for certain components and materials used in our systems. While we are in the process of qualifying additional sources of supply, we cannot predict how long that qualification process will last. If we were to lose one or more of our limited source suppliers, it would take significant time and effort to qualify alternative suppliers. Key components in our products that are supplied by sole or limited source suppliers include a specialized polymer from which our chip cores are fabricated and the specialized high resolution camera used in the reader for our BioMark system. We are in the midst of qualifying an alternate camera source, with the qualification scheduled to be completed in the first quarter. With respect to many of our suppliers, we are neither a major customer, nor do we have long term supply contracts. These suppliers may therefore give other customers' needs higher priority than ours, and we may not be able to obtain adequate supply in a timely manner or on commercially reasonable terms.

Research and Development

We have assembled experienced research and development teams at our South San Francisco and Singapore locations with the scientific, engineering, software and process talent that we believe is required to grow our business.

New Product and Application Development

The largest component of our current research and development effort is in the areas of new products and new applications.

We plan to focus on enhancing our single cell analysis, cell preparation and cell culturing capabilities, strengthening our current product lines by further developing content and our existing chip architectures, and developing products to support molecular diagnostic applications.

Single Cell Analysis. We intend to strengthen the single cell analysis capability of the BioMark system by expanding our customers' options for single cell procurement and downstream data analysis. For example, we are developing a system for single cell capture and preparation that will increase the types of samples that can be processed by the system as well as the types of usable preparation chemistry. We expect that this new system will be able to prepare samples both for BioMark system as well as for next generation sequencing.

Cell Culture System. We are developing system that will enable researchers to culture a large number of individual cells within separate chambers on a chip, control the conditions in which each cell is cultured, and then extract the cells for further analysis. With the support of a grant from the California Institute of Regenerative Medicine in an aggregate amount of \$750,000, we have developed a prototype system that demonstrates the technical feasibility of this application.

Assay Development. We plan to add both content and flexibility to our current product lines. For example, we plan to expand our Assay Design Service to support gene expression and genotyping applications. This expansion is intended to enable customers in those areas to reduce their assay costs without sacrificing data quality by purchasing assays directly from us. We also plan to introduce chemistries that will allow customers to use our chips in the manner that is most efficient for their particular projects. For example, rather than using our 96.96 Dynamic Array chip to test 96 samples versus 96 assays, these new chemistries will allow customers to assay 1,152 samples versus 8 assays or 24 samples versus 384 assays.

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Existing Architectures. We intend to develop additional products to strengthen the capabilities of our existing Dynamic Array and Digital Array architectures. For example, our existing 48.770 Digital Array chip can perform 36,960 reactions. We have developed prototype chips based on the Digital Array architecture that can perform 200,000 or more reactions and believe, that with further development, these chips could have substantial utility for research and molecular diagnostic applications.

Process Development

The second component of our research and development effort is process development. We continuously develop new manufacturing processes and test methods to drive down manufacturing cost, increase manufacturing throughput, widen fabrication process capability, and support new microfluidic devices and designs. In 2009, we opened a prototype fabrication facility at our Singapore manufacturing to fabricate prototype chips and test new fabrication processes. We invest in manufacturing automation, process changes and design modifications which historically have significantly improved yields and lowered the manufacturing costs of our chips.

New Technology Development

We have background research and development efforts to increase the density of components on our microfluidic systems and to lower the materials cost of our current production methods. We are evaluating new materials that can increase the functionality of existing products and that would allow our microfluidic systems to be used for a wider variety of biological and chemical reactions. Over the longer term, we are seeking ways to transfer functionality from instrumentation to chips to support development of field-based and point-of-care applications.

Our research and development expenses were \$14.4 million, \$14.0 million, \$12.3 million and \$10.1 million in 2007, 2008, 2009 and the nine months ended September 30, 2010, respectively. As of September 30, 2010, 60 of our employees were engaged in research and development activities.

Scientific Advisory Board

We maintain a scientific advisory board, consisting of members with experience and expertise in the field of microfluidic systems and their application, who provide us with consulting services. The scientific advisory board generally does not meet as a group but instead, at our request, the individual members advise us on matters related to their areas of expertise. We have entered into agreements with each of our advisors, other than Dr. Stephen Quake, that require them spend between 6 and 12 days each year advising us and provide for stock option grants to the advisor. Dr. Quake serves as chair of the Scientific Advisory Board pursuant to a broader consulting agreement with us. As Chairman, Dr. Quake advises us on the composition of the advisory board and is involved in discussions with us more frequently than other advisory board members. When the advisory board meets, Dr. Quake is responsible for setting the agenda for the meetings and chairing such meetings. Our scientific advisory board consists of the following members:

Stephen Quake, Ph.D. is a co-founder of Fluidigm and the chair of our scientific advisory board. He is a co-chair of the bioengineering department at Stanford University and an investigator of the Howard Hughes Medical Institute. Dr. Quake received a B.S. in Physics and a M.S. in Mathematics from Stanford University and a Ph.D. in Physics from Oxford University. Dr. Quake has been a member of our scientific advisory board since June 1999.

Frances H. Arnold, Ph.D. is the Dick and Barbara Dickinson Professor of chemical engineering and biochemistry at the California Institute of Technology. She is a member of the National Academy of Engineering and a fellow at the American Institute for Medical and Biological Engineering. Dr. Arnold received a B.S. in Mechanical and Aerospace Engineering from Princeton University and a Ph.D. in Chemical Engineering from the University of California, Berkeley. Dr. Arnold has been a member of our scientific advisory board since August 1999.

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James M. Berger, Ph.D. is a Professor of Biochemistry and Molecular Biology at the University of California, Berkeley and a member of the Physical Biosciences Division, Lawrence Berkeley National Laboratory. Dr. Berger received a B.S. in Biochemistry from the University of Utah and a Ph.D. in Biochemistry from Harvard University. Dr. Berger has been a member of our scientific advisory board since June 2002.

Carl Hansen, Ph.D. is an Assistant Professor in the Department of Physics and Astronomy at the University of British Columbia. Dr. Hansen received a Ph.D. and M.S. in Applied Physics from the California Institute of Technology and a B.S. in Engineering Physics/Electrical Engineering/Honors Math from the University of British Columbia. Dr. Hansen has been a member of our Scientific Advisory Board since May 2008.

Frank McCormick, Ph.D. is the David A. Wood Distinguished Professor of Tumor Biology and the E. Dixon Heise Distinguished Professor in Oncology at the University of California, San Francisco, or UCSF. He is also the director of UCSF's Comprehensive Cancer Center. He is a member of the Institute of Medicine and a fellow of The Royal Society. Dr. McCormick received a B.Sc. in Biochemistry from the University of Birmingham and a Ph.D. in Biochemistry from the University of Cambridge. Dr. McCormick has been a member of our scientific advisory board since November 2006.

Howard M. Shapiro, M.D. is a lecturer on Pathology at Harvard Medical School, a visiting scientist at the Rosenstiel Basic Medical Sciences Research Center at Brandeis University and a research associate in Medicine and Pathology at Beth Israel Hospital. Dr. Shapiro received a B.A. from Harvard College and an M.D. from New York University School of Medicine. Dr. Shapiro has been a member of our scientific advisory board since December 1999.

Richard N. Zare, Ph.D. is the Marguerite Blake Wilbur Professor of Natural Science and chair of the chemistry department at Stanford University. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences and the recipient of the National Medal of Science. Dr. Zare received a B.S. in Chemistry and Physics and a Ph.D. in Chemical Physics from Harvard University. Dr. Zare has been a member of our scientific advisory board since December 2000.

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. For example, companies such as Affymetrix, Inc., Agilent Technologies, Inc., Caliper Life Sciences, Inc., Illumina, Inc., Life Technologies Corporation, Luminex Corporation, Roche Applied Science, NanoString Technologies, Inc., RainDance Technologies, Inc., Sequenom, Inc. and Wafergen Bio-Systems, Inc. have products for gene expression, genotyping, and/or sequencing that compete in certain segments of the market in which we sell our products. In addition, a number of other companies and academic groups are in the process of developing novel technologies for life science markets.

The life science automation industry is highly competitive and expected to grow more competitive with the increasing knowledge gained from ongoing research and development. Many of our competitors are either publicly traded or are divisions of publicly traded companies and enjoy several competitive advantages over us, including:

- significantly greater name recognition;
- greater financial and human resources;
- broader product lines and product packages;
- larger sales forces;
- larger and more geographically dispersed customer support organization;

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- substantial intellectual property portfolios;
- larger and more established customer bases and relationships;
- greater resources dedicated to marketing efforts;
- better established and larger scale manufacturing capability; and
- greater resources and longer experience in research and development.

We believe that the principal competitive factors in our target markets include:

- cost of capital equipment and supplies;
- reputation among customers;
- innovation in product offerings;
- flexibility and ease of use;
- accuracy and reproducibility of results; and
- compatibility with existing laboratory processes, tools and methods.

To successfully compete with existing products and future technologies, we need to demonstrate to potential customers that the cost savings and performance of our technologies and products, as well as our customer support capabilities, are superior to those of our competitors. The regular introduction of new and innovative offerings is necessary to continue to differentiate our company from other, larger enterprises. Additionally, a well staffed commercial team “in the field” is required to successfully communicate the advantages of our products and overcome potential obstacles acceptance of our products. In addition ongoing collaborations and partnerships with key opinion leaders in the genetics fields are desirable to demonstrate both innovation and applicability of our products. These relationships create the need for retention of a large and talented specialized staff, and occasionally require the placement of products or supplies on a temporary basis at a customer facility to demonstrate applicability of our tool to a specific scientific application.

Intellectual Property

Strategy and Position

Our core technology originated at the California Institute of Technology, or Caltech, in the laboratory of Professor Stephen Quake, who is a co-founder of Fluidigm. Dr. Quake, his students and their collaborators pioneered the application of multilayer soft lithography in the field of microfluidics. In particular, Dr. Quake’s laboratory developed technologies that enabled the production of specialized valves and pumps capable of controlling fluid flow at nanoliter volumes. In a series of transactions, we exclusively licensed from Caltech the relevant patent filings relating to these developments. We have also entered into additional exclusive and non-exclusive licenses for related technologies from various companies and academic institutions.

Our patent strategy is to seek broad patent protection on new developments in microfluidic technology and then later file patent applications covering new implementations of the technology and new microfluidic circuit architectures utilizing the technology. As these technologies are implemented and tested, we file new patent applications covering scientific methodology enabled by our technology. Additionally, where appropriate, we file new patent applications covering instrumentation and software that are used in conjunction with our microfluidic systems.

We have developed our own portfolio of issued patents and patent applications directed at commercial products and technologies in development. For example, in part because of our pioneering commercialization efforts in the field of digital PCR, we have 14 patents and patent applications pending relating to devices, techniques and applications for digital PC, including methodologies for copy number variation and noninvasive prenatal diagnostics. We have additional patents and patent filings cell culture and single-cell isolation and

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analysis devices and associated methodologies, high density and reusable genotyping and gene expression chips and massive multiplexing techniques for samples and assays in these chips, sample processing and sample preparation chips and encoding technology for use with next-generation sequencers, and associated instrumentation and software for controlling and reading our chips and analyzing the data obtained from them.

As of November 30, 2010, we own or have licensed 114 issued U.S. patents and 80 issued international patents. There are 230 pending patent applications, including 104 in the United States, 113 international applications and 12 applications filed under the Patent Cooperation Treaty. The U.S. issued patents we have licensed from Caltech expire between 2017 and 2025; the U.S. issued patents we have licensed from other parties expire between 2012 and 2029.

The patent positions of companies like ours are generally uncertain and involve complex legal and factual questions. Our patents may not enable us to obtain 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 challenged by re-examination, opposition or other administrative proceeding, or may be challenged in litigation, and such challenges could result in a determination that the patent is invalid. In addition, competitors may be able to design alternative methods or devices that avoid infringement of our patents. To the extent our intellectual property protection offers inadequate protection, or is found to be invalid, 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.

In addition to pursuing patents on our technology, we have taken 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.

Our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. 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. 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. We could incur substantial costs and divert the attention of our management and technical personnel in defending against any of these claims. 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. In the event of a successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties, or be prohibited from selling certain products. We may not be able to obtain these licenses at a reasonable cost, if at all.

License Agreements

We have entered into several significant exclusive, co-exclusive, and non-exclusive licenses to patents and patent applications owned by various academic institutions and have additional intellectual property agreements with a range of institutions and companies.

Our license agreement with Caltech provides us with an exclusive, worldwide license to certain patents and related intellectual property, as well as the right to prosecute licensed patent filings worldwide at our expense and

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to initiate any infringement proceedings. Caltech retains the right to use the licensed materials for noncommercial educational and research purposes, as well as any rights necessary to comply with the statutory rights of the U.S. government. We have issued shares of our common stock to Caltech and we agreed to pay to Caltech royalties based on sales revenues of licensed products on a country-by-country basis with a minimum annual royalty. The license agreement will terminate as to each country and licensed product upon expiration of the last-to-expire patent covering licensed products in each country.

Our license agreements with Harvard University allow sublicenses (i) provided we can demonstrate that we have added significant value to the patent rights to be sublicensed and that such sublicense also contains a substantial and essentially simultaneous license to intellectual property owned by us, or (ii) when such patent rights are necessary to practice other Harvard University patent rights exclusively licensed to us which are also being licensed. We have issued shares of our common stock to Harvard and we agreed to pay to Harvard royalties based on sales revenues of licensed products on a country-by-country basis with a minimum annual royalty. Harvard is responsible for filing and maintaining all licensed patents, but we must reimburse Harvard for our share of its related patent prosecution expenses. We have the right to prosecute any infringement of our licensed patent rights. The license agreement will terminate with the last-to-expire of the licensed patents.

Our license agreement with Gyros AB grants us a non-exclusive, field-limited license to specified patents and patent applications filings in exchange for an upfront fee plus annual royalty payments based on net revenues of licensed products above an annual license fee. Gyros has the right to terminate if we assign our interest to a third party competitor of Gyros or if we come under common control of such a third party. Otherwise, the license will terminate at the expiration of the last-to-expire of the licensed patents.

Government Regulation

Pursuant to its authority under the Federal Food, Drug and Cosmetic Act, or FFDCFA, FDA has jurisdiction over medical devices, which are defined to include, among other things, in vitro diagnostic products, or IVDs. Our products are currently labeled and sold for research purposes only, and we sell them to pharmaceutical and biotechnology companies, academic institutions and life sciences laboratories. Because our products are not intended for use in clinical practice in the diagnosis of disease or other conditions, they do not fit the definition of a medical device under the FFDCFA and thus are not subject to regulation by the U.S. Food and Drug Administration, or FDA, as medical devices. In particular, while FDA regulations require that research only products be labeled, “For Research Use Only. Not for use in diagnostic procedures”, the regulations do not subject such products to FDA’s pre- and post-market controls for medical devices. However, in the future, certain of our products or related applications could become subject to regulation as medical devices by FDA.

For example, if we wish to label and market our products for use in performing clinical diagnostics, thus subjecting them to regulation by FDA as medical devices, unless an exemption applies, we would be required to obtain either prior 510(k) clearance or prior pre-market approval from the FDA before commercializing the product. The FDA classifies medical devices into one of three classes. Devices deemed to pose lower risk to the patient are placed in either class I or II, which, unless an exemption applies, requires the manufacturer to submit a pre-market notification requesting FDA clearance for commercial distribution pursuant to Section 510(k) of the FFDCFA. This process, known as 510(k) clearance, requires that the manufacturer demonstrate that the device is substantially equivalent to a previously cleared 510(k) device or a “pre-amendment” class III device for which pre-market approval applications, or PMAs, have not been required by the FDA. This process typically takes from four to twelve months, although it can take longer. Most class I devices are exempted from this requirement. Devices deemed by FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices, or those deemed not substantially equivalent to a legally marketed predicate device, are placed in class III. Class III devices typically require PMA approval. To obtain PMA approval, an applicant must demonstrate the safety and effectiveness of the device based, in part, on data obtained in clinical studies. PMA reviews generally last between one and two years, although they can take longer. Both the 510(k) and the PMA processes can be expensive and lengthy and may not result in clearance or approval. If we are required to submit

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our products for pre-market review by the FDA, we may be required to delay marketing while we obtain premarket clearance or approval from the FDA. There would be no assurance that we could ever obtain such clearance or approval.

Changes to a device that have received PMA approval typically require a new PMA or PMA supplement. Changes to a device that received 510(k) clearance which could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, require a new 510(k) clearance or possibly PMA approval. The FDA requires each manufacturer to make this determination initially, but the FDA can review any of these decisions and may disagree. If the FDA disagreed with our determination not to seek a new 510(k) clearance for a change to a previously marketed product, the FDA could require us to seek a new 510(k) clearance or pre-market approval. The FDA also could require us to cease manufacturing and/or recall the modified device until 510(k) clearance or pre-market approval was obtained. Also, in these circumstances, we could be subject to warning letters, significant regulatory fines or penalties, seizure or injunctive action, or criminal prosecution.

In some cases, our customers or collaborators may use our products in their own LDTs or in other FDA-regulated products for clinical diagnostic use. The FDA has historically exercised enforcement discretion in not enforcing the medical device regulations against LDTs. However, the FDA could assert jurisdiction over some or all LDTs, which may impact our customers' uses of our products. A significant change in the way that the FDA regulates our products or the LDTs that our customers develop may require us to change our business model in order to maintain compliance with these laws. The FDA recently held a meeting in July 2010, during which it indicated that it intends to reconsider its policy of enforcement discretion and to begin drafting a new oversight framework for LDTs.

We are currently developing a microfluidic system with Novartis V&D for NIPD for fetal aneuploidies. Our system is in its early stages of development and we have not made any submissions to the FDA regarding the system or determined whether FDA clearance or approval will be required.

If our products become subject to regulation as a medical device, we would become subject to additional FDA requirements, and we could be subject to unannounced inspections by FDA and other governmental authorities, which could increase our costs of doing business. Specifically, manufacturers of medical devices must comply with various requirements of the FDCA and its implementing regulations, including:

- the Quality System Regulation, which covers the methods and documentation of the design, testing, control, manufacturing, labeling, quality assurance, packaging, storage and shipping of our product;
- labeling regulations;
- medical device reporting, or MDR, regulations;
- correction and removal regulations; and
- post-market surveillance regulations, which include restrictions on marketing and promotion.

We would need to continue to invest significant time and other resources to ensure ongoing compliance with FDA quality system regulations and other post-market regulatory requirements.

Our failure to comply with applicable FDA regulatory requirements, or our failure to timely and adequately respond to inspectional observations, could result in enforcement action by the FDA, which may include the following sanctions:

- fines, injunctions and civil penalties;
- recall or seizure of our products;
- operating restrictions, partial suspension or total shutdown of production;

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- delays in clearance or approval, or failure to obtain approval or clearance of future product candidates or product modifications;
- restrictions on labeling and promotion;
- warning letters, fines, or injunctions;
- withdrawal of previously granted clearances or approvals; and
- criminal prosecution.

International sales of medical devices are subject to foreign government regulations, which vary substantially from country to country. The primary regulatory environment in Europe is that of the European Union, or EU, which includes most of the major countries in Europe. Currently, 27 countries make up the EU. Other countries, such as Switzerland, have voluntarily adopted laws and regulations that mirror those of the EU with respect to medical devices. The EU has adopted numerous directives and standards regulating the design, manufacture, clinical trials, labeling and adverse event reporting for medical devices. Devices that comply with the requirements of a relevant directive will be entitled to bear the CE conformity marking, indicating that the device conforms to the essential requirements of the applicable directives and, accordingly, can be commercially distributed throughout Europe.

Outside of the EU, regulatory approval needs to be sought on a country-by-country basis in order to market medical devices. Although there is a trend towards harmonization of quality system standards, regulations in each country may vary substantially which can affect timelines of introduction.

Employees

As of September 30, 2010, we had 198 employees, of which 60 work in research and development, 31 work in general and administrative, 48 work in manufacturing and 59 work in sales and marketing.

None of our employees are represented by a labor union or are the subject of a collective bargaining agreement.

Property and Environmental Matters

We lease approximately 30,000 square feet of office and laboratory space at our headquarters in South San Francisco, California under a lease that expires in April 2015, approximately 28,000 square feet of manufacturing and office space at our facility in Singapore under leases with varying expiration dates from October 2011 through July 2013. In addition, we lease office space in Paris, France, and Tokyo and Osaka, Japan on a month-to-month basis. We believe that our existing office, laboratory and manufacturing space, together with additional space and facilities available on commercially reasonable terms, will be sufficient to meet our needs for at least the next two years. We intend to use a portion of the proceeds from this offering for improvements to these facilities.

Our research and development and manufacturing processes involve the controlled use of hazardous materials, including flammables, toxics, corrosives and biologics. Our research and manufacturing operations produce hazardous biological and chemical waste products. We seek to comply with applicable laws regarding the handling and disposal of such materials. Given the small volume of such materials used or generated at our facilities, we do not expect our compliance efforts to have a material effect on our capital expenditures, earnings and competitive position. However, we cannot eliminate the risk of accidental contamination or discharge and any resultant injury from 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.

Legal Proceedings

We are not currently engaged in any material legal proceedings.

MANAGEMENT

Executive Officers and Directors

Our executive officers and directors, and their ages and positions as of November 30, 2010 are as set forth below:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Gajus V. Worthington	40	President, Chief Executive Officer and Director
Vikram Jog	54	Chief Financial Officer
Fredric Walder	53	Chief Business Officer
Robert C. Jones	55	Executive Vice President, Research and Development
William M. Smith	59	Vice President, Legal Affairs, General Counsel and Secretary
Mai Chan (Grace) Yow	51	Vice President, Worldwide Manufacturing and Managing Director of Fluidigm Singapore Pte. Ltd.
Samuel Colella(2)(3)	71	Director
Jeremy Loh	39	Director
Kenneth Nussbacher(1)(3)	57	Director
Raymond J. Whitaker(1)(2)	63	Director
John A. Young(1)(3)	78	Director

(1) Member of the Audit Committee

(2) Member of the Compensation Committee

(3) Member of the Nominating and Governance Committee

Executive Officers

Gajus V. Worthington is a Co-Founder of Fluidigm and has served as our President and Chief Executive Officer and a Director since our inception in June 1999. From May 1994 to April 1999, Mr. Worthington held various staff and management positions at Actel Corporation, a public semiconductor corporation. Mr. Worthington received a B.S. in Physics and an M.S. in Electrical Engineering from Stanford University.

Vikram Jog has served as our Chief Financial Officer since February 2008. From April 2005 to February 2008, Mr. Jog served as Chief Financial Officer for XDx, Inc., a molecular diagnostics company. From March 2003 to April 2005, Mr. Jog was a Vice President of Applera Corporation, a life science company that is now part of Life Technologies, Inc., and Vice President of Finance for its related businesses, Celera Genomics and Celera Diagnostics. From April 2001 to March 2003, Mr. Jog was Vice President of Finance for Celera Diagnostics and Corporate Controller of Applera Corporation. Mr. Jog received a Bachelor of Commerce degree from Delhi University and an M.B.A. from Temple University. Mr. Jog is a member of the American Institute of Certified Public Accountants.

Fredric Walder has served as our Chief Business Officer since May 2010. From August 1992 to April 2010 he served in various senior executive positions at Thermo Fisher Scientific, a laboratory equipment and supplies manufacturer, including as Senior Vice President, Customer Excellence from November 2006 to April 2010 and Division President, Thermo Electron Corporation from January 2000 to November 2006. Mr. Walder holds a B.S. in Chemistry from the University of Massachusetts.

Robert C. Jones has served as our Executive Vice President, Research and Development since August 2005. From August 1984 to July 2005, Mr. Jones held various managerial and research and development positions at Applied Biosystems, a laboratory equipment and supplies manufacturer that was a division of Applera Corporation, including: Senior Vice President Research and Development from April 2001 to August 2005, Vice President and General Manager Informatics Division from 1998 to 2001, and Vice President PCR Business Unit from 1994 to 1998. Mr. Jones received a BSEE in Electrical Engineering and an MSEE in Computer Engineering from the University of Washington.

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William M. Smith has served as our Vice President, Legal Affairs and General Counsel as well as our Secretary since May 2000 and served as a Director from May 2000 to April 2008. Mr. Smith served as an associate and then as a partner at the law firm of Townsend and Townsend and Crew, LLP from 1985 through April 2008. Mr. Smith received a J.D. and an M.P.A. from the University of Southern California and a B.A. in Biology from the University of California, San Diego.

Mai Chan (Grace) Yow has served as our Vice President, Worldwide Manufacturing, and Managing Director, Fluidigm Singapore Pte. Ltd., our Singapore subsidiary, since March 2006. From June 2005 to March 2006, Ms. Yow served as General Manager of Fluidigm Singapore Pte. Ltd. From August 2004 to May 2005, Ms. Yow served as Vice President Engineering (Asia) for Kulicke and Soffa, a public semiconductor equipment manufacturer. From March 1991 to July 2004, Ms. Yow served as Director, Assembly Operations, Plant Facilities and EHS, for National Semiconductor Singapore, a semiconductor fabrication subsidiary of National Semiconductor Corporation. Ms. Yow received a B.E. in Electronic Engineering from Curtin University, a Certificate in Management Studies from the Singapore Institute of Management and a Diploma in Electrical Engineering from Singapore Polytechnic.

Board of Directors

Samuel Colella has served as a member and Chairman of our board of directors since July 2000. Mr. Colella is a managing director of Versant Ventures, a healthcare venture capital firm he co-founded in 1999, and has been a general partner of Institutional Venture Partners since 1984. Mr. Colella is currently a member of the board of directors of Alexza Pharmaceuticals, Inc., Genomic Health, Inc. and Jazz Pharmaceuticals, Inc. and served on the board of directors of Solta Medical, Inc. from 1997 to 2007 and Symyx Technology, Inc. from 1997 to 2007. Mr. Colella received a B.S. in business and engineering from the University of Pittsburgh and an M.B.A. from Stanford University. We believe that Mr. Colella's qualifications to serve on our board and as Chairman include his broad understanding of the life science industry and his extensive experience working with emerging private and public companies, including prior service as chairman of boards of directors.

Jeremy Loh has served as a member of our board of directors since November 2010. Dr. Loh is a Vice President (Investments), San Francisco Centre for EDB Investments Pte Ltd, Singapore, which he joined in 2007. Dr. Loh had his postdoctoral training as a research scientist at Agency for Science, Technology and Research, or A*STAR, Singapore and Imperial College London. He has a Doctorate in Mechanical Engineering from the University of Southampton, U.K., and a Masters in Mechanical Engineering from Nanyang Technological University, Singapore. We believe Dr. Loh's qualifications to serve on our board include his background as a bioengineer, his experience in developing micro and nano devices and his experience managing investments in biomedical sciences companies for EDB Investments.

Kenneth J. Nussbacher has been a member of our board of directors since July 2003. From 2000 to 2009, Mr. Nussbacher served as an Affymetrix Fellow, a non-executive employee position, at Affymetrix, Inc., a biotechnology company. From 1995 to 2000, Mr. Nussbacher was Executive Vice President of Affymetrix, Inc. and from 1995 to 1997, he was also Chief Financial Officer of Affymetrix. Prior to joining Affymetrix, Mr. Nussbacher was Executive Vice President for business and legal affairs of Affymax Technologies N.V. Mr. Nussbacher also served on the board of directors of Symyx Technology, Inc. from 1995 to 2008 and Xenoport, Inc. from 2000 to 2009. He received a B.S. in Physics from Cooper Union and a J.D. from Duke University. We believe Mr. Nussbacher's qualifications to serve on our board include his understanding of the genomic research market and his experience as a chief financial officer, a board member with other public and private companies and as an executive responsible for business, financial, intellectual property and other legal matters.

Raymond J. Whitaker has been a member of our board of directors since December 2008. He has been a general partner, since its inception in January 2000, of EuclidSR Partners, L.P., a venture capital firm that focuses on life sciences and information technology companies. From January 1997 to July 2003, he served as Vice President of S.R. One, the venture capital subsidiary of GlaxoSmithKline. Prior to that, for over fifteen years, he had held senior corporate and business development positions at SmithKline Beecham (USA),

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Recordati SpA (Italy) and Laboratoires Delagrange (France). Between 1997 and 2008, he served on the boards of sixteen venture backed companies, including Avalon Pharmaceuticals, Hypnion, Kosan Biosciences, Memory Pharmaceuticals, Rib-X Pharmaceuticals, Sequenom and Xenogen, and five companies in the UK. Dr. Whitaker received a Ph.D. in biochemistry and an M.B.A from the National University of Ireland. We believe that Mr. Whitaker's qualifications to serve on our Board include his experience working with life science companies both as an executive and an investor.

Gajus V. Worthington is a Co-Founder of Fluidigm Corporation and has served as our President and Chief Executive Officer and a Director since our inception in June 1999. We believe that Mr. Worthington's qualifications to serve on our board include his understanding of our business, operations and strategy.

John A. Young has been a member of our board of directors since March 2001. Mr. Young retired as President and Chief Executive Officer of Hewlett-Packard Company, a diversified electronics manufacturer, in October 1992, where he had served as President and Chief Executive Officer since 1978. Mr. Young served as a director of Affymetrix, Inc. from 1992 until 2010, Vermillion, Inc., a molecular diagnostics company, from 1994 to 2008, and is currently a director of Nanosys, Inc., a nanotechnology company. Mr. Young received a B.S. in Electrical Engineering from Oregon State University and an M.B.A. from Stanford University. We believe that Mr. Young's qualifications to serve on our board include his extensive management experience.

Board Composition

Our board of directors is currently composed of six members. Immediately prior to this offering, our board of directors will be divided into three staggered classes of directors. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the same class whose terms are then expiring. The terms of the directors will expire upon the election and qualification of successor directors at the Annual Meeting of Stockholders to be held during the years 2011 for the Class I directors, 2012 for the Class II directors and 2013 for the Class III directors.

- Our Class I directors will be Raymond J. Whitaker and Jeremy Loh.
- Our Class II directors will be John Young and Kenneth Nussbacher.
- Our Class III directors will be Samuel Colella and Gajus Worthington.

Our amended and restated certificate of incorporation and bylaws provide that the number of our directors shall be fixed from time to time by a resolution of the majority of our board of directors. Each officer serves at the discretion of the board of directors and holds office until his successor is duly elected and qualified or until his or her earlier resignation or removal. There are no family relationships among any of our directors or executive officers.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change of control. See "Description of Capital Stock—Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws" for a discussion of other anti-takeover provisions found in our certificate of incorporation.

Director Independence

Upon the closing of this offering, our common stock will be listed on The NASDAQ Global Market. Under the rules of The NASDAQ Stock Market LLC, independent directors must comprise a majority of a listed company's board of directors within a specified period of the closing of its initial offering. In addition, the rules of The NASDAQ Stock Market LLC require that, subject to specified exceptions, each member of a listed company's audit, compensation, and nominating and corporate governance committees be independent. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended. Under the rules of The NASDAQ Stock Market LLC, a director will only

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qualify as an “independent director” if, the company’s board of directors affirmatively determines that the person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

In order to be considered to be independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (1) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

In December 2010, our board of directors undertook a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that none of Dr. Whitaker or Messrs. Colella, Nussbacher and Young, representing four of our six directors, has a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is “independent” as that term is defined under the rules of The NASDAQ Stock Market LLC. In making this determination, our board of directors considered the relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Board Committees

Our Board has an audit committee, a compensation committee and a nominating and governance committee, each of which has the composition and the responsibilities described below.

Audit Committee. Our audit committee oversees our corporate accounting and financial reporting process and assists the Board in monitoring our financial systems and our legal and regulatory compliance. Our audit committee is authorized to, among other things:

- oversee the work of our independent auditors;
- approve the hiring, discharging and compensation of our independent auditors;
- approve engagements of the independent auditors to render any audit or permissible non-audit services;
- review the qualifications and independence of the independent auditors;
- monitor the rotation of partners of the independent auditors on our engagement team as required by law;
- review our financial statements and review our critical accounting policies and estimates;
- review the adequacy and effectiveness of our internal controls; and
- review and discuss with management and the independent auditors the results of our annual audit, our quarterly financial statements, and our publicly filed reports.

The members of our audit committee are Kenneth Nussbacher, Raymond Whitaker and John Young. Mr. Nussbacher is our audit committee chairman. Our board of directors has concluded that the composition of our audit committee meets the requirements for independence under the current requirements of The NASDAQ Stock Market LLC and SEC rules and regulations. We believe that the functioning of our audit committee complies with the applicable requirements of The NASDAQ Stock Market LLC and SEC rules and regulations.

Compensation Committee. Our compensation committee oversees our corporate compensation programs. Our compensation committee is authorized to, among other things:

- review and recommend policy relating to compensation and benefits of our officers and employees;
- review and approve corporate goals and objectives relevant to compensation of our Chief Executive Officer and other senior officers;

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- evaluate the performance of our officers in light of established goals and objectives;
- recommend compensation of our officers based on its evaluations; and
- administer the issuance of stock options and other awards under our stock plans.

The members of our compensation committee are Samuel Colella and Raymond Whitaker. Mr. Colella is the chairman of our compensation committee. Our board of directors has determined that each member of our compensation committee is independent within the meaning of the independent director guidelines of The NASDAQ Stock Market LLC. We believe that the composition of our compensation committee meets the requirements for independence under, and the functioning of our compensation committee complies with, any applicable requirements of The NASDAQ Stock Market LLC.

Nominating and Governance Committee. Our nominating and governance committee oversees and assists our Board of Directors in reviewing and recommending nominees for election as directors. The nominating and governance committee will also:

- evaluate and make recommendations regarding the organization and governance of the board and its committees;
- assess the performance of members of the board and make recommendations regarding committee and chair assignments;
- recommend desired qualifications for board membership and conduct searches for potential Board members; and
- review and make recommendations with regard to our corporate governance guidelines.

The members of our nominating and governance committee are Samuel Colella, Kenneth Nussbacher and John Young. Mr. Colella is our nominating and governance committee chairman. Our board of directors has determined that each member of our nominating and governance committee is independent within the meaning of the independent director guidelines of The NASDAQ Stock Market LLC.

Our board of directors may from time to time establish other committees.

Director Compensation

The following table sets forth information concerning compensation paid or accrued for services rendered to us by members of our board of directors for 2010. The table excludes Mr. Worthington, who is a named executive officer, and did not receive any compensation from us in his role as a director in 2010.

	<u>Fees Earned or Paid in Cash (\$)</u>	<u>Option Awards (\$)(1)</u>	<u>Total (\$)</u>
Lawrence Chin (2)	—	20,850	20,850
Samuel D. Colella	33,300	20,850	54,150
Michael Hunkapiller (3)	—	20,850	20,850
Jeremy Loh	833	—	833
Kenneth J. Nussbacher	20,000	20,850	40,850
Raymond J. Whitaker	10,000	20,850	30,850
John A. Young	10,000	20,400	30,400

(1) Amounts represent the aggregate grant date fair value of the stock or option award calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, Stock Compensation, as amended, without regard to estimated forfeitures, or, with respect to re-priced options, the incremental fair value as computed in accordance with FASB ASC Topic 718. See Note 10 of the notes to our audited consolidated financial statements for a discussion of valuation assumptions made in determining the grant date fair value and compensation expense of our stock options.

(2) Resigned from the board of director on November 9, 2010.

(3) Resigned from the board of director on May 6, 2010.

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The aggregate number of shares subject to stock options outstanding at December 31, 2010 for each non-employee director is as follows:

<u>Name</u>	<u>Aggregate Number of Stock Options Outstanding as of December 31, 2010</u>
Lawrence Chin	6,502
Samuel D. Colella	8,670
Michael Hunkapiller	—
Jeremy Loh	—
Kenneth J. Nussbacher	41,700
Raymond J. Whitaker	8,670
John A. Young	8,670

Pre-Offering

Our board of directors adopted a compensation policy for non-employee directors on January 28, 2010 providing for an annual retainer of \$10,000 for each non-employee director's service as a member of the board and a separate \$10,000 annual leadership retainer for service as chairman of the board or a committee of the board effective as of January 1, 2009. The policy also provided that each non-employee director will be automatically granted a stock option to purchase 8,670 shares of our common stock each year. Such stock option grants shall vest 1/12th per month, subject to such non-employee director's continued service on the board, such that the grant will be fully vested on the first anniversary of the vesting commencement date. These grants were made to each non-employee director on January 28, 2010.

Post-Offering

Upon consummation of our initial public offering, non-employee directors will receive an annual retainer of \$20,000. In addition, non-employee directors will receive an annual retainer of \$10,000 for audit committee service, \$7,000 for compensation committee service and \$5,000 for nominating and governance committee service. The chairman of the board will be paid an additional annual retainer of \$10,000. The chairman of the audit committee will be paid an additional annual retainer of \$5,000. The chairman of the compensation committee will be paid an additional annual retainer of \$3,500. The chairman of the nominating and governance committee will be paid an additional annual retainer of \$2,500.

Our outside director equity compensation policy was adopted by our board of directors on December 16, 2010 and will become effective immediately upon the completion of this offering. The policy is intended to formalize the granting of equity compensation to our non-employee directors under the 2011 Equity Incentive Plan. Non-employee directors may receive all types of awards under the 2011 Equity Incentive Plan, including discretionary awards not covered by the policy, except for incentive stock options. The policy provides for automatic and nondiscretionary grants of nonstatutory stock options subject to the terms and conditions of the policy and the 2011 Equity Incentive Plan.

Under the policy, we will automatically grant an option to purchase 30,000 shares of our common stock to anyone who becomes a non-employee director following the effective date of the registration statement filed by us and declared effective with respect to any class of our securities, on the date such person first becomes a non-employee director. An employee director who subsequently ceases to be an employee, but remains a director, will not receive such an initial award.

In addition, each non-employee director will be automatically granted an annual stock option to purchase 12,000 shares of our common stock on the date of each annual meeting beginning on the date of the first annual meeting that is held at least six months after such non-employee director received his or her initial award.

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The exercise price of all stock options granted pursuant to the policy will be equal to or greater than the fair market value of our common stock on the date of grant. The term of all stock options will be 10 years. Subject to the adjustment provisions of the 2011 Equity Incentive Plan, initial awards will vest as to 25% of the shares subject to such awards on each anniversary of the date of grant, provided such non-employee director continues to serve as a director through each such date. Subject to the adjustment provisions of the 2011 Equity Incentive Plan, the annual awards will vest on the date of the next annual meeting of our stockholders held after the date of grant, provided such non-employee director continues to serve as a director through such date.

The administrator of the 2011 Equity Incentive Plan in its discretion may change or otherwise revise the terms of awards granted under the outside director equity compensation policy.

In the event of a “change of control,” as defined in our 2011 Equity Incentive Plan, with respect to awards granted under the 2011 Equity Incentive Plan to non-employee directors, the participant non-employee director will fully vest in and have the right to exercise awards as to all shares underlying such award regardless of performance goals, vesting criteria or other conditions.

Code of Ethics and Employee Conduct

In December 2010, we adopted ethics and employee conduct that is applicable to all of our employees, officers and directors effective upon completion of this offering.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee is or was, during 2010, an officer or employee of our company. None of our executive officers currently serves, or in the past year has served, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Executive Compensation

Compensation Discussion and Analysis

Overview

We seek to have a compensation program that supports a team ethic among our management, fairly rewards executives for corporate and individual performance and provides incentives for executives to meet or exceed our short and long term goals. The primary components of our compensation program are base salary, an annual incentive bonus plan, and option awards. In addition, we provide our executive officers with severance and change of control benefits and typical health and other benefits that are available generally to all salaried employees. Historically our compensation committee has had principal responsibility for evaluating executive compensation and either the compensation committee or the independent members of our board of directors were responsible for final approval. After this offering, we expect our compensation committee will have principal responsibility for approving executive compensation following consultations with our independent directors. In addition, to comply with Rule 16b-3 of the Securities Exchange Act of 1934, we expect equity incentive for executive officers to be approved, on recommendation of the compensation committee, by a committee or our directors who qualify as “non-employee directors” pursuant to the rule.

For 2010, our named executive officers were:

- Gajus Worthington, President and Chief Executive Officer,
- Vikram Jog, Chief Financial Officer,
- Fredric Walder, Chief Business Officer

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- William Smith, Vice President, Legal Affairs and General Counsel, and
- Robert Jones, Executive Vice President, Research and Development.

Objectives and Principles of Our Executive Compensation

The primary goal of our executive compensation program is to ensure that we hire and retain talented and experienced executives who are motivated toward achieving or exceeding our short-term and long-term corporate goals. As a starting point, we believe that it is critical that our executive officers work together as a team and look beyond departmental lines to achieve overall corporate goals rather than focusing exclusively on individual departmental objectives. Our compensation philosophy is team oriented and our success is dependent on what our management team can accomplish together. Therefore, we seek to provide our named executive officers with comparable levels of base salary, bonuses and annual equity awards that are based largely on overall company performance.

In determining the form and amount of compensation payable to our named executive officers, we are guided by the following objectives and principles:

- *Team oriented approach to establishing compensation levels.* Our team oriented approach is demonstrated by the fact that the salaries of our executive officers are very similar. While the compensation level of Mr. Worthington, our Chief Executive Officer, or CEO, is marginally higher than our other executive officers, it is based on our compensation philosophy of providing our named executive officers with comparable levels of compensation, rather than on levels reported in market surveys of other companies in the life science industry.
- *Compensation should relate directly to performance and incentive compensation should constitute a significant portion of total compensation.* We strongly believe that executive compensation should be directly linked to our performance. Our compensation program is designed so that a significant portion of the potential compensation of all of our executive officers is contingent on the achievement of our business objectives. In rewarding performance, we seek to reward both short and long term performance. We expect our executive leadership to manage our company so that we achieve our annual goals while at the same time positioning us to achieve our longer term strategic objectives. Short term elements of compensation include annual salary reviews, stock option awards and incentive bonuses that are tied closely to achieving our corporate goals and, to a lesser extent, on achieving departmental performance objectives. Long term elements of compensation have historically been limited to stock options with multi-year vesting designed to retain executives and align their long term interests with those of our stockholders. In 2008, we began to grant stock options with performance related vesting to more closely align the options awards with performance.
- *Align compensation decisions with internal considerations rather than industry benchmarks.* We believe that hiring and retaining well performing executives is important to our ongoing success. While we have at times reviewed generally available surveys on executive compensation to confirm that our compensation decisions do not result in compensation levels that are dramatically different from other companies in our industry, the compensation committee has not in the past attempted to benchmark our executive compensation against any particular indices or salary surveys. While occasional review of market surveys is considered helpful, the compensation committee has historically placed substantially greater weight on internal considerations than on position-specific pay differences found in the market.

Except as described below, neither the board of directors nor the compensation committee has adopted any formal or informal policies or guidelines for allocating compensation between cash and non-cash compensation, among different forms of non-cash compensation or with respect to long and short term performance. The determination of our board of directors or compensation committee as to the appropriate use and weight of each component of executive compensation is subjective, based on their view of the relative importance of each component in meeting our overall objectives and factors relevant to the individual executive. Historically, our

board of directors has focused significantly on the affordability of our compensation arrangements. As a result, when weighting forms of compensation, our board of directors and the compensation committee have historically placed greater emphasis on non-cash equity incentive compensation together with base salary.

As a publicly held company, we may periodically engage the services of a compensation consultant to assist us in further aligning our compensation philosophy with our corporate objectives. In addition, in order to attract and retain key executives, we may be required to modify individual executive compensation levels to remain competitive in the market for such positions.

Compensation Process and Compensation Committee

From January through May 2010, the compensation committee consisted of Messrs. Colella, Nussbacher and Michael Hunkapiller, who was formerly a member of our board of directors. After Mr. Hunkapiller's resignation from the board, the compensation committee was restructured to consist of Messrs. Colella and Whitaker, each of whom is an independent director under the rules of The NASDAQ Stock Market LLC but is not a "non-employee director" for purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended.

The compensation committee is responsible for evaluating our compensation structure and goals and individual compensation levels. Depending on the authority granted to it by the board of directors, the compensation committee either approves specific compensation decisions or makes recommendations to our board of directors for consideration and approval by the independent members of the board. The compensation committee makes its compensation recommendations based on input from Mr. Worthington and the judgment of its members based on their tenure and experience in our industry. The compensation committee has the responsibility for formulating, evaluating and recommending to our board of directors the compensation of our executive officers. Historically, our annual compensation review process has been initiated by Mr. Worthington who performs a review of the performance of each executive officer in the prior year and makes proposals regarding the elements of compensation, corporate and individual goals and compensation levels for our executive officers including himself. Mr. Worthington's proposals for compensation structure, goals and individual compensation levels are typically based on discussions with and directions from members of the compensation committee.

Compensation levels and mix for Mr. Worthington, our Chief Executive Officer, are recommended by the compensation committee based on the committee's assessment of our overall corporate performance and Mr. Worthington's contribution to that performance. While Mr. Worthington provides input on his compensation, he does not participate in compensation committee or board deliberations regarding his own compensation. As it does for other members of our executive team, the compensation committee determines Mr. Worthington's compensation based on achievement of corporate and departmental objectives, his individual performance, and compensation levels of other members of our executive team, rather than attempting to tie Mr. Worthington's compensation to a specific percentile of CEO compensation reported in market compensation surveys.

Subject to any limitations or guidelines that may be adopted by our board of directors in the future, the compensation committee has the authority to approve the grant of stock options or stock purchase rights to individuals eligible for such grants, including officers and directors. The compensation committee met four times during 2009 and three times during 2010.

The compensation committee has the authority under its charter to engage the services of outside advisors, compensation experts and others for assistance and has sole authority to approve the terms of any such engagement. The compensation committee did not engage any such advisors in 2009 and 2010 nor did it rely on any compensation surveys.

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Corporate and Departmental Performance Goals

2009 Corporate Goals. Our corporate and individual performance goals for each year are formulated by the board of directors with input from the compensation committee and our Chief Executive Officer. For 2009, five corporate goals were established. They were (i) achieving revenue of \$32 million; (ii) achieving gross margins of 58% for the year and 65% for the 4th quarter and product margins of 54% for the year and 60% for the 4th quarter; (iii) limiting operating expenditures to \$35.3 million; (iv) raising \$25 million in funding and (v) generating 600 new customer leads. The compensation committee believed attaining these goals would take a high level of executive performance and that such goals would be very challenging given the difficult economic environment and the need to launch and obtain market acceptance of new products. The committee did not assign weights to these goals when they were approved but instead decided that it would assign weights to them when it determined cash bonuses and performance stock option vesting.

2009 Departmental Goals. Departmental goals for 2009 for each of our named executive officers were as follows:

<u>Named Executive Officer</u>	<u>2009 Departmental Goals</u>
Gajus Worthington, Chief Executive Officer	Achievement of all the goals specified for the other Named Executive Officers below, and achieving sales goals on a region by region basis. These sales goals include unit volumes for particular systems, dollar amounts of chip sales, and average selling prices of chips and instruments.
Vikram Jog, Chief Financial Officer	Raising \$25 million in funding, ensuring no material weakness or significant deficiencies in quarterly reviews and annual audit, ensuring the accurate and timely closing of our books, and completion of our 2008 audit.
William Smith, Vice President, Legal Affairs and General Counsel	Maintaining intellectual property position for the BioMark business, reducing legal expenditures by \$200,000, raising \$25 million of funding, selling two BioMark systems, and renegotiating a specified contract to reduce costs.
Robert Jones, Executive Vice President, Research and Development	Launching four specified products and achieving target cost levels for specified instrumentation.

2010 Corporate Goals. Our 2010 corporate goals were proposed by Mr. Worthington and revised and approved by our compensation committee. They are: (i) achieving specified financial metrics relating to margins and net income; (ii) achieving a specified level of net cash flow; (iii) achieving product development milestones relating to new product launches, a partnership transaction and a peer-reviewed publication in a particular area; (iv) increasing our identified sales opportunities to specified levels for each of our three actively marketed microfluidic systems. The compensation committee believed attaining these goals would take a high level of executive performance and that certain goals, such as the financial metrics goals would be achievable only if there was a sustained improvement in economic conditions generally and in the life science industry in particular. As in 2009, the committee did not assign weights to these goals when they were approved but has reserved the authority to assign weights to them when determining bonuses and performance stock option vesting.

2010 Departmental Goals. The compensation committee did not define specific departmental goals in 2010 as it felt that the corporate goals were broad and challenging enough that it was sufficient that each department focus on achieving those goals. As such, the compensation committee intends to determine the departmental component of bonuses based on the extent to which each executive's performance contributed to achieving or not achieving the corporate goals.

2011 Corporate and Departmental Goals. The compensation committee has not yet determined corporate or departmental goals for 2011.

Elements of Executive Compensation

Our executive compensation program consists of four main elements: base salary, an annual incentive bonus plan, option awards and change of control arrangements. The following is a discussion of each element.

Base Salary

Since 2007, the compensation committee and the board of directors have developed our compensation policy with the view that our company and its stockholders would be best served if compensation policies focused on creating a team ethic among our executive officers. A central element of this policy is that a team ethic will be best supported if all executive officers received approximately the same salary. For 2008, Messrs. Smith and Jones were paid the same base salary of \$275,600. Mr. Jog received a slightly higher salary of \$278,000 pursuant to an offer letter we entered into with him when he joined us in 2008, which salary amount was designed to attract Mr. Jog to us and provide him with a salary comparable to his salary at his former position. Mr. Worthington's base salary of \$294,840 reflected the substantial additional responsibility he has as Chief Executive Officer as compared to the other executive officers.

In April 2009, the compensation committee reviewed 2009 base salaries in light of general market conditions in the San Francisco Bay Area life science industry and our financial condition. The compensation committee concluded that due to the depressed economic conditions locally and nationally and our constrained financial position that no increases in compensation were appropriate. However, given the ongoing competition for executive talent in the industry and region, the specialized skills and experiences required to manage life science companies and the overall strong performance of the executive team, the compensation committee decided not to reduce salaries. The compensation committee's assessment of general market conditions in the life science industry, and the life science industry in the San Francisco Bay Area in particular, was based on the experience of the committee members who were and are actively involved in venture capital investing in such industry and area. The compensation committee did not rely on any formal compensation survey data in making its assessment.

In January 2010, the compensation committee again reviewed base salaries for our executive officers using the same methodology used in 2009. The compensation committee concluded that economic conditions locally and nationally had stabilized and were improving but were not yet robust. The compensation committee also concluded that hiring in the life science industry in the San Francisco Bay Area had increased somewhat and that there was greater competition for executive talent. As our executive officers had forgone raises in 2009, the compensation committee felt that modest raises of between 2% and 4% were appropriate to keep our executive salaries competitive. Where each executive fell in this range was based on the extent to which the executive achieved his or her departmental goals in 2009. The compensation committee approved the following base salaries for 2010: Gajus Worthington, \$303,644, an increase of 3%; Vikram Jog, \$289,120, an increase of 4%; Bob Jones, 281,112, an increase of 2%; and Bill Smith, \$286,624, an increase of 4%.

In May 2010, we hired Fredric Walder to be our Chief Business Officer with a salary of \$290,000 which is similar to the salaries of our other named executive officers. In addition, in order to induce him to relocate to California from Wisconsin, we agreed to reimburse up to \$105,000 of relocation expenses and reimburse, with a tax gross up, the costs of his commuting from Wisconsin to California prior to his relocation.

The compensation committee has not made any decisions regarding changes to base salaries for 2011.

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Incentive Bonus Plan

For 2009, the compensation committee and the board of directors established a bonus structure for all named executive officers that provided for performance bonuses of up to 35% of base salary for each officer. 80% of the performance bonus was payable based upon our reaching our corporate goals described above, and the remaining 20% was payable to each executive based on the attainment of his or her departmental goals described above. Payment of performance bonuses was allocated among corporate and departmental goals in this manner in recognition of our compensation philosophy in which the compensation committee sought to incentivize executive officers to look beyond their departmental goals and work with other executive officers to achieve our overall corporate goals. The entire bonus of 35% of salary was payable to an executive only if all of the corporate goals and all of his or her departmental goals were attained. If a particular corporate or department goal was only partially attained, then the compensation committee would determine in its discretion whether all, part, or none of the portion of the bonus tied to that goal would be awarded; provided that, no bonus was payable with respect to a goal where performance was less than 80% of the targeted level. The 80% requirement was set so that executives would receive a bonus only for high levels of performance. For departmental goals, each goal was treated as having equal weight, so an equal portion of the executive's bonus is tied to attaining each goal. The weighting of the corporate goals was not pre-determined as the compensation committee wished to retain the ability to adjust the bonus payments based on an analysis of how attainment or failure to attain each particular goal impacted us. The compensation committee also retained the discretion to change the bonus structure and increase or decrease the bonus payment amounts as it considered appropriate.

Achievement of Corporate Goals in 2009

In January 2010, the compensation committee reviewed our performance in 2009 and determined that three of our five corporate goals had been fully met and two had been partially met. Specifically, it concluded that:

(i) We had partially met our revenue goal, which the compensation committee recognized was aggressive at the time it was adopted and which proved difficult to achieve in an extremely unfavorable economic environment in 2009. Our revenue was more than 80% of the targeted level but not equal to the target. The compensation committee determined in its discretion to award 40% of the bonus tied to achievement of this goal.

(ii) We had partially met our margin goal. Our margins were better than had been targeted, but this level was achieved only by including in revenue the unanticipated receipt of a license fee in the fourth quarter of 2009 which positively impacted our margins. The compensation committee determined in its discretion to award 94% of the bonus tied to achievement of this goal.

(iii) We had fully achieved our operating expense goal. Our operating expenses were below targeted levels.

(iv) We had fully achieved our financing goals. We raised less than the targeted amount of financing, but the compensation committee deemed the goal fully achieved because of the extremely difficult financing environment in 2009 and the favorable valuation which we achieved.

(v) We had fully achieved our customer leads goal. We generated more leads than were targeted.

In weighting these goals, the compensation committee decided that our revenue goal should be weighted at 60% and the other goals at 10% each, because it viewed achieving greater revenue as the most critical element of our long term success at this stage of our development. Applying the percentage achievement to the weighting of the goals, the compensation committee determined that our corporate goals had been 60% met which equated to a bonus equal to 17% of base salary for each executive officer for attainment of those goals.

Achievement of Department Goals in 2009

The compensation committee also considered the achievement of 2009 departmental performance goals in January 2010 and made the following determinations with respect to each of the executive officers:

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Gajus Worthington, Chief Executive Officer. Mr. Worthington partially met his goal related to the attainment by each individual executive officer of their departmental goals as our executives met or partially met some but not all of their departmental goals. In addition, Mr. Worthington met the sales goal for the United States but not for Europe. The compensation committee equally weighted and averaged the attainment of each of the sales goals and each of the departmental goals and awarded Mr. Worthington 45% of the bonus associated with his attaining his departmental goals.

Vikram Jog, Chief Financial Officer. Mr. Jog fully met his departmental goals as the compensation committee deemed that he raised the targeted amount of capital, there were no material weaknesses or deficiencies in our quarterly reviews or audits, our books were accurately closed in a timely manner each quarter and our 2008 audit was completed. Therefore, the compensation committee awarded Mr. Jog 100% of the bonus associated with his attaining his departmental goals.

William Smith, Vice President Legal Affairs and General Counsel. Mr. Smith fully met four of his five goals as he maintained the intellectual property position of our BioMark business, reduced legal expenditures by the targeted amount, raised the targeted amount of capital, and achieved targeted cost reductions through a contract renegotiation. However, his sales goal was only 50% met because he did not achieve the targeted unit volume of sales. The compensation committee equally weighted each goal and awarded Mr. Smith 90% of the bonus associated with his attaining of his departmental goals.

Robert Jones, Executive Vice President, Research and Development. Mr. Jones met only one of his four goals with respect to product launches as only one product was launched when targeted. In addition, Mr. Jones did not meet his goals with respect to the cost of goods. Therefore, the compensation committee award Mr. Jones 20% of the bonus associated with his attaining his departmental goals.

We intend for the bonus plan to provide a significant portion of an executive's potential compensation. It is designed to help ensure that executives are focused on our near-term performance and on working together to achieve key corporate objectives. We expect that corporate and departmental goals will be reviewed each year and adjusted to reflect changes in our stage of development, competitive position and corporate objectives. As discussed above, the compensation committee and the board of directors retain the discretion to award compensation absent attainment of a relevant performance goal and to reduce the size of an award following attainment of a relevant performance goal, and exercised that discretion in 2009. We believe that maintaining this flexibility is helpful in ensuring that executives are appropriately compensated for their performance and are neither rewarded nor penalized as a result of unusual circumstances that were not foreseeable at the time the goals were developed.

The compensation committee has concluded that the 2009 bonus plan was effective and, therefore, our 2010 bonus plan has the same structure and bonus percentages with updated corporate and departmental goals. The compensation committee has not yet determined whether the 2010 corporate or departmental goals have been achieved.

Option Awards

We grant options to new executives upon the commencement of their employment and on an annual basis consider making additional grants to existing executives based on our overall corporate performance, individual performance and the executives' existing option grants and equity holdings. In addition, on an annual basis we make option grants to our executive officers that have provisions for accelerated vesting if corporate or departmental goals are achieved. We believe that option awards are an effective means of aligning the interests of executives and stockholders, rewarding executives for our achieving success over the long term and providing executives an incentive to remain with us.

In 2009, the compensation committee recommended and the Board approved two performance based option grants to each of our executive officers — one based on attainment of our 2009 corporate goals and one based on

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attainment of the executive's 2009 departmental goals. Each executive was awarded an option to purchase 5,780 shares related to the achievement of departmental goals and an option to purchase 5,780 shares related to attainment of corporate goals. The compensation committee's selection of an aggregate grant of 11,560 shares was based on the committee's determination that such number of shares would provide meaningful compensation to our executive officers and meaningful incentive to achieve the corporate and departmental goals. The committee did not rely on compensation surveys or other third party sources in arriving at this number.

- For the first option grant, 25% of the shares subject to the grant would vest on April 1, 2010 and 1/48th of the shares would vest each month thereafter; provided, that a percentage of the option equal to the percentage of corporate goals that are achieved would become fully vested as of December 31, 2009. Thus, for 2009, because the committee determined that 60% of our corporate goals had been achieved, 60% of the performance options related to the attainment of corporate goals vested effective as of December 31, 2009. 25% of the remaining 40% of such performance options vested on April 1, 2010 and 1/48th of the remaining unvested shares will vest each month thereafter.
- For the second option grant, all of the shares subject to the option will vest on December 31, 2012, provided that a percentage of the option equal to the percentage of the executive's departmental goals that are achieved would become fully vested effective as of December 31, 2009. Thus, for each executive officer all or a portion of their option became vested on December 31, 2009 based on their attainment of their departmental goals.

We believe that these performance related option grants provide an additional incentive for executives to achieve corporate and departmental goals for each year while also providing them a form of compensation that is appropriately linked to our long term success. In January 2011, the compensation committee made grants of the same amount and with the same structure tied to achievement of our 2010 corporate and departmental goals.

In November 2009, the board granted to Mr. Worthington an option to purchase 15,014 shares vesting over four years. The number of shares subject to this grant is equal to the number of shares Mr. Worthington surrendered in 2008 in connection with the repayment of a loan we had made to him. The compensation committee made this grant in order to give Mr. Worthington the opportunity restore his original equity position by providing continuing services to us. In addition, in November 2009, the compensation committee granted Mr. Worthington two options to purchase 8,257 shares. These options were performance related grants which the compensation committee had intended to grant to Mr. Worthington in 2008 at the same time it made similar grants to all other executive officers. As a result of an administrative error, the grants were not made in 2008, so the compensation committee made these grants to correct that oversight.

During 2009, we offered all employees of the company including our executive officers the opportunity to exchange their outstanding options with exercise prices above the then fair value of our common stock, for new options for the same number of shares with an exercise price equal to the then fair value of our common stock and a lengthened vesting schedule. Pursuant to this exchange offer we issued options to purchase 48,719 shares to Gajus Worthington, 99,090 shares to Vikram Jog, 47,892 shares to Bob Jones and 75,638 to Bill Smith.

In connection with the commencement of his employment with us, we granted Fredric Walder an option to purchase 115,606 shares of our common stock. The compensation committee determined that this amount would ensure that a significant portion of Mr. Walder's compensation was tied to the value of our equity and to provide him a potential ownership interest that was comparable to the potential ownership interests of the other named executive officers, other than Mr. Worthington, who was one of our co-founders.

Employment and Severance Agreements

In February 2008, we entered into Employment and Severance Agreements with each of our named executive officers that provide for specified payments and benefits if the officer's employment is terminated without cause, or if the officer's employment is terminated without cause or for good reason within 12 months

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following a change of control. The terms of these agreements are described under “Potential Payments upon Termination or Change of Control.” We adopted these arrangements because we recognize that we will from time to time consider the possibility of an acquisition by another company or other change of control transaction and that such consideration can be a distraction to our executive officers and can cause such officers to consider alternative employment opportunities. Accordingly, our board of directors concluded that it is in the best interests of our company and its stockholders to provide executives with certain severance benefits upon termination of employment without cause or for good reason following a change of control. Our board determined to provide such executives with certain severance benefits upon their termination of employment without cause outside of the change of control context in order to provide executives with enhanced financial security and incentive to remain with our company. In addition, we believe that providing for acceleration of options if an officer is terminated following a change of control transaction aligns the executive officer’s interest more closely with those of other stockholders when evaluating the transaction rather than putting the officer at risk of losing the benefits of those equity incentives.

In determining the amount of cash payments, benefits coverage and acceleration of vesting to be provided to officers upon termination prior to a change of control or within 12 months following a change of control, our Board considered the following factors:

- the expected time required for an officer to find comparable employment following a termination event;
- feedback received from potential candidates for officer positions at our company as to the level of severance payments and benefits they would require to leave other employment and join our company;
- in the context of a change of control, the amount of vesting acceleration that would align the officer’s interests more closely with the interests of stockholders when considering a potential change of control transaction; and
- the period of time following a change of control during which management positions are evaluated and subject to a heightened risk of elimination.

In addition, all outstanding options granted to our employees will become fully vested upon a change of control if the options are not assumed by the acquiring company.

Other Benefits

Executive officers are eligible to participate in all of our employee benefit plans, such as medical, dental, vision, group life, disability, accidental death and dismemberment insurance, and our 401(k) plan, in each case on the same basis as other employees, subject to applicable law. We also provide vacation and other paid holidays to all employees, including our executive officers, which we believe are comparable to those provided at peer companies.

Accounting and Tax Considerations

Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code, places a limit of \$1,000,000 on the amount of compensation that we may deduct as a business expense in any year with respect to our Chief Executive Officer and certain of our highly paid executive officers. We can, however, preserve the deductibility of certain performance-based compensation in excess of \$1,000,000 if the conditions of Code Section 162(m) are met. Under applicable tax guidance for newly-public companies, the deduction limitation generally will not apply to compensation paid pursuant to any plan or agreement that existed before the company became publicly held. In addition, compensation provided by newly-public companies through the first stockholder meeting to elect directors after the close of the third calendar year following the year in which the initial public offering occurs, or earlier upon the occurrence of certain events (e.g., a material modification of the plan or agreement under which the compensation is granted), will not be included for purposes of the Code Section 162(m) limit provided the arrangement is adequately described in this prospectus. Accordingly, we

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believe that deductibility of all income recognized by executives pursuant to equity compensation granted by us prior to this offering, as well as any equity compensation granted by us under the 2011 Equity Incentive Plan following this offering through the expiration of the reliance period, will not be limited by Code Section 162(m). While the compensation committee cannot predict how the deductibility limit may impact our compensation program in future years, the compensation committee intends to maintain an approach to executive compensation that strongly links pay to performance. While the compensation committee has not adopted a formal policy regarding tax deductibility of compensation paid to our executive officers, the compensation committee intends to consider tax deductibility under Section 162(m) as a factor in compensation decisions.

Code Section 409A imposes additional taxes on certain non-qualified deferred compensation arrangements that do not comply with its requirements. These requirements regulate an individual's election to defer compensation and the individual's selection of the timing and form of distribution of the deferred compensation. Code Section 409A generally also provides that distributions of deferred compensation only can be made on or following the occurrence of certain events (i.e., the individual's separation from service, a predetermined date, a change in control, or the individual's death or disability). For certain executives, Code Section 409A requires that such individual's distribution commence no earlier than six (6) months after such officer's separation from service. We have and will continue to endeavor to structure our compensation arrangements to comply with Code Section 409A so as to avoid the adverse tax consequences associated therewith.

Summary Compensation Table

The following table presents information concerning the total compensation of our Chief Executive Officer, Chief Financial Officer and our three other most highly compensated officers during the last fiscal year who were serving as executive officers at the end of 2010 (the “Named Executive Officers”) for services rendered to us in all capacities in 2009 and 2010:

Summary Compensation Table

<u>Name and Principal Position</u>	<u>Year</u>	<u>Salary (\$)</u>	<u>Option Awards (\$)(1)</u>	<u>Non-Equity Incentive Plan Compensation (\$)(2)</u>	<u>Other Compensation (\$)</u>	<u>Total (\$)</u>
Gajus V. Worthington	2010	303,644	—	—	—	303,644
President and Chief Executive Officer	2009	294,840	203,948	59,402	—	558,190
Vikram Jog	2010	289,120	—	—	—	289,120
Chief Financial Officer	2009	278,000	246,340	66,720	—	591,060
Robert C. Jones	2010	281,112	—	—	—	281,112
Executive Vice President Research and Development	2009	275,600	133,224	51,675	—	460,499
William M. Smith	2010	286,624	—	—	—	286,624
Vice President, Legal Affairs, and General Counsel	2009	275,600	190,875	64,215	—	530,590
Fredric Walder	2010	166,750	194,000	—	32,073(3)	392,823
Chief Business Officer						

- (1) Amounts represent the aggregate fair market value of options granted in 2009 to the named executive officer calculated in accordance with FASB ASC 718 without regard to estimated forfeitures. For options granted in connection with our repricing, only the incremental value of the grant is included. See Note 10 of the notes to our audited consolidated financial statements for a discussion of assumptions made in determining the grant date fair value and compensation expense of our stock options.
- (2) The amounts in this column for 2009 represent total performance-based bonuses earned for service rendered during fiscal 2009 under our incentive bonus plan. Our compensation committee has not yet determined performance based bonuses for 2010. For a description of our 2009 and 2010 bonus plans, please see “Incentive Bonus Plan” under “Compensation Discussion and Analysis” above.
- (3) Represents amounts paid to Mr. Walder to reimburse him for the cost of commuting to California prior to his relocation, including a tax gross up.

Grants of Plan-Based Awards

The following table presents information concerning grants of plan-based awards to each of the Named Executive Officers during 2010.

Grants of Plan-Based Awards

<u>Name</u>	<u>Grant Date</u>	<u>Estimated Payouts Under Non-Equity Incentive Plan Awards Target (\$)</u>	<u>All Option Awards: Number of Securities Underlying Options (#)</u>	<u>Exercise or Base Price of Option Awards (\$/Sh)(1)</u>	<u>Grant Date Fair Value of Stock and Option Awards(\$)(2)</u>
Gajus V. Worthington	12/2/2010	106,275	—	—	—
Vikram Jog	12/2/2010	101,192	—	—	—
Robert C. Jones	12/2/2010	98,389	—	—	—
William M. Smith	12/2/2010	100,318	—	—	—
Fredric Walder	8/26/2010	—	115,606	4.45	194,000
	12/2/2010	58,363	—	—	—

(1) Our shares of common stock were not publicly traded during 2010. The exercise price of all options was the fair value of a share of our common stock on the date of grant as determined in good faith by our board of directors.

(2) Amounts represent the grant date fair value of the stock options, calculated in accordance with FASB ASC Topic 718 without regard to estimated forfeitures, or, in the case of grants made as part of our repricing, amounts represent the incremental fair value of the stock options granted calculated in accordance with FASB ASC Topic 718. See note 10 of the notes to our audited consolidated financial statements for a discussion of assumptions made in determining the grant date fair value or incremental fair value of our stock options.

Outstanding Equity Awards at Fiscal Year-End

The following table presents certain information concerning equity awards held by the Named Executive Officers at December 31, 2010.

Outstanding Equity Awards at Fiscal Year-End

<u>Name</u>	<u>Option Awards</u>			
	<u>Number of Securities Underlying Unexercised Options (#) Exercisable(1)</u>	<u>Number of Securities Underlying Unexercised Options (#) Unexercisable</u>	<u>Option Exercise Price (\$)</u>	<u>Option Expiration Date</u>
Gajus V. Worthington	33,030(2)	0	3.39	01/17/2015
	25,598(3)	0	4.45	05/08/2017
	8,257(5)	0	4.08	11/17/2019
	8,257(5)	0	4.08	11/17/2019
	11,560(15)	0	4.45	4/23/2018
	11,560(23)	0	4.45	4/23/2018
	2,601(6)	3,179(4)	4.08	11/17/2019
	4,768(7)	1,011(4)	4.08	11/17/2019
Vikram Jog	4,065(25)	10,948(4)	4.08	11/17/2019
	82,576(8)	0	4.45	2/6/2018
	8,257(9)	0	4.45	2/6/2018
	8,257(10)	0	4.45	2/6/2018
Robert C. Jones	5,780(6)	0	4.08	11/17/2009
	4,768(7)	1,011(4)	4.08	11/17/2009
	66,060(11)	0	3.39	08/03/2015
	13,211(12)	0	4.45	05/07/2017
	8,257(13)	0	4.45	4/23/2018
	8,257(24)	0	4.45	4/23/2018
William M. Smith	6,605(14)	0	4.45	4/23/2018
	11,560(15)	0	4.45	4/23/2018
	1,156(6)	4,624(4)	4.08	11/17/2019
	4,768(7)	1,011(4)	4.08	11/17/2019
	6,440(16)	0	1.82	12/04/2011
	28,901(17)	0	1.82	7/15/2013
	7,431(18)	0	2.42	4/18/2014
	16,515(19)	0	3.39	01/17/2015
16,515(20)	0	4.45	08/14/2016	
12,143(21)	0	4.45	05/07/2017	
7,344(22)	0	4.45	05/07/2017	
11,560(15)	0	4.45	4/23/2018	
11,560(23)	0	4.45	4/23/2018	
8,257(13)	0	4.45	4/23/2018	
8,257(24)	0	4.45	4/23/2018	
5,202(6)	578(4)	4.08	11/17/2019	
4,768(7)	1,011(4)	4.08	11/17/2019	
Fredric Walder	0(26)	115,606(4)	4.45	8/25/2020

- (1) Unless otherwise noted, all option grants may be exercised pursuant to a restricted stock purchase agreement prior to vesting; any shares purchased prior to vesting are subject to a right of repurchase in our favor in the event the individual ceases to provide services to us for any reason which right lapses in accordance with the vesting schedule of the option.
- (2) These options were granted on January 18, 2005 and vested over 4 years. 20% of the shares subject to the stock option vested one year after grant, 1.667% of the shares vested at the end of each monthly period during the subsequent year, and 2.5% of the shares vested at the end of each monthly period thereafter.
- (3) This option was originally granted on May 8, 2007 and was re-granted on December 23, 2009 as part of our option re-pricing. 12,436 of the shares subject to this grant were vested as of re-grant date, 11,560 shares vest as of February 1, 2010, and 533 shares vest each month thereafter.

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- (4) This option may not be exercised prior to vesting.
- (5) These options were granted on November 17, 2009. 6,399 shares subject to the options were vested as of the date of grant and 68 shares vest each month on after December 1, 2009.
- (6) These options were granted on November 17, 2009 and are performance related options tied to achievement of 2009 departmental goals. The remaining unvested shares subject to these grants will vest on December 31, 2012.
- (7) These options were granted on November 17, 2009 and are performance related grants tied to achievement of 2009 corporate goals. 6,100 of the unvested shares vested on December 31, 2009, 563 shares vested on April 1, 2010 and 46 shares vest at the end of each month thereafter.
- (8) This option was originally granted on February 7, 2008 and was re-granted on December 23, 2009 as part of our option re-pricing. 3,526 of the shares subject to the grants were vested as of re-grant date, and 1,720 shares vest each month on and after January 7, 2010.
- (9) This option was originally granted on February 7, 2008 and was re-granted on December 23, 2009 as part of our option re-pricing. 5,215 of the shares subject to the grants were vested as of re-grant date, 97 shares vest each month on and after January 1, 2010 until March 1, 2012, and 171 shares will vest each month on and after March 1, 2012.
- (10) This option was originally granted on February 7, 2008 and was re-granted on December 23, 2009 as part of our option re-pricing. 5,263 of the shares subject to this grant were vested as of re-grant date, 2,477 shares will vest on December 31, 2011 and 171 shares will vest each month thereafter.
- (11) This option was granted on August 3, 2005 and vested over 4 years. Twenty-five percent of the shares vested one year after grant and 2.083% of the shares vested each month thereafter.
- (12) This option was granted on May 8, 2007 and was re-granted on December 23, 2009 as part of our option re-pricing. 825 shares subject to this grant were vested as of the re-grant date, 11,560 shares vest as of February 1, 2010, and 275 shares vest each month thereafter.
- (13) This option was originally granted on April 23, 2008 and was re-granted on December 23, 2009 as part of our option re-pricing. 6,089 of the shares subject to the grant were vested as of re-grant date, 1,651 shares vest as of December 31, 2011, and 172 shares will vest each month thereafter.
- (14) This option was originally granted on April 23, 2008 and was re-granted on December 23, 2009 as part of our option re-pricing. 6,192 of the shares subject to the grant were vested as of re-grant date, and 136 shares vest each month on and after January 22, 2010.
- (15) These options were originally granted on April 23, 2008 and were re-granted on December 23, 2009 as part of our option re-pricing. None of the shares subject to the grants were vested as of re-grant date, 10,838 shares vest as of December 31, 2011, and 241 shares vest each month thereafter.
- (16) These stock options were granted on December 4, 2001 and vest over 4 years at the rate of 2.083% of the shares per month.
- (17) These stock options were granted on July 16, 2003 and vested over 4 years at the rate of 2.083% of the shares per month.
- (18) These stock options were granted on April 19, 2004 and vested over 4 years at the rate of 2.083% of the shares per month.
- (19) These stock options were granted on January 18, 2005 and vested over 4 years. 20% of the shares subject to the stock option vested one year after grant. 1.667% of the shares vested each month during the subsequent year and 2.5% of the shares vested each month thereafter.
- (20) This option was originally granted on August 15, 2006 and was re-granted on December 23, 2009 as part of our option re-pricing. 14,656 of the shares subject to the grant were vested as of re-grant date, 412 shares vest each month on and after January 1, 2010 until March 1, 2010, and 343 shares vest each month on and after March 1, 2010.
- (21) This option was originally granted on May 8, 2007 and was re-granted on December 23, 2009 as part of our option re-pricing. None of the shares subject to the grant were vested as of re-grant date, 11,343 shares vest February 1, 2010, and 253 shares vest each month thereafter.
- (22) This option was originally granted on May 8, 2007 and was re-granted on December 23, 2009 as part of our option re-pricing. 6,884 of the shares subject to the grant were vested as of re-grant date, and 153 shares vest each month on and after January 22, 2010.
- (23) This option was originally granted on April 23, 2008 and was re-granted on December 23, 2009 as part of our option re-pricing. 10,836 of the shares subject to the grant were vested as of re-grant date, and 241 shares vest each month on and after January 22, 2010.
- (24) These options were originally granted on April 23, 2008 and were re-granted on December 23, 2009 as part of our option re-pricing. 5,215 of the shares subject to the grants were vested as of re-grant date, 97 shares vest each month on and after January 1, 2010 until March 1, 2012, and 171 shares vest each month on and after March 1, 2012.
- (25) 25% of the shares subject to this option vest on November 17, 2010 and 1/48th of the shares subject to the option vest every month thereafter.
- (26) 25% of the shares subject to this option vest on August 25, 2011 and 1/48th of the shares vest every month thereafter.

Repricing of Outstanding Stock Options

In November 2009, we offered eligible holders of our stock options, including our executive officers and all our employees, the opportunity to exchange certain outstanding options for new options with an exercise price equal to the fair value of our common stock on December 23, 2009, the date on which this exchange offer ended. Options eligible for exchange included all options with an exercise price greater than \$4.08 per share that remained outstanding and unexercised on December 23, 2009. We determined that the fair market value of our stock on December 23, 2009 was \$4.45. The new options issued in this exchange were exercisable for the same number of shares as the old options and were subject to the same terms and conditions, except that the vesting period for the new options was extended by three months. Approximately 800,578 options were exchanged

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including 363,658 held by our directors and executive officers. We made this exchange offer because many of the outstanding options held by our employees had exercise prices significantly above the fair value of our common stock, and we believed that such options provided little incentive to employees. Our executive officers were entitled to participate in the exchange offer on the same basis as other employees because we intend for options to be an important form of incentive compensation for our executive officers.

Employment Agreements and Offer Letters

Fredric Walder. We are party to an offer letter dated May 3, 2010, with Fredric Walder, our Chief Business Officer. As Chief Business Officer, Mr. Walder is responsible for overseeing all global marketing activities, developing our global sales strategy, and managing our corporate brand and positioning. Under this offer letter, we employ Mr. Walder on an at-will basis for no specified term and agree to pay him an annual base salary of \$290,000, which continues to be his base salary. We have also agreed to provide him with up to \$105,000 in relocation benefits and to reimburse, with a tax gross up, his commuting costs prior to relocation. Pursuant to the offer letter, we granted him an option to purchase 115,606 shares of our common stock with an exercise price of \$4.45, per share, the fair value of our common stock on the date of grant. 1/4 of the shares subject to this grant vest one year after the date of his commencement of employment with us and 1/48th of the shares vest at the end of each month thereafter subject to Mr. Walder's continued employment with us at each applicable vesting date. Mr. Walder is also eligible to participate in our executive bonus plan and receive the same benefits upon termination or change of control as our other executive officers.

Potential Payments Upon Termination or Change of Control

We have entered into employment and severance agreements with Gajus V. Worthington, William M. Smith, Robert C. Jones, Vikram Jog and Fredric Walder, which require us to make payments if the named executive officer's employment with us is terminated in certain circumstances.

Pursuant to our employment and severance agreements with our named executive officers, a "change of control" is defined as the occurrence of the following events:

- any "person," as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended, is or becomes the "beneficial owner," as such term is defined in Rule 13d-3 under said Act, directly or indirectly, of our securities representing 50% or more of the total voting power represented by our then outstanding voting securities;
- a change in the composition of our board occurring within a two-year period, as a result of which fewer than a majority of our directors are "incumbent directors," which term is defined as either (i) our directors as of the execution date of the relevant agreement or (ii) directors who are elected, or nominated for election, to our board with the affirmative votes of at least a majority of the incumbent directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of our directors);
- the date of the consummation of our merger or consolidation with any other corporation that has been approved by the our stockholders, other than a merger or consolidation that would result in our voting securities outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 50% of the total voting power represented by our voting securities or such surviving entity outstanding immediately after such merger or consolidation, or our stockholders approve a plan of our complete liquidation; or
- the date of the consummation of the sale or disposition by us of all or substantially all of our assets.

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Pursuant to our employment and severance agreements with our named executive officers, “cause” is defined as:

- an act of dishonesty in connection with a named executive officer’s responsibilities as an employee;
- a conviction of, or plea of nolo contendere to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude;
- gross misconduct;
- an unauthorized use or disclosure of any of our proprietary information or of any other party to whom he or she owes an obligation of nondisclosure as a result of his or her relationship with us;
- a willful breach of any obligations under any written agreement or covenant with us; or
- a named executive officer’s continued failure to perform his or her employment duties after he or she has received a written demand of performance from us and has failed to cure such non-performance to our satisfaction within 10 business days after receiving such notice.

Pursuant to our employment and severance agreements with Gajus V. Worthington, William M. Smith, Robert C. Jones, Vikram Jog and Fredric Walder, “good reason” means the occurrence of one or more of the following events effected without the named executive officer’s prior consent, provided that he or she terminates his or her employment within one year thereafter:

- the assignment to the named executive officer of any duties or a reduction of the named executive officer’s duties, either of which significantly reduces his or her responsibilities; provided that the continuance of his or her responsibilities at the subsidiary or divisional level following a change of control, rather than at the parent, combined or surviving company level following such change of control shall not be deemed “good reason” within the meaning of this clause;
- a material reduction of the named executive officer’s base salary;
- the relocation of the named executive officer to a facility or a location greater than 50 miles from his or her present location;
- a material breach by us of any material provision of the employment and severance agreement.

However, no act or omission by us shall constitute “good reason” if we fully cure that act or omission within 30 days of receiving notice from the named executive officer.

The employment and severance agreements provide that in the event the named executive officer’s employment is terminated by us or our successor without “cause” prior to a “change of control” or after 12 months following a “change of control” and the named executive officer executes a standard release of claims with us, the named executive officer is entitled to receive, in addition to such officer’s salary payable through the date of termination of employment and any other benefits earned and owed through the date of termination, the following cash payments:

- an amount, payable in accordance with our customary payroll practices, equal to six months of the named executive officer’s base salary in effect immediately prior to the time of termination; and
- reimbursement of costs and expenses incurred by the executive officer and his or her eligible dependents for coverage under group health plans, policies or arrangements sponsored by us for a period of up to six months, provided that such coverage is timely elected under COBRA or similar applicable state statute.

The employment and severance agreements further provide that in the event the named executive officer’s employment is terminated (i) by us or our successor without “cause” and within 12 months following a “change of control” or (ii) by the executive officer for “good reason” and within 12 months following a “change of control”, and in each case the named executive officer executes a standard release of claims with us, the

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executive officer is entitled to receive, in addition to such officer's salary payable through the date of termination of employment and any other benefits earned and owed through the date of termination, the following cash payments and benefits:

- an amount, payable in a lump sum, equal to the greater of (i) six months of the named executive officer's base salary in effect immediately prior to the change in control or (ii) six months of the named executive's officer's base salary in effect immediately prior to the time of termination;
- all outstanding unvested stock options, equity appreciation rights or similar equity awards then held by the named executive officer as of the date of termination will immediately vest and become exercisable as to all shares underlying such options;
- any shares of restricted stock, restricted stock units and similar equity awards then held by the named executive officer will immediately vest and any of our rights of repurchase or reacquisition with respect to such shares will lapse as to all shares; and
- reimbursement of costs and expenses incurred by the executive officer and his or her eligible dependents for coverage under group health plans, policies or arrangements sponsored by us for a period of up to six months, provided that such coverage is timely elected under COBRA or similar applicable state statute.

The following table describes the payments and benefits that each of our named executive officers would be entitled to receive pursuant to the employment and severance agreements, assuming that each of the following triggers occurred in December 31, 2010: (i) their employment was terminated without "cause" prior to or after 12 months following a "change of control" and (ii) their employment was terminated without "cause" or by them for "good reason" within 12 months following a "change of control".

<u>Name and Principal Position</u>	<u>Employment Terminated without Cause Prior to or After 12 Months Following Change of Control</u>		<u>Employment Terminated within 12 Months Following Change of Control(1)</u>		
	<u>Severance Payments (\$)(2)</u>	<u>Health Care Benefits (\$)(3)</u>	<u>Equity Acceleration (\$)(4)</u>	<u>Severance Payments (\$)(2)</u>	<u>Health Care Benefits (\$)(3)</u>
Gajus V. Worthington President and Chief Executive Officer	147,420	12,327	279,522	147,420	12,327
Vikram Jog Chief Financial Officer	139,000	12,327	335,817	139,000	12,327
Robert C. Jones Executive Vice President, Research and Development	137,800	12,327	204,851	137,800	12,327
William M. Smith Vice President, Legal Affairs and General Counsel	137,800	10,737	176,836	132,500	10,737
Fredric Walder Chief Business Officer	145,000	12,327	1,161,840	145,000	12,327

(1) Includes involuntary termination other than for cause, death or disability, and voluntary termination by the employee for good reason.

(2) The amounts shown in this column are equal to six months of the named executive officer's base salary as of December 31, 2010.

(3) The amounts shown in this column are equal to the cost of covering the named executive officer and his or her eligible dependents coverage under our benefit plans for a period of six months, assuming that such coverage is timely elected under COBRA.

(4) The amounts shown in this column are equal to the spread value between (i) the unvested portion of all outstanding stock options, equity appreciation rights or similar equity awards held by the named executive officer on December 31, 2010 and (ii) the initial public offering price of our common stock, which we have assumed to be the midpoint of the price range set forth on the cover page of this prospectus.

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In addition to the benefits described above, our 2009 Equity Incentive Plan and 1999 Stock Option Plan provide for full acceleration of all outstanding options in the event of a change of control of our company where the successor company does not assume our outstanding options and other awards in connection with such acquisition transaction. We estimate the value of this benefit for each named executive officer to be equal to the amount listed above in the column labeled "Equity Acceleration."

Employee Benefit Plans

2011 Equity Incentive Plan.

Our Board of Directors adopted our 2011 Equity Incentive Plan on January 20, 2011, and we expect our stockholders will approve it prior to the completion of this offering. Subject to stockholder approval, the 2011 Equity Incentive Plan will be effective upon completion of this offering. Our 2011 Equity Incentive Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and any parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants.

A total of 1,250,000 shares of our common stock are reserved for issuance pursuant to the 2011 Equity Incentive Plan, of which no options are issued and outstanding. In addition, the shares reserved for issuance under our 2011 Equity Incentive Plan will also include (a) those shares reserved but unissued under the 1999 Stock Option Plan and the 2009 Equity Incentive Plan as of the effective date of the first registration statement filed by us and declared effective with respect to any class of our securities and (b) shares returned to the 1999 Stock Option Plan and the 2009 Equity Incentive Plan as the result of expiration or termination of options (provided that the maximum number of shares that may be added to the 2011 Equity Incentive Plan pursuant to (a) and (b) is 3,022,096 shares). The number of shares available for issuance under the 2011 Equity Incentive Plan will also include an annual increase on the first day of each fiscal year beginning in 2012, equal to the least of:

- 1,000,000 shares;
- 4.0% of the outstanding shares of common stock as of the last day of our immediately preceding fiscal year; or
- such other amount as our Board of Directors may determine.

Our Board of Directors or a committee appointed by our board administers our 2011 Equity Incentive Plan. Our compensation committee will administer our 2011 Equity Incentive Plan after the completion of the offering. In the case of awards intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Internal Revenue Code, the committee will consist of two or more "outside directors" within the meaning of Section 162(m).

Subject to the provisions of our 2011 Equity Incentive Plan, the administrator has the power to determine the terms of the awards, including the exercise price, the number of shares subject to each such award, the exercisability of the awards and the form of consideration, if any, payable upon exercise. The administrator also has the authority to amend existing awards to reduce their exercise price, to allow participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator and to institute an exchange program by which outstanding awards may be surrendered in exchange for awards with a higher or lower exercise price.

The exercise price of options granted under our 2011 Equity Incentive Plan must at least be equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed 10 years, except that with respect to any participant who owns 10% of the voting power of all classes of our outstanding stock, the term must not exceed 5 years and the exercise price must equal at least 110% of the fair

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market value on the grant date. Subject to the provisions of our 2011 Equity Incentive Plan, the administrator determines the term of all other options.

After the termination of service of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 12 months. In all other cases, the option will generally remain exercisable for three months following the termination of service. However, in no event may an option be exercised later than the expiration of its term.

Stock appreciation rights may be granted under our 2011 Equity Incentive Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. Subject to the provisions of our 2011 Equity Incentive Plan, the administrator determines the terms of stock appreciation rights, including when such rights become exercisable and whether to pay any increased appreciation in cash or with shares of our common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

Restricted stock may be granted under our 2011 Equity Incentive Plan. Restricted stock awards are grants of shares of our common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares of restricted stock granted to any employee, director or consultant. The administrator may impose whatever conditions to vesting it determines to be appropriate (for example, the administrator may set restrictions based on the achievement of specific performance goals or continued service to us); provided, however, that the administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Shares of restricted stock that do not vest are subject to our right of repurchase or forfeiture.

Restricted stock units may be granted under our 2011 Equity Incentive Plan. Restricted stock units are bookkeeping entries representing an amount equal to the fair market value of one share of our common stock. The administrator determines the terms and conditions of restricted stock units including the vesting criteria (which may include accomplishing specified performance criteria or continued service to us) and the form and timing of payment. Notwithstanding the foregoing, the administrator, in its sole discretion may accelerate the time at which any restrictions will lapse or be removed.

Performance units and performance shares may be granted under our 2011 Equity Incentive Plan. Performance units and performance shares are awards that will result in a payment to a participant only if performance goals established by the administrator are achieved or the awards otherwise vest. The administrator will establish organizational or individual performance goals in its discretion, which, depending on the extent to which they are met, will determine the number and/or the value of performance units and performance shares to be paid out to participants. After the grant of a performance unit or performance share, the administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such performance units or performance shares. Performance units shall have an initial dollar value established by the administrator prior to the grant date. Performance shares shall have an initial value equal to the fair market value of our common stock on the grant date. The administrator, in its sole discretion, may pay earned performance units or performance shares in the form of cash, in shares or in some combination thereof.

Our 2011 Equity Incentive Plan provides that all non-employee directors will be eligible to receive all types of awards (except for incentive stock options) under the 2011 Equity Incentive Plan. Please see the description of our outside director equity compensation policy above under “Director Compensation—Post Offering.”

Unless the administrator provides otherwise, our 2011 Equity Incentive Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

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Our 2011 Equity Incentive Plan provides that in the event of a merger or “change in control,” as defined in the 2011 Equity Incentive Plan, each outstanding award will be treated as the administrator determines, including that the successor corporation or its parent or subsidiary will assume or substitute an equivalent award for each outstanding award. The administrator is not required to treat all awards similarly. If there is no assumption or substitution of outstanding awards, the awards will fully vest, all restrictions will lapse, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and the awards will become fully exercisable. The administrator will provide notice to the recipient that he or she has the right to exercise the option and stock appreciation right as to all of the shares subject to the award, all restrictions on restricted stock will lapse, and all performance goals or other vesting requirements

2009 Equity Incentive Plan, as Amended

Our 2009 Equity Incentive Plan was adopted by our Board of Directors on April 30, 2009 and approved by our stockholders on August 14, 2009, and subsequently amended on November 13, 2009. Our 2009 Equity Incentive Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and any parent and subsidiary corporations’ employees, and for the grant of nonstatutory stock options, stock appreciation rights, restricted stock, and restricted stock units to our employees, directors and consultants and our parent and subsidiary corporations’ employees and consultants. Our Board of Directors has decided not to grant any additional options under our 2009 Equity Incentive Plan upon the completion of this offering. However, our 2009 Equity Incentive Plan will continue to govern the terms and conditions of the outstanding stock options previously granted thereunder.

Subject to the provisions of our 2009 Equity Incentive Plan, the maximum aggregate number of shares which may be subject to options and sold under our 2009 Equity Incentive Plan is 1,009,524 shares, plus 1,696,667 shares that were subject to stock options or similar awards granted under the 1999 Stock Option Plan that expired or terminated without having been exercised in full and unvested shares issued pursuant to awards granted under the 1999 Stock Option Plan that were forfeited to or repurchased by us.

Shares issued pursuant to awards under the 2009 Equity Incentive Plan that we repurchase or that expire or are forfeited, as well as shares used to pay the exercise price of an award or to satisfy the tax withholding obligations related to an award, will become available for future grant under the 2009 Equity Incentive Plan. In addition, to the extent that an award is paid out in cash rather than shares, such cash payment will not reduce the number of shares available for issuance under the 2009 Equity Incentive Plan.

Our compensation committee appointed by our board of directors currently administers our 2009 Equity Incentive Plan. Under our 2009 Equity Incentive Plan, the administrator has the power to determine the terms of awards, including the recipients, the exercise price, if any, the number of shares covering each award, the fair market value of a share of our common stock, the vesting schedule applicable to the awards, together with any vesting acceleration, the form of consideration, if any, payable upon exercise of the award, and the terms of the award agreement for use under the 2009 Equity Incentive Plan. The administrator also has the authority, subject to the terms of the 2009 Equity Incentive Plan, to amend existing awards to reduce or increase their exercise price, to allow participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator, to institute an exchange program by which outstanding awards may be surrendered in exchange for awards that may have different exercise prices and terms, to prescribe rules and to construe and interpret the 2009 Equity Incentive Plan and awards granted under the 2009 Equity Incentive Plan.

The administrator may grant incentive and/or nonstatutory stock options under our 2009 Equity Incentive Plan, provided that incentive stock options are only granted to employees. The exercise price of such options must equal at least the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed ten years; provided, however, that an incentive stock option held by a participant who owns more than 10% of the total combined voting power of all classes of our stock, or of certain of our parent or subsidiary corporations, may not have a term in excess of five years and must have an exercise price of at least

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110% of the fair market value of our common stock on the grant date. The administrator will determine the methods of payment of the exercise price of an option, which may include cash, shares or other property acceptable to the administrator. Subject to the provisions of our 2009 Plan, the administrator determines the remaining terms of the options (e.g., vesting). After the termination of service of an employee, director or consultant, the participant may exercise his or her option, to the extent vested as of such date of termination, for the period of time stated in his or her award agreement. However, in no event may an option be exercised later than the expiration of its term. The specific terms will be set forth in an award agreement.

After the termination of service of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 6 months. In all other cases, the option will generally remain exercisable for 30 days following the termination of service. In some cases, options issued to consultants pursuant to our 2009 Equity Incentive Plan provide that they may be exercised at anytime prior to the expiration of the ten year term of the option. However, in no event may an option be exercised later than the expiration of its term.

Stock appreciation rights may be granted under our 2009 Equity Incentive Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. Subject to the provisions of our 2009 Equity Incentive Plan, the administrator determines the terms of stock appreciation rights, including when such rights vest and become exercisable and whether to settle such awards in cash or with shares of our common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant. The specific terms will be set forth in an award agreement.

Restricted stock may be granted under our 2009 Equity Incentive Plan. Restricted stock awards are grants of shares of our common stock that are subject to various restrictions, including restrictions on transferability and forfeiture provisions. Shares of restricted stock will vest and the restrictions on such shares will lapse, in accordance with terms and conditions established by the administrator. The administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Recipients of restricted stock awards generally will have voting and dividend rights with respect to such shares upon grant without regard to vesting, unless the administrator provides otherwise. Shares of restricted stock that do not vest for any reason will be forfeited by the recipient and will revert to us. The specific terms will be set forth in an award agreement.

Restricted stock units may be granted under our 2009 Equity Incentive Plan. Each restricted stock unit granted is a bookkeeping entry representing an amount equal to the fair market value of one share of our common stock. The administrator determines the terms and conditions of restricted stock units including the vesting criteria, which may include achievement of specified performance criteria or continued service to us, and the form and timing of payment. The administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout. The administrator determines in its sole discretion whether an award will be settled in stock, cash or a combination of both. The specific terms will be set forth in an award agreement.

Unless the administrator provides otherwise, our 2009 Equity Incentive Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

In the event of certain changes in our capitalization, to prevent diminution or enlargement of the benefits or potential benefits available under the 2009 Equity Incentive Plan, the administrator will make adjustments to one or more of the number and class of shares that may be delivered under the plan and/or the number, class and price of shares covered by each outstanding award. In the event of our proposed liquidation or dissolution, the administrator will notify participants as soon as practicable and all awards will terminate immediately prior to the consummation of such proposed transaction.

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Our 2009 Equity Incentive Plan provides that in the event of a merger or change in control, as defined under the 2009 Equity Incentive Plan, each outstanding award will be treated as the administrator determines, except that if a successor corporation or its parent or subsidiary does not assume or substitute an equivalent award for any outstanding award, then such award will fully vest, all restrictions on such award will lapse, all performance goals or other vesting criteria applicable to such award will be deemed achieved at 100% of target levels and such award will become fully exercisable, if applicable, for a specified period prior to the transaction. The award will then terminate upon the expiration of the specified period of time.

Our board of directors has the authority to amend, alter, suspend or terminate the 2009 Equity Incentive Plan provided such action does not impair the existing rights of any participant. Our 2009 Equity Incentive Plan will automatically terminate in 2019, unless we terminate it sooner.

1999 Stock Option Plan

Our 1999 Stock Option Plan was adopted by our board of directors and approved by our stockholders on May 12, 1999. The 1999 Stock Option Plan was terminated on April 30, 2009. Following the termination of our 1999 Stock Option Plan, we did not grant any additional awards under the 1999 Stock Option Plan, but the 1999 Stock Option Plan will continue to govern the terms and conditions of the outstanding awards previously granted thereunder.

Our 1999 Stock Option Plan provided for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and any parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants.

Subject to the provisions of our 1999 Stock Option Plan, the maximum aggregate number of shares issuable under our 1999 Stock Option Plan was 2,444,260 shares. As of September 30, 2010, options to purchase 428,479 shares of our common stock were outstanding under the 1999 Stock Option Plan. If an option expires or becomes unexercisable without having been exercised in full or is surrendered pursuant to an option exchange program, such shares will become available for future grant or sale.

Our compensation committee appointed by our board of directors currently administers our 1999 Stock Option Plan. Under our 1999 Stock Option Plan, the administrator has the power to determine the terms of the stock options, including the employees, directors and consultants who will receive stock options, the number of shares subject to each stock option, the vesting schedule, any vesting acceleration, and the exercisability of stock options. The administrator also has the authority to initiate an option exchange program whereby stock options are exchanged for stock options with a lower exercise price. The administrator may also reduce the exercise price of any option to the then current fair market value if the fair market value of our common stock has declined since the date the option was granted.

The exercise price of options granted under our 1999 Stock Option Plan had to be at least equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option had to not exceed 10 years, except that with respect to any optionee who owned 10% of the voting power of all classes of our outstanding stock as of the grant date, the term could not exceed 5 years and the exercise price had to equal at least 110% of the fair market value on the grant date. Subject to the provisions of our 1999 Stock Option Plan, the administrator determined the terms of all other options in its discretion.

After the termination of service of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 12 months. In all other cases, the option will generally remain exercisable for three months following the termination of service. In some cases, options issued to consultants

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pursuant to our 1999 Stock Option Plan provide that they may be exercised at anytime prior to the expiration of the ten year term of the option. However, in no event may an option be exercised later than the expiration of its term.

Unless the administrator provides otherwise, our 1999 Stock Option Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

Our 1999 Stock Option Plan provides that in the event of a merger of our company or a sale of substantially all of our assets, each outstanding stock option will be assumed or an equivalent option or right substituted by the successor corporation. If there is no assumption or substitution of outstanding options (or portions thereof), the options (or portions thereof) will fully vest and become fully exercisable. In such case, the administrator will provide notice to the optionee that he or she has the right to exercise the option as to all of the shares subject to the option for a period of at least 15 days. The option will terminate upon the expiration of the period of time the administrator provides in the notice.

Our board of directors has the authority to amend, suspend or terminate the 1999 Stock Option Plan provided such action does not impair the rights of any optionee without his or her written consent.

Retirement Plans

401(k) Plan. We maintain a tax-qualified retirement plan that provides eligible employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees are able to participate in the 401(k) plan as of the first day of the month on or following the date they begin employment and participants are able to defer up to 60% of their eligible compensation subject to applicable annual Internal Revenue Code limits. All participants' interests in their deferrals are 100% vested when contributed. The 401(k) plan permits us to make matching contributions and profit sharing contributions to eligible participants, although we have not made any such contributions to date. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The 401(k) plan is intended to qualify under Sections 401(a) and 501(a) of the Internal Revenue Code. As a tax-qualified retirement plan, contributions to the 401(k) plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan and all contributions are deductible by us when made.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation and bylaws that will become effective upon the completion of this offering contain provisions that limit the personal liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation that will become effective upon the completion of this offering, provides that we indemnify our directors to the fullest extent permitted by Delaware law. In addition, our amended and restated bylaws, that will become effective upon the completion of this offering, provide that we indemnify our directors and officers to the fullest extent permitted by Delaware law. Our amended and

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restated bylaws, that will become effective upon the completion of this offering, also provide that we shall advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity, regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by the Board of Directors. With certain exceptions, these agreements provide for indemnification for related expenses including, among others, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and bylaws, that will become effective upon the completion of this offering, may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty of care. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the director and executive compensation arrangements discussed above in “Management,” we have been a party to the following transactions since January 1, 2008, in which the amount involved exceeded or will exceed \$120,000, and in which any director, executive officer or holder of more than 5% of any class of our voting stock, or any member of the immediate family of or entities affiliated with any of them, had or will have a material interest.

2011 Note Financing

In January 2011, we sold subordinated secured promissory notes, or the 2011 Notes, to certain of our existing investors for an aggregate purchase price of \$5.0 million. The 2011 Notes accrue interest at a rate of 8% per year and all unpaid principal, accrued interest and any other amounts payable under the 2011 Notes are due and payable on the earliest to occur of: (i) the closing of the next transaction or series of transactions pursuant to which we issue and sell shares of our capital stock with the principal purpose of raising capital for aggregate gross proceeds of at least \$25,000,000; (ii) the closing of a change of control of our company; (iii) January 6, 2012, or (iv) when, upon the occurrence and during the continuance of an event of default, such amounts are declared due and payable by the holders of a majority of the aggregate outstanding principal amount of the 2011 Notes. The notes are secured by substantially all of our assets excluding intellectual property. We currently expect that the 2011 Notes will become due and payable upon the closing of this offering and we intend to use a portion of the net proceeds from this offering to satisfy our repayment obligations under the 2011 Notes.

Each investor who purchased a 2011 Note also received a warrant to purchase a number of shares of our Series E-1 convertible preferred stock equal to the quotient obtained by dividing (x) 25% of the principal amount of the 2011 Note purchased by such investor by (y) \$12.11, which warrants are currently exercisable for rights to purchase an aggregate of 103,182 shares of our Series E-1 convertible preferred stock at a purchase price per share of \$0.02.

In connection with these sales, we granted the investors certain registration rights with respect to the shares issuable upon exercise of the warrants. See “Description of Capital Stock—Registration Rights.”

The table below sets forth (i) the principal amount of 2011 Notes purchased by each of our directors, executive officers, holders of more than 5% of any class of our voting securities, or any member of the immediate family of or any entities affiliated with any of the foregoing persons, and (ii) the number of shares of our Series E-1 convertible preferred stock currently issuable upon the exercise of warrants issued in connection with the purchase of our 2011 Notes.

<u>Purchaser</u>	<u>Principal Amount of 2011 Note(s) Purchased</u>	<u>Number of Shares of Series E-1 Preferred Stock Currently Issuable upon Exercise of Warrant(s) Issued in connection with 2011 Notes</u>
Colella Family Trust U/D/T dated September 21, 1992(1)(4)	\$ 400,000	8,257
Entities affiliated with Fidelity Funds(2)	533,625	11,015
Entities affiliated with Lehman Brothers Holdings, Inc.(3)	310,153	6,402
Entities affiliated with Versant Ventures(1)(4)	400,000	8,256
Vikram and Pratima Jog Family Trust u/a dated 6/23/2009(5)	100,000	2,064
Worthington Family Trust UAD 03/06/07(6)	25,000	515
Total	\$ 1,768,778	36,509

(1) Samuel D. Colella, a member of our Board of Directors and a managing director of Versant Ventures is a co-trustee of the Colella Family Trust U/D/T dated September 21, 1992.

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- (2) Consists of a 2011 Note in the principal amount of \$41,275 and a related warrant currently exercisable for 852 shares issued to Fidelity Contrafund: Fidelity Advisor New Insights Fund, a 2011 Note in the principal amount of \$376,568 and a related warrant currently exercisable for 7,773 shares issued to Fidelity Contrafund: Fidelity Contrafund, and a 2011 Note in the principal amount of \$115,782 and a related warrant currently exercisable for 2,390 shares issued to Variable Insurance Products Fund II: Contrafund Portfolio, which entities are aggregated for purposes of reporting share ownership information and collectively hold 5% or more of our capital stock.
- (3) Consists of a 2011 Note in the principal amount of \$77,538 and a related warrant currently exercisable for 1,600 shares issued to Lehman Brothers Healthcare Venture Capital L.P., a 2011 Note in the principal amount of \$17,341 and a related warrant currently exercisable for 357 shares issued to Lehman Brothers Offshore Partnership Account 2000/2001, L.P., a 2011 Note in the principal amount of \$148,409 and a related warrant currently exercisable for 3,063 shares issued to Lehman Brothers P.A., LLC, and a 2011 Note in the principal amount of \$66,865 and a related warrant currently exercisable for 1,380 shares issued to Lehman Brothers Partnership Account 2001/2001, L.P., which entities are aggregated for purposes of reporting our share ownership information and collectively hold 5% or more of our capital stock.
- (4) Consists of a 2011 Note in the principal amount of \$8,000 and a related warrant currently exercisable for 164 shares issued to Versant Affiliates Fund 1-A, L.P., a 2011 Note in the principal amount of \$16,800 and a related warrant currently exercisable for 346 shares issued to Versant Affiliates Fund 1-B, L.P., a 2011 Note in the principal amount of \$7,200 and a related warrant currently exercisable for 148 shares issued to Versant Side Fund I, L.P. and a 2011 Note in the principal amount of \$368,000 and a related warrant currently exercisable for 7,596 shares issued to Versant Venture Capital I, L.P., which entities are aggregated for purposes of reporting our share ownership information and collectively hold 5% or more of our capital stock. Samuel D. Colella, a managing director of Versant Ventures, is a member of our Board of Directors.
- (5) Vikram and Pratima Jog Family Trust u/a dated 6/23/2009 is controlled by Vikram Jog, our Chief Financial Officer.
- (6) Worthington Family Trust UAD 03/06/07 is controlled by Gajus V. Worthington, our President and Chief Executive Officer and a member of our Board of Directors.

Warrant Repricing

In August 2010, we allowed the holders of outstanding preferred stock warrants with exercise prices greater than \$12.11 per share to amend such warrants to provide that (i) the exercise price of such warrants would be \$12.11 per share and (ii) such warrants would be exercisable for (a) a number of shares of an alternative series of our preferred stock equal to the number of shares of the preferred stock issuable upon exercise of the non-repriced warrants and (b) an equivalent number of shares of our common stock, subject to such holder's agreement to exercise the amended warrants immediately in full and for cash.

The table below sets forth the participation in the Warrant Repricing by our directors, executive officers and 5% stockholders and their affiliates.

<u>Purchasers</u>	<u>Number of shares of Warrants Repriced</u>	<u>Number of shares of new preferred stock issued in connection with Warrant Repricing</u>	<u>Number of shares of common stock issued in connection with Warrant Repricing</u>
Entities affiliated with Alloy Funds(1)	13,977	13,977	13,977
Entities affiliated with Fidelity Funds(2)	18,240	18,240	18,240
Entities affiliated with InterWest Funds(3)	14,143	14,143	14,143
Total	46,630	46,630	46,630

(1) Consists of 183 shares issued to Alloy Partners 2002, L.P., 6,805 shares issued to Alloy Ventures 2002, L.P. and 6,989 shares issued to Alloy Ventures 2005, L.P.

(2) Consists of 1,801 shares issued to Fidelity Contrafund: Fidelity Advisor New Insights Fund and 16,438 shares issued to Fidelity Contrafund: Fidelity Contrafund.

(3) Consists of 646 shares issued to InterWest Investors VII, L.P. and 13,497 shares issued to InterWest Partners VII, L.P.

2009 Bridge Financing and Issuance of Series E Convertible Preferred Stock

In August 2009, we sold convertible promissory notes, or the 2009 Notes, to certain of our existing investors for an aggregate purchase price of \$10.7 million. The 2009 Notes (a) accrued interest (i) during the first 60 days the 2009 Notes were outstanding, at a rate equal to 1% per month, and (ii) following such initial 60 day period, at a rate

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equal to 2% per month, in each case compounded monthly and computed on the basis of the actual number of days elapsed and a year consisting of twelve (12) 30-day months; and (b) had a maturity date of approximately 4 months.

Under the terms of the 2009 bridge financing, upon the closing of a qualified equity financing or upon the election of the holders of a majority of the 2009 Notes, the 2009 Notes and the interest accrued thereon would automatically convert into the security sold in such financing at the price at which such securities were sold. In November 2009, in connection with our Series E convertible preferred stock financing with a strategic investor, a majority of the investors who had purchased 2009 Notes elected to have their 2009 Notes convert into Series E convertible preferred stock at a conversion price of \$24.22 per share. Each investor who purchased 2009 Notes also received warrants to purchase a number of shares of our Series E convertible preferred stock equal to the product of 50% of the principal amount of 2009 Notes purchased by such investor plus an additional 5% of the original principal amount of the 2009 Notes for each full month that elapsed after the date that was two (2) months after the issuance date of the 2009 Notes, for so long as the 2009 Notes remained outstanding or converted into equity securities of the Company under the 2009 Notes, provided, however, that in no event will the additional coverage exceed 15% of the original principal amount of the 2009 Note.

In connection with these sales, we granted the purchasers certain registration rights with respect to their securities. See “Description of Capital Stock—Registration Rights.” Each outstanding share of our preferred stock will be converted automatically into one share of our common stock upon the completion of this offering.

The table below summarizes (i) the amount invested by each of our directors, executive officers, holders of more than 5% of any class of our voting securities, or any member of the immediate family of or any entities affiliated with any of the foregoing persons in the 2009 bridge financing, (ii) the number of shares of Series E Preferred Stock received by each such person upon conversion of their 2009 Note, and (iii) the number of shares of Series E Preferred Stock for which the warrants issued to such persons are now exercisable.

<u>Purchaser</u>	<u>Aggregate Purchase Price</u>	<u>Shares of Series E Preferred Stock</u>	<u>Number of Shares of Series E Preferred stock issuable upon exercise of Warrants</u>
Entities affiliated with Alloy Funds(1)	\$ 677,172	28,916	13,977
Bruce Burrows(2)	\$ 652,619	27,868	13,471
Entities affiliated with EuclidSR Funds(3)	\$ 888,762	37,952	18,345
Biomedical Sciences Investment Fund Pte Ltd(4)	\$1,634,383	69,793	33,736
Entities affiliated with InterWest Funds(5)	\$ 685,191	29,259	14,143
Entities affiliated with Lehman Brothers Holdings, Inc.(6)	\$ 670,137	28,616	13,832
SMALLCAP World Fund, Inc.(7)	\$ 794,372	33,921	16,397
Entities affiliated with Versant Ventures(8)	\$1,066,728	45,552	22,018
Entities affiliated with Fidelity Funds(9)	\$1,133,858	48,418	23,404
Total	\$6,002,835	350,295	169,323

(1) Consists of \$8,901 invested by Alloy Partners 2002, L.P. and \$329,685 invested by Alloy Ventures 2002, L.P. and \$338,586 invested by Alloy Ventures 2005 L.P. Michael Hunkapiller, an affiliate of Alloy Ventures, was a member of our Board of Directors.

(2) Bruce Burrows is a holder of 5% or more of our capital stock. He served as a member of our Board of Directors from January 3, 2000 to January 15, 2008.

(3) Consists of \$444,381 invested by EuclidSR Biotechnology Partners, L.P. and \$444,381 invested by EuclidSR Partners, L.P. Raymond Whitaker, an affiliate of Euclid SR Partners, is a member of our Board of Directors.

(4) Biomedical Sciences Investment Fund Pte Ltd is a holder of 5% or more of our capital stock. Jeremy Loh, an affiliate of Biomedical Sciences Investment Fund Pte Ltd is a member of our Board of Directors.

(5) Consists of \$653,880 invested by InterWest Investors VII, L.P. and \$31,312 invested by InterWest Partners VII, L.P. These affiliated entities collectively hold 5% or more of our capital stock.

(6) Consists of \$167,534 invested by Lehman Brothers Healthcare Venture Capital L.P., \$37,468 invested by Lehman Brothers Offshore Partnership Account 2000/2001, L.P., \$320,662 invested by Lehman Brothers P.A., LLC, and \$144,473 invested by Lehman Brothers Partnership Account 2001/2001, L.P. These affiliated entities collectively hold 5% or more of our capital stock.

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- (7) SMALLCAP World Fund, Inc. is a holder of 5% or more of our capital stock.
- (8) Consists of \$17,898 invested by Versant Affiliates Fund 1-A, L.P., \$52,818 invested by Versant Affiliates Fund 1-B, L.P., \$20,345 invested by Versant Side Fund I, L.P. and \$975,666 invested by Versant Venture Capital I, L.P. Sam Colella, an affiliate of Versant Ventures, is a member of our Board of Directors.
- (9) Consists of \$87,292 invested by Fidelity Contrafund: Fidelity Advisor New Insights Fund, \$796,398 invested by Fidelity Contrafund: Fidelity Contrafund, and \$250,168 invested by Variable Insurance Products Fund II: Contrafund Portfolio.

Transactions with the Singapore Government

Government Incentive Grants

In October 2005, Fluidigm Singapore entered into a letter agreement providing for up to SG\$10 million (approximately US\$7.6 million using a September 30, 2010 exchange rate) in incentive grants from the Singapore Economic Development Board, or EDB. The incentive grants are payable for the period August 1, 2005 through July 31, 2010 in connection with the establishment and operation of a research, development and manufacturing center for chips in Singapore. Incentive grant payments are calculated as a portion of qualifying expenses we incur in Singapore relating to salaries, overhead, outsourcing and subcontracting expenses, operating expenses and royalties paid. Fluidigm Singapore is required to submit requests for incentive grant payments on a quarterly basis along with reports regarding its compliance with the development, hiring, expenditure and other conditions through the end of the applicable quarter.

On January 11, 2006, Fluidigm Singapore and EDB entered into a supplement to the October 2005 letter agreement. This supplement was entered into to create a process whereby Fluidigm Singapore and EDB would agree on new quarterly development targets at the start of each year, Fluidigm Singapore would submit to EDB a progress report and evidence of the achievement of targets on a quarterly basis and the parties would resolve any disagreements regarding the satisfaction of targets using an established procedure and the parties would be entitled to obtain a third party audit of our incentive grant payment requests on a semi-annual rather than an annual basis.

Fluidigm Singapore's continued eligibility for such incentive grant payments is subject to its compliance with increasing levels of research, development and manufacturing activity in Singapore, including employment of specified numbers of research scientists and engineers, its incurrence of specified levels of research and development expenses in Singapore over the course of each calendar year, its use of local service providers, its manufacture in Singapore of the products developed in Singapore and its achievement of certain targets relating to new product development or completion of specific manufacturing process objectives. These required levels of research, development and manufacturing activity in Singapore and the associated increases from one year to the next are the result of negotiations between the parties and are generally consistent with our business strategy for our Singapore operations. All ownership rights in the intellectual property developed by Fluidigm Singapore remain with Fluidigm Singapore and no such rights are conveyed to EDB under the agreement.

On February 12, 2007, Fluidigm Singapore entered into a second letter agreement with EDB which provided for up to an additional SG\$3.7 million (approximately US\$2.8 million using a September 30, 2010 exchange rate) in incentive grant payments. The terms and conditions of this letter agreement are substantially the same as the October 2005 letter agreement, with the exception of the size of the potential grant, the term of the agreement and the specific levels of research, development and manufacturing activity required to maintain eligibility for such grants. This letter 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 to remain eligible for incentive grant payments. The requirements of the February 2007 agreement may only be satisfied by personnel employed in the research and development of our microfluidic instrumentation. The primary focus of this grant agreement was the ongoing development and manufacture in Singapore of instrumentation to be used with our microfluidic systems. This letter agreement applies to research, development and manufacturing activity by Fluidigm Singapore in Singapore from June 1, 2006 through May 31, 2011.

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On March 27, 2008, Fluidigm Singapore entered into amended and restated versions of our October 2005 and February 2007 letter agreements with EDB. The purpose of these amendments was to consolidate and streamline the original agreements to eliminate sub-categories of eligible expenditures and rely on more general descriptions of the eligible expenditures that the parties had been applying in practice, to consolidate certain administrative terms and conditions of the incentive grant payments, and to remove various forms attached to the original letter agreements that had changed over time or were not part of the ongoing agreement between the parties. The January 2006 supplement to the October 2005 letter agreement remains in effect.

Our first letter agreement with EDB was completed in July 2010. The maximum amount of grant revenue available to us under our second letter agreement with EDB from September 30, 2010 through May 31, 2011 is SG\$1.1 million (approximately US\$0.8 million using a September 30, 2010 exchange rate) although we expect actual grant revenue to be significantly lower.

As of December 31, 2009 and September 30, 2010, we had accounts receivable from EDB in the amounts of \$666,000 and \$594,000, respectively, and deferred revenue of \$144,000 and \$75,000, respectively, related to incentive payments from EDB for equipment expenditures. The deferred revenue is being recognized ratably over the estimated useful life of the equipment of four years.

Loan to Gajus Worthington

On January 20, 2004, we entered into an Employee Loan Agreement, Secured Promissory Note and Stock Pledge Agreement with Mr. Worthington pursuant to which we loaned Mr. Worthington \$250,000 at an interest rate of 3.52% per annum and the principal and interest were not due and payable until 7 years after the date of the loan or upon the earlier occurrence of certain events. The loan was secured by the pledge of 137,627 shares of our common stock held by Mr. Worthington and was otherwise non-recourse. The loan was extended to Mr. Worthington to assist him in purchasing a home for his personal residence in Northern California. On April 10, 2008, Mr. Worthington repaid the loan in full in accordance with Section 2.2(d) of the note by selling shares of our common stock held by Mr. Worthington to us at the fair value of such stock on the date of such sale, which was determined by the board of directors to be \$19.31 per share. The note and Mr. Worthington's loan were repaid in full and cancelled in exchange for 15,014 shares of our common stock which Mr. Worthington transferred to us pursuant to the terms of a repurchase agreement dated April 10, 2008. This loan repayment and share cancellation transaction was approved by the board based on its determination that we received full and fair consideration for the cancellation of the loan and that the cancellation of the loan was in the best interests of our company and its stockholders.

Engagement of Townsend and Townsend and Crew LLP

Since before 2007, the law firm of Townsend and Townsend and Crew LLP, or Townsend, has served as our primary outside patent counsel. William Smith, our Vice President, Legal Affairs, General Counsel and Secretary as well a director from May 2000 until April 7, 2008, was a partner at Townsend from 1985 to April 1, 2008. Amounts paid to Townsend for services and direct patent fees were \$576,000 and \$312,000 for 2007 and the six months ended June 28, 2008. The accrued amount payable to Townsend as of June 28, 2008, was \$411,000.

Registration Rights Agreement

Holders of our preferred stock and our co-founders are entitled to certain registration rights with respect to the common stock issued or issuable upon conversion of the preferred stock. See "Registration Rights" under "Description of Capital Stock" below for additional information.

Stock Option Grants

Certain stock option grants to our directors and executive officers and related option grant policies are described above in this prospectus under the caption "Management."

2009 Stock Option Repricing

In November 2009, we offered eligible holders of our stock options the opportunity to exchange certain options for new options with an exercise price per share equal to the fair value of our common stock on December 23, 2009. The participation of our executive officers and directors in this repricing is described in this prospectus under the caption “Management.”

Employment Arrangements and Indemnification Agreements

We have entered into employment arrangements with certain of our executive officers. See “Management—Employment Agreements and Offer Letters” above.

We have also entered into indemnification agreements with each of our directors and executive officers. The indemnification agreements and our certificate of incorporation and bylaws require us to indemnify our directors and executive officers to the fullest extent permitted by Delaware law. See “Management—Limitations on Liability and Indemnification Matters” above.

Related Party Transaction Policy

We have adopted a formal policy that our executive officers, directors, holders of more than 5% of any class of our voting securities, and any member of the immediate family of and any entity affiliated with any of the foregoing persons, are not permitted to enter into a related party transaction with us without the prior consent of our audit committee, or other independent members of our board in the case it is inappropriate for our audit committee to review such transaction due to a conflict of interest. Any request for us to enter into a transaction with an executive officer, director, principal stockholder, or any of their immediate family members or affiliates, in which the amount involved exceeds \$120,000 must first be presented to our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our audit committee is to consider the relevant facts and circumstances available and deemed relevant to the audit committee, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related party’s interest in the transaction. All of the transactions described above were entered into prior to the adoption of this current policy.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of our common stock at January 11, 2011, as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each person who we know beneficially owns more than five percent of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

We have determined beneficial ownership in accordance with SEC rules. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

Applicable percentage ownership is based on 13,417,235 shares of common stock outstanding at January 11, 2011. For purposes of the table below, we have assumed that 18,589,649 shares of common stock will be outstanding upon completion of this offering, based upon an assumed initial public offering price of \$14.50 per share. In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed to be outstanding all shares of common stock subject to options, warrants or other convertible securities held by that person or entity that are currently exercisable or exercisable within 60 days of January 11, 2011. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Beneficial ownership representing less than one percent is denoted with an “*.”

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Fluidigm Corporation, 7000 Shoreline Court, Suite 100, South San Francisco, California 94080.

Name of Beneficial Owner	Beneficial Ownership Prior to the Offering		Beneficial Ownership After the Offering	
	Shares	Percentage	Shares	Percentage
5% Stockholders:				
Entities affiliated with Alloy Funds(1)	692,157	5.16%	692,157	3.72%
Entities affiliated with EuclidSR Funds(2)	892,752	6.64%	892,752	4.80%
Entities affiliated with the Singapore government(3)	1,843,364	13.69%	1,843,364	9.89%
Entities affiliated with Fidelity Funds(4)	1,459,066	10.86%	1,459,066	7.84%
Entities affiliated with InterWest Funds(5)	692,555	5.16%	692,555	3.73%
Entities affiliated with Lehman Funds(6)	679,541	5.06%	679,541	3.65%
SMALLCAP World Fund, Inc.(7)	1,005,548	7.48%	1,005,548	5.40%
Entities affiliated with Versant Funds(8)	1,079,557	8.02%	1,079,557	5.80%
Bruce Burrows(9)	675,663	5.03%	675,663	3.63%
Directors and Named Executive Officers:				
Gajus V. Worthington(10)	484,070	3.58%	484,070	2.59%
Samuel D. Colella(11)	1,097,206	8.14%	1,097,206	5.88%
Vikram Jog(12)	111,810	*	111,810	*
Robert C. Jones(13)	119,981	*	119,981	*
Kenneth Nussbacher(14)	42,422	*	42,422	*
William M. Smith(15)	194,544	1.43%	194,544	1.04%
Fredric Walder	—	*	—	%
Raymond J. Whitaker(16)	902,144	6.71%	902,144	4.84%

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	Name of Beneficial Owner	Beneficial Ownership Prior to the Offering		Beneficial Ownership After the Offering	
		Shares	Percentage	Shares	Percentage
	John Young(17)	13,727	*	13,727	*
	Jeremy Loh(18)	1,845,531	13.71%	1,845,531	9.9%
	All directors and executive officers as a group (11 persons)	4,905,039	36.40%	4,905,039	26.33%

(*) Less than one percent.

- (1) Consists of 346,082 shares held of record by Alloy Ventures 2005, L.P., 336,983 shares held of record by Alloy Ventures 2002, L.P., and 9,092 shares held of record by Alloy Partners 2002, L.P. Alloy Ventures 2002, LLC is the General Partner of Alloy Ventures 2002, L.P. and Alloy Partners 2002, L.P. The Managing Members of Alloy Ventures 2002, LLC are Craig C. Taylor, John F. Shoch, Douglas E. Kelly, Daniel I. Rubin and Tony Di Bona. Each of the Managing Members of Alloy Ventures 2002, LLC is also a Managing Member of Alloy Ventures 2005, LLC together with Michael Hunkapiller and Ammar Hanafi. The individuals listed herein may be deemed to have shared voting and dispositive power over the shares which are or may be deemed to be beneficially owned by Alloy Ventures 2005, L.P., Alloy Ventures 2002, L.P. and Alloy Partners 2002, L.P. Each Managing Member disclaims beneficial ownership of the shares except to extent of their pecuniary interest therein. The address of the entities affiliated with Alloy Ventures is 400 Hamilton Avenue, Fourth Floor, Palo Alto, CA 94301.
- (2) Consists of 434,454 shares and a warrant to purchase 11,922 shares held of record by EuclidSR Partners, L.P. and 434,454 shares and a warrant to purchase 11,922 shares held of record by EuclidSR Biotechnology Partners, L.P. Mr. Whitaker, a member of our Board of Directors shares voting and investment power with Graham D.S. Anderson, Milton J. Pappas and Stephen K. Reidy, each of whom are General Partners of EuclidSR Associates, L.P., the General Partner of EuclidSR Partners and EuclidSR Biotechnology Associates, L.P., the General Partner of EuclidSR Biotechnology Partners. Each General Partner of EuclidSR Associates, L.P. and EuclidSR Biotechnology Associates, L.P. disclaims beneficial ownership of the shares except to the extent of their pecuniary interest therein. The address of the entities affiliated with EuclidSR Associates, L.P. and EuclidSR Biotechnology Associates, L.P. is 45 Rockefeller Plaza, Suite 1410, New York, NY 10111.
- (3) Consists of 1,671,486 shares and a warrant to purchase 43,853 shares held of record by Biomedical Sciences Investment Fund Pte Ltd and 128,025 shares held of record by Singapore Bio-Innovations Pte Ltd. EDB Investments Pte Ltd, or EDB Investments, is the parent entity of Biomedical Sciences Investment Fund Pte Ltd and Singapore Bio-Innovations Pte Ltd. The Economic Development Board of Singapore, or EDB, is the parent entity of EDB Investments. EDB is a Singapore government entity. Jeremy Loh is a member of our Board of Directors and a Vice President (Investments), San Francisco Center for EDB Investments Pte Ltd, Singapore. Dr. Loh disclaims beneficial ownership of these shares, except to the extent of his pecuniary interest in such shares. EDB Investments, EDB and the Singapore government may be deemed to have shared voting and dispositive power over the shares owned beneficially and of record by Biomedical Sciences Investment Fund Pte Ltd and Singapore Bio-Innovations Pte Ltd. The address associated with entities affiliated with EDB is 250, North Bridge Road, #20-02, Raffles City Tower, Singapore 179101.
- (4) Consists of 111,757 shares and a warrant to purchase 852 shares held of record by Fidelity Contrafund: Fidelity Advisor New Insights Fund, 1,019,624 shares and a warrant to purchase 7,773 shares held of record by Fidelity Contrafund: Fidelity Contrafund and 309,959 shares and warrants to purchase 9,101 shares held of record by Variable Insurance Products Fund II: Contrafund Portfolio. Each of these entities is a registered investment fund (each, a "Fund") advised by Fidelity Management & Research Company ("FMR Co."), a registered investment adviser under the Investment Advisers Act of 1940, as amended. The address of FMR Co., a wholly-owned subsidiary of FMR LLC is 82 Devonshire Street, Boston Massachusetts 02109. Edward C. Johnson 3d, FMR LLC, through its control of FMR Co., and each Fund has power to dispose of the securities owned by such Fund. Neither FMR LLC nor Edward C. Johnson 3d, Chairman of FMR LLC, has sole power to vote or direct the voting of the shares owned directly by each Fund, which power resides with each Fund's Board of Trustees. Each Fund is an affiliate of a broker-dealer. Each Fund purchased the securities in the ordinary course of business and, at the time of the purchase of the securities, no Fund had any agreements or understandings, directly or indirectly, with any person to distribute the securities. No Fund intends to sell, transfer, assign, pledge or hypothecate or otherwise enter into any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities through an affiliated broker-dealer.
- (5) Consists of 31,643 shares held of record by InterWest Investors VII, L.P. and 660,912 shares held of record by InterWest Partners VII, L.P. InterWest Management Partners VII, L.L.C. has sole voting and investment control over the shares owned by InterWest Partners VII, L.P. and InterWest Investors VII, L.P. Harvey B. Cash, Philip T. Gianos, W. Scott Hedrick, W. Stephen Holmes, Gilbert H. Kliman, Thomas L. Rosch and Arnold L. Oronsky, each Managing Director of InterWest Management Partners VII, LLC, has shared voting and investment control over the shares owned by InterWest Partners VII, L.P. and InterWest Investors VII, L.P. All Managing Directors and Members disclaim beneficial ownership of the shares owned by InterWest Partners VII, LP and InterWest Investors VII, LP except to the extent of their pro rata partnership interests in such shares. The address of the entities affiliated with InterWest is 2710 Sand Hill Road, Second Floor, Menlo Park, CA 94025.
- (6) Consists of 163,789 shares and warrants to purchase 6,093 shares held of record by Lehman Brothers Healthcare Venture Capital, L.P., 36,630 shares and warrants to purchase 1,361 shares held of record by Lehman Brothers Offshore Partnership Account 2000/2001, L.P., 313,500 shares and warrants to purchase 11,667 shares held of record by Lehman Brothers P.A., LLC, and 141,245 shares and warrants to purchase 5,256 shares held of record by Lehman Brothers Partnership Account 2000/2001, L.P. In each of the limited partnerships referenced above, Lehman Brothers Holdings Inc. controls the general partner of the limited partnership. In the limited liability company, Lehman Brothers Holdings Inc. controls the manager of the limited liability company. In all four entities listed above,

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Lehman Brothers Holdings Inc., a public reporting company under the Securities Exchange Act of 1934, as amended, ultimately controls the manager and the general partners of the entities and ultimately has voting and investment control over the shares held by such entities. The address of the entities affiliated with Lehman Brothers Inc. is 1271 Sixth Avenue, 45th Floor, New York, NY 10020.

- (7) Consists of 984,234 shares and a warrant to purchase 21,314 shares held of record by SMALLCAP World Fund, Inc., or SMALLCAP. SMALLCAP is an investment company registered under the Investment Company Act of 1940. Capital Research and Management Company, or CRMC, an investment adviser registered under the Investment Advisers Act of 1940, is the investment adviser to SMALLCAP and has sole dispositive power over these shares. Gordon Crawford, J. Blair Frank, Jonathan Knowles, Brady L. Enright, Mark E. Denning and Claudia P. Huntington, Noriko H. Chen, Bradford F. Freer, Lawrence Kymisis, Kristian Stromsoe, Terrance P. McGuire, Kathryn M. Peters and Dylan J. Yolles are the primary portfolio counselors of CRMC. In such capacity, CRMC may be deemed to beneficially own the shares held by SMALLCAP. CRMC, however, disclaims such beneficial ownership. The address of SMALLCAP is 333 South Hope Street, Los Angeles, California 90071.
- (8) Consists of 953,753 shares held of record by Versant Venture Capital I, L.P., 17,532 shares held of record by Versant Affiliates Fund I-A, L.P., 51,532 shares held of record by Versant Affiliates Fund I-B, L.P. and 19,869 shares held of record by Versant Side Fund I, L.P., warrants to purchase 36,871 shares held by these funds. Voting and investment power over the shares directly held by Versant Venture Capital I, L.P., Versant Affiliates Fund I-A, L.P., Versant Affiliates Fund I-B, L.P., and Versant Side Fund I, L.P. is held by Versant Ventures I, LLC, their sole General Partner. Samuel D. Colella, a member of our Board of Directors is a Managing Member of Versant Ventures I, LLC but he disclaims beneficial ownership of these shares, except to the extent of his pecuniary interest in such shares. The individual Managing Members of Versant Ventures I, LLC are Brian G. Atwood, Samuel D. Colella, Ross A. Jaffe, William J. Link, Barbara N. Lubash, Donald B. Milder, and Rebecca B. Robertson, all of whom share voting and dispositive control. Each respective individual General Partner disclaims beneficial ownership of these shares, except to the extent of their pecuniary interest in such shares. The address of the entities affiliated with Versant Ventures is 3000 Sand Hill Road, Building Four, Suite 210, Menlo Park, CA 94025.
- (9) Consists of 658,152 shares and a warrant to purchase 17,511 shares held of record by Bruce Burrows.
- (10) Consists of 374,645 shares and a warrant to purchase 515 shares held of record by Gajus Worthington and Jami A. Worthington as TTEES of the Worthington Family Trust dtd 3-6-07 and options to purchase 108,910 shares of common stock that are exercisable within 60 days of January 11, 2011, of which 97,350 shares are vested as of March 12, 2011.
- (11) Consists of the shares described in Note (8) above and options to purchase 9,392 shares of common stock that are exercisable within 60 days of January 11, 2011, of which 9,392 shares are vested as of March 12, 2011, held by Samuel D. Colella and a warrant to purchase 8,257 shares held by the Colella Family Trust. Samuel D. Colella disclaims beneficial ownership of the shares held by Versant Venture Capital I, L.P., Versant Affiliates Fund I-A, L.P., Versant Affiliates Fund I-B, L.P., and Versant Side Fund I, L.P., as described in Note (8) above, except to the extent of his pecuniary interest therein.
- (12) Consists of a warrant to purchase 2,064 shares held by the Vikram and Pratima Jog Family Trust U/A DATED 6/23/2009 of which Mr. Jog is a trustee and options to purchase 109,746 shares of common stock that are exercisable within 60 days of January 11, 2011, of which 81,082 shares are vested as of March 12, 2011.
- (13) Consists of options to purchase 119,981 shares of common stock that are exercisable within 60 days of January 11, 2011, of which 104,668 shares are vested as of March 12, 2011.
- (14) Consists of options to purchase 42,422 shares of common stock that are exercisable within 60 days of January 11, 2011, of which 42,422 shares are vested as of March 12, 2011.
- (15) Consists of 49,545 shares held of record by William M. Smith and options to purchase 144,999 shares of common stock, that are exercisable within 60 days of January 11, 2011, of which 129,179 are vested as of March 12, 2011.
- (16) Consists of the shares described in Note (2) above and options to purchase 9,392 shares of common stock that are exercisable within 60 days of January 11, 2011, of which 9,392 shares are vested as of March 12, 2011, held by Raymond J. Whitaker. Raymond J. Whitaker disclaims beneficial ownership of the shares held by EuclidSR Partners, L.P and EuclidSR Biotechnology Partners, L.P., as described in Note (2) above, except to the extent of his pecuniary interest therein.
- (17) Consists of options to purchase 13,727 shares of common stock that are exercisable within 60 days of January 11, 2011, of which 13,727 are vested as of March 12, 2011.
- (18) Consists of the shares described in Note (3) above and options to purchase 2,167 shares of common stock that are exercisable within 60 days of January 11, 2011, of which 2,167 shares are vested as of March 12, 2011, held by Jeremy Loh. Jeremy Loh disclaims beneficial ownership of the shares held by Biomedical Sciences Investment Fund Pte Ltd and Singapore Bio-Innovations Pte Ltd, as described in Note (3) above, except to the extent of his pecuniary interest therein.

DESCRIPTION OF CAPITAL STOCK

General

The following is a summary of the rights of our common stock and preferred stock and of certain provisions of our restated certificate of incorporation and bylaws, as they will be in effect upon the completion of this offering. For more detailed information, please see our restated certificate of incorporation and bylaws, which are filed as exhibits to the registration statement of which this prospectus is part.

Immediately following the completion of this offering, our authorized capital stock will consist of 210,000,000 shares, all with a par value of \$0.001 per share, of which:

- 200,000,000 shares are designated as common stock; and
- 10,000,000 shares are designated as preferred stock.

As of January 11, 2011, we had outstanding 13,417,235 shares of common stock held of record by 270 stockholders, assuming the automatic conversion of all outstanding shares of our preferred stock into 11,480,406 shares of common stock. In addition, as of January 11, 2011, 2,183,537 shares of our common stock were subject to outstanding options and 538,759 shares of our capital stock were subject to outstanding warrants. No options will expire prior to the completion of this offering. For more information on our capitalization, see “Capitalization” above.

Common Stock

The holders of our common stock are entitled to one vote per share on all matters to be voted on by our stockholders. Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of common stock are entitled to receive ratably such dividends as may be declared by our Board of Directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after the payment of liabilities, subject to the prior distribution rights of preferred stock then outstanding. Holders of common stock have no preemptive, conversion or subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

Immediately after the completion of this offering, no shares of preferred stock will be outstanding (assuming the automatic conversion of all outstanding shares of our preferred stock into 11,480,406 shares of common stock immediately prior to the completion of this offering). Though we currently have no plans to issue any shares of preferred stock, upon the closing of this offering and the filing of our restated certificate of incorporation, our Board of Directors will have the authority, without further action by our stockholders, to designate and issue up to 10,000,000 shares of preferred stock in one or more series. Our Board of Directors may also designate the rights, preferences and privileges each such series of preferred stock, any or all of which may be greater than or senior to those of the common stock. Though the actual effect of any such issuance on the rights of the holders of common stock will not be known until our Board of Directors determines the specific rights of the holders of preferred stock, the potential effects of such an issuance include:

- diluting the voting power of the holders of common stock;
- reducing the likelihood that holders of common stock will receive dividend payments;
- reducing the likelihood that holders of common stock will receive payments in the event of our liquidation, dissolution, or winding up; and
- delaying, deterring or preventing a change-in-control or other corporate takeover.

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Warrants

As of January 11, 2011, we had outstanding warrants to purchase an aggregate of 489,984 shares of our preferred stock at exercise prices ranging from \$0.02 per share to \$24.22 per share. These warrants will expire at various times between March 18, 2012 and January 6, 2021. In the event of a distribution of dividends, a stock split, a reorganization, a reclassification, a consolidation, or a similar event, each warrant provides for adjustment of the exercise price and the number of shares issuable upon exercise.

Potential Issuance of Common Stock

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 approximately \$1,500,000 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. The potential issuance discussed above is not reflected in the number of shares of common stock outstanding in this prospectus.

Registration Rights

As of January 11, 2011, the holders of an aggregate of 13,042,832 shares of our common stock, which includes 11,480,406 shares of common stock issued on conversion of outstanding preferred stock and 538,759 shares of common stock issuable upon the exercise of warrants and conversion of preferred stock underlying such warrants, are entitled to the following rights with respect to the registration of such shares for public resale under the Securities Act, pursuant to an investor rights agreement by and among us and certain of our stockholders. In addition, the aggregate number above includes an additional 775,448 shares of common stock entitled to the rights described below, in the section titled "Piggyback Registration Rights." We refer to these shares collectively as "registrable securities."

The registration of shares of common stock as a result of the following rights being exercised would enable the holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective. Ordinarily, we will be required to pay all expenses, other than underwriting discounts and commissions, related to any registration effected pursuant to the exercise of these registration rights.

The registration rights terminate upon the earlier of five years after completion of this offering, or, with respect to the registration rights of an individual holder, when the holder of one percent or less of our outstanding common stock can sell all of such holder's registrable securities in any three-month period without registration, in compliance with Rule 144 of the Securities Act or another similar exemption.

Demand Registration Rights

If at any time after this offering the holders of at least a majority of the registrable securities request in writing that we effect a registration with respect to at least 50% of their shares that has a reasonably anticipated aggregate price to the public, net of underwriting discounts and commissions in excess of \$20,000,000, we may be required to register their shares. At most, we are obligated to effect two registrations for the holders of registrable securities in response to these demand registration rights. Depending on certain conditions, however, we may defer such registration for up to 90 days. If the holders requesting registration intend to distribute their shares by means of an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

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Piggyback Registration Rights

If at any time after this offering we propose to register any shares of our common stock under the Securities Act, subject to certain exceptions, the holders of registrable securities will be entitled to notice of the registration and to include their shares of registrable securities in the registration. If our proposed registration involves an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

Form S-3 Registration Rights

If at any time after we become entitled under the Securities Act to register our shares on Form S-3 a holder of registrable securities requests in writing that we register their shares for public resale on Form S-3 and the reasonably anticipated price to the public of the offering exceeds \$2,000,000, we will be required to use our best efforts to effect such registration; provided, however, that if such registration would be seriously detrimental to us or our stockholders, we may defer the registration for up to 90 days.

Voting Rights

Under the provisions of our amended and restated certificate of incorporation to become effective upon completion of this offering, holders of our common stock are entitled to one vote for each share of common stock held by such holder on any matter submitted to a vote at a meeting of stockholders. In addition, our amended and restated certificate of incorporation provides that certain corporate actions require the approval of our stockholders. These actions, and the vote required, are as follows:

- the removal of a director requires the vote of a majority of the voting power of our issued and outstanding capital stock entitled to vote in the election of directors; and
- the amendment of provisions of our amended and restated certificate of incorporation relating to blank check preferred stock, the classification of our directors, the removal of directors, the filling of vacancies on our Board of Directors, cumulative voting, annual and special meetings of our stockholders and require the vote of 66 2/3% of our then outstanding voting securities.

Anti Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

Certain provisions of Delaware law and our restated certificate of incorporation and bylaws that will become effective upon completion of this offering contain provisions that could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our Board of Directors. We believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation and 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 10,000,000 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;

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- 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;
- provide that 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;
- establish that our board of directors is divided into three classes, Class I, Class II, and Class III, with each class serving staggered terms;
- specify that no stockholder is permitted to cumulate votes at any election of the Board of Directors; and
- require a super majority of votes to amend certain of the above-mentioned provisions.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, the Board of Directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not for determining the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers, and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by the Board of Directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our board of directors does not approve in advance. We also anticipate that Section 203 may discourage business combinations or other attempts that might result in a premium over the market price for the shares of common stock held by our stockholders.

The provisions of Delaware law and our restated certificate of incorporation and bylaws to become effective upon completion of this offering could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

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Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's address is 250 Royall Street, Canton, MA 02021, and its telephone number is (781) 575-2900.

NASDAQ Global Market Listing

We intend to list our common stock on The NASDAQ Global Market under the symbol "FLDM."

SHARES ELIGIBLE FOR FUTURE SALE

Before this offering, there has not been a public market for shares of our common stock. Future sales of substantial amounts of shares of our common stock, including shares issued upon the exercise of outstanding options, in the public market after this offering, or the possibility of these sales occurring, could cause the prevailing market price for our common stock to fall or impair our ability to raise equity capital in the future.

Upon the completion of this offering, a total of 18,589,649 shares of common stock will be outstanding, assuming that there are no exercises of options or warrants after January 11, 2011. Of these shares, all 5,172,414 shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriters' over-allotment option, will be freely tradable in the public market without restriction or further registration under the Securities Act, unless these shares are held by "affiliates," as that term is defined in Rule 144 under the Securities Act.

The remaining 13,417,235 shares of common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below.

Subject to the lock up agreements described below and the provisions of Rules 144 and 701 under the Securities Act, these restricted securities will be available for sale in the public market as follows:

<u>Date</u>	<u>Number of Shares</u>
On the date of this prospectus	0
Between 90 and 180 days after the date of this prospectus	0
At various times beginning more than 180 days after the date of this prospectus	13,417,235

In addition, of the 2,183,537 shares of our common stock that were subject to stock options outstanding as of January 11, 2011, options to purchase 1,185,092 shares of common stock were vested as of January 11, 2011 and will be eligible for sale 180 days following the effective date of this offering.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person is entitled to sell those shares without complying with any of the restrictions of Rule 144 regardless of how long we have been subject to public company reporting requirements.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up agreements described above, within any three-month period beginning 90 days after the date of this prospectus, a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding, which will equal approximately _____ shares immediately after this offering; or
- the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

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Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

In general, under Rule 701 as currently in effect, any of our employees, consultants or advisors who purchase shares from us in connection with a compensatory stock or option plan or other written agreement in a transaction before the effective date of this offering that was completed in reliance on Rule 701 and complied with the requirements of Rule 701 will, subject to the lock up restrictions described below, be eligible to resell such shares 90 days after the effective date of this offering in reliance on Rule 144, but without compliance with certain restrictions, including the holding period, contained in Rule 144.

Lock Up Agreements

We and all of our directors and officers, as well as the other holders of substantially all shares of common stock outstanding immediately prior to this offering, have agreed that, without the prior written consent of the representatives on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock,

whether any transaction described above is to be settled by delivery of shares of our common stock or such other securities, in cash or otherwise. This agreement is subject to certain exceptions, and is also subject to extension for up to an additional days, as set forth in “Underwriters.”

Registration Rights

Upon completion of this offering, the holders of 13,042,832 shares of common stock or common stock issuable upon exercise of warrants or their transferees will be entitled to various rights with respect to the registration of these shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. See “Description of Capital Stock—Registration Rights” for additional information.

Registration Statements

We intend to file a registration statement on Form S-8 under the Securities Act covering all of the shares of common stock subject to options outstanding or reserved for issuance under our stock plans. We expect to file this registration statement as soon as practicable after this offering. In addition, we intend to file a registration statement on Form S-8 under the Securities Act for the resale of shares of common stock issued upon the exercise of options that were not granted under Rule 701. We expect to file this registration statement as soon as practicable after this offering. However, none of the shares registered on Form S-8 will be eligible for resale until the expiration of the lock up agreements to which they are subject.

**MATERIAL UNITED STATES FEDERAL INCOME AND ESTATE TAX
CONSEQUENCES TO NON-U.S. HOLDERS**

The following is a general discussion of certain material United States federal income and estate tax considerations with respect to the ownership and disposition of shares of our common stock applicable to non-U.S. holders. In general, a “non-U.S. holder” is any holder other than:

- an individual who is a citizen or resident of the United States for United States federal income tax purposes;
- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is includible in gross income for United States federal income tax purposes regardless of its source; or
- a trust if (a) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more United States persons have the authority to control all substantial decisions of the trust or (b) it has a valid election in effect under applicable Treasury regulations to be treated as a United States person.

This discussion is based on current provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury regulations promulgated thereunder, judicial opinions, published positions of the Internal Revenue Service and all other applicable authorities, all of which are subject to change (possibly with retroactive effect). We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset (generally property held for investment).

This discussion does not address all aspects of United States federal income and estate taxation that may be important to a particular non-U.S. holder in light of that non-U.S. holder’s individual circumstances, nor does it address any aspects of United States state or local taxes or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder subject to special treatment under the United States federal income tax laws, including, without limitation:

- banks, thrifts, insurance companies or other financial institutions;
- partnerships or other pass-through entities (or entities treated as such for United States federal income tax purposes) or persons that hold shares of our common stock through such entities;
- controlled foreign corporations, passive foreign investment companies, and corporations that accumulate earnings to avoid United States federal income tax;
- tax-exempt organizations;
- tax-qualified retirement plans;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons that own, or are deemed to own, more than five percent of our capital stock (except to the extent specifically set forth below);
- dealers in securities or currencies;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons subject to the alternative minimum tax;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- certain form citizens or long-term residents of the United States; and

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- persons that will hold common stock as a position in a hedging transaction, “straddle” or “conversion transaction” for tax purposes.

If a partnership or other pass-through entity (or entity treated as such for United States federal income tax purposes) holds shares of our common stock, the tax treatment of a partner in such partnership or an owner of such other pass-through entity will generally depend upon the status of such partner or other owner and the activities of such partnership or other entity. Any partnership or other pass-through entity that holds shares of our common stock or any partner in such partnership or owner of such other entity should consult its own tax advisors.

THIS DISCUSSION IS FOR GENERAL INFORMATION PURPOSES ONLY AND IS NOT TAX ADVICE. EACH PROSPECTIVE HOLDER OF SHARES OF OUR COMMON STOCK SHOULD CONSULT HIS, HER OR ITS OWN TAX ADVISOR WITH RESPECT TO THE UNITED STATES FEDERAL, STATE AND LOCAL TAX CONSEQUENCES AND NON-U.S. TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK.

Dividends

If we make cash or other property distributions on our common stock, such distributions will constitute dividends for United States federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, such excess will constitute a return of capital and will first reduce the non-U.S. holder’s adjusted tax basis in our common stock, but not below zero. Any remaining excess will be treated as gain from the sale or other disposition of shares of our common stock (as described under “—Gain on Sale or Other Disposition of Common Stock” below).

In general, dividends we pay, if any, to a non-U.S. holder will be subject to United States withholding tax at a rate of 30% of the gross amount. The withholding tax might not apply or might apply at a reduced rate under the terms of an applicable income tax treaty between the United States and the non-U.S. holder’s country of residence. A non-U.S. holder must demonstrate its entitlement to treaty benefits by certifying, among other things, its nonresident status. A non-U.S. holder generally can meet this certification requirement by providing an Internal Revenue Service Form W-8BEN or appropriate substitute form to us or our paying agent. Also, special rules apply if the dividends are effectively connected with a trade or business carried on by the non-U.S. holder within the United States and, if a treaty applies, are attributable to a permanent establishment of the non-U.S. holder within the United States. Dividends effectively connected with this United States trade or business, and, if a treaty applies, attributable to such a permanent establishment of a non-U.S. holder, generally will not be subject to United States withholding tax if the non-U.S. holder files certain forms, including Internal Revenue Service Form W-8ECI (or any successor form), with us or our paying agent, and generally will be subject to United States federal income tax on a net income basis, in the same manner as if the non-U.S. holder were a resident of the United States. A non-U.S. holder that is a corporation may be subject to an additional “branch profits tax” at a rate of 30% (or a reduced rate as may be specified by an applicable income tax treaty) on the repatriation from the United States of its “effectively connected earnings and profits,” subject to certain adjustments.

A non-U.S. holder of shares of our common stock eligible for a reduced rate of United States withholding tax pursuant to an income tax treaty must provide certification to us or our paying agent prior to the payment of dividends and such certifications must be updated periodically. Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but that qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the Internal Revenue Service. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under an applicable income tax treaty.

Gain on Sale or Other Disposition of Common Stock

Subject to the discussion below regarding back up withholding, a non-U.S. holder generally will not be subject to United States federal income tax on any gain realized upon the sale or other disposition of the holder's shares of our common stock unless:

- the gain is effectively connected with a trade or business carried on by the non-U.S. holder within the United States and, if required by an applicable income tax treaty as a condition to subjecting a non-U.S. holder to United States income tax on a net basis, the gain is attributable to a permanent establishment of the non-U.S. holder maintained in the United States, in which case the non-U.S. holder will be subject to United States federal income tax on any gain realized upon the sale or other disposition on a net income basis, in the same manner as if the non-U.S. holder were a resident of the United States. Furthermore, the branch profits tax discussed above may also apply if the non-U.S. holder is a corporation;
- the non-U.S. holder is an individual and is present in the United States for 183 days or more in the taxable year of disposition and certain other tests are met, in which case the non-U.S. holder will be subject to a flat 30% tax (or such lower rate specified by an applicable income tax treaty) on any gain realized upon the sale or other disposition, which tax may be offset by United States source capital losses (even though the individual is not considered a resident of the United States), provided the non-U.S. holder has timely filed United States federal income tax returns with respect to such losses; or
- we are or have been a United States real property holding corporation, or a USRPHC, for United States federal income tax purposes at any time within the shorter of the five-year period preceding the disposition and the non-U.S. holder's holding period. We do not believe that we are or have been a USRPHC, and we do not anticipate becoming a USRPHC. If we have been in the past or were to become a USRPHC at any time during this period, generally gains realized upon a disposition of shares of our common stock by a non-U.S. holder that did not directly or indirectly own more than 5% of our common stock during this period would not be subject to United States federal income tax, provided that our common stock is "regularly traded on an established securities market" (within the meaning of Section 897(c)(3) of the Code). Our common stock will be treated as regularly traded on an established securities market during any period in which it is listed on a registered national securities exchange or any over-the-counter market. If gain on the sale or other taxable disposition of our stock were subject to taxation pursuant to this bullet point, the non-U.S. holder would be subject to regular United States federal income tax with respect to such gain in generally the same manner as a United States person.

United States Federal Estate Tax

Shares of our common stock that are owned or treated as owned by an individual who is not a citizen or resident (as defined for United States federal estate tax purposes) of the United States at the time of death will be includible in the individual's gross estate for United States federal estate tax purposes, unless an applicable estate tax treaty provides otherwise, and therefore may be subject to United States federal estate tax.

Backup Withholding, Information Reporting and Other Reporting Requirements

Generally, we must report annually to the Internal Revenue Service and to each non-U.S. holder the amount of dividends paid to, and the tax withheld with respect to, each non-U.S. holder. These reporting requirements apply regardless of whether withholding was reduced or eliminated by an applicable tax treaty. Copies of this information also may be made available under the provisions of a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established.

United States backup withholding tax is imposed (at a current rate of 28%, which rate is scheduled to increase to 31% for payments made on or after January 1, 2011) on certain payments to persons that fail to furnish the information required under the United States information reporting requirements. A non-U.S. holder

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of shares of our common stock will be subject to this backup withholding tax on dividends we pay unless the holder certifies, under penalties of perjury, among other things, its status as a non-U.S. holder (and we or our paying agent do not have actual knowledge or reason to know the holder is a United States person) or otherwise establishes an exemption.

Under the Treasury regulations, the payment of proceeds from the disposition of shares of our common stock by a non-U.S. holder made to or through a United States office of a broker generally will be subject to information reporting and backup withholding unless the beneficial owner certifies, under penalties of perjury, among other things, its status as a non-U.S. holder (and we or our paying agent do not have actual knowledge or reason to know the holder is a United States person) or otherwise establishes an exemption. The payment of proceeds from the disposition of shares of our common stock by a non-U.S. holder made to or through a non-U.S. office of a broker generally will not be subject to backup withholding and information reporting, except as noted below. In the case of proceeds from a disposition of shares of our common stock by a non-U.S. holder made to or through a non-U.S. office of a broker that is:

- a U.S. person;
- a “controlled foreign corporation” for United States federal income tax purposes;
- a non-U.S. person 50% or more of whose gross income from certain periods is effectively connected with a United States trade or business; or
- a non-U.S. partnership if at any time during its tax year (a) one or more of its partners are U.S. persons who, in the aggregate, hold more than 50% of the income or capital interests of the partnership or (b) the non-U.S. partnership is engaged in a U.S. trade or business;

information reporting (but not backup withholding) will apply unless the broker has documentary evidence in its files that the owner is a non-U.S. holder and certain other conditions are satisfied, or the beneficial owner otherwise establishes an exemption (and the broker has no actual knowledge or reason to know to the contrary).

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may generally be refunded or credited against the non-U.S. holder’s United States federal income tax liability, if any, provided that the required information is furnished to the Internal Revenue Service in a timely manner.

Recently Enacted Legislation Affecting Taxation of Our Common Stock Held by or Through Foreign Entities

Recently enacted legislation generally will impose a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our common stock paid after December 31, 2012 to a “foreign financial institution” (as specially defined under these rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). The legislation also will generally impose a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our common stock paid after December 31, 2012 to a non-financial foreign entity unless such entity provides the withholding agent with a certification identifying the direct and indirect U.S. owners of the entity. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of this legislation on their investment in our common stock.

UNDERWRITING

Subject to the terms and conditions of the underwriting agreement, the underwriters named below, through their representatives Deutsche Bank Securities Inc. and Piper Jaffray & Co., have severally agreed to purchase from us the following respective numbers of shares of common stock at a public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus:

Underwriters	Number of Shares
Deutsche Bank Securities Inc.	
Piper Jaffray & Co.	
Cowen and Company, LLC	
Leerink Swann	
Total	

The underwriting agreement provides that the obligations of the several underwriters to purchase the shares of common stock offered hereby are subject to certain conditions precedent and that the underwriters will purchase all of the shares of common stock offered by this prospectus, other than those covered by the over-allotment option described below, if any of these shares are purchased.

We have been advised by the representatives of the underwriters that the underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus and to dealers at a price that represents a concession not in excess of \$ _____ per share under the public offering price. The underwriters may allow, and these dealers may re-allow, a concession of not more than \$ _____ per share to other dealers. After the initial public offering, representatives of the underwriters, may change the offering price and other selling terms.

We have granted to the underwriters an option, exercisable not later than 30 days after the date of this prospectus, to purchase up to 775,862 additional shares of common stock at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus. The underwriters may exercise this option only to cover over-allotments made in connection with the sale of the common stock offered by this prospectus. To the extent that the underwriters exercise this option, each of the underwriters will become obligated, subject to conditions, to purchase approximately the same percentage of these additional shares of common stock as the number of shares of common stock to be purchased by it in the above table bears to the total number of shares of common stock offered by this prospectus. We will be obligated, pursuant to the option, to sell these additional shares of common stock to the underwriters to the extent the option is exercised. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting discounts and commissions per share are equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting discounts and commissions are _____ % of the initial public offering price. We have agreed to pay the underwriters the following discounts and commissions, assuming either no exercise or full exercise by the underwriters of the underwriters' over-allotment option:

	Fee per Share	Total Fees	
		Without Exercise of Over- Allotment Option	With Full Exercise of Over- Allotment Option
Discounts and commissions paid by us	\$	\$	\$

In addition, we estimate that our share of the total expenses of this offering, excluding underwriting discounts and commissions, will be approximately \$2,250,000.

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In January 2011, entities related to Leerink Swann LLC purchased from us promissory notes with an aggregate principal amount of \$21,976 and warrants to purchase 453 shares of our Series E-1 preferred stock exercisable at \$0.02 per share. A portion of the proceeds from this offering will be used to repay the principal of these promissory notes plus accrued interest at a rate equal to 8% per annum. The promissory notes and the warrants purchased by the Leerink Swann entities may be deemed additional underwriting compensation under applicable rules of the Financial Industry Regulatory Authority or “FINRA”.

We have agreed to indemnify the underwriters against some specified types of liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect of any of these liabilities.

Each of our officers, directors, stockholders and holders of our options and warrants have agreed not to offer, sell, contract to sell, grant any option to purchase or otherwise dispose of, or enter into any transaction that is designed to, or could be expected to, result in the disposition of any shares of our common stock or other securities convertible into or exchangeable or exercisable for shares of our common stock or derivatives of our common stock owned by these persons prior to this offering or common stock issuable upon exercise of options or warrants held by these persons for a period of 180 days after the effective date of the registration statement of which this prospectus is a part without the prior written consent of the representatives of the underwriters. This consent may be given at any time without public notice. Transfers can be made during the lock-up period in the case of:

- transfers of shares of common stock acquired in this offering or in open market transactions after the completion of this offering, provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of common stock or other securities acquired in such open market transactions;
- transfers of shares of common stock or our other securities as a bona fide gift;
- transfers of shares of common stock or our other securities by will or intestacy to the transferor’s immediate family or to a trust, the beneficiaries of which are the transferor and the transferor’s immediate family;
- distributions of shares of common stock or our other securities to limited partners, members or shareholders of the transferor, or
- the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of common stock, provided that such plan does not provide for the transfer of common stock during the restricted period.

In addition, in the case of a transfer pursuant to the second, third and fourth bullets above, the transfer will not be permitted unless the transferee signs a lock-up agreement and no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made by the transferor in connection with such transfers. We have entered into a similar agreement with the representatives of the underwriters, except that without such consent, we may issue shares of common stock and grant options pursuant to our employee benefit plans, provided that each recipient of such shares or options signs a lock-up agreement, and file a registration statement on Form S-8 for the registration of shares issued pursuant to our employee benefit plans.

There are no agreements between the representatives and any of our stockholders or affiliates releasing them from these lock-up agreements prior to the expiration of the 180-day period.

The representatives of the underwriters have advised us that the underwriters do not intend to confirm sales to any account over which they exercise discretionary authority.

In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, purchases to cover positions created by short sales and stabilizing transactions.

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Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares of common stock from us in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

Naked short sales are any sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if underwriters are concerned that there may be downward pressure on the price of the shares in the open market prior to the completion of the offering.

Stabilizing transactions consist of various bids for or purchases of our common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may impose a penalty bid. This occurs when a particular underwriter repays to the other underwriters a portion of the underwriting discount received by it because the representatives of the underwriters have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions may have the effect of preventing or slowing a decline in the market price of our common stock. Additionally, these purchases, along with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on The NASDAQ Global Market, in the over-the-counter market or otherwise.

A prospectus in electronic format is being made available on Internet web sites maintained by one or more of the lead underwriters of this offering and may be made available on web sites maintained by other underwriters. Other than the prospectus in electronic format, the information on any underwriter's web site and any information contained in any other web site maintained by an underwriter is not part of the prospectus or the registration statement of which the prospectus forms a part.

Other Relationships

From October 2007 through January 2011, entities related to Leerink Swann LLC purchased from us in the aggregate 24,418 shares of our Series E preferred stock, promissory notes with an aggregate principal amount of \$47,599, and warrants to purchase 453 shares of our Series E-1 preferred stock. One or more of the underwriters may in the future provide investment banking services to us for which they would receive customary compensation.

Pricing of this Offering

Prior to this offering, there has been no public market for our common stock. Consequently, the initial public offering price of our common stock will be determined by negotiation among us and the representatives of the underwriters. Among the primary factors that will be considered in determining the public offering price are:

- prevailing market conditions;
- our results of operations in recent periods;
- the present stage of our development;
- the market capitalizations and stages of development of other companies that we and the representatives of the underwriters, believe to be comparable to our business; and
- estimates of our business potential.

European Economic Area

In relation to each member state of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) an offer of the shares to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that an offer to the public in that Relevant Member State of any shares may be made at any time under the following exemptions under the Prospectus Directive if they have been implemented in the Relevant Member State:

- (a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- (b) to any legal entity which has two or more of (i) an average of at least 250 employees during the last financial year; (ii) a total balance sheet of more than €43,000,000 and (iii) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive;

provided that no such offer of shares shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an “offer of shares to the public” in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

United Kingdom

Each underwriter has represented and agreed that (i) it has not offered or sold and, prior to the expiration of the period of six months from the closing date of this offering, will not offer or sell any shares of our common stock to persons in the United Kingdom except to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995; (ii) it has complied with and will comply with all applicable provisions of the Financial Services Act 1986 with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom; and (iii) it has only issued or passed on and will only issue or pass on in the United Kingdom, any document received by it in connection with the issue of the shares of our common stock to a person who is of a kind described in Article 11(3) of the Financial Services Act 1986 (Investment Advertisements) (Exemptions) Order 1996 or is a person to whom such document may otherwise lawfully be issued or passed on.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Latham & Watkins LLP, Costa Mesa, California, is acting as counsel to the underwriters. Members of Wilson Sonsini Goodrich & Rosati, Professional Corporation, and investment funds associated with that firm hold 28,280 shares of our common stock.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements at December 27, 2008 and December 31, 2009, and for each of the three fiscal years in the period ended December 31, 2009, as set forth in their report, which contains an explanatory paragraph describing conditions that raise substantial doubt about our ability to continue as a going concern as described in Note 1 of the notes to our consolidated financial statements included elsewhere in this prospectus. We have included our consolidated financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. Upon completion of this offering, we will be required to file periodic reports, proxy statements, and other information with the SEC pursuant to the Securities Exchange Act of 1934. You may read and copy this information at the Public Reference Room of the SEC, 100 F. Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that site is <http://www.sec.gov>.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
Fluidigm Corporation

We have audited the accompanying consolidated balance sheets of Fluidigm Corporation as of December 27, 2008 and December 31, 2009, and the related consolidated statements of operations, convertible preferred stock and stockholders' deficit, and cash flows for each of the three fiscal years in the period ended December 31, 2009. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Fluidigm Corporation at December 27, 2008 and December 31, 2009, and the consolidated results of its operations and its cash flows for each of the three fiscal years in the period ended December 31, 2009, in conformity with U.S. generally accepted accounting principles.

The accompanying financial statements have been prepared assuming that Fluidigm Corporation will continue as a going concern. As more fully described in Note 1 to the financial statements, the Company's recurring losses, operating cash flow deficiencies, and total stockholders' deficit raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters also are described in Note 1. The December 31, 2009 financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

Ernst & Young LLP

Palo Alto, California
December 3, 2010,
except for the last paragraph
of Note 1, as to which the
date is January 11, 2011

The foregoing report is in the form that will be signed upon completion of the restatement of the capital accounts described in the last paragraph of Note 1 to the consolidated financial statements.

/s/ Ernst & Young LLP

Palo Alto, California
January 28, 2011

FLUIDIGM CORPORATION
CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)

	December 27, 2008	December 31, 2009
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 17,796	\$ 14,602
Accounts receivable (net of allowances of \$0 and \$103 at December 27, 2008 and December 31, 2009, respectively)	4,706	8,690
Inventories	5,456	3,945
Prepaid expenses and other current assets	1,267	1,246
Total current assets	29,225	28,483
Restricted cash	256	256
Property and equipment, net	2,777	1,930
Other assets	96	1,484
Total assets	<u>\$ 32,354</u>	<u>\$ 32,153</u>
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	\$ 2,860	\$ 2,224
Accrued compensation and related benefits	1,543	1,343
Other accrued liabilities	1,531	2,188
Deferred revenue, current portion	1,412	758
Long-term debt, current portion	1,034	—
Convertible preferred stock warrants	141	616
Total current liabilities	8,521	7,129
Deferred revenue, net of current portion	312	258
Long-term debt, net of current portion	14,178	14,461
Other liabilities	144	79
Total liabilities	23,155	21,927
Commitments and contingencies		
Convertible preferred stock issuable in series: \$0.001 par value, 11,117 shares authorized, 9,610 and 10,239 shares issued and outstanding as of December 27, 2008 and December 31, 2009, respectively; aggregate liquidation preference of \$188,246 as of December 31, 2009	167,538	183,845
Stockholders' deficit:		
Common stock: \$0.001 par value, 16,465 shares authorized, 1,676 and 1,862 shares issued and outstanding as of December 27, 2008 and December 31, 2009, respectively	2	2
Additional paid-in capital	5,512	9,308
Accumulated other comprehensive loss	(556)	(504)
Accumulated deficit	(163,297)	(182,425)
Total stockholders' deficit	(158,339)	(173,619)
Total liabilities, convertible preferred stock and stockholders' deficit	<u>\$ 32,354</u>	<u>\$ 32,153</u>

See accompanying notes.

FLUIDIGM CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Year Ended		
	December 29, 2007	December 27, 2008	December 31, 2009
Revenue:			
Product revenue	\$ 4,451	\$ 13,364	\$ 23,599
Collaboration revenue	460	70	—
Grant revenue (includes grant revenue from related party of \$1,758, \$1,654 and \$1,522 for the years ended December 29, 2007, December 27, 2008 and December 31, 2009, respectively)	2,364	1,913	1,813
Total revenue	<u>7,275</u>	<u>15,347</u>	<u>25,412</u>
Costs and expenses:			
Cost of product revenue	3,514	8,364	11,486
Research and development	14,389	14,015	12,315
Selling, general and administrative	12,898	22,511	19,648
Total costs and expenses	<u>30,801</u>	<u>44,890</u>	<u>43,449</u>
Loss from operations	(23,526)	(29,543)	(18,037)
Interest expense (includes related party interest expense of \$1,286, \$417 and \$367 for the years ended December 29, 2007, December 27, 2008 and December 31, 2009, respectively)	(2,790)	(2,031)	(2,876)
Gain (loss) from changes in the fair value of convertible preferred stock warrants, net	(245)	769	(135)
Interest income	1,140	766	37
Other income (expense), net	75	393	1,833
Loss before income taxes	(25,346)	(29,646)	(19,178)
(Provision) benefit for income taxes	(105)	147	50
Net loss	<u>\$ (25,451)</u>	<u>\$ (29,499)</u>	<u>\$ (19,128)</u>
Net loss per share of common stock, basic and diluted	<u>\$ (15.93)</u>	<u>\$ (17.85)</u>	<u>\$ (11.02)</u>
Shares used in computing net loss per share of common stock, basic and diluted	1,598	1,653	1,736
Pro forma net loss per share available to common stockholders, basic and diluted (unaudited)			<u>\$ (2.54)</u>
Shares used in computing pro forma net loss per share available to common stockholders, basic and diluted (unaudited)			<u>11,393</u>

See accompanying notes.

FLUIDIGM CORPORATION
CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT
(In thousands, except per share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balance as of January 1, 2007	7,148	\$ 112,295	1,568	\$ 2	\$ 2,115	\$ (17)	\$ (108,272)	\$ (106,172)
Cumulative effect of change in accounting principle	—	—	—	—	—	—	(75)	(75)
Issuance of common stock upon exercise of stock options for cash and for vesting of stock options that were exercised early	—	—	49	—	147	—	—	147
Issuance of Series E convertible preferred stock for cash at \$24.22 per share, net of issuance costs of \$1,189	1,532	35,911	—	—	—	—	—	—
Issuance of common stock for services	—	—	18	—	145	—	—	145
Stock-based compensation expense	—	—	—	—	708	—	—	708
Issuance of Series D convertible preferred stock upon conversion of promissory note at \$16.95 per share	191	3,240	—	—	—	—	—	—
Issuance of Series E convertible preferred stock upon conversion of promissory notes at \$21.80 per share	488	10,636	—	—	—	—	—	—
Beneficial conversion feature for convertible promissory notes	—	—	—	—	485	—	—	485
Comprehensive loss:								
Foreign currency translation adjustment	—	—	—	—	—	(107)	—	(107)
Unrealized loss on available-for-sale securities	—	—	—	—	—	(11)	—	(11)
Net loss	—	—	—	—	—	—	(25,451)	(25,451)
Total comprehensive loss								(25,569)
Balance as of December 29, 2007	9,359	\$ 162,082	1,635	\$ 2	\$ 3,600	\$ (135)	\$ (133,798)	\$ (130,331)

FLUIDIGM CORPORATION
CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT—(Continued)
(In thousands, except per share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balance as of December 29, 2007	9,359	\$ 162,082	1,635	\$ 2	\$ 3,600	\$ (135)	\$ (133,798)	\$ (130,331)
Issuance of common stock upon exercise of stock options for cash and for vesting of stock options that were exercised early	—	—	61	—	180	—	—	180
Stock-based compensation expense	—	—	—	—	2,022	—	—	2,022
Repurchase of common stock in exchange for payment of related-party note receivable	—	—	(20)	—	(290)	—	—	(290)
Issuance of Series E convertible preferred stock upon conversion of promissory notes at \$21.80 per share	248	5,414	—	—	—	—	—	—
Issuance of Series C convertible preferred stock at \$13.20 per share upon net-share exercise of warrants	3	42	—	—	—	—	—	—
Comprehensive loss:								
Foreign currency translation adjustment	—	—	—	—	—	(433)	—	(433)
Unrealized gain on available-for-sale securities	—	—	—	—	—	12	—	12
Net loss	—	—	—	—	—	—	(29,499)	(29,499)
Total comprehensive loss								(29,920)
Balance as of December 27, 2008	9,610	\$ 167,538	1,676	\$ 2	\$ 5,512	\$ (556)	\$ (163,297)	\$ (158,339)

FLUIDIGM CORPORATION

CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT—(Continued)
(In thousands, except per share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balance as of December 27, 2008	9,610	\$ 167,538	1,676	\$ 2	\$ 5,512	\$ (556)	\$ (163,297)	\$ (158,339)
Issuance of common stock upon exercise of stock options for cash and for vesting of stock options that were exercised early	—	—	20	—	54	—	—	54
Stock-based compensation expense	—	—	—	—	2,111	—	—	2,111
Issuance of common stock to licensee	—	—	29	—	118	—	—	118
Issuance of common stock upon conversion of preferred stock	(137)	(1,513)	137	—	1,513	—	—	1,513
Issuance of Series E convertible preferred stock for cash at \$24.22 per share, net of issuance costs of \$90	310	6,944	—	—	—	—	—	—
Issuance of Series E convertible preferred stock upon conversion of promissory note at \$24.22 per share, net of issuance costs of \$157	456	10,876	—	—	—	—	—	—
Comprehensive loss:								
Foreign currency translation adjustment	—	—	—	—	—	52	—	52
Net loss	—	—	—	—	—	—	(19,128)	(19,128)
Total comprehensive loss								(19,076)
Balance as of December 31, 2009	<u>10,239</u>	<u>\$ 183,845</u>	<u>1,862</u>	<u>\$ 2</u>	<u>\$ 9,308</u>	<u>\$ (504)</u>	<u>\$ (182,425)</u>	<u>\$ (173,619)</u>

See accompanying notes.

FLUIDIGM CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended		
	December 29, 2007	December 27, 2008	December 31, 2009
Operating activities			
Net loss	\$ (25,451)	\$ (29,499)	\$ (19,128)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	1,643	1,497	1,632
Stock-based compensation expense	708	2,022	2,111
Loss (gain) from changes in the fair value of convertible preferred stock warrants, net	245	(769)	135
Loss (gain) on sales of property and equipment	20	14	(97)
Amortization of debt discount and issuance cost	495	470	308
Issuance of common stock for services	145	—	—
Gain from sublicense of technology	—	—	(1,807)
Changes in assets and liabilities:			
Accounts receivable	(135)	(3,278)	(3,999)
Inventories	(2,460)	(20)	1,510
Prepaid expenses and other assets	(1,552)	1,104	91
Accounts payable	1,537	135	(637)
Deferred revenue	1,618	(1,690)	(707)
Other liabilities	1,428	1,294	1,075
Net cash used in operating activities	(21,759)	(28,720)	(19,513)
Investing activities			
Proceeds from disposal of property and equipment	—	—	111
Purchases of property and equipment	(973)	(910)	(799)
Purchases of available-for-sale securities	(6,286)	(4,511)	—
Sales of available-for-sale securities	—	3,032	—
Maturities of available-for-sale securities	500	7,765	—
Restricted cash	19	625	—
Net cash (used in) provided by investing activities	(6,740)	6,001	(688)
Financing activities			
Proceeds from issuance of convertible promissory notes, net of issuance costs	5,000	—	10,510
Proceeds from issuance of convertible preferred stock, net of issuance costs	35,911	—	7,410
Proceeds from exercise of stock options	147	180	53
Proceeds from long-term debt	—	10,000	—
Repayment of long-term debt	(3,503)	(3,855)	(1,034)
Net cash provided by financing activities	37,555	6,325	16,939
Effect of exchange rate changes on cash and cash equivalents	3	113	68
Net increase (decrease) in cash and cash equivalents	9,059	(16,281)	(3,194)
Cash and cash equivalents as of beginning of year	25,018	34,077	17,796
Cash and cash equivalents as of end of year	<u>\$ 34,077</u>	<u>\$ 17,796</u>	<u>\$ 14,602</u>
Supplemental disclosures of cash flow information			
Cash paid for interest	<u>\$ 1,523</u>	<u>\$ 1,483</u>	<u>\$ 1,940</u>
Conversion of convertible promissory notes and accrued interest into convertible preferred stock	<u>\$ 13,876</u>	<u>\$ 5,414</u>	<u>\$ 10,876</u>
Preferred stock investment received in exchange for technology license	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 1,340</u>
Issuance of preferred stock warrants in connection with long-term debt	<u>\$ —</u>	<u>\$ 484</u>	<u>\$ 76</u>
Issuance of preferred stock warrants in connection with convertible promissory notes	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 262</u>

See accompanying notes.

FLUIDIGM CORPORATION
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1. Description of Business

Fluidigm Corporation (the Company) was incorporated in the state of California on May 19, 1999, to commercialize microfluidic technology initially developed at the California Institute of Technology. In July 2007, the Company was reincorporated in Delaware. The Company's headquarters are located in South San Francisco, California.

The Company develops, manufactures and markets microfluidic systems in the life science and agricultural biotechnology (Ag-Bio) industries. The Company's proprietary microfluidic systems consist of instruments and consumables, including chips and reagents. The Company's microfluidic systems are designed to simplify experimental workflow, increase throughput, reduce costs, and provide quality data. The Company markets systems and consumables to leading pharmaceutical and biotechnology companies, academic institutions, diagnostic laboratories, and Ag-Bio companies.

Going Concern

The accompanying consolidated financial statements have been prepared assuming the Company will continue as a going concern. The Company has incurred recurring losses and operating cash flow deficiencies. As of December 31, 2009, the Company had a total stockholders' deficit of \$182.4 million. The Company has historically experienced negative cash flows from operating activities as it has expanded its business and built its infrastructure and this may continue in the future. If the Company's cash resources are insufficient to satisfy its future cash requirements, the Company may be required to issue convertible debt or equity to raise additional capital. If the Company raises additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to its technologies or its products, or grant licenses on terms that are not favorable to the Company.

The Company is exploring its financing alternatives. If the Company is unable to raise adequate funds, it may have to liquidate some or all of its assets, or delay, reduce the scope of or eliminate some or all of its development programs. If the Company does not have, or is not able to obtain, sufficient funds, it may have to delay development or commercialization of its products or license to third parties the rights to commercialize products or technologies that it would otherwise seek to commercialize. In addition, the Company may have to reduce marketing, customer support or other resources devoted to its products or cease operations. Any of these factors could harm the Company's operating results.

The Company may be unable to raise additional capital or to do so on terms that are favorable, depending upon capital market and overall economic conditions. Sale of convertible debt securities or additional equity could result in substantial dilution to the Company's stockholders.

These factors raise substantial doubt about the Company's ability to continue as a going concern. The accompanying financial statements do not include any adjustments that might result from the outcome of these uncertainties.

Subsequent Events

Except as disclosed in the last paragraph of Note 1, the Company has evaluated subsequent events after the balance sheet date of December 31, 2009 through December 3, 2010, the date the consolidated financial statements were issued.

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Reverse Stock Split

In January 2011, the Company's board of directors approved an amended and restated certificate of incorporation effecting a 1 for 1.73 reverse stock split of the Company's issued and outstanding shares of common stock and convertible preferred stock, and changed the par value of the Company's common and preferred stock from \$0.0035 per share to \$0.001 per share. All issued and outstanding common stock, convertible preferred stock, options to purchase common stock, warrants to purchase convertible preferred stock, and per share amounts contained in the Company's financial statements have been retroactively adjusted to reflect this reverse stock split for all periods presented. Subject to stockholder approval, the reverse stock split will be effected prior to the effectiveness of a registration statement relating to the initial public offering of the Company's common stock.

2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The accompanying consolidated financial statements of the Company have been prepared in conformity with U.S. generally accepted accounting principles and include the accounts of the Company and its wholly-owned subsidiaries. The Company has wholly-owned subsidiaries in Singapore, the Netherlands, Japan, France, and the United Kingdom. All subsidiaries, except for Singapore, use their local currency as their functional currency. The Singapore subsidiary uses the U.S. dollar as its functional currency. All intercompany transactions and balances have been eliminated in consolidation.

Fiscal Year

The Company's 2007 and 2008 fiscal years were based on a 52- or 53-week convention for its fiscal years and, therefore, the 2007 fiscal year ended on December 29, 2007 (2007) and the 2008 fiscal year ended on December 27, 2008 (2008). During 2009, the Company adopted the calendar year as its fiscal year and, accordingly, the 2009 fiscal year ended on December 31, 2009 (2009).

Use of Estimates

The preparation of financial statements in accordance with US generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. The Company bases its estimates on historical experience and on various other assumptions believed to be reasonable, which together form the basis for making judgments about the carrying values of assets and liabilities. Actual results could differ materially from these estimates and could have a material adverse effect on the Company's consolidated financial statements.

Foreign Currency

Assets and liabilities of non-U.S. subsidiaries that use the local currency as their functional currency are translated into U.S. dollars at exchange rates in effect at the balance sheet date with the resulting translation adjustments recorded in a separate component of accumulated other comprehensive loss within stockholders' deficit. Income and expense accounts are translated at average exchange rates during the year. Net losses from foreign currency translation adjustments were \$107,000 and \$433,000 during 2007 and 2008, respectively. During 2009, net gain from foreign currency translation adjustment was \$52,000. Foreign currency transaction gains and losses are recognized in other income (expense), net in the accompanying consolidated statements of operations. The Company had net foreign currency transaction gains of \$72,000 and \$386,000 during 2007 and 2008, respectively, and net foreign currency transaction losses of \$89,000 during 2009.

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Cash and Cash Equivalents

The Company considers all highly liquid financial instruments with maturities at the time of purchase of three months or less to be cash equivalents. Cash and cash equivalents may consist of cash on deposit with banks, money market funds, commercial paper, corporate notes, and notes from government-sponsored agencies.

Available-for-Sale Securities

Available-for-sale securities are comprised of corporate notes and notes from government-sponsored agencies. Investments classified as “available-for-sale” are recorded at estimated fair value, as determined by quoted market rates, in the accompanying consolidated balance sheets, with any unrealized gains and losses reported in stockholders’ deficit as a component of accumulated other comprehensive loss. Realized gains and losses and declines in the fair value of available-for-sale securities below their cost that are deemed to be “other than temporary” are reflected in interest income. No “other than temporary” unrealized losses have been incurred to date, and realized gains and losses were immaterial during the years presented. The cost of securities sold is based on the specific-identification method.

Restricted Cash

The Company had restricted cash balances of \$256,000 as of December 27, 2008 and December 31, 2009. Included in restricted cash are amounts that collateralize the Company’s standby letters of credit issued under operating lease agreements for its office facilities.

Fair Value of Financial Instruments

The carrying values of the Company’s financial instruments, including accounts receivable, restricted cash, and accounts payable, approximated their fair values due to the short period of time to maturity or repayment. As a basis for considering fair value, the Company follows a three-tier value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level I: observable inputs such as quoted prices in active markets;

Level II: inputs other than quoted prices in active markets that are observable either directly or indirectly; and

Level III: unobservable inputs in which there is little or no market data, which requires the Company to develop its own assumptions.

This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value. The Company’s cash equivalents are classified as Level I because they are valued using quoted market prices. The Company’s convertible preferred stock warrants are valued using Level III inputs.

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Changes in the value of convertible preferred stock warrants were as follows (in thousands):

Fair value as of December 30, 2007	\$ 468
Issuances	442
Change in fair value	<u>(769)</u>
Fair value as of December 27, 2008	\$ 141
Issuances	340
Change in fair value	<u>135</u>
Fair value as of December 31, 2009	<u>\$ 616</u>

Valuation of convertible preferred stock warrants is discussed in Note 8.

Accounts Receivable

Trade accounts receivable are recorded at net invoice value. The Company reviews its exposure to accounts receivable and reserves specific amounts if collectability is no longer reasonably assured based on historical experience and specific customer collection issues. The Company evaluates such reserves on a regular basis and adjusts its reserves as needed. At December 31, 2009, the Company had reserves for accounts receivable of \$103,000. Reserves for accounts receivable were not significant at December 27, 2008.

Concentrations of Business and Credit Risk

Financial instruments that potentially subject the Company to credit risk consist of cash, cash equivalents, available-for-sale securities, and accounts receivable. The Company maintains cash, cash equivalents, and available-for-sale securities with major financial institutions. The Company's cash, cash equivalents, and available-for-sale securities may consist of deposits held with banks, commercial paper, money market funds, and other highly liquid investments that may at times exceed federally insured limits. The Company performs periodic evaluations of its investments and the relative credit standing of these financial institutions and limits the amount of credit exposure with any one institution.

The Company generally does not require collateral to support credit sales. To reduce credit risk, the Company performs periodic credit evaluations of its customers. Revenue from one customer was 24% and 11% of total revenues for 2007 and 2008, respectively. No customer was greater than 10% of total revenues for 2009.

The Company's products include components that are currently available from a single source or a limited number of sources. The Company believes that other vendors would be able to provide similar components; however, the qualification of such vendors may require start-up time. In order to mitigate any adverse impacts from a disruption of supply, the Company attempts to maintain an adequate supply of critical limited-source components.

Inventories

Inventories are stated at the lower of cost (which approximates actual cost on a first-in, first-out method) or market. Inventories include raw materials, work-in-process, and finished goods that may also be used for research and development; such items are expensed when they are designated for use in research and development. Provisions, when required, for slow-moving, excess, and obsolete inventories are recorded to reduce inventory values from cost to their estimated net realizable values, based on product life cycle, development plans, product expiration, and quality issues.

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Property and Equipment

Property and equipment, including leasehold improvements, are stated at cost less accumulated depreciation, which is calculated using the straight-line method over the estimated useful lives of the assets, which range from three to five years. Leasehold improvements are amortized using the straight-line method over the estimated useful lives of the assets or the remaining term of the lease, whichever is shorter.

The Company evaluates its long-lived assets for indicators of possible impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. If any indicator of impairment exists, the Company assesses the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, the Company measures the future discounted cash flows associated with the use of the asset and adjusts the value of the asset accordingly. The Company did not have any impairment of long lived assets.

Investment

The Company has a minority equity investment that is accounted for under the cost method of accounting. Under the cost method of accounting, investments in equity securities are carried at cost and are adjusted only for other-than-temporary declines in value. No such declines have been identified through December 31, 2009.

Reserve for Product Warranties

The Company generally provides a one-year warranty on its instruments. The Company reviews its exposure to estimated warranty expense associated with instrument sales and establishes an accrual based on historical product failure rates and actual warranty costs incurred. This expense is recorded as a component of cost of product revenue in the consolidated statements of operations. Warranty accruals and expenses were not significant for any period presented.

Revenue Recognition

The Company generates revenue from sales of its products, research and development contracts, collaboration agreements and government grants. The Company's products consist of instruments and consumables, including chips and reagents, related to its microfluidic systems. Product revenue includes services for instrument installation, training, and customer support services. The Company has also entered into collaboration, and research and development contracts and has received government grants to conduct research and development activities.

Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price to the buyer is fixed or determinable and collectability is reasonably assured. The Company assesses collectability based on factors such as the customer's creditworthiness and past collection history, if applicable. If collection is not reasonably assured, revenue recognition is deferred until receipt of payment. The Company also assesses whether a price is fixed or determinable by, among other things, reviewing contractual terms and conditions related to payment terms. Delivery occurs when there is a transfer of title and risk of loss passes to the customer.

Product Revenue

Certain of the Company's sales contracts involve the delivery or performance of multiple products and services within contractually binding arrangements. Significant judgment is sometimes required to determine the

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appropriate accounting for such arrangements, 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 related sales price should be allocated among the elements, when to recognize revenue for each element, and the period over which revenue should be recognized. The Company does not sell software separately; however, the Company offers post-contract software support services for certain of its instruments containing software that is more than incidental to the functionality of the instruments. If an arrangement includes chips and instruments, the Company separates chip revenues from software related deliverables.

During the third quarter of 2009, the Company began shipping instruments in fully assembled and calibrated form and concluded that installation was no longer essential to their functionality. As a result, beginning in the fourth quarter of 2009, the Company began recognizing instrument revenues upon delivery assuming all other applicable revenue recognition criteria have been satisfied. Previously, instrument revenue was recognized upon installation assuming all other applicable revenue recognition criteria have been satisfied.

During the third quarter of 2008, the Company established fair value for post-contract software support related to its BioMark instrument. As a result, beginning in the third quarter of 2008, the Company recognized revenue for the fair value of a BioMark instrument upon installation. Previously, revenue from BioMark instruments was deferred and recognized ratably over the post-contract support period. The corresponding costs of products related to multiple element revenue arrangements are recognized consistent with the related revenue recognition.

The Company evaluates whether a delivered element has value on a stand-alone basis prior to delivery of the remaining elements by determining whether separate sales of such undelivered elements exist or whether the undelivered elements are essential to the functionality of the delivered elements. The Company recognizes revenue for delivered elements only when the fair values of undelivered elements are known. The Company evaluates whether there is vendor-specific objective evidence, or VSOE, of fair value of the undelivered elements, determined by reference to stand-alone sales of such items. If the fair value of any undelivered element related to instruments and software included in a multiple element arrangement cannot be objectively determined, revenue will be deferred until all elements are delivered, or until fair value can objectively be determined for any remaining undelivered elements.

The Company's products are sold without the right of return. Accruals are provided for estimated warranty expenses at the time the associated revenue is recognized. Amounts received in advance of when revenue recognition criteria are met are classified as deferred revenue in the consolidated balance sheets.

Collaboration Revenue

The Company has entered into collaboration and research and development agreements with third parties, including government entities that generally provide the Company with up-front and periodic milestone fees or fees based on agreed-upon rates for time incurred by the Company's research staff. Upfront fees are generally recognized over the term of the agreement; milestone fees are generally recognized when the milestones are achieved; and fees based on agreed upon rates for time incurred by the Company's research staff are recognized as time is incurred. The Company evaluates whether these arrangements contain multiple units of accounting by evaluating whether delivered elements have value on a stand-alone basis and whether there is objective and reliable evidence of fair value of the undelivered items. During 2007 and 2008, the Company concluded that these arrangements consisted of a single unit of accounting, namely, research and development services. Accordingly, the Company recognizes fees received under such arrangements over the period services are

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performed. Costs associated with research and development agreements are included in research and development expenses in the consolidated statements of operations. During 2009, there were no such arrangements.

Grant Revenue

The Company receives grants from various governmental entities for research and related activities. Grants provide the Company with incentive payments for certain types of research and development activities performed over a contractually defined period. Grant revenue is recognized in the period during which the related costs are incurred, provided that the conditions under which the grants were provided have been met and the Company has only perfunctory obligations outstanding. Amounts received in advance of revenue recognition are classified as deferred revenue in the consolidated balance sheets. Costs associated with grants are included in research and development expenses in the consolidated statements of operations.

Shipping and Handling Costs

Shipping and handling costs incurred for product shipments are included within cost of product revenue in the consolidated statements of operations.

Research and Development

The Company records research and development expenses in the period incurred. Research and development expenses consist of personnel costs, independent contractor costs, prototype and materials expenses, allocated facilities and information technology expenses and related overhead expenses.

Advertising Costs

The Company expenses advertising costs as incurred. The Company incurred advertising costs of \$701,000, \$1,117,000 and \$747,000 during 2007, 2008 and 2009, respectively.

Income Taxes

The Company uses the asset and liability method to account for income taxes, whereby deferred income taxes reflect the impact of temporary differences for items recognized for financial reporting purposes over different periods than for income tax purposes. Valuation allowances are provided when the expected realization of deferred tax assets does not meet a “more likely than not” criterion.

The Company recognizes the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. On January 1, 2007, the Company adopted new accounting guidance related to uncertain tax positions that resulted in a charge of \$75,000 as a cumulative effect of a change in accounting principle in accumulated deficit. Any interest and penalties related to uncertain tax positions will be reflected in income tax expense.

Stock-Based Compensation

The Company adopted the fair value method of accounting for stock options granted to employees beginning January 1, 2006 using the prospective-transition method. Under the prospective-transition method, the

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Company applies the intrinsic value method to employee equity awards outstanding at the date of the Company's adoption of the fair value method. Any compensation costs recognized consist of: (a) compensation cost for all stock-based awards granted prior to, but not vested, as of December 31, 2005 based on the intrinsic value method 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. The Company recognizes stock-based compensation expense on a straight-line basis over the requisite service periods. For performance-based stock options, the Company recognizes stock-based compensation expense over the requisite service period using the accelerated attribution method.

The Company accounts for stock options issued to non-employees based on the fair value of the awards. The non-employee options are subject to periodic reevaluation over their vesting term with changes in fair value recognized in the consolidated statements of operations.

Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive loss. Other comprehensive loss includes unrealized gains and losses on the Company's available-for-sale securities and foreign currency translation adjustments. Total comprehensive loss for all periods presented has been disclosed in the consolidated statements of convertible preferred stock and stockholders' deficit.

Accumulated other comprehensive loss consists of the following (in thousands):

	December 29, 2007	December 27, 2008	December 31, 2009
Unrealized loss on available-for-sale securities	\$ (12)	\$ —	\$ —
Foreign currency translation adjustment	(123)	(556)	(504)
	<u>\$ (135)</u>	<u>\$ (556)</u>	<u>\$ (504)</u>

Convertible Preferred Stock Warrants

Freestanding warrants to purchase the Company's convertible preferred stock are valued at fair value and classified as liabilities in the consolidated balance sheets and are carried at fair value because the warrants may conditionally obligate the Company 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 is recognized in the consolidated statements of operations. The Company will continue to adjust this liability for changes in fair value until the earlier of the exercise or expiration of the warrants, the completion of a deemed liquidation event, conversion of preferred stock into common stock, or until the convertible preferred stockholders can no longer trigger a deemed liquidation event. At that time, the convertible preferred stock warrant liabilities will be reclassified to convertible preferred stock or additional paid-in capital.

Net Loss per Share of Common Stock

The Company's basic net loss per share of common stock is calculated by dividing the net loss by the weighted-average number of shares of common stock outstanding for the period. The weighted-average number of shares of common stock used to calculate the Company's basic net loss per share of common stock excludes shares subject to repurchase rights related to stock options that were exercised prior to vesting, as such shares are not deemed to be issued for accounting purposes until the related stock options vest. The diluted net loss per

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share of common stock is computed by dividing the net loss by the weighted-average number of potential common shares outstanding for the period determined using the treasury-stock method. For purposes of this calculation, convertible preferred stock, options to purchase common stock, common stock subject to repurchase, warrants to purchase convertible preferred stock, and shares of convertible preferred stock subject to conversion of the Company's convertible promissory notes are considered to be potential common shares but have been excluded from the calculation of diluted net loss per share of common stock, as their effect is anti-dilutive.

The following potential common shares were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have been anti-dilutive (in thousands).

	<u>December 29, 2007</u>	<u>December 27, 2008</u>	<u>December 31, 2009</u>
Convertible preferred stock	9,360	9,610	10,239
Options to purchase common stock	1,228	1,321	1,541
Common stock subject to repurchase	6	2	1
Warrants to purchase convertible preferred stock	116	125	387
Convertible promissory notes convertible into shares of convertible preferred stock	242	—	—

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Unaudited Pro Forma Net Loss per Share of Common Stock

In December 2010, the Company's board of directors authorized the filing of a registration statement with the Securities and Exchange Commission (SEC) for the Company to sell shares of common stock to the public. Pro forma basic and diluted net loss per share of common stock have been computed in contemplation of the completion of this offering and give effect to the conversion of all the Company's outstanding convertible preferred stock into common stock. Also, the numerator in the pro forma basic and diluted net loss per share calculation has been adjusted to remove gains and losses resulting from changes in the fair value of convertible preferred stock warrants as these will become warrants to purchase shares of the Company's common stock upon a qualifying initial public offering. The following table reconciles the calculation of pro forma loss per share (unaudited, in thousands, except per share amounts):

	<u>December 31,</u> <u>2009</u>
Pro Forma:	
Numerator:	
Net loss	\$ (19,128)
Change in fair value of convertible preferred stock warrants	135
Deemed dividend due to change in conversion price of Series E convertible preferred stock	(9,900)
Net loss used in computing pro forma net loss per share available to common stockholders, basic and diluted	<u>\$ (28,893)</u>
Denominator:	
Shares used in computing net loss per share available to common stockholders, basic and diluted	1,736
Pro forma adjustments to reflect assumed conversion of convertible preferred stock	9,657
Shares used in computing pro forma net loss per share available to common stockholders, basic and diluted	<u>11,393</u>
Pro forma net loss per share available to common stockholders, basic and diluted	<u>\$ (2.54)</u>

In January 2011, the Company's board of directors approved a change in the conversion price of the Company's Series E convertible preferred stock such that the holders of Series E stock will receive approximately 2,000,000 more shares of common stock upon conversion. During 2011, the Company will account for the increase as a non-cash deemed dividend of approximately \$9,900,000 based on the fair value of the Company's common stock at the time of the change in conversion price.

Recent Accounting Pronouncements***Revenue Arrangements with Multiple Deliverables***

In September 2009, the FASB ratified authoritative accounting guidance regarding revenue recognition for arrangements with multiple deliverables. The guidance allows the use of management's best estimate of selling price for individual elements of an arrangement when vendor specific objective evidence, or third-party evidence is unavailable. The guidance also requires arrangement consideration to be allocated at the inception of the arrangement to all deliverables using the relative-selling-price method and eliminates the use of the residual method of allocation. The guidance is effective for annual periods beginning January 1, 2011, with early adoption

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permitted. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

Revenue Arrangements with Software Elements

In October 2009, the FASB ratified authoritative accounting guidance that modifies the scope of the software revenue recognition guidance to exclude tangible products that contain both software and non-software components that function together to deliver the product's essential functionality. The guidance is effective for annual periods beginning January 1, 2011, with early adoption permitted. This guidance must be adopted in the same period an entity adopts the amended guidance for revenue arrangements with multiple deliverables guidance described in the preceding paragraph. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

Milestone Method of Revenue Recognition

In March 2010, the FASB ratified the milestone method of revenue recognition. Under this new standard, an entity can recognize contingent consideration earned from the achievement of a substantive milestone in its entirety in the period in which the milestone is achieved. A milestone is defined as an event (i) that can only be achieved based in whole or in part on either the entity's performance or on the occurrence of a specific outcome resulting from the entity's performance (ii) for which there is substantive uncertainty at the date the arrangement is entered into that the event will be achieved and (iii) that would result in additional payments being due to the entity. The milestone method of revenue recognition is effective for fiscal years beginning on or after June 15, 2010 and early adoption is permitted. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

3. License, Development, Collaboration, and Grant Agreements

License Agreements

In March 2003, the Company entered into a license agreement to obtain an exclusive worldwide license for certain technology regarding nanovolume crystallization arrays. The Company may, in its sole discretion, cancel the license agreement with 30-days notice; otherwise, the license terminates at the end of the life of the last licensed patent to expire. Under the terms of the agreement, the Company is obligated to issue up to \$2,100,000 in value of shares of the Company's common or convertible preferred stock if the Company achieves certain milestones. As a result of achieving one of these milestones during 2006, the Company issued 35,389 shares of Series D convertible preferred stock valued at \$16.95 per share for an aggregate value of \$597,000, net of issuance costs, and recorded this amount as research and development expense. The milestones required to issue the remaining \$1,503,000 of shares of the convertible preferred stock due under the agreement have not been achieved as of December 31, 2009.

During 2003, the Company also entered into a separate research sponsorship agreement under which the Company agreed to pay a total of \$900,000 over five years in 20 quarterly installments of \$45,000 each to sponsor certain research. These quarterly payments were recorded as research and development expenses. As of December 27, 2008, the entire \$900,000 has been paid and the agreement terminated in fiscal 2008 following payment of the final installment.

In December 2003, the Company entered into a license agreement to obtain a nonexclusive worldwide license for certain technology regarding submicroliter protein crystallization. The Company may, in its sole

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discretion, cancel the agreement with 30-days notice; otherwise, the license terminates at the end of the life of the last licensed patent to expire. Pursuant to the agreement, the Company made payments for nonrefundable license fees, each in the amount of \$250,000, in January 2006 and January 2007. Also pursuant to this agreement, the Company began making quarterly payments in the amount of \$25,000 starting in the first quarter of 2007. These quarterly payments, which we have made through December 31, 2009 and which are scheduled to continue until the agreement is terminated, could increase in future periods if the Company meets certain sales volumes. The nonrefundable license fee and quarterly payments were recorded as research and development expense.

In November 2009, the Company entered into an agreement to grant a sub-license to certain intellectual property previously licensed by the Company from a third party (Licensor). As consideration, the Company received shares of the sub-licensee's preferred stock (Investment), with an estimated fair value of \$1,676,000. The Investment is accounted for under the cost method of accounting. The Company based its estimate of the fair value of the investment on a variety of factors including the sale of similar securities by the sub-licensee, with appropriate consideration taken for differences in liquidation preference of the securities and the sub-licensee's capital structure, and the Company's expectations about the performance and future operations of the sub-licensee.

Concurrently, the sub-licensee purchased 310,000 shares of the Company's convertible Series E convertible preferred stock (Series E stock) for cash of \$24.22 per share for total cash proceeds of \$7,500,000, which represented a premium of \$466,000 over the then fair value of the Company's Series E stock. The fair value of the Company's Series E stock was determined based on comparable sales of such shares. Since the Company's Series E stock was sold as part of a multiple element arrangement for which the fair value of the sub-license was not known, the value of the Company's preferred stock and the value of the Investment were determined to be the most reliable measures of fair value for the exchanged assets. As a result, during the fourth quarter of 2009 the Company recognized other income of \$2,142,000 representing the fair value of the Investment and the premium on the sale of the Series E stock.

Pursuant to the Company's agreement with the Licensor, the Company transferred 20% of its Investment to the Licensor and recorded the estimated fair value of the transferred shares, or \$335,000 as other expense. At December 31, 2009, the carrying value of the Investment was \$1,340,000, and is included in other assets in the Company's consolidated balance sheet.

Development Agreements

In June 2005, the Company entered into an agreement to develop an application area of interest. Under the agreement, the Company performed research and development services and manufactured prototype instruments. The agreement provided for total payments to the Company of \$942,000, to be paid in installments over the 30-month life of the agreement. The Company determined that the research and development services and the manufacturing of prototype instruments should be accounted for as a combined unit of accounting, and revenue was recognized ratably over the estimated project period. The Company recognized revenue of \$377,000 and \$89,000 related to this agreement during 2007 and 2008, respectively. The agreement terminated during 2008.

Grants

California Institute for Regenerative Medicine

In April 2009, the Company was awarded a grant from the California Institute for Regenerative Medicine in the amount of \$750,000 to be earned over a two-year period. Under the grant, the Company designs and develops

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prototype microfluidic systems for use in stem cell research. The agreement provides for quarterly payments in the amount of \$97,000 during the first year beginning on April 1, 2009 and quarterly payments of \$90,000 during the second year. The grant revenue is recognized as the related research and development services are performed, and costs associated with this grant were reported as research and development expense during the period incurred. During 2009, the Company recognized grant revenue of \$291,000 related to this agreement.

National Institutes of Health

In June 2006, the Company was awarded a government grant from the National Institutes of Health (NIH) in the amount of \$1,048,000 to be earned over a two-year period. Under the grant, the Company performed research and development activities to design a diffraction capable screening chip. The agreement provided for quarterly reimbursement of the eligible research and development expenses including salaries, equipment, scientific consumables, and certain third-party costs. The grant revenue was recognized as the related services were performed and costs associated with this grant were reported as research and development expense in the period incurred. The Company recognized revenue of \$606,000 and \$258,000 during 2007 and 2008, respectively, under this grant. This agreement terminated in June 2008.

Singapore Economic Development Board

In October 2005, the Company entered into a letter agreement providing for up to SG\$10.0 million (approximately US\$7.1 million using the December 31, 2009 exchange rate) in grants from the Singapore Economic Development Board (EDB). The grants were payable for the period August 1, 2005 through July 31, 2010 in connection with the establishment and operation by Fluidigm Singapore, a wholly owned subsidiary of the Company, of a research, development and manufacturing center for chips in Singapore. Grant payments were calculated as a portion of qualifying expenses incurred in Singapore relating to salaries, overhead, outsourcing and subcontracting expenses, operating expenses and royalties paid. Fluidigm Singapore was required to submit incentive payment requests for qualifying expenditures on a quarterly basis along with reports regarding its compliance with the incentive payment conditions, as described below, through the end of the applicable quarter.

In January 2006, Fluidigm Singapore and EDB entered into a supplement to the October 2005 letter agreement. This supplement was entered into to create a process whereby Fluidigm Singapore and EDB would agree on new quarterly development targets at the start of each year, Fluidigm Singapore would submit to EDB a progress report and evidence of the achievement of targets on a quarterly basis and the parties would resolve any disagreements regarding the satisfaction of targets using an established procedure and the parties would be entitled to obtain a third party review of the incentive payment requests on a semi-annual rather than an annual basis.

In February 2007, Fluidigm Singapore entered into a second letter agreement with EDB which provided for up to an additional SG\$3.7 million (approximately US\$2.6 million using the December 31, 2009 exchange rate) in grants. The terms and conditions of this letter agreement are substantially the same as the October 2005 letter agreement with the exception of the size of the potential grant, the term of the agreement, and the specific levels of research, development, and manufacturing activities required to maintain eligibility for such grants. The primary focus of this letter agreement is the ongoing development and manufacture in Singapore of certain instrumentation. This letter agreement applies to research, development, and manufacturing activity by Fluidigm Singapore in Singapore from June 1, 2006 through May 31, 2011.

Fluidigm Singapore's continued eligibility for such grants is subject to its compliance with the following conditions: increasing levels of research; its development and manufacturing activity in Singapore, including

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employment of specified numbers of research scientists and engineers; its incurrence of specified levels of research and development expenses in Singapore over the course of each calendar year; its use of local service providers; its manufacture in Singapore of the products developed in Singapore; and its achievement of certain targets relating to new product development or completion of specific manufacturing process objectives. These required levels of research, development, and manufacturing activity in Singapore and the associated increases from one year to the next are the result of negotiations between the parties and are generally consistent with the Company's business strategy for its Singapore operations. All ownership rights in the intellectual property developed by Fluidigm in Singapore remain with Fluidigm Singapore, and no such rights are conveyed to EDB under the agreements.

These agreements further provided EDB with the right to demand repayment of a portion of past grants in the event the Company did not meet its obligations under the agreements. Based on correspondence with EDB, the Company believes that it has fulfilled its obligations under the grants and it will, therefore, not have to repay any of the grant proceeds received through December 31, 2009.

The Company recognized revenue of \$1,758,000, \$1,654,000 and \$1,522,000 related to EDB grants during 2007, 2008 and 2009, respectively. As of December 27, 2008 and December 31, 2009, the Company had deferred revenue of \$378,000 and \$144,000, respectively, related to incentive payments for equipment expenditures, which is being recognized ratably over the estimated useful life of the equipment of four years. As of December 27, 2008 and December 31, 2009, the Company had accounts receivable from EDB in the amounts of \$328,000 and \$666,000, respectively.

4. Balance Sheet Data

Cash and Cash Equivalents

The following are summaries of cash and cash equivalents (in thousands):

	<u>Amortized Cost</u>	<u>Unrealized Gain</u>	<u>Unrealized Loss</u>	<u>Estimated Fair Value</u>
As of December 31, 2009:				
Money market funds	\$ 9,926	\$ —	\$ —	\$ 9,926
Notes from government-sponsored agencies	2,286	—	—	2,286
Cash	2,390	—	—	2,390
	<u>\$ 14,602</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 14,602</u>
As of December 27, 2008:				
Money market funds	\$ 13,413	\$ —	\$ —	\$ 13,413
Cash	4,383	—	—	4,383
	<u>\$ 17,796</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 17,796</u>

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Inventories

Inventories consist of the following (in thousands):

	December 27, 2008	December 31, 2009
Raw materials	\$ 2,727	\$ 1,944
Work-in-process	705	121
Finished goods	2,024	1,880
	<u>\$ 5,456</u>	<u>\$ 3,945</u>

Property and Equipment

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

	December 27, 2008	December 31, 2009
Computer equipment and software	\$ 1,488	\$ 1,511
Laboratory and manufacturing equipment	8,735	8,820
Leasehold improvements	616	616
Office furniture and fixtures	372	379
	<u>11,211</u>	<u>11,326</u>
Less accumulated depreciation and amortization	(8,674)	(9,773)
Construction-in-progress	240	377
Property and equipment, net	<u>\$ 2,777</u>	<u>\$ 1,930</u>

Depreciation and amortization expense was \$1,643,000, \$1,497,000 and \$1,632,000 for 2007, 2008 and 2009, respectively.

5. Long-Term Debt

In November 2002, the Company entered into a master security agreement with a lender under which the Company had drawn down \$3,584,000 for the purchase of equipment. The loan, which was secured by the underlying equipment and a letter of credit, carried an interest rate between 8.0% and 10.5% per annum. In connection with this agreement, the Company issued warrants to the lender in 2004 to purchase 6,193 shares of Series D convertible preferred stock at \$16.95 per share (see Note 8). The fair value of the warrants resulted in a \$90,000 discount that was amortized to interest expense over the expected life of the debt. In February 2008, prior to the due date, the Company paid the outstanding principal balance, accrued interest, and a \$41,000 prepayment fee in settlement of this debt. Upon settlement of this debt, the remaining unamortized discount was immediately recognized as interest expense.

Under the terms of a loan agreement entered into in March 2005 and amended in August 2006, the Company borrowed \$13,000,000 for general corporate purposes (the 2005 Agreement). The 2005 Agreement was secured by the assets of the Company, excluding intellectual property but including any proceeds from the sale of intellectual property, bore interest at 9.75% per annum and was originally scheduled to mature in March 2010. In connection with the 2005 Agreement, the Company issued warrants to the lender to purchase 61,342 shares of Series D convertible preferred stock at \$16.95 per share (see Note 8). The \$104,000 fair value of the warrants resulted in a debt discount that is being amortized over the life of the borrowing.

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In February 2008, the Company amended the 2005 Agreement to provide the Company with an additional \$10,000,000 of borrowing availability for general corporate purposes (the 2008 Amendment). The \$10,000,000 of additional availability under the 2008 Amendment carried interest at 11.5% per annum and was originally scheduled to mature in June 2011. In connection with the 2008 Amendment, the Company issued warrants to purchase 49,545 shares of Series E convertible preferred stock at \$24.22 per share (see Note 8) to the lender. The \$484,000 fair value of the warrants resulted in a debt discount that is being amortized over the life of the borrowing.

In March 2009, amounts outstanding under the 2005 Agreement and the 2008 Amendment were combined and amended (the 2009 Agreement) so as to extend the final repayment date to March 1, 2012 and to provide for an interest only period from March 2009 through February 2010. At the time of the 2009 Agreement, the combined principal balance outstanding under the two loans was \$14,557,000. Amounts outstanding under the 2009 Agreement bear interest at 13.5% per annum. At the end of the interest only period, the Company will begin making monthly principal and interest payments of \$612,000 with an additional final payment of \$2,263,000. The additional final payment of \$2,263,000 is being accreted using the effective interest method as interest expense through the amended maturity date of March 1, 2012. The 2009 Agreement requires a prepayment fee of 1.5% of the outstanding principal amount being prepaid. In connection with the 2009 Agreement, the Company issued a warrant to purchase 41,288 shares of Series E convertible preferred stock at \$24.22 per share (see Note 8) to the lender. The fair value of the warrant resulted in a \$76,000 discount that is being amortized over the expected life of the borrowing.

The Company recognized interest expense of \$27,000, \$76,000 and \$179,000 during 2007, 2008 and 2009, respectively, related to the amortization of debt discounts. As of December 31, 2009, the Company was in compliance with all loan covenants or had obtained waivers through December 31, 2010 from the lender.

In June 2010, the Company amended the 2009 Agreement. See Note 15 for the scheduled principal payments under the amended loan and security agreement.

6. Commitments and Contingencies

Operating Leases

The Company leases its headquarters in South San Francisco, California, under multiple noncancelable lease agreements that expire through April 2015. These agreements include renewal options that provide the Company with the ability to extend the lease terms for an additional three years. The Company also leases office and manufacturing space under noncancelable leases in Singapore with various expiration dates through July 2013. The Company's other operating leases are for office space in Japan and France and are on a month-to-month basis. The Company entered into a new lease agreement for its headquarters in South San Francisco, California in September 2010. See Note 15 for the schedule of future minimum lease payments under noncancelable operating leases.

The Company's lease payments are expensed on a straight-line basis over the life of the lease. Rental expense under operating leases for 2007, 2008 and 2009 totaled \$1,574,000, \$1,580,000 and \$1,915,000, respectively.

Indemnifications

From time to time, the Company has entered into indemnification provisions under certain of its agreements in the ordinary course of business, typically with business partners, customers, and suppliers. Pursuant to these

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agreements, the Company may indemnify, hold harmless, and agree to reimburse the indemnified parties on a case-by-case basis for losses suffered or incurred by the indemnified parties in connection with any patent or other intellectual property infringement claim by any third party with respect to its products. The term of these indemnification provisions is generally perpetual from the time of the execution of the agreement. The maximum potential amount of future payments the Company could be required to make under these indemnification provisions is typically not limited to a specific amount. In addition, the Company has entered into indemnification agreements with its officers and directors. The Company has not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. As of December 31, 2009, the Company had no accrued liabilities for these indemnification provisions.

7. Convertible Promissory Notes

Note and Warrant Purchase Agreement

In August 2009, the Company entered into a convertible Note and Warrant Purchase Agreement (Notes) with its existing investors to provide the Company with cash proceeds of \$10,667,000. In connection with issuance of the Notes, the Company issued warrants to purchase 220,176 shares of Series E convertible preferred stock at \$24.22 per share (see Note 8), which resulted in a \$262,000 debt discount. The Notes were scheduled to mature on December 31, 2009 with interest accruing on the outstanding principal amount for the first 60 days at 1% per month and at 2% per month after the first 60 days, compounded monthly. The Notes' outstanding principal and accrued interest were convertible into preferred stock upon the occurrence of a qualified financing transaction or at the option of a majority of investors, as defined in the Note agreement.

In November 2009, the note holders agreed to convert the outstanding principal and accrued interest of \$11,033,000 into 455,525 shares of Series E convertible preferred stock. The Company recognized \$366,000 of interest expense related to the Notes and immediately expensed the remaining debt discount balance of \$262,000.

BMSIF Convertible Notes

During 2005, the Company entered into a convertible note purchase agreement with the Biomedical Sciences Investment Fund Pte Ltd (BMSIF). 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. In June 2006, the Company issued an unsecured convertible promissory note to BMSIF in the amount of \$3,000,000 carrying an interest rate of 8% per year. In June 2007, pursuant to the conversion provisions of this agreement, the Company elected to convert the principal balance of \$3,000,000 and accrued interest of \$240,000 into 191,105 shares of Series D convertible preferred stock at \$16.95 per share.

In August 2006, the Company entered into another convertible note purchase agreement with BMSIF. Under this agreement, BMSIF agreed to provide a \$15,000,000 credit facility for general corporate purposes to be drawn down in three separate \$5,000,000 tranches at an interest rate of 8% per year. In August and November 2006, the Company drew down two of the three tranches in exchange for unsecured convertible promissory notes of \$5,000,000 each. In March 2007, BMSIF elected to convert the outstanding principal and accrued interest balance of \$10,636,000 into 487,916 shares of Series E convertible preferred stock at \$21.80 per share.

In April 2007, the Company drew down the third and final tranche of \$5,000,000 that was available from BMSIF in exchange for an unsecured promissory note. In May 2008, BMSIF elected to convert the outstanding principal and accrued interest balance of \$5,414,000 into 248,380 shares of Series E convertible preferred stock at \$21.80 per share.

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The BMSIF notes that were converted into Series E convertible preferred stock had a conversion price of \$21.80 per share which was a discount to the estimated fair values of \$22.45 and \$24.22 per share for the Series E convertible preferred stock at the times of the borrowings. The intrinsic value of the embedded beneficial conversion option associated with each borrowing under the arrangement was measured as the difference between the conversion price and the fair value of Series E convertible preferred stock on the commitment date and the resulting debt discount was being amortized to interest expense over the two year contractual term of the debt. Upon conversion of the notes to convertible preferred stock, the remaining unamortized debt discount was immediately recognized as interest expense.

During 2007, the Company recognized debt discounts of \$485,000 related to the beneficial conversion feature of the BMSIF notes. Amortization of the debt discounts resulted in interest expense of \$468,000, and \$280,000 during 2007, and 2008, respectively. All amounts due under the BMSIF notes were converted to preferred stock during 2008.

8. Convertible Preferred Stock Warrants

The Company has issued warrants to purchase shares of its convertible preferred stock at various times since 2001. The Company's convertible preferred stock warrants are generally exercisable immediately and can only be exercised for cash or net share settled. Changes in the fair value of the preferred shares into which the warrants are convertible do not affect the settlement amounts of the warrants. Freestanding warrants to purchase the Company's convertible preferred stock are valued at fair value and classified as liabilities in the consolidated balance sheets because the warrants may conditionally obligate the Company to transfer assets at some point in the future.

During 2009, the Company issued warrants to purchase 261,495 shares of Series E convertible preferred stock at \$24.22 per share in connection with the 2009 Agreement (see Note 5) and the Note and Warrant Purchase Agreement with existing investors (see Note 7).

During 2008, warrants to purchase 33,030 shares of the Company's Series C convertible preferred stock expired unexercised. Upon expiration, the related warrant liability was eliminated and the change in fair value was included in other income (expense), net in the accompanying consolidated statement of operations.

During 2008, warrants to purchase 6,817 shares of the Company's Series C convertible preferred stock were exercised utilizing a cashless exercise option that allowed the holder to receive 2,712 shares of Series C convertible preferred stock.

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As of December 31, 2009, the following warrants were outstanding:

Issue Date	Reason for Grant	Series of Preferred Stock into which the Warrant is Exercisable	Number of Shares into which the warrant is Exercisable	Exercise Price per Share	Expiration
March 2002	Debt financing	Series C	2,890	\$ 15.62	Earlier of (i) the closing of an acquisition of the Company or (ii) March 27, 2012
November 2002	Debt financing	Series C	5,121	\$ 15.62	Earlier of (i) the closing of an acquisition of the Company or (ii) December 16, 2012
March 2004	Debt financing	Series D	6,193	\$ 16.95	Earlier of (i) the closing of an acquisition of the Company or (ii) March 18, 2012
March 2005	Debt financing	Series D	30,671	\$ 16.95	Earlier of (i) the closing of an acquisition of the Company or (ii) March 29, 2012
December 2005	Debt financing	Series D	30,671	\$ 16.95	Earlier of (i) the closing of an acquisition of the Company or (ii) March 29, 2012
February 2008	Debt financing	Series E	16,516	\$ 24.22	Earlier of (i) the closing of an acquisition of the Company or (ii) February 15, 2015
June 2008	Debt financing	Series E	33,030	\$ 24.22	Earlier of (i) the closing of an acquisition of the Company or (ii) February 15, 2015
March 2009	Debt financing	Series E	41,288	\$ 24.22	Earlier of (i) the closing of an acquisition of the Company or (ii) March 25, 2016
August 2009	Debt financing	Series E	220,176	\$ 24.22	Earlier of (i) the closing of an acquisition of the Company or (ii) August 25, 2019
			<u>386,556</u>		

The following is a summary of the warrants to purchase convertible preferred stock outstanding and their fair values as of December 27, 2008 and December 31, 2009:

	Shares as of		Fair Value as of	
	December 27, 2008	December 31, 2009	December 27, 2008	December 31, 2009
Series C	8,011	8,011	\$ 9,000	\$ 5,000
Series D	67,535	67,535	60,000	33,000
Series E	49,545	311,010	72,000	578,000
	<u>125,091</u>	<u>386,556</u>	<u>\$ 141,000</u>	<u>\$ 616,000</u>

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The fair values of outstanding convertible preferred stock warrants were estimated using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	2007	2008	2009
Expected volatility	49.7%	54.2%	68.1%
Expected life (equals the remaining contractual term)	2.8 years	4.4 years	7.3 years
Risk-free interest rate	3.2%	1.3%	3.1%
Dividend yield	0%	0%	0%

9. Convertible Preferred Stock

Convertible preferred stock was comprised of the following (in thousands):

	December 31, 2009			
	Shares Authorized	Shares Issued and Outstanding	Net Proceeds	Liquidation Preferences
Series A	450	380	\$ 2,519	\$ 2,530
Series B	1,067	1,061	11,413	11,434
Series C	2,784	2,670	41,517	41,710
Series D	2,306	2,180	36,611	36,965
Series E	4,510	3,948	91,785	95,607
	<u>11,117</u>	<u>10,239</u>	<u>\$ 183,845</u>	<u>\$ 188,246</u>

Upon certain change in control events that are outside of the control of the Company, including liquidation, sale, or transfer of control of the Company, holders of the convertible preferred stock can cause its redemption. Accordingly, these shares are considered contingently redeemable and therefore classified as temporary equity on the consolidated balance sheets instead of in stockholders' deficit. The Company has not adjusted the carrying values of the convertible preferred stock to their redemption values, since it is uncertain whether or when a redemption event will occur. The significant rights, privileges, and preferences of the convertible preferred stock are as follows:

Conversion

Each share of convertible preferred stock is convertible, at any time at the option of the holder, into common stock based upon a conversion rate of one share of common stock for each share of convertible preferred stock regardless of the series, subject to certain adjustments to the conversion price.

Conversion is automatic upon: (i) the closing of an underwritten initial public offering of the Company's common stock at an offering price of not less than \$34.44 per share (appropriately adjusted for any stock splits, stock dividends, recapitalization, or similar events) and with aggregate gross proceeds of not less than \$25,000,000, (ii) the closing of an underwritten initial public offering of the Company's common stock at an offering price of less than \$34.44 per share (appropriately adjusted for any stock splits, stock dividends, recapitalization, or similar events) or with aggregate gross proceeds of less than \$25,000,000 and written consent of the holders of two-thirds of all shares of convertible preferred stock voting together for such automatic conversion, or (iii) the written consent of the holders of two-thirds of all shares of convertible preferred stock voting together, except that the written consent of the holders of greater than two-thirds of all shares of Series E

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convertible preferred stock voting separately is required for Series E convertible preferred stock to convert if such conversion is not in connection with the closing of an underwritten initial public offering of the Company's common stock.

Dividends

Holders of Series A, B, C, D, and E convertible preferred stock are entitled to noncumulative dividends of \$0.67, \$1.09, \$1.57, \$1.82, and \$2.60 per share, respectively, if and when declared by the Board of Directors (adjusted for any stock splits, stock dividends, recapitalization, or similar events) and subject to the preferences described below. Holders of Series D and E convertible preferred stock shall be entitled to receive dividends, when and if declared, in preference and priority to any declaration or payment of dividends to holders of Series A, B, or C convertible preferred stock or common stock, other than for dividends payable in only common stock. Payments of any dividends to the holders of Series D and E convertible preferred stock shall be on a pro rata, pari passu basis in proportion to the entitled dividend rates for these respective series, as applicable. Holders of Series C convertible preferred stock shall be entitled to receive dividends, when and if declared, in preference and priority to any declaration or payment of dividends to holders of Series A and B convertible preferred stock or common stock, other than for dividends payable in only common stock. Holders of Series A and B convertible preferred stock shall be entitled to receive dividends, when and if declared, in preference and priority to any declaration or payment of dividends to holders of common stock, other than for dividends payable in only common stock. Payments of any dividends to the holders of Series A and B convertible preferred stock shall be on a pro rata, pari passu basis in proportion to the entitled dividend rates for these respective series, as applicable. No dividends have been declared or paid through December 31, 2009.

Liquidation Preferences

In the event of a liquidation, dissolution, or winding up of the Company, holders of Series E convertible preferred stock shall be entitled to receive a liquidation preference of \$24.22 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of Series A, B, C, or D convertible preferred stock or common stock.

After payment to the holders of Series E convertible preferred stock, holders of Series D convertible preferred stock shall be entitled to receive a liquidation preference of \$16.95 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of Series A, B, or C convertible preferred stock or common stock.

After payment to the holders of Series D convertible preferred stock, holders of Series C convertible preferred stock shall be entitled to receive a liquidation preference of \$15.62 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of Series A or B convertible preferred stock or common stock.

After payment to the holders of Series C convertible preferred stock, holders of Series B convertible preferred stock shall be entitled to receive a liquidation preference of \$10.77 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of Series A convertible preferred stock or common stock.

After payment to the holders of Series B convertible preferred stock, holders of Series A convertible preferred stock shall be entitled to receive a liquidation preference of \$6.66 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of common stock.

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A change of control or a sale, transfer, or lease of all or substantially all of the assets of the Company is considered to be a liquidation event.

After the payment to the holders of convertible preferred stock of their respective liquidation preferences, the entire remaining assets of the Company shall be distributed on a pro rata basis to the holders of common stock.

Voting Rights

Holders of convertible preferred stock are entitled to the number of votes they would have upon conversion of their convertible preferred stock into common stock on the applicable record date. So long as 330,305 shares of Series D convertible preferred stock remain outstanding, the holders of Series D convertible preferred stock are entitled to elect two members to the Company's Board of Directors, and so long as 330,305 shares of Series C convertible preferred stock remain outstanding, the holders of Series C convertible preferred stock are entitled to elect three members to the Board of Directors. The holders of Series A, B, and E convertible preferred stock and the holders of common stock, voting together as a single class, are entitled to elect any additional members to the Board of Directors.

10. Stock-Based Compensation

2009 Equity Incentive Plan

On April 30, 2009, the Company's Board of Directors adopted the 2009 Equity Incentive Plan (the 2009 Plan) under which incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock and restricted stock units may be granted to Company employees, officers, directors, and consultants.

Incentive stock options and nonstatutory stock options granted under the 2009 Plan expire no later than ten years from the date of grant. The exercise price of each option granted to a participant shall be at least 110% of the fair value of the underlying common stock on the date of grant if, on the grant date, the participant owns stock representing more than 10% of the voting power of all classes of the Company's capital stock; otherwise, the exercise price shall be at least 100% of the fair value of the underlying common stock on the date of grant. The estimated fair value of the underlying common stock shall be determined by the Board of Directors until such time as the Company's common stock is listed on any established stock exchange or national market system. Generally, outstanding options vest at a rate of 25% on the first anniversary of the option grant date and ratably each month over the remaining 36 month period. The Company may grant options with different vesting terms from time to time.

The exercise price of each stock appreciation right shall be determined by the Board of Directors but will be no less than 100% of the estimated fair value of the underlying common stock on the date of grant. The stock appreciation rights expire upon the date determined by the Board of Directors but no later than ten years from the date of grant.

Restricted stock may have certain terms and conditions set by the Board of Directors. The Company will hold the shares of restricted stock until the restrictions on such shares have elapsed.

The Board of Directors sets the terms, conditions, and restrictions related to the grant of restricted stock units, including the number of restricted stock units to grant. The Board of Directors also sets vesting criteria and depending on the extent the criteria are met, the Board of Directors will determine the number of restricted stock units to be paid out.

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The Company has no outstanding stock appreciation rights, restricted stock or restricted stock units as of December 31, 2009.

1999 Stock Option Plan

The Company's 1999 Stock Option Plan (the 1999 Plan) expired in 2009. Options granted or shares issued under the 1999 Plan that were outstanding on the date the 2009 Plan became effective will remain subject to the terms of the 1999 Plan.

As of December 31, 2009, the 2009 Plan had a total of 1,813,262 shares of common stock authorized for issuance.

Activity under the 2009 Plan and the 1999 Plan is as follows (in thousands, except per share amounts):

	Shares Available for Grant	Outstanding Options	
		Number of Shares	Weighted-Average Exercise Price per Share
Balance as of January 1, 2007	146	998	\$ 3.15
Additional shares authorized	330	—	
Options granted	(338)	338	9.27
Options exercised	—	(42)	2.98
Options canceled	60	(60)	4.00
Balance as of December 29, 2007	198	1,234	4.79
Additional shares authorized	330	—	
Options granted	(460)	460	18.18
Options exercised	—	(52)	3.34
Options canceled	319	(319)	4.50
Balance as of December 27, 2008	387	1,323	9.58
Additional shares authorized	578	—	
Options granted(1)	(1,119)	1,119	4.38
Options exercised	—	(20)	2.32
Options canceled(1)	881	(881)	12.73
Balance as of December 31, 2009	<u>727</u>	<u>1,541</u>	4.10

(1) The number of options granted and canceled includes options granted and canceled in connection with the Exchange (see below).

Options exercised as reflected in the table above exclude options that were exercised prior to vesting. These exercised but unvested shares generally vest over a four-year period. There were 1,979 and 396 unvested shares as of December 27, 2008 and December 31, 2009, respectively, which are subject to a repurchase option held by the Company at the original exercise price and are not deemed to be issued until those shares vest.

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The Company determines stock-based compensation expense using the Black-Scholes option-pricing model and the following weighted-average assumptions (excluding options granted in connection with the Exchange discussed below):

	2007	2008	2009
Expected volatility	63.0%	53.8%	59.1%
Expected life	6.0 years	6.0 years	5.7 years
Risk-free interest rate	4.4%	3.2%	2.4%
Dividend yield	0%	0%	0%
Weighted-average fair value of options granted	\$ 5.57	\$ 9.83	\$ 2.32

Expected volatility is derived from the historical volatilities of several unrelated public companies within the life sciences industry. Each company's historical volatility is weighted based on certain qualitative factors and combined to produce a single volatility factor used by the Company. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the option's expected life. Given the limited history to accurately estimate expected lives of options granted to the various employee groups, the Company used the "simplified" method. The "simplified" method is calculated as the average of the time-to-vesting and the contractual life of the options. For the expected lives of options not at-the-money, as used in determining the incremental value of modified options (see discussion of Exchange below), the lattice model was used. Forfeitures were estimated based on an analysis of actual forfeitures, and the Company periodically evaluates the adequacy of its forfeiture rate based on actual forfeiture experience, analysis of employee turnover, and other factors. The impact of a forfeiture rate adjustment is recognized in full in the period of adjustment, and if the actual number of future forfeitures differs from that estimated by the Company, the Company may be required to record adjustments to stock-based compensation expense in future periods. Adjustments to forfeiture rates have not had a significant impact on any of the periods presented herein. Each of these inputs is subjective and generally requires significant judgment by the Company.

The Company grants stock options at exercise prices not less than the estimated fair value of the Company's common stock at the date of grant. In the absence of an active market for its common stock, the Company's Board of Directors obtained contemporaneous valuations from an unrelated third-party valuation firm to determine the estimated fair value of common stock based on an analysis of relevant metrics such as the price of the most recent convertible preferred stock sales to outside investors, the rights, preferences, and privileges of the convertible preferred stock, the Company's operating and financial performance, the hiring of key personnel, the introduction of new products, the lack of marketability and additional factors relating to the Company's business.

Information regarding the Company's stock option grants during fiscal 2009 including, grant date; the number of stock options issued with each grant; and the exercise price, is summarized as follows (in thousands, except per share amounts):

<u>Grant Date</u>	<u>Number of Options Granted</u>	<u>Exercise Price and Fair Value per Share of Common Stock</u>
December 29, 2008	17	\$ 6.59
November 17, 2009	301	\$ 4.08
December 23, 2009(2)	801	\$ 4.45

(2) Represents options granted in connection with the Exchange discussed below.

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
December 31, 2009

Additional information regarding the Company's stock options outstanding and exercisable as of December 31, 2009 is summarized in the following table:

<u>Exercise Price Per Share</u>	<u>Options Outstanding</u>		
	<u>Number of Shares</u> (In Thousands)	<u>Weighted-Average Remaining Contractual Life</u> (In Years)	<u>Options Exercisable</u> (In Thousands)
\$0.92	12	0.4	12
\$1.82	116	3.1	116
\$2.42	25	4.2	25
\$3.39	260	5.2	260
\$4.08	298	9.9	85
\$4.45	801	7.8	727
\$5.03 - \$21.99	29	7.7	26
	<u>1,541</u>	7.3	<u>1,251</u>

Options exercisable as of December 31, 2009 had a weighted-average remaining contractual life of 6.8 years, a weighted-average exercise price per share of \$4.03, and an aggregate intrinsic value of \$701,000.

Options outstanding that have vested or are expected to vest as of December 31, 2009 are summarized as follows:

	<u>Number of Shares</u> (In Thousands)	<u>Weighted-Average Exercise Price per Share</u>	<u>Weighted-Average Remaining Contractual Life</u> (In Years)	<u>Aggregate Intrinsic Value(3)</u> (In Thousands)
Vested	936	\$ 3.82	6.4	\$ 701
Expected to vest	554	\$ 4.53	8.6	70
Total vested and expected to vest	<u>1,490</u>	\$ 4.08	7.3	<u>\$ 771</u>

(3) The aggregate intrinsic value was calculated as the difference between the exercise price of the options and the fair value of the Company's common stock of \$4.45 per share as of December 31, 2009.

The total intrinsic value of options exercised during 2007, 2008 and 2009 was \$259,000, \$857,000 and \$42,000, respectively.

In December 2009, the Company completed an offer to exchange (the Exchange) 801,000 employee stock options that were issued under the Company's 1999 Plan. Options with exercise prices ranging from \$5.03 to \$21.99 per share were exchanged on a one-for-one basis for new options with a lower exercise price of \$4.45 per share, the estimated fair value of common stock on the date of the Exchange as determined by the Company's Board of Directors. Options granted pursuant to the Exchange have a new vesting period that was determined by adding 3 months to the original vesting date of each exchanged option. The Exchange resulted in a modification cost totaling \$645,000 of which \$353,000 was recognized for the year ended December 31, 2009 with \$292,000 is being amortized over the new remaining vesting periods. These vesting periods range from three months to four years from the date of the Exchange.

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
December 31, 2009

There were no stock-based compensation tax benefits recognized during 2007, 2008 or 2009. Capitalized stock-based compensation costs were insignificant during 2007, 2008 and 2009.

As of December 31, 2009, there was \$2,692,000 of total unrecognized compensation cost related to stock-based compensation arrangements which is expected to be recognized over an average period of 2.2 years.

In February and April 2008, the Company granted 94,133 performance-based awards (the 2008 performance awards) to certain executives. These awards vest over an approximately four-year period based on continuing service and were subject to accelerated vesting if specified corporate and departmental performance goals were met for the fiscal year ended December 27, 2008. Based upon achievement of departmental performance goals, the vesting of a total of 34,846 such shares was accelerated. In March 2009, the Compensation Committee of the Board of Directors accelerated the vesting of 28,240 options based upon the achievement of corporate performance goals. Stock-based compensation expense for these performance-based awards is recognized as expense over the requisite performance periods using an accelerated attribution method. The Company recognized \$505,000 and \$309,000 of stock-based compensation expense during 2008 and 2009, respectively, relating to performance-based awards.

In November 2009, the Company granted 89,017 performance-based awards (the 2009 performance awards) to certain executives with performance conditions substantially similar to the 2008 performance awards. Based on achievement of departmental goals, a total of 25,723 shares were accelerated in December 2009. Based on achievement of corporate goals, the vesting of a total of 27,150 shares was accelerated in December 2009. The Company recognized \$181,000 of stock-based compensation expense during 2009 relating to these 2009 performance awards.

Stock Options Granted to Nonemployees

The Company accounts for options granted to nonemployees under the fair value method. The fair value of these options was estimated using the Black-Scholes option-pricing model with the following assumptions for 2007, 2008 and 2009: risk-free interest rates of 2.0% to 5.0%, dividend yield of 0%, expected volatility of 54.7% to 66.3%, and an expected life of the options equal to the remaining contractual terms of one to ten years. Options granted to nonemployees are remeasured at each financial statement reporting date until the award is vested.

The Company granted options to nonemployees to purchase 38,976 and 3,303 shares of common stock during 2007 and 2008, respectively. No options to nonemployees were granted during 2009. As of December 27, 2008 and December 31, 2009, there were 10,161 and 8,550 unvested options held by nonemployees with a weighted-average exercise price of \$13.81 and \$6.16, respectively, and an average remaining vesting period of 2.6 and 1.8 years, respectively.

11. Income Taxes

The Company's net loss before (provision) benefit for income taxes is as follows (in thousands):

	<u>2007</u>	<u>2008</u>	<u>2009</u>
Domestic	\$(23,267)	\$(29,520)	\$(21,735)
International	(2,079)	(126)	2,557
Net loss before (provision) benefit for income taxes	<u>\$(25,346)</u>	<u>\$(29,646)</u>	<u>\$(19,178)</u>

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
December 31, 2009

Significant components of the Company's income tax (provision) benefit are as follows (in thousands):

	<u>2007</u>	<u>2008</u>	<u>2009</u>
Current:			
Federal	\$ —	\$ 55	\$ 68
State	—	—	(5)
Foreign	(105)	92	(13)
Total (provision) benefit for income taxes	<u><u>\$ (105)</u></u>	<u><u>\$ 147</u></u>	<u><u>\$ 50</u></u>

Reconciliation of income taxes at the statutory rate to the (provision) benefit for income taxes recorded in the statements of operations is as follows:

	<u>2007</u>	<u>2008</u>	<u>2009</u>
Tax benefit at federal statutory rate	34.0%	34.0%	34.0%
State income taxes (net of federal benefit)	0.0	0.0	0.0
Foreign	(3.0)	0.2	4.4
Change in valuation allowance	(31.4)	(34.0)	(38.5)
Other	0.0	0.3	0.4
Effective tax rate	<u><u>(0.4)%</u></u>	<u><u>0.5%</u></u>	<u><u>0.3%</u></u>

Significant components of the Company's deferred tax assets and liabilities are as follows at (in thousands):

	<u>December 27, 2008</u>	<u>December 31, 2009</u>
Deferred tax assets:		
Net operating loss carryforwards	\$ 58,850	\$ 64,676
Reserves and accruals	529	601
Depreciation and amortization	430	526
Tax credit carryforwards	4,795	5,343
Stock based compensation	632	969
Total deferred tax assets	65,236	72,115
Valuation allowance	(65,236)	(72,115)
Net deferred tax assets	<u><u>\$ —</u></u>	<u><u>\$ —</u></u>

The Company evaluates a number of factors to determine the realizability of its deferred tax assets. Recognition of deferred tax assets is appropriate when realization of these assets is more likely than not. Assessing the realizability of deferred tax assets is dependent upon several factors including the historic financial results. The Company has incurred losses since its inception; accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by \$9,570,000, \$12,489,000 and \$6,879,000 during 2007, 2008 and 2009, respectively.

As of December 31, 2009, the Company had net operating loss carryforwards for federal income tax purposes of \$169,568,000, which expire in the years 2019 through 2029, and federal research and development tax credits of \$3,648,000, which expire in the years 2019 through 2029. As of December 31, 2009, the Company had net operating loss carryforwards for California state income tax purposes of \$133,019,000, which expire in

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
December 31, 2009

the years 2014 through 2029, state research and development tax credits of \$3,901,000, which do not expire, and California manufacturer's investment credit of \$127,000, which expires beginning in 2012. In addition, the Company has approximately \$26,000,000 in other state net operating loss carryovers which have various expiration dates from 2010 through 2029. As of December 31, 2009, the Company had foreign net operating loss carryforwards of \$2,711,000. A significant portion of the foreign net operating losses relate to activity in Japan and have a seven year carryforward with various expiration dates.

Utilization of the net operating loss carryforwards and credits may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization. If an ownership change has occurred, the utilization of net operation loss and credit carryforwards could be significantly reduced.

The Company has not provided for U.S. federal and state income taxes on all of the non-U.S. subsidiaries' undistributed earnings as of December 31, 2009, because such earnings are intended to be indefinitely reinvested. Upon distribution of those earnings in the form of dividends or otherwise, the Company would be subject to applicable U.S. federal and state income taxes. Undistributed earnings of the Company's foreign subsidiaries amounted to approximately \$500,000 at December 31, 2009.

Uncertain Tax Positions

Effective January 1, 2007, the Company adopted new accounting guidance related to the recognition, measurement and presentation of uncertain tax positions. As a result, in 2007 the Company recorded a liability for net unrecognized tax benefits of \$75,000, and recognized a cumulative effect of a change in accounting principle that resulted in a charge to the accumulated deficit. The liability for unrecognized tax benefits is classified as non-current.

The aggregate changes in the balance of the Company's gross unrecognized tax benefits during 2007, 2008 and 2009 were as follows (in thousands):

January 1, 2007	\$1,157
Increases in balances related to tax position taken during current periods	765
December 29, 2007	1,922
Increases in balances related to tax position taken during current periods	1,465
Decreases in balances related to tax position taken during prior periods	(130)
December 27, 2008	3,257
Increases in balances related to tax position taken during current periods	1,512
Decreases in balances related to tax position taken during prior periods	(18)
December 31, 2009	<u>\$4,751</u>

Accrued interest and penalties related to unrecognized tax benefits are classified as income tax expense and were immaterial.

As of December 31, 2009, unrecognized tax benefits of \$67,000, if recognized, would affect the Company's effective tax rate. The remaining unrecognized tax benefits are netted against deferred tax assets with a full valuation allowance, and if recognized, would not affect the Company's effective tax rate. The Company does

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
December 31, 2009

not anticipate existing unrecognized tax benefits will significantly increase or decrease within the next 12 months. The Company files income tax returns in the United States, various states, and certain foreign jurisdictions. As a result of our net operating loss carryforwards, all of our tax years are subject to federal and state tax examination.

12. Employee Benefit Plans

The Company sponsors a 401(k) plan that stipulates that eligible employees can elect to contribute to the plan, subject to certain limitations, up to the lesser of 60% of eligible compensation or the maximum amount allowed by the IRS. The Company has not made contributions to this plan since its inception.

13. Related-Party Transactions

As discussed in Note 7, the Company entered into multiple convertible note purchase agreements with BMSIF pursuant to which the Company issued convertible notes and received total proceeds of \$23.0 million. Principal and interest on these notes was converted into shares of Series D and Series E convertible preferred stock.

BMSIF and its related companies held 1,557,648 shares of the Company's convertible preferred stock as of December 31, 2009, which constitutes 11% of the outstanding shares on a fully diluted basis. In addition, the Company's manufacturing operations in Singapore, which commenced in October 2005, have been supported by grants from EDB, which provide incentive payments for research, development, and manufacturing activity in Singapore by the Company. These agreements are discussed in Note 3.

As discussed in Note 7, the Company entered into a convertible Note and Warrant Purchase Agreement (Note) with its existing investors to provide the Company with cash proceeds of \$10,667,000. In connection with the Note, the Company issued warrants to purchase 220,207 shares of Series E convertible preferred stock at \$24.22 per share (see Note 8). In November 2009, the Note's outstanding principal and accrued interest was converted into 455,525 shares of Series E convertible preferred stock.

In January 2004, the Company loaned \$250,000 to an officer of the Company in connection with the purchase of a new home. The outstanding principal and interest payable under the loan of \$287,000 was settled in full on April 10, 2008 in exchange for 15,014 shares of the Company's common stock that were owned by the officer. The shares were valued at \$19.31 per share as determined by the Company's Board of Directors in April 2008.

Dr. Stephen Quake, who is a professor of bioengineering at Stanford University, is one of the Company's founding stockholders and held 384,290 shares of the Company's common stock as of December 27, 2008 and December 31, 2009. Dr. Quake serves as a consultant to the Company and is a member of the Company's Scientific Advisory Board. The Company paid consulting fees of \$67,000, \$117,000 and \$108,000 to Dr. Quake during 2007, 2008 and 2009, respectively, and accrued amounts payable to Dr. Quake related to these payments were \$17,000 and \$8,000 as of December 27, 2008 and December 31, 2009, respectively.

The Company's general counsel was a member of a law firm whose services are utilized by the Company. On April 1, 2008, the Company's general counsel resigned his position from such law firm. Amounts paid to the law firm for services and patent fees were \$576,000, and \$180,000 for 2007 and the period from January 1 through April 1, 2008, respectively.

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
December 31, 2009

The following table represents the related party balances and transactions included in the Company's consolidated balance sheets and consolidated statements of operations (in thousands):

	<u>December 27, 2008</u>	<u>December 31, 2009</u>
Balance Sheet		
Accounts receivable	\$ 328	\$ 666
Deferred revenue, current portion	241	112
Deferred revenue, net of current portion	137	32
	<u>2007</u>	<u>2008</u>
Statement of Operations		
Grant revenue	\$ 1,758	\$ 1,654
Research and development	100	100
Selling, general and administrative	660	729
Interest expense	1,286	417

14. Information About Geographic Areas

The Company determined that it has a single reporting segment and operating unit structure, which is the development, manufacturing, and commercialization of microfluidic systems for the life science and Ag-Bio industries.

The following table represents the Company's product revenue by geography based on the billing address of the Company's customers for each year presented (in thousands):

	<u>2007</u>	<u>2008</u>	<u>2009</u>
United States	\$ 2,426	\$ 6,912	\$ 12,630
Europe	735	3,172	4,885
Japan	732	1,645	3,172
Asia Pacific	558	1,431	2,162
Other	—	204	750
Total	<u>\$ 4,451</u>	<u>\$ 13,364</u>	<u>\$ 23,599</u>

The Company's grant revenue is primarily generated in Singapore and collaboration revenue is primarily generated in the United States.

The following table represents long-lived assets by geographic area (in thousands):

	<u>December 27, 2008</u>	<u>December 31, 2009</u>
United States	\$ 1,223	\$ 922
Singapore	1,548	1,005
Japan	6	3
Total	<u>\$ 2,777</u>	<u>\$ 1,930</u>

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
December 31, 2009

15. Subsequent Events**Collaboration Agreement**

Under a collaboration agreement to develop a new product, the Company received an up-front payment of \$750,000 in May 2010. The up-front payment is being recognized on a straight-line basis over a period of fifteen months. The agreement provides for milestone payments for the design and development of product prototypes. These product prototypes were not previously produced by the Company and the achievement of these and future milestones was uncertain at the time the Company entered into the agreement. Accordingly, milestone revenues have been and are expected to be recognized as the Company achieves each milestone. The Company achieved two milestones and received two milestone payments totaling \$750,000 in September 2010.

Amendment of Long-Term Debt Agreement

In June 2010, the Company amended the 2009 Agreement (see Note 5) (the 2010 Amendment). The 2010 Amendment extended the maturity date of the existing agreement to February 2013. The loan continues to bear interest at 13.5% per annum with interest only payments due monthly through February 2011. Commencing in March 2011, the Company will begin making monthly payments of \$612,000 for principal and interest with an additional payment of \$2,263,000 due in March 2012. The additional payment is being accreted as interest expense using the effective interest method through the extended maturity date of February 2013. The 2010 Amendment is being accounted for as a modification as the terms of the 2010 Amendment were not substantially different from the terms of the 2009 Agreement. The 2010 Amendment requires a prepayment fee of 1.0% of the outstanding principal amount being prepaid. In connection with the 2010 Amendment, the Company issued a new warrant to purchase 57,784 shares of Series E-1 convertible preferred stock at \$12.11 per share. The fair value of this warrant resulted in additional debt discount of \$63,000, which is being amortized as interest expense over the expected life of the borrowing. In addition, the Company reduced the exercise price of all of the warrants previously issued to the lender to \$12.11 per share and extended the term of one of the warrants. As a result, these warrants were revalued resulting in additional debt discount of \$62,000 that is being amortized over the expected remaining life of the borrowing.

After considering the effects of the 2010 Amendment, the scheduled principal payments under the Company's long-term debt obligations as of December 31, 2009 are as follows (in thousands):

Years ending December 31:	
2010	\$ —
2011	4,645
2012	8,823
2013	1,218
Total principal payments due in future periods	14,686
Less debt discount	(225)
	<u>\$14,461</u>

The balance sheet classification of long-term debt at December 31, 2009 reflects the payments due under the 2010 Amendment.

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
December 31, 2009

Warrant Conversion

In July 2010, the Company offered holders of convertible preferred stock warrants with exercise prices greater than \$12.11 per share an opportunity to amend their eligible warrants by lowering the exercise price of the warrants to \$12.11 per share. The amended warrants would be exercisable for shares of new Series E-1 convertible preferred stock and would receive an equal number of shares of the Company's common stock for each warrant exercised, subject to the warrant holder's agreement to immediately exercise the warrants in full and for cash. The offer expired on August 16, 2010. Warrants to purchase 57,724 shares of Series E-1 convertible preferred stock at \$24.22 were amended. The Company received proceeds of \$699,000 and issued 57,724 shares of Series E-1 convertible preferred stock and 57,724 shares of common stock.

Operating Lease

In September 2010, the Company terminated its existing lease agreement and entered into a new lease for its headquarters in South San Francisco, California. The new lease expires in April 2015 and includes a renewal option for an additional three years. The Company received a \$360,000 lease incentive payment which will be recognized as a reduction of rent expense on a straight-line basis over the term of the new lease.

After considering the effects of the new office lease, the future minimum lease payments under noncancelable operating leases as of December 31, 2009 are as follows (in thousands):

Years ending December 31:	
2010	\$1,509
2011	999
2012	898
2013	835
2014	835
2015	281
Total minimum payments	<u>\$5,357</u>

Singapore EDB Grant

As described in Note 3, in October 2005, the Company entered into a letter agreement with EDB providing for up to SG\$10.0 million (approximately US\$7.1 million using the December 31, 2009 exchange rate) in grants from EDB. In July 2010, Fluidigm Singapore submitted its final progress report and evidence of achievement of its development targets under the letter agreement. In September 2010, the Company received confirmation from EDB that all of its obligations under the letter agreement had been met, and in October 2010, received its final grant payment.

FLUIDIGM CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)

	December 31, 2009 (Note 1)	September 30, 2010 (Unaudited)	Pro forma as of September 30, 2010 (Unaudited)
ASSETS			
Current assets:			
Cash and cash equivalents	\$ 14,602	\$ 5,083	
Accounts receivable (net of allowances of \$103 and \$467 at December 31, 2009 and September 30, 2010, respectively)	8,690	6,886	
Inventories	3,945	5,568	
Prepaid expenses and other current assets	1,246	723	
Total current assets	28,483	18,260	
Restricted cash	256	125	
Property and equipment, net	1,930	2,169	
Investment	1,340	1,340	
Other assets	144	196	
Total assets	\$ 32,153	\$ 22,090	
LIABILITIES, CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT			
Current liabilities:			
Accounts payable	\$ 2,224	\$ 1,805	
Accrued compensation and related benefits	1,343	2,064	
Other accrued liabilities	2,188	2,667	
Deferred revenue, current portion	758	1,490	
Long-term debt, current portion	—	3,020	
Convertible preferred stock warrants	616	397	\$ —
Total current liabilities	7,129	11,443	
Deferred revenue, net of current portion	258	454	
Long-term debt, net of current portion	14,461	11,590	
Other liabilities	79	449	
Total liabilities	21,927	23,936	
Commitments and contingencies			
Convertible preferred stock issuable in series: \$0.001 par value, 11,562 shares authorized, 10,239 and 10,297 shares issued and outstanding as of December 31, 2009 and September 30, 2010, respectively; aggregate liquidation preference of \$188,948 as of September 30, 2010, no shares authorized, issued or outstanding pro forma (unaudited)	183,845	184,549	—
Stockholders' deficit:			
Common stock: \$0.001 par value, 16,909 shares authorized, 1,862 and 1,934 shares issued and outstanding as of December 31, 2009 and September 30, 2010, respectively; 13,415 shares issued and outstanding pro forma (unaudited)	2	2	13
Additional paid-in capital	9,308	10,604	195,539
Accumulated other comprehensive loss	(504)	(752)	(752)
Accumulated deficit	(182,425)	(196,249)	(196,249)
Total stockholders' deficit	(173,619)	(186,395)	\$ (1,449)
Total liabilities, convertible preferred stock and stockholders' deficit	\$ 32,153	\$ 22,090	

See accompanying notes.

FLUIDIGM CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Nine Months Ended September 30,	
	2009	2010
	(Unaudited)	
Revenue:		
Product revenue	\$ 16,369	\$ 20,883
Collaboration revenue	—	975
Grant revenue (includes grant revenue from related party of \$1,226 and \$1,069 for the nine months ended September 30, 2009 and 2010, respectively)	1,420	1,347
Total revenue	<u>17,789</u>	<u>23,205</u>
Costs and expenses:		
Cost of product revenue	8,404	7,999
Research and development	9,249	10,097
Selling, general and administrative	14,386	17,672
Total costs and expenses	<u>32,039</u>	<u>35,768</u>
Loss from operations	(14,250)	(12,563)
Interest expense	(1,849)	(1,620)
Gain from changes in the fair value of convertible preferred stock warrants, net	180	210
Interest income	33	7
Other income (expense), net	189	284
Loss before income taxes	(15,697)	(13,682)
Provision for income taxes	(3)	(142)
Net loss	<u>\$ (15,700)</u>	<u>\$ (13,824)</u>
Net loss per share of common stock, basic and diluted	<u>\$ (9.24)</u>	<u>\$ (7.37)</u>
Shares used in computing net loss per share of common stock, basic and diluted	<u>1,699</u>	<u>1,876</u>
Pro forma net loss per share available to common stockholders, basic and diluted (unaudited)		<u>\$ (1.97)</u>
Shares used in computing pro forma net loss per share available to common stockholders, basic and diluted (unaudited)		<u>12,124</u>

See accompanying notes.

FLUIDIGM CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Nine Months Ended September 30,	
	2009	2010
	(Unaudited)	
Operating activities		
Net loss	\$(15,700)	\$(13,824)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,283	890
Stock-based compensation expense	1,233	1,266
Gain from changes in the fair value of convertible preferred stock warrants, net	(180)	(148)
Gain on sales of property and equipment	(29)	—
Amortization of debt discount and issuance cost	226	274
Changes in assets and liabilities:		
Accounts receivable	(3,057)	1,511
Inventories	2,207	(1,642)
Prepaid expenses and other assets	218	472
Accounts payable	(701)	(419)
Deferred revenue	(726)	927
Other liabilities	838	1,446
Net cash used in operating activities	(14,388)	(9,247)
Investing activities		
Proceeds from disposal of property and equipment	36	—
Purchases of property and equipment	(646)	(1,130)
Restricted cash	—	131
Net cash used in investing activities	(610)	(999)
Financing activities		
Proceeds from issuance of convertible promissory notes, net of issuance costs	10,510	—
Proceeds from exercise of stock options	53	31
Proceeds from exercise of convertible preferred stock warrants and issuance of convertible preferred stock, net of issuance costs	—	633
Repayment of long-term debt	(1,034)	—
Net cash provided by financing activities	9,529	664
Effect of exchange rate changes on cash and cash equivalents	48	63
Net decrease in cash and cash equivalents	(5,421)	(9,519)
Cash and cash equivalents at beginning of period	17,796	14,602
Cash and cash equivalents at end of period	\$ 12,375	\$ 5,083
Supplemental disclosures of cash flow information		
Cash paid for interest	\$ 1,364	\$ 1,327
Issuance of convertible preferred stock warrants in connection with amendment of long-term debt agreement	\$ 76	\$ 63
Issuance of convertible preferred stock warrants in connection with issuance of convertible promissory notes	\$ 262	\$ —
Extinguishment of convertible preferred stock warrants as part of preferred stock warrant exchange and exercise	\$ —	\$ 72

See accompanying notes.

FLUIDIGM CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
September 30, 2010
(Unaudited)

1. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles for interim financial information. These financial statements were prepared following the requirements of the Securities and Exchange Commission (SEC) for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by U.S. generally accepted accounting principles (GAAP) can be condensed or omitted. These financial statements have been prepared on the same basis as the Company's annual financial statements and, in the opinion of management, reflect all adjustments (consisting only of normal recurring adjustments) that are necessary for a fair presentation of the Company's financial position as of September 30, 2010 and its results of operations and cash flows for the nine months ended September 30, 2009 and 2010. The results of operations for the nine months ended September 30, 2010 are not necessarily indicative of the results to be expected for the year ending December 31, 2010 or for any other interim period or for any other future year.

The preparation of these condensed consolidated financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures. On an ongoing basis, the Company evaluates its estimates, including critical accounting policies or estimates related to revenue recognition, income tax provision, stock-based compensation, inventory valuation, and warrants to purchase convertible preferred stock. The Company bases its estimates on historical experience and on various relevant assumptions that the Company believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ significantly from these estimates.

The condensed consolidated balance sheet data as of December 31, 2009 was derived from the audited consolidated financial statements included elsewhere in this prospectus. These interim financial statements should be read in conjunction with the audited consolidated financial statements and the related notes thereto for the year ended December 31, 2009.

Going Concern

The accompanying consolidated financial statements have been prepared assuming the Company will continue as a going concern. The Company has incurred recurring losses and operating cash flow deficiencies. As of September 30, 2010, the Company had a total stockholders' deficit of \$196.2 million. The Company has historically experienced negative cash flows from operating activities as it has expanded its business and built its infrastructure and this may continue in the future. If the Company's cash resources are insufficient to satisfy its future cash requirements, the Company may be required to issue convertible debt or equity to raise additional capital. If the Company raises additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to its technologies or its products, or grant licenses on terms that are not favorable to the Company.

The Company is exploring its financing alternatives. If the Company is unable to raise adequate funds, it may have to liquidate some or all of its assets, or delay, reduce the scope of or eliminate some or all of its development programs. If the Company does not have, or is not able to obtain, sufficient funds, it may have to delay development or commercialization of its products or license to third parties the rights to commercialize products or technologies that it would otherwise seek to commercialize. In addition, the Company may have to

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reduce marketing, customer support or other resources devoted to its products or cease operations. Any of these factors could harm the Company's operating results.

The Company may be unable to raise additional capital or to do so on terms that are favorable, depending upon capital market and overall economic conditions. Sale of convertible debt securities or additional equity could result in substantial dilution to the Company's stockholders.

These factors raise substantial doubt about the Company's ability to continue as a going concern. The accompanying financial statements do not include any adjustments that might result from the outcome of these uncertainties.

Subsequent Events

The Company has evaluated subsequent events after the balance sheet date of September 30, 2010 through the date of the filing of Amendment No. 3 to the Registration Statement on Form S-1 in which these condensed consolidated financial statements are included.

Pro Forma Presentation

The Company's board of directors has approved the filing of a registration statement on Form S-1 with respect to a proposed initial public offering of its common stock. The unaudited pro forma information as of September 30, 2010 contemplates the completion of this offering and the conversion of all outstanding shares of convertible preferred stock into shares of common stock and the reclassification of preferred stock warrant liabilities to additional paid-in capital at September 30, 2010. The pro forma information excludes any common stock that may be issued upon a public offering by the Company and any related net proceeds therefrom.

Comprehensive Loss

The Company's comprehensive loss consists primarily of net loss and foreign currency translation adjustments. For the nine months ended September 30, 2009 and 2010, comprehensive loss was \$576,000 and \$752,000, respectively.

Net Loss and Pro Forma Net Loss per Share of Common Stock

The Company's basic net loss per share of common stock is calculated by dividing net loss by the weighted-average number of shares of common stock outstanding for the period. The weighted-average number of shares of common stock used to calculate the Company's basic net loss per share of common stock excludes shares subject to repurchases related to stock options that were exercised prior to vesting, as such shares are not deemed to be issued until the related stock options vest. Diluted net loss per share of common stock is computed by dividing net loss by the weighted-average number of potential common shares outstanding for the period as determined using the treasury-stock method. For purposes of this calculation, convertible preferred stock, options to purchase common stock, common stock subject to repurchase, warrants to purchase convertible preferred stock, and shares of convertible preferred stock subject to conversion of the Company's convertible promissory notes are considered to be potential common shares but have been excluded from the calculation of diluted net loss per share of common stock, as their effect is anti-dilutive.

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The following potential common shares were excluded from the computation of diluted net loss per share of common stock for the interim periods presented because including them would have been anti-dilutive (in thousands).

	<u>September 30,</u>	
	<u>2009</u>	<u>2010</u>
Convertible preferred stock	9,473	10,297
Options to purchase common stock	1,265	1,847
Warrants to purchase convertible preferred stock	387	387
Convertible promissory notes convertible into shares of convertible preferred stock	456	—

Pro forma basic and diluted net loss per share of common stock have been computed to give effect to the conversion of convertible preferred stock into common stock. Also, the numerator in the pro forma basic and diluted net loss per share calculation has been adjusted to remove gains and losses resulting from changes in the fair value of convertible preferred stock warrants as these will become warrants to purchase shares of the Company's common stock upon a qualifying initial public offering. The following table reconciles the calculation of pro forma net loss per share (in thousands, except per share amounts):

	<u>Nine months ended</u> <u>September 30,</u> <u>2010</u>
Pro Forma:	
Numerator:	
Net loss	\$ (13,824)
Change in fair value of convertible preferred stock warrants	(148)
Deemed dividend due to change in conversion price of Series E convertible preferred stock (Note 12)	(9,900)
Net loss used in computing pro forma net loss per share available to common stockholders, basic and diluted	<u>\$ (23,872)</u>
Denominator:	
Shares used in computing net loss per share available to common stockholders, basic and diluted	1,876
Pro forma adjustments to reflect assumed conversion of convertible preferred stock	10,248
Shares used in computing pro forma net loss per share available to common stockholders, basic and diluted	<u>12,124</u>
Pro forma net loss per share available to common stockholders, basic and diluted	<u>\$ (1.97)</u>

Investment

The Company has a minority equity investment that is accounted for under the cost method of accounting. Under the cost method of accounting, investments in equity securities are carried at cost and are adjusted only for other-than-temporary declines in value. No such declines have been identified through September 30, 2010.

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2. Collaboration and Grant Agreements

Collaboration Agreement

Under a collaboration agreement to develop a new product, the Company received an up-front payment of \$750,000 in May 2010. The up-front payment is being recognized on a straight-line basis over a period of fifteen months. The agreement provides for milestone payments for the design and development of product prototypes. These product prototypes were not previously produced by the Company and the achievement of these and future milestones was uncertain at the time the Company entered into the agreement. Accordingly, milestone revenues have been and are expected to be recognized as the Company achieves each milestone. The Company achieved two milestones and received payments totaling \$750,000 in September 2010.

Grant Agreement

In October 2005, the Company entered into a letter agreement with the Singapore Economic Development Board (EDB) providing for up to S\$10.0 million (approximately US\$7.6 million using the September 30, 2010 exchange rate) in grants from EDB. In July 2010, Fluidigm Singapore submitted its final progress report and evidence of achievement of its development targets under the letter agreement. In September 2010, the Company received confirmation from EDB that all of its obligations under the letter agreement had been met and in October 2010, received its final grant payment.

3. Inventories

Inventories consist of the following (in thousands):

	December 31, 2009	September 30, 2010
Raw materials	\$ 1,944	\$ 2,018
Work-in-process	121	1,502
Finished goods	1,880	2,048
	<u>\$ 3,945</u>	<u>\$ 5,568</u>

4. Fair Value of Financial Instruments

The carrying values of the Company's financial instruments, including accounts receivable, restricted cash, and accounts payable, approximated their fair values due to the short period of time to maturity or repayment. As a basis for considering fair value, the Company follows a three-tier value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level I: observable inputs such as quoted prices in active markets;

Level II: inputs other than quoted prices in active markets that are observable either directly or indirectly; and

Level III: unobservable inputs in which there is little or no market data, which requires the Company to develop its own assumptions.

This hierarchy requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value. The Company's cash equivalents are classified as Level I because they are valued using quoted market prices. The Company's convertible preferred stock warrants are valued using Level III inputs, the valuation of which is discussed in Note 7.

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Changes in the value of convertible preferred stock warrants were as follows (in thousands):

	Nine months ended September 30,	
	2009	2010
Balance, beginning of period	\$ 141	\$ 616
Issuances	339	63
Exercises	—	(72)
Changes in fair value	(180)	(210)
Balance, end of period	<u>\$ 300</u>	<u>\$ 397</u>

Following are summaries of the Company's cash and cash equivalents (in thousands):

	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
As of September 30, 2010:				
Money market funds	\$ 432	\$ —	\$ —	\$ 432
Cash	4,651	—	—	4,651
	<u>\$ 5,083</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 5,083</u>
As of December 31, 2009:				
Money market funds	\$ 9,926	\$ —	\$ —	\$ 9,926
Notes from government-sponsored agencies	2,286	—	—	2,286
Cash	2,390	—	—	2,390
	<u>\$ 14,602</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 14,602</u>

5. Long-Term Debt

In June 2010, the Company amended the 2009 Agreement (the 2010 Amendment). The 2010 Amendment extended the maturity date of the existing agreement to February 2013. This loan continues to bear interest at 13.5% per annum with interest only payments due monthly through February 2011. Commencing in March 2011, the Company will begin making monthly payments of \$612,000 for principal and interest with an additional payment of \$2,263,000 due in March 2012. The additional payment is being accreted as interest expense using the effective interest method through the extended maturity date of February 2013. The 2010 Amendment requires a prepayment fee of 1.0% of the outstanding principal amount being prepaid. In connection with the 2010 Amendment, the Company issued a new warrant to purchase 57,784 shares of Series E-1 convertible preferred stock at \$12.11 per share. The fair value of this warrant resulted in additional debt discount of \$63,000 to be amortized as interest expense over the expected life of the borrowing. In addition, the Company reduced the exercise price of all the warrants previously issued to the lender to \$12.11 per share and extended the term of one of the warrants.

As of September 30, 2010, the Company was in compliance with all loan covenants or had obtained waivers through December 31, 2010 from the lender.

6. Commitments and Contingencies

Operating Lease

In September 2010, the Company terminated its existing lease agreement and entered into a new lease for its headquarters in South San Francisco, California. The new lease expires in April 2015 and includes a renewal

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option for an additional three years. Upon entering into the new lease, the Company received a \$360,000 lease incentive payment that will be recognized as a reduction of rent expense on a straight-line basis over the term of the new lease.

Future minimum lease payments under noncancelable operating leases are as follows (in thousands):

Years ending December 31:	
2011	\$ 999
2012	898
2013	835
2014	835
2015	281
Total minimum payments	<u>\$3,848</u>

7. Convertible Preferred Stock Warrants

In July 2010, the Company offered holders of preferred stock warrants with exercise prices greater than \$12.11 per share an opportunity to amend their eligible warrants by lowering the exercise price of the warrants to \$12.11 per share. The amended warrants would be exercisable for shares of Series E-1 stock and would receive one common share for each warrant exercised, subject to the warrant holder's agreement to immediately exercise the warrants in full and for cash. The rights, preferences, and other terms of the Series E-1 stock are identical to those of the Company's Series E stock, except the liquidation preference of the Series E-1 stock is \$12.11 per share. The offer expired in August 2010. Warrants to purchase 57,724 shares of Series E-1 stock at \$24.22 were amended. The Company received cash proceeds of \$699,000 and issued 57,724 shares of Series E-1 stock and 57,724 shares of common stock.

As of September 30, 2010, the Company had 386,698 outstanding warrants to purchase shares of convertible preferred stock with exercise prices ranging from \$12.11—\$24.22 per share. The Company accounts for convertible preferred stock warrants as liabilities that are recognized at fair value at each measurement date. The fair value of the Company's convertible preferred stock warrants was computed using the Black-Scholes option valuation method and the following weighted average assumptions:

	September 30, 2009	September 30, 2010
Expected volatility	69.8%	63.9%
Expected life (equals the remaining contractual term)	7.5 years	6.8 years
Risk-free interest rate	2.7%	2.2%
Dividend yield	0%	0%

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8. Stock-Based Compensation

During the nine months ended September 30, 2010, the Company granted 369,942 options at a weighted-average exercise price of \$4.45 per share and a weighted-average fair value of \$1.73 per share. These options vest over a four-year period.

Information regarding the Company's stock option grants since September 30, 2009 including grant date; the number of stock options issued with each grant; and the exercise price, which either equaled or was greater than the grant date fair value of the underlying common stock for each grant of stock options, is summarized as follows (in thousands, except per share amounts):

<u>Grant Date</u>	<u>Number of Options Granted</u>	<u>Exercise Price per Share</u>
November 17, 2009	301	\$ 4.08
December 23, 2009	801	4.45
January 28, 2010	57	4.45
May 6, 2010	149	4.45
August 6, 2010	164	4.45

The computation of the fair value of stock options and other equity instruments using the Black-Scholes option pricing model requires inputs such as the fair value of the Company's common stock. The Company performs contemporaneous valuations to determine the fair value of its common stock.

The Company recognized stock-based compensation expense of \$1,233,000 and \$1,266,000 during the nine months ended September 30, 2009 and 2010, respectively.

9. Income Taxes

Income tax expense for the nine months ended September 30, 2009 and September 30, 2010 was \$3,000 and \$142,000, respectively, and was comprised of state and foreign income and withholding taxes. The provision for income taxes for the periods differs from the 34% U.S. federal statutory rate primarily due to the recording of a valuation allowance for U.S. losses and tax assets which the Company does not consider to be realizable.

The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. At September 30, 2010, the Company had no material interest or penalties accrued related to uncertain tax positions.

As of December 31, 2009, the Company's unrecognized tax benefits balance was \$4,785,000. During the nine months ended September 30, 2010, the unrecognized tax benefits balance increased by \$588,000 to \$5,373,000. As of September 30, 2010, unrecognized tax benefits of \$81,000, if recognized, would affect the Company's effective tax rate. The remaining unrecognized tax benefits are netted against deferred tax assets with a full valuation allowance, and if recognized, would not affect the Company's effective tax rate.

10. Information About Geographic Areas

The Company has a single reporting segment and operating unit structure, which is the development, manufacturing, and commercialization of microfluidic systems for the life science and agricultural biotechnology industries.

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The following table presents the Company's product revenue by geography based on the billing address of the Company's customers for each period presented (in thousands).

	Nine months ended September 30,	
	2009	2010
United States	\$ 8,260	\$12,028
Europe	3,365	4,768
Japan	2,741	1,568
Asia Pacific	1,369	2,053
Other	634	466
Total	<u>\$16,369</u>	<u>\$20,883</u>

The Company's grant revenue is primarily generated in Singapore and collaboration revenue is primarily generated in the United States.

11. Related Party Transactions

The Company had related party receivables of \$666,000 and \$594,000 and related deferred revenue of \$144,000 and \$75,000 at December 31, 2009 and September 30, 2010, respectively, included in the accompanying condensed consolidated balance sheet. The accompanying condensed consolidated statements of operations also included the following related party transactions (in thousands):

	Nine months ended September 30,	
	2009	2010
Grant revenue	\$1,226	\$1,069
Research and development expenses	75	75
Interest expense	201	—

Grant revenue consists of amounts received from the Economic Development Board of Singapore, which is an affiliate of a shareholder of the Company.

12. Subsequent Events

Line of Credit

In December 2010, the Company entered into a bank line of credit agreement (the Line of Credit) that is collateralized by the Company's accounts receivable and provides the Company with the ability to borrow up to \$4.0 million, subject to certain covenants and other restrictions. The term of the Line of Credit is two years and it bears interest at the greater of 5.50% or the prime rate, as defined in the Line of Credit, plus 2.25% per year. As of December 31, 2010, the balance on the Line of Credit was \$3,125,000.

Amended and Restated Certificate of Incorporation

In January 2011, the Company amended and restated its Certificate of Incorporation. The amendment and restatement increased the total number of shares of stock authorized for issuance from 28,470,639 to 29,595,999,

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consisting of an increase in the number of shares of common stock authorized from 16,909,116 to 18,327,000 and a decrease in the number of shares of convertible preferred stock authorized from 11,561,523 to 11,268,999. The amendment also decreased the conversion price of the Series E convertible preferred stock from \$24.22 to \$18.63 per share. As a result, the Company will record a deemed dividend of approximately \$9,900,000 to reflect the fair value of the additional shares of common stock to be issued as a result of the change in conversion price of the Series E convertible preferred stock. The deemed dividend will be recognized in fiscal 2011 and will increase the net loss allocable to common stockholders in the calculation of basic and diluted net loss per common share. Future changes, if any, to the conversion price of the Company's convertible preferred stock or additional shares of common stock that may be issued if the automatic conversion of the Company's preferred stock is less than the liquidation preference of such stock, may result in additional deemed dividends to be recognized in future periods. The amendment also amended the conditions under which the Company's outstanding convertible preferred stock will automatically convert into common stock. All outstanding shares of convertible preferred stock will now convert into common stock automatically upon the closing of a firm commitment underwritten initial public offering pursuant to a registration statement filed under the Securities Act of 1933, as amended, in connection with which the Company raises aggregate gross proceeds of at least \$25,000,000. In addition, the outstanding convertible preferred stock will be converted into common stock upon the written consent or request for conversion of two-thirds of the outstanding shares of convertible preferred stock, provided that outside the context of an initial public offering, in no event will the Series E convertible preferred stock automatically be converted into common stock without the additional written consent of holders of more than two-thirds of the outstanding shares of Series E convertible preferred stock.

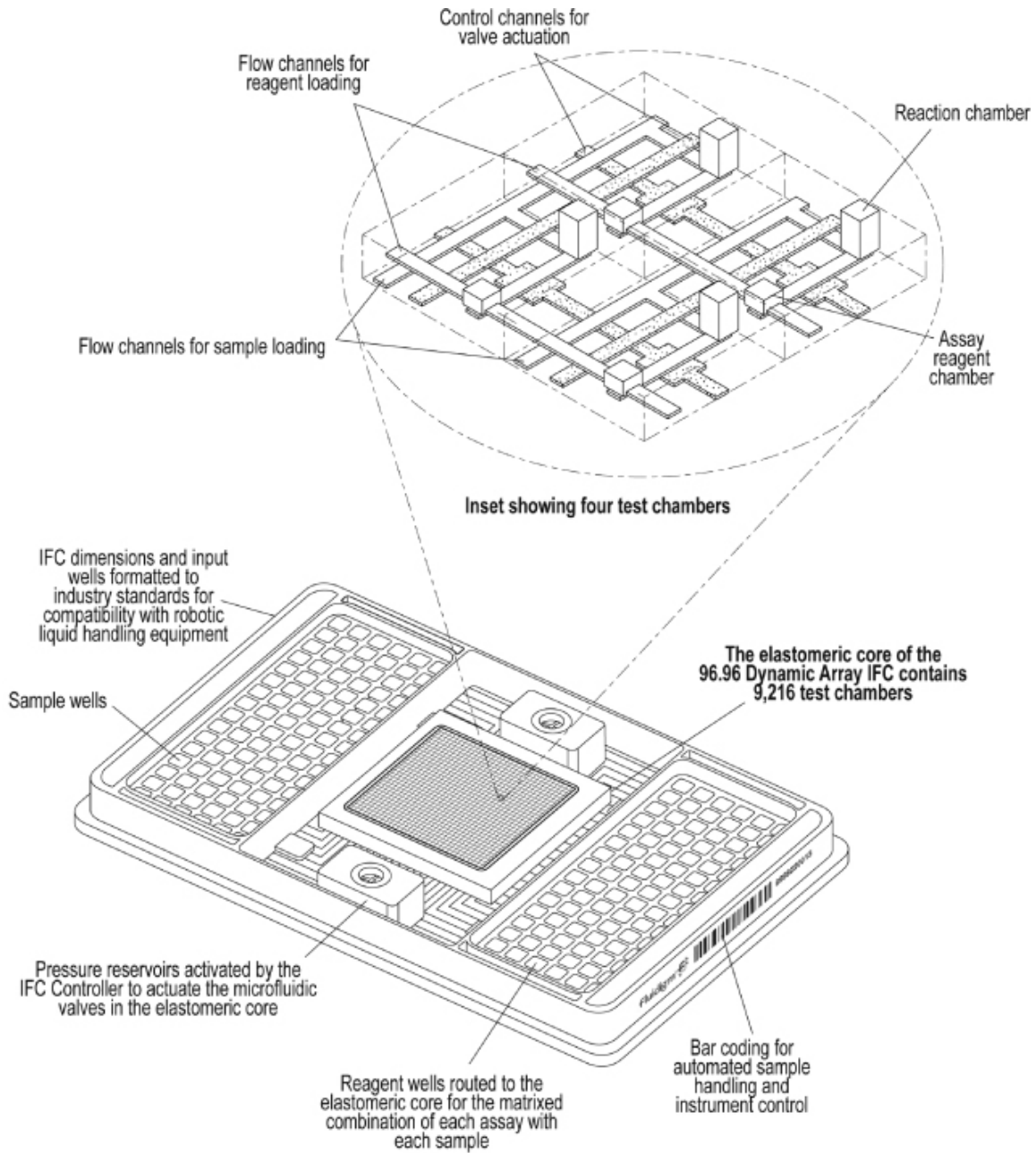
Note and Warrant Purchase Agreement

In January 2011, the Company entered into a Note and Warrant Purchase Agreement (the Note Agreement) with existing stockholders, including certain of the Company's officers, under which the Company issued subordinated secured promissory notes (the Notes) with an aggregate principal balance of \$5,000,000. The Company's obligations under the Notes are secured by the assets of the Company, excluding intellectual property, and are subordinated to senior indebtedness of the loan agreement entered into in March 2005, as amended and the Line of Credit. Notes issued under the Note Agreement mature on the earliest to occur of the closing of the next financing in which the Company issues and sells shares of capital stock of at least \$25,000,000, a change of control as defined in the Note Agreement, when, upon the occurrence and during the continuation of an event of default, such amounts are declared due and payable by the holders of a majority in outstanding principal amount of the Notes, or January 6, 2012 (the maturity date). Outstanding Notes bear interest at 8.0% per annum. In addition, in the event the Company consummates a change of control (as defined in the Note Agreement) prior to repayment of the Notes but after the six month anniversary of their issuance, each holder of a Note will be entitled to repayment of an amount equal to 2.5 times the outstanding principal amount of such Note, together with accrued and unpaid interest on the outstanding principal amount through the closing date of the change of control. In connection with the Note Agreement, the Company issued warrants to acquire a total of 103,182 shares of Series E-1 convertible preferred stock with an exercise price of \$0.02 per share. The number of shares of Series E-1 convertible preferred stock issuable under the warrants could increase to a maximum of 185,797 shares in the event the Notes remain outstanding on the six month anniversary of their issuance. The warrants expire at the earlier of January 6, 2021, an acquisition as defined in the Note Agreement, or immediately prior to the closing of a firm commitment underwritten initial public offering.

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Reverse Stock Split

In January 2011, the Company's board of directors approved an amended and restated certificate of incorporation effecting a 1 for 1.73 reverse stock split of the Company's issued and outstanding shares of common stock and convertible preferred stock, and changed the par value of the Company's common and preferred stock from \$0.0035 per share to \$0.001 per share. All issued and outstanding common stock, convertible preferred stock, options to purchase common stock, warrants to purchase convertible preferred stock, and per share amounts contained in the Company's financial statements have been retroactively adjusted to reflect this reverse stock split for all periods presented. Subject to stockholder approval, the reverse stock split will be effected prior to the effectiveness of a registration statement relating to the initial public offering of the Company's common stock.



Dynamic Array™ IFC Schematic





BIOMARK™ SYSTEM

Single-cell analysis
High throughput gene expression
Human and AgBio genotyping
Digital PCR
CNV analysis



EP1™ SYSTEM

Human and AgBio genotyping
Digital PCR
CNV analysis



ACCESS ARRAY™ SYSTEM

Next-generation sequencing target enrichment



PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all expenses to be paid by the registrant, other than estimated underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the SEC registration fee and the Financial Industry Regulatory Authority, or FINRA, filing fee.

SEC registration fee	\$6,150
FINRA filing fee	\$9,125
The NASDAQ Global Market listing fee	\$125,000
Printing and engraving expenses	\$100,000
Legal fees and expenses	\$1,350,000
Accounting fees and expenses	\$600,000
Blue sky fees and expenses (including legal fees)	\$20,000
Transfer agent and registrar fees	\$2,500
Miscellaneous expenses	\$37,225
Total	\$2,250,000

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law, or DGCL, authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

As permitted by Section 102(b)(7) of the Delaware General Corporation Law, the registrant's certificate of incorporation includes provisions that eliminate the personal liability of its directors and officers for monetary damages for breach of their fiduciary duty as directors and officers.

In addition, as permitted by Section 145 of the DGCL, the bylaws of the registrant provide that:

- The registrant shall indemnify its directors and officers for serving the registrant in those capacities or for serving other business enterprises as a director, officer, employee or agent at the registrant's request, to the fullest extent permitted by the DGCL. The DGCL provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful.
- The registrant may, in its discretion, indemnify employees and agents in those circumstances where indemnification is not prohibited by the DGCL or other law.
- The registrant is required to advance expenses, as incurred, to its directors and officers in connection with defending a proceeding, except that such director or officer shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification under the registrant's bylaws or the DGCL.
- The registrant will not be obligated pursuant to the bylaws to indemnify a person with respect to proceedings initiated by that person against the registrant or its directors, officers, employees, agents or other indemnities, except with respect to proceedings authorized by the registrant's Board of Directors prior to their initiation, or brought to enforce a right to indemnifications as otherwise required by applicable law.
- The rights conferred in the bylaws are not exclusive, and the registrant is authorized to enter into indemnification agreements with its directors, officers, employees and agents and to obtain insurance to indemnify such persons.

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- The registrant may not retroactively amend the bylaw provisions to reduce its indemnification obligations to directors, officers, employees and agents.

The registrant's policy is to enter into separate indemnification agreements with each of its directors and officers that provide the maximum indemnity allowed to directors and executive officers by Section 145 of the Delaware General Corporation Law and also provides for certain additional procedural protections. The registrant also maintains directors and officers insurance to insure such persons against certain liabilities.

These indemnification provisions and the indemnification agreements entered into between the registrant and its officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters of the registrant and its officers and directors for certain liabilities arising under the Securities Act and otherwise.

Item 15. Recent Sales of Unregistered Securities.

In the three years prior to the filing of this registration statement, the registrant has issued the following unregistered securities:

(a) From December 20, 2007 through June 11, 2010, the registrant issued and sold an aggregate of 90,014 shares of its common stock upon the exercise of options issued to certain employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, at exercise prices ranging from \$0.92 to \$14.54, for aggregate consideration of \$246,318.

(b) From December 28, 2007 through December 29, 2008, the registrant granted to certain of its employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 531,964 shares of its common stock at exercise prices ranging from \$6.60 to \$21.99 per share.

(c) From August 3, 2010 through August 30, 2010, the registrant issued and sold an aggregate of 3,726 shares of its common stock upon the exercise of options issued to certain employees, directors and consultants under the registrant's 2009 Equity Incentive Plan, as amended, at exercise prices ranging from \$4.09 to \$4.45, for aggregate consideration of \$16,388.

(d) From November 17, 2009 through January 24, 2011, the registrant granted to certain of its employees, directors and consultants under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 702,831 shares of its common stock at exercise prices ranging from \$4.09 to \$8.38 per share.

(e) From October 2007 through December 2007, the registrant issued and sold an aggregate of 1,452,508 shares of Series E preferred stock to a total of seven investors at \$24.22 per share, for aggregate proceeds of \$35,179,780.

(f) In December 2007, the registrant issued 990 shares of its common stock to one accredited investor at an issuance price of \$8.24 per share for aggregate monetary consideration of \$8,160, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(g) In December 2007, the registrant granted to one of its directors under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 16,515 shares of the registrant's common stock at an exercise price of \$14.54 per share.

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(h) In February 2008, in connection with an amendment to a loan and security agreement between the registrant and Lighthouse Capital Partners V, L.P., or LCP, the registrant issued a warrant to purchase 49,545 shares of the registrant's Series E preferred stock to LCP, or LCP, at an exercise price of \$24.22 per share.

(i) In February 2008, the registrant granted to one of its executive officers under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 99,090 shares of the registrant's common stock at an exercise price of \$14.54 per share.

(j) In April 2008, the registrant granted to 110 of its employees, consultants and directors under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 316,017 shares of its common stock at an exercise price of \$19.31 per share.

(k) On May 12, 2008, the registrant issued 2,712 shares of its Series C preferred stock to Imperial Bank pursuant to Imperial Bank's net exercise of its warrant to purchase up to 6,817 shares of Series C preferred stock. The remainder of the warrant was cancelled pursuant to the terms of the net exercise.

(l) In June 2008, the registrant granted to seven of its employees and consultants under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 14,119 shares of its common stock at an exercise price of \$20.71 per share.

(m) In August 2008, the registrant granted to eight of its employees under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 10,650 shares of its common stock at an exercise price of \$21.99 per share.

(n) In August 2009, the registrant issued and sold convertible promissory notes with an aggregate principal amount of \$10,666,814 and warrants to purchase an aggregate of 220,176 shares of the registrant's Series E preferred stock an exercise price of \$24.22 per share to a total of 100 accredited investors.

(o) In November 2009, the registrant issued and sold an aggregate of 765,186 shares of the registrant's Series E preferred stock to a total of 101 accredited investors at a purchase price of \$24.22 per share, for aggregate consideration of \$18,532,822, of which (i) \$11,032,826 was paid by the conversion of indebtedness of the registrant and interest accrued thereon, and (ii) \$7,499,996 was paid by cash payments to the registrant.

(p) In November 2009, the registrant granted to seven of its employees and consultants under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 108,985 shares of its common stock at an exercise price of \$4.09 per share.

(q) In December 2009, as part of a stock option exchange program, the registrant granted to 109 of its employees, directors and consultants under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 806,743 shares of the registrant's common stock at an exercise price of \$4.45 per share in exchange for the cancellation by such parties of stock options to purchase an equal number of shares of the registrant's common stock that were previously outstanding under the registrant's 1999 Stock Option Plan, as amended.

(r) In January 2010, the registrant granted to five of its directors under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 43,352 shares of its common stock at an exercise price of \$4.45 per share.

(s) In June 2010, in connection with an amendment to a loan and security agreement between the registrant and LCP, the registrant (i) amended and restated warrants previously issued to LCP and its affiliates to provide that the exercise price of the amended and restated warrants will be reduced to \$12.11 per share and that the

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amended and restated warrants will be exercisable for a number of shares of the registrant's Series D-1 preferred stock or Series E-1 preferred stock, as applicable, equal to the number of shares of the registrant's Series D preferred stock or Series E preferred stock that was previously issuable upon the exercise of the warrants; and (ii) issued a new warrant to purchase 148,6178 shares of the registrant's Series E-1 preferred stock to LCP at an exercise price of \$12.11 per share.

(t) In August 2010, upon exercise of outstanding amended and restated warrants, the registrant issued and sold an aggregate of 57,724 shares of the registrant's Series E-1 preferred stock and an aggregate of 57,724 shares of the registrant's common stock to 49 accredited investors for aggregate proceeds of \$699,048.

(u) In August 2010, the registrant granted to one of its employees under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 115,606 shares of its common stock at an exercise price of \$4.45 per share.

(v) In January 2011, the registrant granted to fourteen of its executive officers and directors under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 138,150 shares of its common stock at an exercise price of \$8.38 per share.

(w) In January 2011, the registrant issued and sold subordinated secured promissory notes with an aggregate principal amount of \$5,000,000 and warrants to purchase an aggregate of 98,751 shares of the registrant's Series E-1 preferred stock at an exercise price of \$0.02 per share to a total of 49 accredited investors all of whom were existing investors in the registrant and had a substantial pre-existing relationship with the registrant.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering, and the registrant believes that each transaction was exempt from the registration requirements of the Securities Act in reliance on the following exemptions:

- with respect to the transactions described in paragraphs (a) through (d), Rule 701 promulgated under the Securities Act as transactions pursuant to a compensatory benefit plan approved by the registrant's Board of Directors; and
- with respect to the transactions described in paragraphs (e) through (w), Section 4(2) of the Securities Act, or Rule 506 of Regulation D promulgated thereunder, as transactions by an issuer not involving a public offering. Each recipient of the securities in this transaction represented his or her intention to acquire the securities for investment only and not with a view to, or for resale in connection with, any distribution thereof, and appropriate legends were affixed to the share certificates issued in each such transaction. In each case, the recipient received adequate information about the registrant or had adequate access, through his or her relationship with the registrant, to information about the registrant.

Item 16. Exhibits and Financial Statement Schedules.

(a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference:

<u>Exhibit Number</u>	<u>Description</u>
1.1 ⁽¹⁾	Form of Underwriting Agreement.
3.1 ⁽³⁾	Certificate of Incorporation of the registrant, as currently in effect.
3.1.1	Form of Certificate of Incorporation of the registrant, to be in effect prior to completion of this offering.
3.2	Form of Restated Certificate of Incorporation of the registrant, to be in effect upon the completion of this offering.
3.3 ⁽³⁾	Bylaws of the registrant, as currently in effect.
3.4	Form of Amended and Restated Bylaws of the registrant, to be in effect upon completion of this offering.
4.1 ⁽¹⁾	Specimen Common Stock Certificate of the registrant.

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<u>Exhibit Number</u>	<u>Description</u>
4.2 ⁽²⁾⁽³⁾	Series E Preferred Stock Purchase Agreement dated June 13, 2006 by and among the registrant and the purchasers of the registrant's preferred stock set forth therein, as amended.
4.3 ⁽³⁾	Form of Warrant to Purchase Shares of Preferred Stock of the registrant dated as of August 25, 2009.
4.4 ⁽³⁾	Series E Preferred Stock Purchase Agreement dated November 16, 2009 by and among the registrant and the purchasers of the registrant's preferred stock set forth therein.
4.5 ⁽³⁾	Ninth Amended and Restated Investor Rights Agreement between the registrant and certain holders of the registrant's capital stock named therein, including amendments No. 1, No. 2 and No. 3.
4.6 ⁽²⁾⁽³⁾	Loan and Security Agreement No. 4561 between the registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005, including amendments No. 1 through No. 8.
4.6A ⁽³⁾	Amended and Restated Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective June 14, 2010.
4.6B ⁽³⁾	Amended and Restated Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective June 14, 2010.
4.6C ⁽³⁾	Amended and Restated Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective June 14, 2010.
4.6D ⁽³⁾	Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective June 14, 2010.
4.6E ⁽³⁾	Negative Pledge Agreement by and between the registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005.
4.7 ⁽³⁾	Note and Warrant Purchase Agreement dated January 6, 2011 among the registrant and the investors named therein.
4.8	Business Financing Agreement between the registrant and Bridge Bank, National Association, dated as of December 16, 2010.
5.1 ⁽¹⁾	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.1	Form of Indemnification Agreement between the registrant and its directors and officers.
10.2 ⁽³⁾	1999 Stock Option Plan of the registrant, as amended.
10.2A ⁽³⁾	Forms of agreements under the 1999 Stock Option Plan.
10.3 ⁽³⁾	2009 Equity Incentive Plan of the registrant, as amended.
10.3A ⁽³⁾	Forms of agreements under the 2009 Equity Incentive Plan.
10.4	2011 Equity Incentive Plan of the registrant.
10.4A	Forms of agreements under the 2011 Equity Incentive Plan.
10.5 ⁽²⁾⁽³⁾	Second Amended and Restated License Agreement by and between California Institute of Technology and the registrant effective as of May 1, 2004.
10.5A ⁽²⁾⁽³⁾	First Addendum, effective as of March 29, 2007, to Second Amended and Restated License Agreement by and between California Institute of Technology and the registrant effective as of May 1, 2004.

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<u>Exhibit Number</u>	<u>Description</u>
10.6 ⁽²⁾	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.6A ⁽²⁾⁽³⁾	First Amendment to Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.7 ⁽²⁾⁽³⁾	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.8 ⁽²⁾⁽³⁾	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.9 ⁽²⁾⁽³⁾	Letter Agreement between President and Fellows of Harvard College and the registrant dated December 22, 2004.
10.10 ⁽²⁾⁽³⁾	Patent License Agreement by and between Gyros AB and the registrant dated January 9, 2003.
10.10A ⁽²⁾⁽³⁾	Amendment No. 1 dated January 9, 2005 to Patent License Agreement by and between Gyros AB and the registrant dated January 9, 2003.
10.11	Reserved.
10.12 ⁽²⁾⁽³⁾	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated October 7, 2005), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.12A ⁽²⁾⁽³⁾	Supplement, dated January 11, 2006, to Letter Agreement Relating to Application for Incentives under the Research Incentive Scheme for Companies (RISC), dated October 7, 2005 between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.13 ⁽²⁾⁽³⁾	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated February 12, 2007), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.14 ⁽³⁾	Form of Employment and Severance Agreement between the registrant and each of its executive officers.
10.15 ⁽³⁾	Employee Loan Agreement by and between the registrant and Gajus V. Worthington dated January 20, 2004.
10.16 ⁽³⁾	Stock Repurchase Agreement by and between the registrant and Gajus V. Worthington dated April 10, 2008.
10.17 ⁽³⁾	Offer Letter to Vikram Jog dated January 29, 2008.
10.18 ⁽³⁾	Offer Letter to Fredric Walder dated May 3, 2010.
10.19 ⁽³⁾	Lease Agreement between ARE - San Francisco No. 17 LLC and the registrant, dated September 14, 2010, as amended September 22, 2010.
10.20 ⁽³⁾	Tenancy for Flatted Factory Space in Singapore between JTC Corporation and the registrant dated July 27, 2005, as amended August 12, 2008 and May 31, 2010.
10.21 ⁽²⁾⁽³⁾	Collaboration and Option Agreement by and between Novartis Vaccines & Diagnostics, Inc. and the registrant dated May 17, 2010, including all exhibits thereto.
10.22 ⁽²⁾⁽³⁾	Form of License Agreement by and between Novartis Vaccines & Diagnostics, Inc. and the registrant.

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<u>Exhibit Number</u>	<u>Description</u>
10.23 ⁽²⁾⁽³⁾	Quality Agreement for Development of In-Vitro Diagnostic Devices by and between Novartis Vaccines & Diagnostics, Inc. and the registrant dated May 14, 2010.
10.24 ⁽³⁾	Co-Promotion Agreement, by and between 454 Life Sciences and the registrant dated May 20, 2010.
21.1 ⁽³⁾	List of subsidiaries of registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2 ⁽¹⁾	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1 ⁽³⁾	Power of Attorney.

(1) To be filed by amendment.

(2) Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(3) Previously filed.

(b) *Financial Statement Schedules.*

All schedules have been omitted because the information required to be presented in them is not applicable or is shown in the consolidated financial statements or related notes.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

EXHIBIT INDEX

Exhibit Number	Description
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3.1 ⁽³⁾	Certificate of Incorporation of the registrant, as currently in effect.
3.1.1	Form of Certificate of Incorporation of the registrant, to be in effect prior to completion of this offering.
3.2	Form of Restated Certificate of Incorporation of the registrant, to be in effect upon the completion of this offering.
3.3 ⁽³⁾	Bylaws of the registrant, as currently in effect.
3.4	Form of Amended and Restated Bylaws of the registrant, to be in effect upon completion of this offering.
4.1 ⁽¹⁾	Specimen Common Stock Certificate of the registrant.
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10.2A ⁽³⁾	Forms of agreements under the 1999 Stock Option Plan.

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10.3 ⁽³⁾	2009 Equity Incentive Plan of the registrant, as amended.
10.3A ⁽³⁾	Forms of agreements under the 2009 Equity Incentive Plan.
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10.20 ⁽³⁾	Tenancy for Flatted Factory Space in Singapore between JTC Corporation and the registrant dated July 27, 2005, as amended August 12, 2008 and May 31, 2010.
10.21 ⁽²⁾⁽³⁾	Collaboration and Option Agreement by and between Novartis Vaccines & Diagnostics, Inc. and the registrant dated May 17, 2010, including all exhibits thereto.
10.22 ⁽²⁾⁽³⁾	Form of License Agreement by and between Novartis Vaccines & Diagnostics, Inc. and the registrant.
10.23 ⁽²⁾⁽³⁾	Quality Agreement for Development of In-Vitro Diagnostic Devices by and between Novartis Vaccines & Diagnostics, Inc. and the registrant dated May 14, 2010.
10.24 ⁽³⁾	Co-Promotion Agreement, by and between 454 Life Sciences and the registrant dated May 20, 2010.
21.1 ⁽³⁾	List of subsidiaries of registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2 ⁽¹⁾	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1 ⁽³⁾	Power of Attorney.

(1) To be filed by amendment.

(2) Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(3) Previously filed.

**SEVENTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION OF
FLUIDIGM CORPORATION**

Fluidigm Corporation, a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), certifies that:

A. The name of the corporation is Fluidigm Corporation. The original Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on March 29, 2007.

B. This Seventh Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 242 and 245 of the General Corporation Law of the State of Delaware and restates, integrates and further amends the provisions of the Corporation's Sixth Amended and Restated Certificate of Incorporation.

C. The text of the Sixth Amended and Restated Certificate of Incorporation is amended and restated to read as set forth in EXHIBIT A attached hereto.

IN WITNESS WHEREOF, Fluidigm Corporation has caused this Seventh Amended and Restated Certificate of Incorporation to be signed by Gajus V. Worthington, a duly authorized officer of the Corporation, on January __, 2011.

Gajus V. Worthington,
President and Chief Executive Officer

EXHIBIT A

ARTICLE I

The name of the corporation is Fluidigm Corporation (the “Corporation”).

ARTICLE II

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

ARTICLE III

The address of the Corporation’s registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE IV

1. Reverse Stock Split. Immediately upon the filing of this Seventh Amended and Restated Certificate of Incorporation, each one and seventy-three hundredth (1.73) outstanding shares of Common Stock and each one and seventy-three hundredth (1.73) outstanding shares of Preferred Stock will be exchanged and combined, automatically and without further action, into one (1) share of Common Stock and one (1) share of Preferred Stock, respectively (the “Reverse Split”). The Reverse Split shall be effected on a certificate-by-certificate basis and no fractional shares shall be issued upon the exchange and combination. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay an amount of cash equal to the product of (i) the fractional share to which the holder would otherwise be entitled and (ii) the then fair value of a share as determined in good faith by the Board of Directors. All share and per share amounts set forth in this Seventh Amended and Restated Certificate of Incorporation, including such amounts set forth elsewhere in this Article IV, have been revised to reflect the Reverse Split, and, accordingly, no further adjustment in accordance with the terms of this Seventh Amended and Restated Certificate of Incorporation is necessary.

The Reverse Split shall occur automatically without any further action by the holders of the shares affected thereby, and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent. The Corporation shall not be obligated to issue certificates evidencing the shares of Common Stock or Preferred Stock, as the case may be, resulting from the Reverse Split unless the certificates evidencing such shares of Common Stock or Preferred Stock are either delivered to the Corporation or its transfer agent as provided above, or the holder notifies the Corporation or its transfer agent that such certificates have been lost, stolen, or destroyed and executes an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates. The Corporation shall, as soon as practicable after

such delivery, or such agreement and indemnification in the case of a lost, stolen or destroyed certificate, issue and deliver at such office to such holder of Common Stock or Preferred Stock, as the case may be, a certificate or certificates for the number of shares of Common Stock or Preferred Stock and a check payable to the holder in the amount of any cash amounts payable as the result of a conversion of fractional shares into cash to which he or she shall be entitled as aforesaid.

2. Classes of Stock. The total number of shares of stock that the Corporation shall have authority to issue is 29,595,999, consisting of 18,327,000 shares of Common Stock, \$0.001 par value per share ("Common Stock") and 11,268,999 shares of Preferred Stock, \$0.001 par value per share ("Preferred Stock"). The Preferred shall be divided into series. The first series shall consist of 379,845 shares and shall be designated Series A Preferred Stock ("Series A Preferred Stock"). The second series shall consist of 1,060,898 shares and shall be designated Series B Preferred Stock ("Series B Preferred Stock"). The third series shall consist of 2,677,975 shares and shall be designated Series C Preferred Stock ("Series C Preferred Stock"). The fourth series shall consist of 2,186,526 shares and shall be designated Series D Preferred Stock ("Series D Preferred Stock"). The fifth series shall consist of 61,342 shares and shall be designated Series D-1 Preferred Stock ("Series D-1 Preferred Stock"). The sixth series shall consist of 4,510,274 shares and shall be designated Series E Preferred Stock ("Series E Preferred Stock"). The eighth series shall consist of 392,139 shares and shall be designated Series E-1 Preferred Stock ("Series E-1 Preferred Stock").

The terms and provisions of the Common Stock and Preferred Stock are as follows:

3. Definitions. For purposes of this Article IV, the following definitions shall apply:

(a) "Conversion Price" shall mean \$6.66 per share for the Series A Preferred Stock, \$10.77 per share for the Series B Preferred Stock, \$15.62 per share for the Series C Preferred Stock, \$16.95 per share for the Series D Preferred Stock, \$12.11 per share for the Series D-1 Preferred Stock, \$18.63 per share for the Series E Preferred Stock, and \$12.11 per share for the Series E-1 Preferred Stock (each subject to adjustment from time to time as set forth elsewhere herein).

(b) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities (other than shares of Common Stock) convertible into or exchangeable for Common Stock.

(c) "Corporation" shall mean Fluidigm Corporation.

(d) "Dividend Rate" shall mean an annual rate of \$0.666 per share for the Series A Preferred Stock, an annual rate of \$1.089 per share for the Series B Preferred Stock, an annual rate of \$1.574 per share for the Series C Preferred Stock, an annual rate of \$1.816 per share for the Series D Preferred Stock, an annual rate of \$1.297 per share for the Series D-1 Preferred Stock, an annual rate of \$2.603 per share for the Series E Preferred Stock, and an annual rate of \$1.302 per share for the Series E-1 Preferred Stock (each subject to adjustment from time to time as set forth elsewhere herein).

(e) "Liquidation Preference" shall mean \$6.66 per share for the Series A Preferred Stock, \$10.77 per share for the Series B Preferred Stock, \$15.62 per share for the Series C Preferred Stock, \$16.95 per share for the Series D Preferred Stock, \$12.11 per share for the Series D-1 Preferred Stock, \$24.22 per share for the Series E Preferred Stock, and \$12.11 per share for the

Series E-1 Preferred Stock (each subject to adjustment from time to time as set forth elsewhere herein).

(f) “Options” shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(g) “Original Issue Price” shall mean \$6.66 per share for the Series A Preferred Stock, \$10.77 per share for the Series B Preferred Stock, \$15.62 per share for the Series C Preferred Stock, \$16.95 per share for the Series D Preferred Stock, \$12.11 per share for the Series D-1 Preferred Stock, \$24.22 per share for the Series E Preferred Stock, and \$12.11 per share for the Series E-1 Preferred Stock (each subject to adjustment from time to time as set forth elsewhere herein).

(h) “Preferred Stock” shall mean the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock, the Series D Preferred Stock, the Series D-1 Preferred Stock, the Series E Preferred Stock, and Series E-1 Preferred Stock.

4. Dividends.

(a) Series D Preferred Stock, Series D-1 Preferred Stock, Series E Preferred Stock and Series E-1 Preferred Stock. The holders of outstanding shares of Series D Preferred Stock, Series D-1 Preferred Stock, Series E Preferred Stock and Series E-1 Preferred Stock shall be entitled to receive dividends, when and as declared by the Board of Directors, out of any assets at the time legally available therefor, at the Dividend Rates specified for such shares of Preferred Stock, payable in preference and priority to any declaration or payment of any distribution on Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Common Stock of the Corporation other than a dividend payable solely in Common Stock. No distributions shall be made with respect to the Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Common Stock during any fiscal year of the Corporation, other than dividends on the Common Stock payable solely in Common Stock, until all dividends at the applicable Dividend Rate on the Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock and Series D-1 Preferred Stock have been declared and paid or set apart for payment to the holders of Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock and Series D-1 Preferred Stock. Payment of any dividends to the holders of the Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock and Series D-1 Preferred Stock shall be on a pro rata, pari passu basis in proportion to the Dividend Rates for the Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock and Series D-1 Preferred Stock, as applicable. The right to receive dividends on shares of Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock and Series D-1 Preferred Stock shall not be cumulative, and no right to such dividends shall accrue to holders of Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock and Series D-1 Preferred Stock by reason of the fact that dividends on said shares are not declared or paid in any year.

(b) Series C Preferred Stock. The holders of outstanding shares of Series C Preferred Stock shall be entitled to receive dividends, when and as declared by the Board of Directors, out of any assets at the time legally available therefor, at the Dividend Rate specified for such shares of Preferred Stock payable in preference and priority to any declaration or payment of

any distribution on Series A Preferred Stock, Series B Preferred Stock or Common Stock of the Corporation other than a dividend payable solely in Common Stock. No distributions shall be made with respect to the Series A Preferred Stock, Series B Preferred Stock or Common Stock during any fiscal year of the Corporation, other than dividends on the Common Stock payable solely in Common Stock, until all dividends at the applicable Dividend Rate on the Series C Preferred Stock have been declared and paid or set apart for payment to the holders of Series C Preferred Stock. The right to receive dividends on shares of Series C Preferred Stock shall not be cumulative, and no right to such dividends shall accrue to holders of Series C Preferred Stock by reason of the fact that dividends on said shares are not declared or paid in any year.

(c) Series A Preferred Stock and Series B Preferred Stock. The holders of outstanding shares of Series A Preferred Stock and the holders of outstanding shares of Series B Preferred Stock shall be entitled to receive dividends, when and as declared by the Board of Directors, out of any assets at the time legally available therefor, at the Dividend Rates specified for such shares of Preferred Stock payable in preference and priority to any declaration or payment of any distribution on Common Stock of the Corporation other than a dividend payable solely in Common Stock. No distributions shall be made with respect to the Common Stock, other than dividends payable solely in Common Stock, until all dividends at the applicable Dividend Rate on the Preferred Stock have been declared and paid or set apart for payment to the Preferred Stock holders. Payment of any dividends to the holders of the Series A Preferred Stock and Series B Preferred Stock shall be on a pro rata, pari passu basis in proportion to the Dividend Rates for the Series A Preferred Stock and Series B Preferred Stock, as applicable. The right to receive dividends on shares of Series A Preferred Stock and Series B Preferred Stock shall not be cumulative, and no right to such dividends shall accrue to holders of Series A Preferred Stock or Series B Preferred Stock by reason of the fact that dividends on said shares are not declared or paid in any year.

(d) Distribution. For purposes of this Section 4, unless the context otherwise requires, a “distribution” shall mean the transfer of cash or other property without consideration whether by way of dividend or otherwise, payable other than in Common Stock, or the purchase or redemption of shares of the Corporation other than (i) repurchase of shares of Common Stock issued to or held by employees, consultants, officers and directors of the Corporation or its subsidiaries upon termination of their employment or services pursuant to agreements providing for the right of said repurchase and at the original purchase price paid by such employees, consultants, officers and directors; and (ii) repurchase of Common Stock issued to or held by employees, officers, directors or consultants of the Corporation or its subsidiaries pursuant to rights of first refusal contained in agreements providing for such rights, provided that such repurchase is unanimously approved by the Board of Directors; and (iii) any other repurchase or redemption of capital stock of the corporation unanimously approved by the Board of Directors and approved by the holders of the majority of the Common Stock and the holders of more than two-thirds ($\frac{2}{3}$) of the outstanding shares of the Preferred Stock, voting as separate classes.

(e) Common Stock. Dividends may be paid on the Common Stock as and when declared by the Board of Directors, subject to the prior dividend rights of the Preferred Stock and Sections 8, 9, 10, and 11 below.

(f) Non-Cash Distributions. Whenever a distribution provided for in this Section 4 shall be payable in property other than cash, the value of such distribution shall be deemed to be the fair market value of such property as determined in good faith by the Board of Directors.

(g) Consent to Certain Repurchases. If Sections 502 and 503 of the California Corporations Code are determined to apply to the Corporation, as authorized by Section 402.5(c) of the California Corporations Code, Sections 502 and 503 of the California Corporations Code shall not apply with respect to payments made by the Corporation in connection with (i) repurchase of shares of Common Stock issued to or held by employees, consultants, officers and directors of the Corporation or its subsidiaries upon termination of their employment or services pursuant to agreements providing for the right of said repurchase and at the original purchase price paid by such employees, consultants, officers and directors, and (ii) repurchase of Common Stock issued to or held by employees, officers, directors and consultants of the Corporation or its subsidiaries pursuant to rights of first refusal contained in agreements providing for such rights, provided that such repurchase is unanimously approved by the Board of Directors, and (iii) any other repurchase or redemption of Common Stock unanimously approved by the Board of Directors and approved by the holders of more than two-thirds ($\frac{2}{3}$) of the outstanding shares of Preferred Stock voting together as a single class.

5. Liquidation Rights.

In the event of any liquidation, dissolution or winding up of the Corporation, either voluntary or involuntary, distribution of the assets of the Corporation legally available for distribution to the Corporation's stockholders shall be made in the following manner:

(a) Series E and Series E-1 Liquidation Preference. The holders of the Series E Preferred Stock and Series E-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation to the holders of the Common Stock, the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock, the Series D Preferred Stock or the Series D-1 Preferred Stock, by reason of their ownership of such stock, an amount per share for each share of Series E Preferred Stock or Series E-1 Preferred Stock, as applicable, held by them equal to the sum of (i) the Liquidation Preference for such share and (ii) all declared and unpaid dividends on such share of Series E Preferred Stock or Series E-1 Preferred Stock. If the assets of the Corporation legally available for distribution to the holders of the Series E Preferred Stock and Series E-1 Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 5(a), then the entire assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series E Preferred Stock and Series E-1 Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 5(a).

(b) Series D and Series D-1 Liquidation Preference. After payment to the holders of Series E Preferred Stock and Series E-1 Preferred Stock of the full amounts specified in Section 5(a) above, the holders of the Series D Preferred Stock and Series D-1 Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation to the holders of the Common Stock, the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock by reason of their ownership of such stock, an amount per share for each share of Series D Preferred Stock or Series D-1 Preferred Stock, as applicable, held by them equal to

the sum of (i) the Liquidation Preference for such share and (ii) all declared and unpaid dividends on such share of Series D Preferred Stock or Series D-1 Preferred Stock. If the remaining assets of the Corporation legally available for distribution to the holders of Series D Preferred Stock and Series D-1 Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 5(b), then the entire remaining assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series D Preferred Stock and Series D-1 Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 5(b).

(c) Series C Liquidation Preference. After payment to the holders of Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock and Series D-1 Preferred Stock of the full amounts specified in Sections 5(a) and 5(b) above, the holders of the Series C Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation to the holders of the Common Stock, the Series A Preferred Stock or the Series B Preferred Stock by reason of their ownership of such stock, an amount per share for each share of Series C Preferred Stock held by them equal to the sum of (i) the Liquidation Preference for such share and (ii) all declared and unpaid dividends on such share of Series C Preferred Stock. If the remaining assets of the Corporation legally available for distribution to the holders of the Series C Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 5(c), then the entire remaining assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series C Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 5(c).

(d) Series B Liquidation Preference. After payment to the holders of Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock, Series D-1 Preferred Stock and Series C Preferred Stock of the full amounts specified in Sections 5(a), 5(b) and 5(c) above, the holders of the Series B Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the remaining assets of the Corporation to the holders of the Common Stock or Series A Preferred Stock by reason of their ownership of such stock, an amount per share for each share of Series B Preferred Stock held by them equal to the sum of (i) the Liquidation Preference for such share and (ii) all declared and unpaid dividends on such share of Series B Preferred Stock. If the remaining assets of the Corporation legally available for distribution to the holders of the Series B Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 5(d), then the entire remaining assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series B Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 5(d).

(e) Series A Liquidation Preference. After payment to the holders of Series E Preferred Stock, Series E-1 Preferred Stock, Series D Preferred Stock, Series D-1 Preferred Stock, Series C Preferred Stock and Series B Preferred Stock of the full amounts specified in Sections 5(a), 5(b), 5(c) and 5(d) above, the holders of the Series A Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the remaining assets of the Corporation to the holders of the Common Stock by reason of their ownership of such stock, an amount per share for each share of Series A Preferred Stock held by them equal to the sum of (i) the Liquidation Preference for such share and (ii) all declared and unpaid dividends on such share of Series A

Preferred Stock. If the remaining assets of the Corporation legally available for distribution to the holders of the Series A Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 5(e), then the entire remaining assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series A Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 5(e).

(f) Remaining Assets. After the payment to the holders of Preferred Stock of the full amounts specified in Sections 5(a), 5(b), 5(c), 5(d) and 5(e) above, the entire remaining assets of the Corporation legally available for distribution shall be distributed pro rata to holders of the Common Stock of the Corporation in proportion to the number of shares of Common Stock held by them.

(g) Shares Not Treated as Both Preferred Stock and Common Stock in Any Distribution. Shares of Preferred Stock shall not be entitled to be converted into shares of Common Stock in order to participate in any distribution, or series of distributions, as shares of Common Stock, without first foregoing participation in the distribution, or series of distributions, as shares of Preferred Stock.

(h) Reorganization. For purposes of this Section 5, a liquidation, dissolution or winding up of the Corporation shall be deemed to be occasioned by, or to include, (i) the acquisition of the Corporation by another entity by means of any transaction or series of related transactions (including, without limitation, any stock acquisition, reorganization, merger or consolidation but excluding any merger effected exclusively for the purpose of changing the domicile of the Corporation) other than a transaction or series of transactions in which the holders of the voting securities of the Corporation outstanding immediately prior to such transaction or series of transactions continue to retain (either by such voting securities remaining outstanding or by such voting securities being converted into voting securities of the surviving entity), as a result of shares in the Corporation held by such holders prior to such transaction, at least fifty percent (50%) of the total voting power represented by the voting securities of the Corporation or such surviving entity outstanding immediately after such transaction or series of transactions; or (ii) a sale, transfer, lease or other conveyance of all or substantially all of the assets of the Corporation.

(i) Valuation of Non-Cash Consideration. If any assets of the Corporation distributed to stockholders in connection with any liquidation, dissolution, or winding up of the Corporation are other than cash, then the value of such assets shall be their fair market value as determined in good faith by the Board of Directors, except that any securities to be distributed to stockholders in a liquidation, dissolution, or winding up of the Corporation shall be valued as follows:

(i) If the securities are then traded on a national securities exchange or the Nasdaq Stock Market System (or a similar national quotation system), then the value of the securities shall be deemed to be to the average of the closing prices of the securities on such exchange or system over the ten (10) trading day period ending five (5) trading days prior to the distribution;

(ii) if the securities are actively traded over-the-counter, then the value of the securities shall be deemed to be the average of the closing bid prices of the securities over the ten (10) trading day period ending five (5) trading days prior to the distribution; or

(iii) if there is no active public market for the securities, then the value of the securities shall be deemed to be the fair market value thereof as determined in good faith by the Board of Directors which determination shall include consideration of the illiquidity of the securities.

In the event of a merger or other acquisition of the Corporation by another entity, the distribution date shall be deemed to be the date such transaction closes.

For the purposes of this Section 5(i), “trading day” shall mean any day on which the exchange or system on which the securities to be distributed are traded is open, and “closing prices” or “closing bid prices” shall be deemed to be: (i) for securities traded primarily on the New York Stock Exchange, the American Stock Exchange or Nasdaq, the last reported trade price or sale price, as the case may be, at 4:00 p.m., New York time, on that day and (ii) for securities listed or traded on other exchanges, markets and systems, the market price as of the end of the “regular hours” trading period that is generally accepted as such for such exchange, market or system. If, after the date hereof, the benchmark times generally accepted in the securities industry for determining the market price of a stock as of a given trading day shall change from those set forth above, the fair market value shall be determined as of such other generally accepted benchmark times.

6. Conversion. The holders of the Preferred Stock shall have conversion rights as follows (the “Conversion Rights”):

(a) Right to Convert. Subject to Section 6(c), each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for the Preferred Stock, into that number of fully-paid, nonassessable shares of Common Stock determined by dividing the Original Issue Price for the relevant series by the Conversion Price for such series. (The number of shares of Common Stock into which each share of Preferred Stock of a series may be converted is hereinafter referred to as the “Conversion Rate” for each such series.) Upon any decrease or increase in the Conversion Price for any series of Preferred Stock, as described in this Section 6, the Conversion Rate for such series shall be appropriately increased or decreased.

(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into fully-paid, non-assessable shares of Common Stock at the then effective Conversion Rate for such share (i) immediately prior to the closing of a firm commitment underwritten initial public offering on Form S-1 (or successor form) filed under the Securities Act of 1933, as amended (the “Securities Act”), covering the offer and sale of the Corporation’s Common Stock, provided that the aggregate gross proceeds to the Corporation are not less than \$25,000,000, or (ii) upon the receipt by the Corporation of a written consent or request for such conversion from the holders of two-thirds of the shares of Preferred Stock then outstanding, or, if later, the effective date for conversion specified in such requests (each of the events referred to in (i) and (ii) being hereinafter referred to as an “Automatic Conversion Event”). Notwithstanding the foregoing, if the Automatic Conversion Event does not involve an initial public offering of the Company’s Common Stock, then

the Automatic Conversion Event shall not apply to the Series E Preferred Stock unless such Automatic Conversion Event is approved by the written consent of holders of more than two-thirds of the shares of Series E Preferred Stock then outstanding.

(c) Mechanics of Conversion. No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then fair market value of a share of Common Stock as determined by the Board of Directors. For such purpose, all shares of Preferred Stock held by each holder of Preferred Stock shall be aggregated, and any resulting fractional share of Common Stock shall be paid in cash. Before any holder of Preferred Stock shall be entitled to convert the same into full shares of Common Stock, and to receive certificates therefor, he shall either surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Preferred Stock, or notify the Corporation or its transfer agent that such certificate or certificates have been lost, stolen or destroyed and execute an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificate or certificates, and shall give written notice to the Corporation at such office that he elects to convert the same; provided, however, that on the date of an Automatic Conversion Event, the outstanding shares of Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent; provided further, however, that the Corporation shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such Automatic Conversion Event unless either the certificates evidencing such shares of Preferred Stock are delivered to the Corporation or its transfer agent as provided above, or the holder notifies the Corporation or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates. On the date of the occurrence of an Automatic Conversion Event, each holder of record of shares of Preferred Stock shall be deemed to be the holder of record of the Common Stock issuable upon such conversion, notwithstanding that the certificates representing such shares of Preferred Stock shall not have been surrendered at the office of the Corporation, that notice from the Corporation shall not have been received by any holder of record of shares of Preferred Stock, or that the certificates evidencing such shares of Common Stock shall not then be actually delivered to such holder.

The Corporation shall, as soon as practicable after such delivery, or after such agreement and indemnification, issue and deliver at such office to such holder of Preferred Stock, a certificate or certificates for the number of shares of Common Stock to which he shall be entitled as aforesaid and a check payable to the holder in the amount of any cash amounts payable as the result of a conversion into fractional shares of Common Stock, plus any declared and unpaid dividends on the converted Preferred Stock. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date; provided, however, that if the conversion is in connection with an underwritten offer of securities registered pursuant to the Securities Act the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing of the sale of securities pursuant to such offering, in which event the person(s) entitled to receive the

Common Stock issuable upon such conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of the sale of such securities.

(d) Adjustments to Conversion Price for Diluting Issues.

(i) Special Definition. For purposes of this Section 6(d), "Additional Shares of Common" shall mean all shares of Common Stock issued (or, pursuant to Section 6(d)(iii), deemed to be issued) by the Corporation after the filing of this Certificate of Incorporation, other than:

- (1) shares of Common Stock issued or issuable upon the conversion of the Preferred Stock;
- (2) shares of Common Stock issued or issuable to officers, directors and employees of, or consultants and other service providers to, the Corporation pursuant to stock grants, option plans, purchase plans or other employee stock incentive programs or arrangements approved by the Board of Directors or upon exercise of options or warrants granted to such parties pursuant to any such plan, program or arrangement;
- (3) shares of Common Stock issued upon the exercise or conversion of Options or Convertible Securities outstanding as of the date of the filing of this Certificate of Incorporation;
- (4) shares of Common Stock issued or issuable as a dividend or distribution on Preferred Stock or pursuant to any event for which adjustment is made pursuant to Section 6(e), 6(f) or 6(g) hereof;
- (5) shares of Common Stock issued in a registered public offering under the Securities Act;
- (6) shares of Common Stock issued or issuable pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided, that such issuances are unanimously approved by the Board of Directors;
- (7) shares of Common Stock issued or issuable to banks, equipment lessors or other financial institutions pursuant to a commercial leasing or debt financing transaction approved by the Board of Directors;
- (8) shares of Common Stock issued or issuable in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements, or strategic partnerships or relationships, if the issuance is approved by the Board of Directors; and
- (9) shares of Common Stock issued upon the exercise or conversion of those Series E-1 Preferred Stock Warrants issued pursuant to that certain Note and Warrant Purchase Agreement dated on or about January 6, 2011.

(ii) No Adjustment of Conversion Price. No adjustment in the Conversion Price of a particular series of Preferred Stock shall be made in respect of the issuance of Additional Shares of Common unless the consideration per share (as determined pursuant to Section 6(d)(ix)) for an Additional Share of Common issued or deemed to be issued by the Corporation is less than the Conversion Price in effect on the date of, and immediately prior to such issue, for such series of Preferred Stock.

(iii) Deemed Issue of Additional Shares of Common. In the event the Corporation at any time or from time to time after the date of the filing of this Certificate of Incorporation shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities, the conversion or exchange of such Convertible Securities or, in the case of Options for Convertible Securities, the exercise of such Options and the conversion or exchange of the underlying securities, shall be deemed to have been issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that in any such case in which shares are deemed to be issued:

(1) no further adjustment in the Conversion Price of the Preferred Stock shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock in connection with the exercise of such Options or conversion or exchange of such Convertible Securities pursuant to the terms of such Options or Convertible Securities;

(2) if no adjustment in the Conversion Price of the Preferred Stock was made upon the original issue of (or upon the occurrence of a record date with respect to) such Options or Convertible Securities and such Options or Convertible Securities are revised to provide, or by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or any increase or decrease in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, then such Options or Convertible Securities as so revised (and the Additional Shares of Common subject thereto) shall be deemed to have been issued effective upon such increase or decrease becoming effective;

(3) if such Options or Convertible Securities are revised to provide, or by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or any increase or decrease in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the Conversion Price of the Preferred Stock computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities;

(4) no readjustment pursuant to clause (3) above shall have the effect of increasing the Conversion Price of the Preferred Stock to an amount which exceeds the lower of (i) the Conversion Price of the Preferred Stock on the original adjustment date, or (ii) the Conversion

Price of the Preferred Stock that would have resulted from any issuance of Additional Shares of Common between the original adjustment date and such readjustment date;

(5) upon the expiration of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto) and any subsequent adjustments based thereon shall, upon such expiration, be recomputed as if:

(A) in the case of Convertible Securities or Options for Common Stock, the only Additional Shares of Common issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities and the consideration received therefor was the consideration actually received by the Corporation for the issue of such exercised Options plus the consideration actually received by the Corporation upon such exercise or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange, and

(B) in the case of Options for Convertible Securities, only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common deemed to have been then issued was the consideration actually received by the Corporation for the issue of such exercised Options, plus the consideration deemed to have been received by the Corporation (determined pursuant to Section 6(d)(ix)) upon the issue of the Convertible Securities with respect to which such Options were actually exercised; and

(6) if such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the adjustment previously made in the Conversion Price which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter the Conversion Price shall be adjusted pursuant to this Section 6(d)(iii) as of the actual date of their issuance.

(iv) Adjustment of Conversion Price of Series E Preferred Stock Upon Issuance of Additional Shares of Common.

(1) For so long as the Conversion Price of the Series E Preferred Stock is greater than \$15.62 (as adjusted for subdivisions and combinations of the Common Stock and changes in the Common Stock as set forth in Sections 6(e) and 6(g)) (the "Series D/E Ratchet Amount"), in the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)), for a consideration per share less than the applicable Conversion Price of the Series E Preferred Stock in effect on the date of and immediately prior to such issue, but for a consideration per share equal to or greater than the Series D/E Ratchet Amount, then the Conversion Price of the Series E Preferred Stock shall be reduced concurrently with such issue to a price (calculated to the nearest cent) equal to the per share price of the Additional Shares of Common.

(2) In the event the Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)) without consideration or for a consideration per share less than the Series D/E Ratchet Amount, then the Conversion Price of the Series E Preferred Stock immediately prior to such issue shall be deemed to be equal to the Series D/E Ratchet Amount (the “Series E Adjusted Conversion Price”), and such Series E Adjusted Conversion Price shall be further reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Series E Adjusted Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Adjusted Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 6(d)(iv)(2), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 6(d)(iii) hereof, shall be deemed to be outstanding. Section 6(d)(iv)(3) shall govern adjustments to the Conversion Price of the Series E Preferred Stock after the first adjustment to the Conversion Price of the Series E Preferred Stock pursuant to this Section 6(d)(iv)(2).

(3) After any adjustment to the Conversion Price of the Series E Preferred Stock pursuant to Section 6(d)(iv)(2), in the event the Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)) without consideration or for a consideration per share less than the Conversion Price of the Series E Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the Series E Preferred Stock shall be reduced concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 6(d)(iv)(3), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 6(d)(iii) hereof, shall be deemed to be outstanding.

(v) Adjustment of Conversion Price of Series E-1 Preferred Stock Upon Issuance of Additional Shares of Common. In the event the Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)) without consideration or for a consideration per share less than the Conversion Price of the Series E-1 Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the Series E-1 Preferred Stock shall be reduced concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so

issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 6(d)(v), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 6(d)(iii) hereof, shall be deemed to be outstanding.

(vi) Adjustment of Conversion Price of Series D Preferred Stock Upon Issuance of Additional Shares of Common.

(1) For so long as the Conversion Price of the Series D Preferred Stock is greater than the Series D/E Ratchet Amount, in the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)) for a consideration per share less than the applicable Conversion Price of the Series D Preferred Stock in effect on the date of and immediately prior to such issue, but for a consideration per share equal to or greater than the Series D/E Ratchet Amount, then the Conversion Price of the Series D Preferred Stock shall be reduced concurrently with such issue to a price (calculated to the nearest cent) equal to the per share price of the Additional Shares of Common.

(2) In the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)) without consideration or for a consideration per share less than the Series D/E Ratchet Amount, then the Conversion Price of the Series D Preferred Stock immediately prior to such issue shall be deemed to be equal to the Series D/E Ratchet Amount (the "Series D Adjusted Conversion Price"), and such Series D Adjusted Conversion Price shall be further reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Series D Adjusted Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Series D Adjusted Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 6(d)(vi)(2), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 6(d)(iii) hereof, shall be deemed to be outstanding. Section 6(d)(vi)(3) shall govern adjustments to the Conversion Price of the Series D Preferred Stock after the first adjustment to the Conversion Price of the Series D Preferred Stock pursuant to this Section 6(d)(vi)(2).

(3) After any adjustment to the Conversion Price of the Series D Preferred Stock pursuant to Section 6(d)(vi)(2), in the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)) without consideration or for a consideration per share less than Conversion Price of the Series D Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the Series D Preferred Stock shall be reduced concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately

prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 6(d)(vi)(3), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 6(d)(iii) hereof, shall be deemed to be outstanding.

(vii) Adjustment of Conversion Price of Series D-1 Preferred Stock Upon Issuance of Additional Shares of Common. In the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)) without consideration or for a consideration per share less than Conversion Price of the Series D-1 Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the Series D-1 Preferred Stock shall be reduced concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 6(d)(vii), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 6(d)(iii) hereof, shall be deemed to be outstanding.

(viii) Adjustment of Conversion Price of Series A, B and C Preferred Stock Upon Issuance of Additional Shares of Common. In the event the Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 6(d)(iii)) without consideration or for a consideration per share less than the applicable Conversion Price of the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock (if affected) shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 6(d)(viii), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 6(d)(iii) hereof, shall be deemed to be outstanding.

(ix) Determination of Consideration. For purposes of this Section 6(d), the consideration received by the Corporation for the issue (or deemed issue) of any Additional Shares of Common shall be computed as follows:

(1) Cash and Property. Such consideration shall:

(A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation before deducting reasonable discounts, commissions or other expenses allowed, paid or incurred by the Corporation for any underwriting or otherwise in connection with such issue (or deemed issue);

(B) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(C) in the event Additional Shares of Common are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (A) and (B) above, as reasonably determined in good faith by the Board of Directors.

(2) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common deemed to have been issued pursuant to Section 6(d)(iii) shall be determined by dividing:

(X) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities by

(Y) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(e) Adjustments for Subdivisions or Combinations of Common Stock. In the event the outstanding shares of Common Stock shall be subdivided (by stock split, by payment of a stock dividend or otherwise), into a greater number of shares of Common Stock, the Conversion Price of each series of Preferred Stock in effect immediately prior to such subdivision shall, concurrently with the effectiveness of such subdivision, be proportionately decreased. In the event the outstanding shares of Common Stock shall be combined (by reclassification or otherwise) into a lesser number of shares of Common Stock, the Conversion Prices in effect immediately prior to such combination shall, concurrently with the effectiveness of such combination, be proportionately increased.

(f) Adjustments for Subdivisions or Combinations of Preferred Stock. In the event the outstanding shares of Preferred Stock or a series of Preferred Stock shall be subdivided (by stock split, by payment of a stock dividend or otherwise), into a greater number of shares of Preferred Stock, the Dividend Rate, Original Issue Price and Liquidation Preference of the affected series of Preferred Stock in effect immediately prior to such subdivision shall, concurrently with the effectiveness of such subdivision, be proportionately decreased. In the event the outstanding shares of Preferred Stock or a series of Preferred Stock shall be combined (by reclassification or otherwise) into a lesser number of shares of Preferred Stock, the Dividend Rate, Original Issue Price and Liquidation Preference of the affected series of Preferred Stock in effect immediately prior to such combination shall, concurrently with the effectiveness of such combination, be proportionately increased.

(g) Adjustments for Reclassification, Exchange and Substitution. Subject to Section 5 above (“Liquidation Rights”), if the Common Stock issuable upon conversion of the Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for above), then, in any such event, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive, each holder of such Preferred Stock shall have the right thereafter to convert such shares of Preferred Stock into a number of shares of such other class or classes of stock which a holder of the number of shares of Common Stock deliverable upon conversion of such series of Preferred Stock immediately before that change would have been entitled to receive in such reorganization or reclassification, all subject to further adjustment as provided herein with respect to such other shares.

(h) No Impairment. The Corporation will not through any reorganization, transfer of assets, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation but will at all times in good faith assist in the carrying out of all the provisions of this Section 6 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of Preferred Stock against impairment. Notwithstanding the foregoing, nothing in this Section 6(h) shall prohibit the Corporation from amending its Certificate of Incorporation with the requisite consent of its stockholders and the board of directors.

(i) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price pursuant to this Section 6, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Price at the time in effect and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of Preferred Stock.

(j) Notices of Record Date. In the event that the Corporation shall propose at any time:

(i) to declare any dividend or distribution upon its Common Stock, whether in cash, property, stock or other securities, whether or not a regular cash dividend and whether or not out of earnings or earned surplus;

(ii) to effect any reclassification or recapitalization of its Common Stock outstanding involving a change in the Common Stock; or

(iii) to voluntarily liquidate or dissolve or to enter into any transaction deemed to be a liquidation, dissolution or winding up of the corporation pursuant to Section 5(h);

then, in connection with each such event, the Corporation shall send to the holders of the Preferred Stock at least 14 days' prior written notice of the date on which a record shall be taken for such dividend or distribution (and specifying the date on which the holders of Common Stock shall be entitled thereto) or for determining rights to vote in respect of the matters referred to in (ii) and (iii) above.

Each such written notice shall be given by first class mail, postage prepaid, addressed to the holders of Preferred Stock at the address for each such holder as shown on the books of the Corporation.

The right of the holders of the Preferred Stock to notice hereunder may be waived by the holders of more than two-thirds ($\frac{2}{3}$) of the outstanding shares of the Preferred Stock voting together as a single class. Notwithstanding the foregoing, no waiver of notice under this Section 6(j) shall constitute a waiver of notice with respect to the Series E Preferred Stock or Series E-1 Preferred Stock unless such waiver shall have been approved by the written consent of holders of more than two-thirds ($\frac{2}{3}$) of the shares of Series E Preferred Stock and Series E-1 Preferred Stock then outstanding, voting together as a single class.

(k) Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

(l) Waiver of Adjustment of Conversion Price. Notwithstanding anything herein to the contrary, any downward adjustment of the Conversion Price of any series of Preferred Stock may be waived by the consent or vote of the holders of more than two-thirds ($\frac{2}{3}$) of the outstanding shares of such series. Any such waiver shall bind all future holders of shares of such series of Preferred Stock.

7. Voting.

(a) Restricted Class Voting. Except as otherwise expressly provided herein or as required by law, the holders of Preferred Stock and the holders of Common Stock shall vote together and not as separate classes.

(b) No Series Voting. Other than as provided herein or required by law, there shall be no series voting.

(c) Preferred Stock. Each holder of Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which the shares of Preferred Stock held by such holder could be converted as of the record date. The holders of shares of the Preferred Stock shall be entitled to vote on all matters on which the Common Stock shall be entitled to vote. Holders of Preferred Stock shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Corporation. Fractional votes shall not, however, be permitted and any fractional voting rights resulting from the above formula (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted), shall be disregarded.

(d) Common Stock. Each holder of shares of Common Stock shall be entitled to one vote for each share thereof held.

(e) Adjustment in Authorized Common Stock. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding) by an affirmative vote of the holders of a majority of the outstanding Common Stock and Preferred Stock, voting together as a single class.

(f) Election of Directors. So long as at least 330,305 shares of Series D Preferred Stock (as adjusted for stock splits, subdivisions, combinations or stock dividends with respect to such shares) remain outstanding, the holders of the Series D Preferred Stock, voting as a separate class, shall be entitled to elect two (2) members of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors. So long as at least 330,305 shares of Series C Preferred Stock (as adjusted for stock splits, subdivisions, combinations or stock dividends with respect to such shares) remain outstanding, the holders of Series C Preferred Stock, voting as a separate class, shall be entitled to elect three (3) members of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors. Any additional members of the Corporation's Board of Directors shall be elected by the holders of Common Stock, Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, Series D-1 Preferred Stock, Series E Preferred Stock and Series E-1 Preferred Stock, voting together as a single class.

8. Amendments and Changes Requiring Approval of Preferred Stock. As long as any of the Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least two-thirds ($\frac{2}{3}$) of the outstanding shares of the Preferred Stock voting together as a single class:

(a) amend, alter or repeal any provision of the Certificate of Incorporation or By-laws of the Corporation (including pursuant to a merger) if such action would adversely alter the

rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Preferred Stock or any series thereof;

(b) enter into any transaction or series of related transactions deemed to be a liquidation, dissolution or winding up of the Corporation pursuant to Section 5(h) above;

(c) voluntarily liquidate or dissolve;

(d) declare or pay any distribution (as defined in Section 3(d) except for distributions upon a liquidation or dissolution) with respect to the Common Stock of the Corporation;

(e) permit any subsidiary of the Corporation to sell securities to a third party (other than directors' qualifying shares in the case of subsidiaries outside the United States);

(f) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Preferred Stock;

(g) authorize or create (by reclassification, merger or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, liquidation, redemption, conversion or other rights senior to or on a parity with any series of Preferred Stock or with respect to voting senior to any series of Preferred Stock;

(h) increase or decrease the authorized number of directors of the Corporation; or

(i) amend this Section 8.

9. Amendments and Changes Requiring the Approval of the Series E Preferred Stock and Series E-1 Preferred Stock.

(a) As long as any of the Series E Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least 60% of the outstanding shares of the Series E Preferred Stock and Series E-1 Preferred Stock voting together as a single class:

(i) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation (including pursuant to a merger) if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series E Preferred Stock in a manner different from any other series of Preferred Stock; or

(ii) amend this Section 9(a).

(b) As long as any of the Series E Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least a majority of the outstanding shares of the Series E Preferred Stock and Series E-1 Preferred Stock voting together as a single class:

(i) declare or pay any distribution (as defined in Section 3(d) except for distributions upon a liquidation or dissolution) with respect to the Common Stock or Preferred Stock of the Corporation; or

(ii) amend this Section 9(b).

(c) As long as any of the Series E Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least 66 ²/₃% of the outstanding shares of the Series D Preferred Stock, Series D-1 Preferred Stock, Series E Preferred Stock and Series E-1 Preferred Stock voting together as a single class on an as converted to Common Stock basis:

(i) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Series E Preferred Stock;

(ii) authorize or create (by reclassification, merger or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, payments upon liquidation or other rights senior to or on a parity with the Series E Preferred Stock or with respect to voting senior to the Series E Preferred Stock; or

(iii) amend this Section 9(c).

10. Amendments and Changes Requiring the Approval of the Series D Preferred Stock and Series D-1 Preferred Stock.

(a) As long as any of the Series D Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least 60% of the outstanding shares of the Series D Preferred Stock and Series D-1 Preferred Stock voting together as a single class:

(i) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series D Preferred Stock in a manner different from any other series of Preferred Stock; or

(ii) amend this Section 10(a).

(b) As long as any of the Series D Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least a majority of the outstanding shares of the Series D Preferred Stock and Series D-1 Preferred Stock voting together as a single class:

(i) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Series D Preferred Stock;

(ii) authorize or create (by reclassification or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, payments

upon liquidation or other rights senior to or on a parity with the Series D Preferred Stock or with respect to voting senior to the Series D Preferred Stock;

(iii) declare or pay any distribution (as defined in Section 3(d) except for distributions upon a liquidation or dissolution) with respect to the Common Stock or Preferred Stock of the Corporation;

(iv) increase the authorized number of directors of the Corporation above eleven (11); or

(v) amend this Section 10(b).

11. Amendments and Changes Requiring the Approval of the Series C Preferred Stock. As long as any of the Series C Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least two-thirds ($\frac{2}{3}$) of the outstanding shares of the Series C Preferred Stock:

(a) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series C Preferred Stock in a manner different from any other series of Preferred Stock;

(b) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Series C Preferred Stock;

(c) authorize or create (by reclassification or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, payments upon liquidation or other rights senior to or on a parity with the Series C Preferred Stock or with respect to voting senior to the Series C Preferred Stock;

(d) declare or pay any distribution (as defined in Section 3(d) except for distributions upon a liquidation or dissolution) with respect to the Common Stock or Preferred Stock of the Corporation;

(e) increase the authorized number of directors of the Corporation above eleven (11); or

(f) amend this Section 11.

12. Amendments and Changes Requiring the Approval of the Series B Preferred Stock. As long as any of the Series B Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least two-thirds of the outstanding shares of the Series B Preferred Stock:

(a) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series B Preferred Stock in a manner different from any other series of Preferred Stock;

(b) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Series B Preferred Stock; or

(c) amend this Section 12.

13. Status of Converted Stock. In the event any shares of Preferred Stock shall be converted pursuant to Section 6 hereof, then the shares so converted shall be cancelled and shall not be issuable by the Corporation. The Certificate of Incorporation shall be appropriately amended to effect the corresponding reduction in the Corporation's authorized capital stock.

14. Notices. Any notice required by the provisions of this Article IV to be given to the holders of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at such holder's address appearing on the books of the Corporation.

ARTICLE V

The Corporation reserves the right to amend, alter, change, or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon the stockholders herein are granted subject to this right.

ARTICLE VI

The Corporation is to have perpetual existence.

ARTICLE VII

Elections of directors need not be by written ballot unless a stockholder demands election by written ballot at the meeting and before voting begins or unless the Bylaws of the Corporation shall so provide.

ARTICLE VIII

Unless otherwise set forth herein, the number of directors which constitute the Board of Directors of the Corporation shall be designated in the Bylaws of the Corporation.

ARTICLE IX

In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter, amend or repeal the Bylaws of the Corporation.

ARTICLE X

1. Limitation of Directors' Liability. To the fullest extent permitted by the General Corporation Law of the State of Delaware as the same exists or as may hereafter be amended, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director.

2. Indemnification. The Corporation may indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that such person or his or her testator or intestate is or was a director, officer or employee of the Corporation, or any predecessor of the Corporation, or serves or served at any other enterprise as a director, officer or employee at the request of the Corporation or any predecessor to the Corporation.

3. Amendments. Neither any amendment nor repeal of this Article X, nor the adoption of any provision of the Corporation's Certificate of Incorporation inconsistent with this Article X, shall eliminate or reduce the effect of this Article X, in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this Article X, would accrue or arise, prior to such amendment, repeal, or adoption of an inconsistent provision.

ARTICLE XI

Meetings of the stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provision contained in the statutes) outside of the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

* * *

**EIGHTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION OF
FLUIDIGM CORPORATION**

Fluidigm Corporation, a corporation organized and existing under the laws of the State of Delaware (the “**Corporation**”), certifies that:

A. The name of the Corporation is Fluidigm Corporation. The Corporation was originally incorporated under the same name, and its original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on March 29, 2007.

B. This Eighth Amended and Restated Certificate of Incorporation (this “**Amended and Restated Certificate of Incorporation**”) was duly adopted in accordance with Sections 242 and 245 of the General Corporation Law of the State of Delaware, and has been duly approved by the written consent of the stockholders of the Corporation in accordance with Section 228 of the General Corporation Law of the State of Delaware.

C. The text of the Seventh Amended and Restated Certificate of Incorporation is amended and restated to read as set forth in Exhibit A attached hereto.

IN WITNESS WHEREOF, Fluidigm Corporation has caused this Amended and Restated Certificate of Incorporation to be signed by Gajus V. Worthington, a duly authorized officer of the Corporation, on January __, 2011.

Gajus V. Worthington
President and Chief Executive Officer

EXHIBIT A

ARTICLE I

The name of the corporation is Fluidigm Corporation (the “**Corporation**”).

ARTICLE II

The address of the Corporation’s registered office in the State of Delaware is 1209 Orange Street, City of Wilmington, County of New Castle, Delaware 19801. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE III

The nature of the business or purposes to be conducted or promoted by the Corporation is to engage in any lawful act or activity for which corporations may be organized under the Delaware General Corporation Law (“**DGCL**”).

ARTICLE IV

Section 1. This Corporation is authorized to issue two classes of stock, to be designated, respectively, Common Stock and Preferred Stock. The total number of shares of stock that the Corporation shall have authority to issue is two hundred ten million (210,000,000) shares, of which two hundred million (200,000,000) shares are Common Stock, \$0.001 par value, and ten million (10,000,000) shares are Preferred Stock, \$0.001 par value.

Section 2. Each share of Common Stock shall entitle the holder thereof to one (1) vote on any matter submitted to a vote at a meeting of stockholders.

Section 3. The Preferred Stock may be issued from time to time in one or more series pursuant to a resolution or resolutions providing for such issue duly adopted by the Board of Directors (authority to do so being hereby expressly vested in the Board of Directors). The Board of Directors is further authorized, subject to limitations prescribed by law, to fix by resolution or resolutions the designations, powers, preferences and rights, and the qualifications, limitations or restrictions thereof, of any wholly unissued series of Preferred Stock, including, without limitation, authority to fix by resolution or resolutions the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), redemption price or prices, and liquidation preferences of any such series, and the number of shares constituting any such series and the designation thereof, or any of the foregoing. The Board of Directors is further authorized to increase (but not above the total number of authorized shares of the class) or decrease (but not below the number of shares of any such series then outstanding) the number of shares of any series, the number of which was fixed by it, subsequent to the issuance of shares of such series then outstanding, subject to the powers, preferences and rights, and the qualifications, limitations and restrictions thereof stated in this Amended and Restated Certificate of Incorporation or the resolution of the Board of Directors originally fixing the number of shares of such series. If the number of

shares of any series is so decreased, then the Corporation shall take all such steps as are necessary to cause the shares constituting such decrease to resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series.

Section 4. Except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Amended and Restated Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon by law or pursuant to this Amended and Restated Certificate of Incorporation (including any certificate of designation filed with respect to any series of Preferred Stock).

ARTICLE V

Section 1. The number of directors that constitutes the entire Board of Directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation. At each annual meeting of stockholders, directors of the Corporation shall be elected to hold office until the expiration of the term for which they are elected and until their successors have been duly elected and qualified or until their earlier resignation or removal; except that if any such meeting shall not be so held, such election shall take place at a stockholders' meeting called and held in accordance with the DGCL.

Section 2. From and after the effectiveness of this Amended and Restated Certificate of Incorporation, the directors of the Corporation (other than any who may be elected by holders of Preferred Stock under specified circumstances) shall be divided into three classes as nearly equal in size as is practicable, hereby designated Class I, Class II and Class III. Directors already in office shall be assigned to each class at the time such classification becomes effective in accordance with a resolution or resolutions adopted by the Board of Directors. At the first annual meeting of stockholders following the date hereof, the term of office of the Class I directors shall expire and Class I directors shall be elected for a full term of three years. At the second annual meeting of stockholders following the date hereof, the term of office of the Class II directors shall expire and Class II directors shall be elected for a full term of three years. At the third annual meeting of stockholders following the date hereof, the term of office of the Class III directors shall expire and Class III directors shall be elected for a full term of three years. At each succeeding annual meeting of stockholders, directors shall be elected for a full term of three years to succeed the directors of the class whose terms expire at such annual meeting. If the number of directors is changed, any newly created directorships or decrease in directorships shall be so apportioned hereafter among the classes as to make all classes as nearly equal in number as is practicable, *provided that* no decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

ARTICLE VI

Section 1. Any director or the entire Board of Directors may be removed from office at any time, but only for cause, and only by the affirmative vote of the holders of at least a majority of

the voting power of the issued and outstanding capital stock of the Corporation entitled to vote in the election of directors.

Section 2. Except as otherwise provided for or fixed by or pursuant to the provisions of Article IV hereof in relation to the rights of the holders of Preferred Stock to elect directors under specified circumstances, newly created directorships resulting from any increase in the number of directors, created in accordance with the Bylaws of the Corporation, and any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other cause shall be filled only by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director, and not by the stockholders. A person so elected by the Board of Directors to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen until his or her successor shall have been duly elected and qualified, or until such director's earlier death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

ARTICLE VII

Section 1. The Corporation is to have perpetual existence.

Section 2. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. In addition to the powers and authority expressly conferred upon them by statute or by this Amended and Restated Certificate of Incorporation or the Bylaws of the Corporation, the directors are hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation.

Section 3. In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to adopt, alter, amend or repeal the Bylaws of the Corporation. The affirmative vote of at least a majority of the Board of Directors then in office shall be required in order for the Board of Directors to adopt, amend, alter or repeal the Corporation's Bylaws. The Corporation's Bylaws may also be adopted, amended, altered or repealed by the stockholders of the Corporation. Notwithstanding the above or any other provision of this Amended and Restated Certificate of Incorporation, the Bylaws of the Corporation may not be amended, altered or repealed except in accordance with Article XI of the Bylaws. No Bylaw hereafter legally adopted, amended, altered or repealed shall invalidate any prior act of the directors or officers of the Corporation that would have been valid if such Bylaw had not been adopted, amended, altered or repealed.

Section 4. The election of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

Section 5. No stockholder will be permitted to cumulate votes at any election of directors.

ARTICLE VIII

Section 1. Any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

Section 2. Special meetings of stockholders of the Corporation may be called only by the Chairperson of the Board of Directors, the Chief Executive Officer, the President or the Board of Directors acting pursuant to a resolution adopted by a majority of the Board of Directors, and any power of stockholders to call a special meeting of stockholders is specifically denied. Only such business shall be considered at a special meeting of stockholders as shall have been stated in the notice for such meeting.

Section 3. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner and to the extent provided in the Bylaws of the Corporation.

ARTICLE IX

Section 1. To the fullest extent permitted by the DGCL as the same exists or as may hereafter be amended from time to time, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the DGCL is amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Section 2. The Corporation shall indemnify, to the fullest extent permitted by applicable law, any director or officer of the Corporation who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "Proceeding") by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding. The Corporation shall be required to indemnify a person in connection with a Proceeding initiated by such person only if the Proceeding was authorized by the Board of Directors.

Section 3. The Corporation shall have the power to indemnify, to the extent permitted by applicable law, any employee or agent of the Corporation who was or is a party or is threatened to be made a party to any Proceeding by reason of the fact that he or she is or was a director, officer, employee or agent of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with any such Proceeding.

Section 4. Neither any amendment nor repeal of any Section of this Article IX, nor the adoption of any provision of this Amended and Restated Certificate of Incorporation or the Bylaws of the Corporation inconsistent with this Article IX, shall eliminate or reduce the effect of this Article IX in respect of any matter occurring, or any cause of action, suit, claim or proceeding accruing or arising or that, but for this Article IX, would accrue or arise, prior to such amendment, repeal or adoption of an inconsistent provision.

ARTICLE X

Meetings of stockholders may be held within or outside of the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provision contained in the statutes) outside of the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

ARTICLE XI

The Corporation reserves the right to amend or repeal any provision contained in this Amended and Restated Certificate of Incorporation in the manner prescribed by the laws of the State of Delaware and all rights conferred upon stockholders are granted subject to this reservation; *provided, however*, that notwithstanding any other provision of this Amended and Restated Certificate of Incorporation or any provision of law that might otherwise permit a lesser vote or no vote, the Board of Directors acting pursuant to a resolution adopted by a majority of the Board of Directors and the affirmative vote of sixty-six and two-thirds percent (66 2/3%) of the then outstanding voting securities of the Corporation, voting together as a single class, shall be required for the amendment, repeal or modification of the provisions of Section 3 of Article IV, Section 2 of Article V, Article VI, Section 5 of Article VII, Article VIII or Article XI of this Amended and Restated Certificate of Incorporation.

**AMENDED AND RESTATED BYLAWS OF
FLUIDIGM CORPORATION**

(as amended and restated on January __, 2011 and effective as of the closing of the corporation's initial public offering)

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AMENDED AND RESTATED BYLAWS OF FLUIDIGM CORPORATION

ARTICLE I — CORPORATE OFFICES

1.1 REGISTERED OFFICE

The registered office of Fluidigm Corporation shall be fixed in the corporation's certificate of incorporation. References in these bylaws to the certificate of incorporation shall mean the certificate of incorporation of the corporation, as amended from time to time, including the terms of any certificate of designations of any series of Preferred Stock.

1.2 OTHER OFFICES

The corporation's board of directors may at any time establish other offices at any place or places where the corporation is qualified to do business.

ARTICLE II — MEETINGS OF STOCKHOLDERS

2.1 PLACE OF MEETINGS

Meetings of stockholders shall be held at any place, within or outside the State of Delaware, designated by the board of directors. The board of directors may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the General Corporation Law of the State of Delaware (the "**DGCL**"). In the absence of any such designation or determination, stockholders' meetings shall be held at the corporation's principal executive office.

2.2 ANNUAL MEETING

The annual meeting of stockholders shall be held on such date, at such time, and at such place (if any) within or without the State of Delaware as shall be designated from time to time by the board of directors and stated in the corporation's notice of the meeting. At the annual meeting, directors shall be elected and any other proper business may be transacted.

2.3 SPECIAL MEETING

(i) A special meeting of the stockholders, other than those required by statute, may be called at any time only by (A) the board of directors, (B) the chairperson of the board of directors, (C) the chief executive officer or (D) the president (in the absence of a chief executive officer). A special meeting of the stockholders may not be called by any other person or persons. The board of directors may cancel, postpone or reschedule any previously scheduled special meeting at any time, before or after the notice for such meeting has been sent to the stockholders.

(ii) The notice of a special meeting shall include the purpose for which the meeting is called. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting by or at the direction of the board of directors, the chairperson of the board of directors, the chief executive officer or the president (in the absence of a chief executive officer). Nothing contained in this Section 2.3(ii) shall be construed as limiting, fixing or affecting the time when a meeting of stockholders called by action of the board of directors may be held.

2.4 ADVANCE NOTICE PROCEDURES

(i) *Advance Notice of Stockholder Business.* At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be brought: (A) pursuant to the corporation's proxy materials with respect to such meeting, (B) by or at the direction of the board of directors, or (C) by a stockholder of the corporation who (1) is a stockholder of record at the time of the giving of the notice required by this Section 2.4(i) and on the record date for the determination of stockholders entitled to vote at the annual meeting and (2) has timely complied in proper written form with the notice procedures set forth in this Section 2.4(i). In addition, for business to be properly brought before an annual meeting by a stockholder, such business must be a proper matter for stockholder action pursuant to these bylaws and applicable law. Except for proposals properly made in accordance with Rule 14a-8 under the Securities and Exchange Act of 1934, and the rules and regulations thereunder (as so amended and inclusive of such rules and regulations), and included in the notice of meeting given by or at the direction of the board of directors, for the avoidance of doubt, clause (C) above shall be the exclusive means for a stockholder to bring business before an annual meeting of stockholders.

(a) To comply with clause (C) of Section 2.4(i) above, a stockholder's notice must set forth all information required under this Section 2.4(i) and must be timely received by the secretary of the corporation. To be timely, a stockholder's notice must be received by the secretary at the principal executive offices of the corporation not later than the 45th day nor earlier than the 75th day before the one-year anniversary of the date on which the corporation first mailed its proxy materials or a notice of availability of proxy materials (whichever is earlier) for the preceding year's annual meeting; *provided, however*, that in the event that no annual meeting was held in the previous year or if the date of the annual meeting is advanced by more than 30 days prior to or delayed by more than 60 days after the one-year anniversary of the date of the previous year's annual meeting, then, for notice by the stockholder to be timely, it must be so received by the secretary not earlier than the close of business on the 120th day prior to such annual meeting and not later than the close of business on the later of (i) the 90th day prior to such annual meeting, or (ii) the tenth day following the day on which Public Announcement (as defined below) of the date of such annual meeting is first made. In no event shall any adjournment or postponement of an annual meeting or the announcement thereof commence a new time period for the giving of a stockholder's notice as described in this Section 2.4(i)(a). "**Public Announcement**" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or a comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or any successor thereto (the "**1934 Act**").

(b) To be in proper written form, a stockholder's notice to the secretary must set forth as to each matter of business the stockholder intends to bring before the annual meeting: (1) a brief description of the business intended to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (2) the name and address, as they appear on the corporation's books, of the

stockholder proposing such business and any Stockholder Associated Person (as defined below), (3) the class and number of shares of the corporation that are held of record or are beneficially owned by the stockholder or any Stockholder Associated Person and any derivative positions held or beneficially held by the stockholder or any Stockholder Associated Person, (4) whether and the extent to which any hedging or other transaction or series of transactions has been entered into by or on behalf of such stockholder or any Stockholder Associated Person with respect to any securities of the corporation, and a description of any other agreement, arrangement or understanding (including any short position or any borrowing or lending of shares), the effect or intent of which is to mitigate loss to, or to manage the risk or benefit from share price changes for, or to increase or decrease the voting power of, such stockholder or any Stockholder Associated Person with respect to any securities of the corporation, (5) any material interest of the stockholder or a Stockholder Associated Person in such business, and (6) a statement whether either such stockholder or any Stockholder Associated Person will deliver a proxy statement and form of proxy to holders of at least the percentage of the corporation's voting shares required under applicable law to carry the proposal (such information provided and statements made as required by clauses (1) through (6), a "**Business Solicitation Statement**"). In addition, to be in proper written form, a stockholder's notice to the secretary must be supplemented not later than ten days following the record date for notice of the meeting to disclose the information contained in clauses (3) and (4) above as of the record date for notice of the meeting. For purposes of this Section 2.4, a "**Stockholder Associated Person**" of any stockholder shall mean (i) any person controlling, directly or indirectly, or acting in concert with, such stockholder, (ii) any beneficial owner of shares of stock of the corporation owned of record or beneficially by such stockholder and on whose behalf the proposal or nomination, as the case may be, is being made, or (iii) any person controlling, controlled by or under common control with such person referred to in the preceding clauses (i) and (ii).

(c) Without exception, no business shall be conducted at any annual meeting except in accordance with the provisions set forth in this Section 2.4(i) and, if applicable, Section 2.4(ii). In addition, business proposed to be brought by a stockholder may not be brought before the annual meeting if such stockholder or a Stockholder Associated Person, as applicable, takes action contrary to the representations made in the Business Solicitation Statement applicable to such business or if the Business Solicitation Statement applicable to such business contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading. The chairperson of the annual meeting shall, if the facts warrant, determine and declare at the annual meeting that business was not properly brought before the annual meeting and in accordance with the provisions of this Section 2.4(i), and, if the chairperson should so determine, he or she shall so declare at the annual meeting that any such business not properly brought before the annual meeting shall not be conducted.

(ii) *Advance Notice of Director Nominations at Annual Meetings.* Notwithstanding anything in these bylaws to the contrary, only persons who are nominated in accordance with the procedures set forth in this Section 2.4(ii) shall be eligible for election or re-election as directors at an annual meeting of stockholders. Nominations of persons for election or re-election to the board of directors of the corporation shall be made at an annual meeting of stockholders only (A) by or at the direction of the board of directors or (B) by a stockholder of the corporation who (1) was a stockholder of record at the time of the giving of the notice required by this Section 2.4(ii) and on the record date for the determination of stockholders entitled to vote at the annual meeting and (2) has complied with the notice procedures set forth in this Section 2.4(ii). In addition to any other applicable requirements, for a nomination to be made by a stockholder, the stockholder must have given timely notice thereof in proper written form to the secretary of the corporation.

(a) To comply with clause (B) of Section 2.4(ii) above, a nomination to be made by a stockholder must set forth all information required under this Section 2.4(ii) and must be received by the secretary of the corporation at the principal executive offices of the corporation at the time set forth in, and in accordance with, the final three sentences of Section 2.4(i)(a) above.

(b) To be in proper written form, such stockholder's notice to the secretary must set forth:

(1) as to each person (a "**nominee**") whom the stockholder proposes to nominate for election or re-election as a director: (A) the name, age, business address and residence address of the nominee, (B) the principal occupation or employment of the nominee, (C) the class and number of shares of the corporation that are held of record or are beneficially owned by the nominee and any derivative positions held or beneficially held by the nominee, (D) whether and the extent to which any hedging or other transaction or series of transactions has been entered into by or on behalf of the nominee with respect to any securities of the corporation, and a description of any other agreement, arrangement or understanding (including any short position or any borrowing or lending of shares), the effect or intent of which is to mitigate loss to, or to manage the risk or benefit of share price changes for, or to increase or decrease the voting power of the nominee, (E) a description of all arrangements or understandings between the stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nominations are to be made by the stockholder, (F) a written statement executed by the nominee acknowledging that as a director of the corporation, the nominee will owe a fiduciary duty under Delaware law with respect to the corporation and its stockholders, and (G) any other information relating to the nominee that would be required to be disclosed about such nominee if proxies were being solicited for the election or re-election of the nominee as a director, or that is otherwise required, in each case pursuant to Regulation 14A under the 1934 Act (including without limitation the nominee's written consent to being named in the proxy statement, if any, as a nominee and to serving as a director if elected or re-elected, as the case may be); and

(2) as to such stockholder giving notice, (A) the information required to be provided pursuant to clauses (2) through (5) of Section 2.4(i)(b) above, and the supplement referenced in the second sentence of Section 2.4(i)(b) above (except that the references to "business" in such clauses shall instead refer to nominations of directors for purposes of this paragraph), and (B) a statement whether either such stockholder or Stockholder Associated Person will deliver a proxy statement and form of proxy to holders of a number of the corporation's voting shares reasonably believed by such stockholder or Stockholder Associated Person to be necessary to elect or re-elect such nominee(s) (such information provided and statements made as required by clauses (A) and (B) above, a "**Nominee Solicitation Statement**").

(c) At the request of the board of directors, any person nominated by a stockholder for election or re-election as a director must furnish to the secretary of the corporation (1) that information required to be set forth in the stockholder's notice of nomination of such person as a director as of a date subsequent to the date on which the notice of such person's nomination was given and (2) such other information as may reasonably be required by the corporation to determine the eligibility of such proposed nominee to serve as an independent director or audit committee financial expert of the corporation under applicable law, securities exchange rule or regulation, or any publicly-disclosed corporate governance guideline or committee charter of the corporation and (3) that could be material to a reasonable stockholder's understanding of the independence, or lack thereof, of such nominee; in the absence of the furnishing of such information if requested, such stockholder's nomination shall not be considered in proper form pursuant to this Section 2.4(ii).

(d) Without exception, no person shall be eligible for election or re-election as a director of the corporation at an annual meeting of stockholders unless nominated in accordance with the provisions set forth in this Section 2.4(ii). In addition, a nominee shall not be eligible for election or re-election if a stockholder or Stockholder Associated Person, as applicable, takes action contrary to the representations made in the Nominee Solicitation Statement applicable to such nominee or if the Nominee Solicitation Statement applicable to such nominee contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading. The chairperson of the annual meeting shall, if the facts warrant, determine and declare at the annual meeting that a nomination was not made in accordance with the provisions prescribed by these bylaws, and if the chairperson should so determine, he or she shall so declare at the annual meeting, and the defective nomination shall be disregarded.

(iii) *Advance Notice of Director Nominations for Special Meetings.*

(a) For a special meeting of stockholders at which directors are to be elected or re-elected, nominations of persons for election or re-election to the board of directors shall be made only (1) by or at the direction of the board of directors or (2) by any stockholder of the corporation who (A) is a stockholder of record at the time of the giving of the notice required by this Section 2.4(iii) and on the record date for the determination of stockholders entitled to vote at the special meeting and (B) delivers a timely written notice of the nomination to the secretary of the corporation that includes the information set forth in Sections 2.4(ii)(b) and (ii)(c) above. To be timely, such notice must be received by the secretary at the principal executive offices of the corporation not later than the close of business on the later of the 90th day prior to such special meeting or the tenth day following the day on which Public Announcement is first made of the date of the special meeting and of the nominees proposed by the board of directors to be elected or re-elected at such meeting. A person shall not be eligible for election or re-election as a director at a special meeting unless the person is nominated (i) by or at the direction of the board of directors or (ii) by a stockholder in accordance with the notice procedures set forth in this Section 2.4(iii). In addition, a nominee shall not be eligible for election or re-election if a stockholder or Stockholder Associated Person, as applicable, takes action contrary to the representations made in the Nominee Solicitation Statement applicable to such nominee or if the Nominee Solicitation Statement applicable to such nominee contains an untrue statement of a material fact or omits to state a material fact necessary to make the statements therein not misleading.

(b) The chairperson of the special meeting shall, if the facts warrant, determine and declare at the meeting that a nomination or business was not made in accordance with the procedures prescribed by these bylaws, and if the chairperson should so determine, he or she shall so declare at the meeting, and the defective nomination or business shall be disregarded.

(iv) *Other Requirements and Rights.* In addition to the foregoing provisions of this Section 2.4, a stockholder must also comply with all applicable requirements of state law and of the 1934 Act and the rules and regulations thereunder with respect to the matters set forth in this Section 2.4. Nothing in this Section 2.4 shall be deemed to affect any rights of:

(a) a stockholder to request inclusion of proposals in the corporation's proxy statement pursuant to Rule 14a-8 (or any successor provision) under the 1934 Act; or

(b) the corporation to omit a proposal from the corporation's proxy statement pursuant to Rule 14a-8 (or any successor provision) under the 1934 Act.

2.5 NOTICE OF STOCKHOLDERS' MEETINGS

Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting, if such date is different from the record date for determining stockholders entitled to notice of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Except as otherwise provided in the DGCL, the certificate of incorporation or these bylaws, the written notice of any meeting of stockholders shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting as of the record date for determining the stockholders entitled to notice of the meeting.

2.6 QUORUM

The holders of a majority of the stock issued and outstanding and entitled to vote, present in person or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders. Where a separate vote by a class or series or classes or series is required, a majority of the outstanding shares of such class or series or classes or series, present in person or represented by proxy, shall constitute a quorum entitled to take action with respect to that vote on that matter, except as otherwise provided by law, the certificate of incorporation or these bylaws

If a quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting, or (ii) the stockholders entitled to vote at the meeting, present in person or represented by proxy, shall have power to adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present or represented. At such adjourned meeting at which a quorum is present or represented, any business may be transacted that might have been transacted at the meeting as originally noticed.

2.7 ADJOURNED MEETING; NOTICE

When a meeting is adjourned to another time or place, unless these bylaws otherwise require, notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than 30 days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for stockholders entitled to vote is fixed for the adjourned meeting, the board of directors shall fix a new record date for notice of such adjourned meeting in accordance with Section 213(a) of the DGCL and Section 2.11 of these bylaws, and shall give notice of the adjourned meeting to each stockholder of record entitled to vote at such adjourned meeting as of the record date fixed for notice of such adjourned meeting.

2.8 CONDUCT OF BUSINESS

The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business. The chairperson of any meeting of stockholders shall be designated by the board of directors; in the absence of such designation, the chairperson of the board, if any, the chief executive officer (in the absence of the chairperson) or the president (in

the absence of the chairperson of the board and the chief executive officer), or in their absence any other executive officer of the corporation, shall serve as chairperson of the stockholder meeting.

2.9 VOTING

The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of Section 2.11 of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation or these bylaws, each stockholder shall be entitled to one vote for each share of capital stock held by such stockholder.

Except as otherwise required by law, the certificate of incorporation or these bylaws, in all matters other than the election of directors, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Except as otherwise required by law, the certificate of incorporation or these bylaws, directors shall be elected by a plurality of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. Where a separate vote by a class or series or classes or series is required, in all matters other than the election of directors, the affirmative vote of the majority of shares of such class or series or classes or series present in person or represented by proxy at the meeting shall be the act of such class or series or classes or series, except as otherwise provided by law, the certificate of incorporation or these bylaws.

2.10 STOCKHOLDER ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Subject to the rights of the holders of the shares of any series of Preferred Stock or any other class of stock or series thereof that have been expressly granted the right to take action by written consent, any action required or permitted to be taken by the stockholders of the corporation must be effected at a duly called annual or special meeting of stockholders of the corporation and may not be effected by any consent in writing by such stockholders.

2.11 RECORD DATES

In order that the corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the board of directors and which record date shall not be more than 60 nor less than 10 days before the date of such meeting. If the board of directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the board of directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination.

If no record date is fixed by the board of directors, the record date for determining stockholders entitled to notice of and to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however*, that the board of directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance with the provisions of Section 213 of the DGCL and this Section 2.11 at the adjourned meeting.

In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the board of directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than 60 days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the board of directors adopts the resolution relating thereto.

2.12 PROXIES

Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL. A written proxy may be in the form of a telegram, cablegram, or other means of electronic transmission which sets forth or is submitted with information from which it can be determined that the telegram, cablegram, or other means of electronic transmission was authorized by the person.

2.13 LIST OF STOCKHOLDERS ENTITLED TO VOTE

The officer who has charge of the stock ledger of the corporation shall prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting; *provided, however*, if the record date for determining the stockholders entitled to vote is less than 10 days before the meeting date, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date. The stockholder list shall be arranged in alphabetical order and show the address of each stockholder and the number of shares registered in the name of each stockholder. The corporation shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder for any purpose germane to the meeting for a period of at least 10 days prior to the meeting (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the corporation's principal place of business. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

2.14 INSPECTORS OF ELECTION

Before any meeting of stockholders, the board of directors shall appoint an inspector or inspectors of election to act at the meeting or its adjournment. The number of inspectors shall be either one (1) or three (3). If any person appointed as inspector fails to appear or fails or refuses to act, then the chairperson of the meeting may, and upon the request of any stockholder or a stockholder's proxy shall, appoint a person to fill that vacancy.

Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath to execute faithfully the duties of inspector with strict impartiality and according to the best of his or her ability. The inspector or inspectors so appointed and designated shall (i) ascertain the number of shares of capital stock of the corporation outstanding and the voting power of each share, (ii) determine the shares of capital stock of the corporation represented at the meeting and the validity of proxies and ballots, (iii) count all votes and ballots, (iv) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors, and (v) certify their determination of the number of shares of capital stock of the corporation represented at the meeting and such inspector or inspectors' count of all votes and ballots.

In determining the validity and counting of proxies and ballots cast at any meeting of stockholders of the corporation, the inspector or inspectors may consider such information as is permitted by applicable law. If there are three (3) inspectors of election, the decision, act or certificate of a majority is effective in all respects as the decision, act or certificate of all.

ARTICLE III — DIRECTORS

3.1 POWERS

The business and affairs of the corporation shall be managed by or under the direction of the board of directors, except as may be otherwise provided in the DGCL or the certificate of incorporation.

3.2 NUMBER OF DIRECTORS

The board of directors shall consist of one or more members, each of whom shall be a natural person. Unless the certificate of incorporation fixes the number of directors, the number of directors shall be determined from time to time solely by resolution of the board of directors. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

3.3 ELECTION, QUALIFICATION AND TERM OF OFFICE OF DIRECTORS

Except as provided in Section 3.4 of these bylaws, each director, including a director elected to fill a vacancy, shall hold office until the expiration of the term for which elected and until such director's successor is elected and qualified or until such director's earlier death, resignation or removal. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors.

3.4 RESIGNATION AND VACANCIES

Any director may resign at any time upon notice given in writing or by electronic transmission to the corporation; *provided, however*, that if such notice is given by electronic transmission, such electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the director. A resignation is effective when the resignation is delivered unless the resignation specifies a later effective date or an effective date determined upon the happening of an event or events. Acceptance of such resignation shall not be necessary to make it effective. A resignation which is conditioned upon the director failing to receive a specified vote for reelection as a director may provide that it is irrevocable. Unless otherwise provided in the certificate of incorporation or these bylaws, when one or more directors resign from the board of directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective.

Unless otherwise provided in the certificate of incorporation or these bylaws, vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class shall be filled only by a majority of the directors then in office, although less than a quorum, or by a sole remaining director. If the directors are divided into classes, a person so elected by the directors then in office to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall have been duly elected and qualified.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole board of directors (as constituted immediately prior to any such increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the voting stock at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

3.5 PLACE OF MEETINGS; MEETINGS BY TELEPHONE

The board of directors may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the board of directors, or any committee designated by the board of directors, may participate in a meeting of the board of directors, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

3.6 REGULAR MEETINGS

Regular meetings of the board of directors may be held without notice at such time and at such place as shall from time to time be determined by the board of directors.

3.7 SPECIAL MEETINGS; NOTICE

Special meetings of the board of directors for any purpose or purposes may be called at any time by the chairperson of the board of directors, the chief executive officer, the president, the secretary or a majority of the authorized number of directors, at such times and places as he or she or they shall designate.

Notice of the time and place of special meetings shall be:

- (i) delivered personally by hand, by courier or by telephone;
- (ii) sent by United States first-class mail, postage prepaid;
- (iii) sent by facsimile; or
- (iv) sent by electronic mail,

directed to each director at that director's address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the corporation's records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least 24 hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the corporation's principal executive office) nor the purpose of the meeting.

3.8 QUORUM; VOTING

At all meetings of the board of directors, a majority of the total authorized number of directors shall constitute a quorum for the transaction of business. If a quorum is not present at any meeting of the board of directors, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present. A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the board of directors, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws.

If the certificate of incorporation provides that one or more directors shall have more or less than one vote per director on any matter, every reference in these bylaws to a majority or other proportion of the directors shall refer to a majority or other proportion of the votes of the directors.

3.9 BOARD ACTION BY WRITTEN CONSENT WITHOUT A MEETING

Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the board of directors, or of any committee thereof, may be taken without

a meeting if all members of the board of directors or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the board of directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

3.10 FEES AND COMPENSATION OF DIRECTORS

Unless otherwise restricted by the certificate of incorporation or these bylaws, the board of directors shall have the authority to fix the compensation of directors.

3.11 REMOVAL OF DIRECTORS

A director may be removed from office by the stockholders of the corporation only for cause.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE IV — COMMITTEES

4.1 COMMITTEES OF DIRECTORS

The board of directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The board of directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the board of directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the board of directors or in these bylaws, shall have and may exercise all the powers and authority of the board of directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the corporation.

4.2 COMMITTEE MINUTES

Each committee shall keep regular minutes of its meetings and report the same to the board of directors when required.

4.3 MEETINGS AND ACTION OF COMMITTEES

Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

- (i) Section 3.5 (place of meetings and meetings by telephone);

- (ii) Section 3.6 (regular meetings);
- (iii) Section 3.7 (special meetings; notice);
- (iv) Section 3.8 (quorum; voting);
- (v) Section 3.9 (action without a meeting); and
- (vi) Section 7.5 (waiver of notice)

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the board of directors and its members. *However:*

- (i) the time of regular meetings of committees may be determined by resolution of the committee;
- (ii) special meetings of committees may also be called by resolution of the committee; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The board of directors may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

Any provision in the certificate of incorporation providing that one or more directors shall have more or less than one vote per director on any matter shall apply to voting in any committee or subcommittee, unless otherwise provided in the certificate of incorporation or these bylaws.

4.4 SUBCOMMITTEES

Unless otherwise provided in the certificate of incorporation, these bylaws or the resolutions of the board of directors designating the committee, a committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

ARTICLE V — OFFICERS

5.1 OFFICERS

The officers of the corporation shall be a president and a secretary. The corporation may also have, at the discretion of the board of directors, a chairperson of the board of directors, a vice chairperson of the board of directors, a chief executive officer, a chief financial officer or treasurer, one or more vice presidents, one or more assistant vice presidents, one or more assistant treasurers, one or more assistant secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

5.2 APPOINTMENT OF OFFICERS

The board of directors shall appoint the officers of the corporation, except such officers as may be appointed in accordance with the provisions of Section 5.3 of these bylaws, subject to the rights, if any, of an officer under any contract of employment. A vacancy in any office because of death, resignation, removal, disqualification or any other cause shall be filled in the manner prescribed in this Section 5 for the regular election to such office.

5.3 SUBORDINATE OFFICERS

The board of directors may appoint, or empower the chief executive officer or, in the absence of a chief executive officer, the president, to appoint, such other officers and agents as the business of the corporation may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the board of directors may from time to time determine.

5.4 REMOVAL AND RESIGNATION OF OFFICERS

Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the board of directors at any regular or special meeting of the board of directors or, except in the case of an officer chosen by the board of directors, by any officer upon whom such power of removal may be conferred by the board of directors.

Any officer may resign at any time by giving written or electronic notice to the corporation; *provided, however*, that if such notice is given by electronic transmission, such electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the officer. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the corporation under any contract to which the officer is a party.

5.5 VACANCIES IN OFFICES

Any vacancy occurring in any office of the corporation shall be filled by the board of directors or as provided in Section 5.3.

5.6 REPRESENTATION OF SHARES OF OTHER CORPORATIONS

The chairperson of the board of directors, the president, any vice president, the treasurer, the secretary or assistant secretary of this corporation, or any other person authorized by the board of directors or the president or a vice president, is authorized to vote, represent, and exercise on behalf of this corporation all rights incident to any and all shares of any other corporation or corporations standing in the name of this corporation. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

5.7 AUTHORITY AND DUTIES OF OFFICERS

All officers of the corporation shall respectively have such authority and perform such duties in the management of the business of the corporation as may be designated from time to time by the board of directors and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the board of directors.

5.8 THE CHAIRPERSON OF THE BOARD

The chairperson of the board shall have the powers and duties customarily and usually associated with the office of the chairperson of the board. The chairperson of the board shall preside at meetings of the stockholders and of the board of directors.

5.9 THE VICE CHAIRPERSON OF THE BOARD

The vice chairperson of the board shall have the powers and duties customarily and usually associated with the office of the vice chairperson of the board. In the case of absence or disability of the chairperson of the board, the vice chairperson of the board shall perform the duties and exercise the powers of the chairperson of the board.

5.10 THE CHIEF EXECUTIVE OFFICER

The chief executive officer shall have, subject to the supervision, direction and control of the board of directors, ultimate authority for decisions relating to the supervision, direction and management of the affairs and the business of the corporation customarily and usually associated with the position of chief executive officer, including, without limitation, all powers necessary to direct and control the organizational and reporting relationships within the corporation. If at any time the office of the chairperson and vice chairperson of the board shall not be filled, or in the event of the temporary absence or disability of the chairperson of the board and the vice chairperson of the board, the chief executive officer shall perform the duties and exercise the powers of the chairperson of the board unless otherwise determined by the board of directors.

5.11 THE PRESIDENT

The president shall have, subject to the supervision, direction and control of the board of directors, the general powers and duties of supervision, direction and management of the affairs and business of the corporation customarily and usually associated with the position of president. The president shall have such powers and perform such duties as may from time to time be assigned to him or her by the board of directors, the chairperson of the board or the chief executive officer. In the event of the absence or disability of the chief executive officer, the president shall perform the duties and exercise the powers of the chief executive officer unless otherwise determined by the board of directors.

5.12 THE VICE PRESIDENTS AND ASSISTANT VICE PRESIDENTS

Each vice president and assistant vice president shall have such powers and perform such duties as may from time to time be assigned to him or her by the board of directors, the chairperson of the board, the chief executive officer or the president.

5.13 THE SECRETARY AND ASSISTANT SECRETARIES

(i) The secretary shall attend meetings of the board of directors and meetings of the stockholders and record all votes and minutes of all such proceedings in a book or books kept for such purpose. The secretary shall have all such further powers and duties as are customarily and usually associated with the position of secretary or as may from time to time be assigned to him or her by the board of directors, the chairperson of the board, the chief executive officer or the president.

(ii) Each assistant secretary shall have such powers and perform such duties as may from time to time be assigned to him or her by the board of directors, the chairperson of the board, the chief executive officer, the president or the secretary. In the event of the absence, inability or refusal to act of the secretary, the assistant secretary (or if there shall be more than one, the assistant secretaries in the order determined by the board of directors) shall perform the duties and exercise the powers of the secretary.

5.14 THE CHIEF FINANCIAL OFFICER AND ASSISTANT TREASURERS

(i) The chief financial officer shall be the treasurer of the corporation. The chief financial officer shall have custody of the corporation's funds and securities, shall be responsible for maintaining the corporation's accounting records and statements, shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation, and shall deposit or cause to be deposited moneys or other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the board of directors. The chief financial officer shall also maintain adequate records of all assets, liabilities and transactions of the corporation and shall assure that adequate audits thereof are currently and regularly made. The chief financial officer shall have all such further powers and duties as are customarily and usually associated with the position of chief financial officer, or as may from time to time be assigned to him or her by the board of directors, the chairperson, the chief executive officer or the president.

(ii) Each assistant treasurer shall have such powers and perform such duties as may from time to time be assigned to him or her by the board of directors, the chief executive officer, the president or the chief financial officer. In the event of the absence, inability or refusal to act of the chief financial officer, the assistant treasurer (or if there shall be more than one, the assistant treasurers in the order determined by the board of directors) shall perform the duties and exercise the powers of the chief financial officer.

ARTICLE VI — STOCK

6.1 STOCK CERTIFICATES; PARTLY PAID SHARES

The shares of the corporation shall be represented by certificates, provided that the board of directors may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Every holder of stock represented by certificates shall be entitled to have a certificate signed by, or in the name of the corporation by the chairperson of the board of directors or vice-chairperson of the board of directors, or the president or a vice-president, and by the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the corporation representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be

such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. The corporation shall not have power to issue a certificate in bearer form.

The corporation may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly-paid shares, or upon the books and records of the corporation in the case of uncertificated partly-paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully-paid shares, the corporation shall declare a dividend upon partly-paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

6.2 SPECIAL DESIGNATION ON CERTIFICATES

If the corporation is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the corporation shall issue to represent such class or series of stock; *provided, however*, that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the corporation shall issue to represent such class or series of stock, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated stock, the corporation shall send to the registered owner thereof a written notice containing the information required to be set forth or stated on certificates pursuant to this section 6.2 or Sections 156, 202(a) or 218(a) of the DGCL or with respect to this section 6.2 a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights. Except as otherwise expressly provided by law, the rights and obligations of the holders of uncertificated stock and the rights and obligations of the holders of certificates representing stock of the same class and series shall be identical.

6.3 LOST, STOLEN OR DESTROYED CERTIFICATES

Except as provided in this Section 6.3, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the corporation and cancelled at the same time. The corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

6.4 DIVIDENDS

The board of directors, subject to any restrictions contained in the certificate of incorporation or applicable law, may declare and pay dividends upon the shares of the corporation's capital stock. Dividends may

be paid in cash, in property, or in shares of the corporation's capital stock, subject to the provisions of the certificate of incorporation.

The board of directors may set apart out of any of the funds of the corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the corporation, and meeting contingencies.

6.5 TRANSFER OF STOCK

Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by an attorney duly authorized, and, if such stock is certificated, upon the surrender of a certificate or certificates for a like number of shares, properly endorsed or accompanied by proper evidence of succession, assignation or authority to transfer; *provided, however*, that such succession, assignment or authority to transfer is not prohibited by the certificate of incorporation, these bylaws, applicable law or contract.

6.6 STOCK TRANSFER AGREEMENTS

The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

6.7 REGISTERED STOCKHOLDERS

The corporation:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

ARTICLE VII — MANNER OF GIVING NOTICE AND WAIVER

7.1 NOTICE OF STOCKHOLDERS' MEETINGS

Notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the corporation's records. An affidavit of the secretary or an assistant secretary of the corporation or of the transfer agent or other agent of the corporation that the notice has been given shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

7.2 NOTICE BY ELECTRONIC TRANSMISSION

Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the corporation under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any such consent shall be deemed revoked if:

- (i) the corporation is unable to deliver by electronic transmission two consecutive notices given by the corporation in accordance with such consent; and
- (ii) such inability becomes known to the secretary or an assistant secretary of the corporation or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

- (i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;
- (ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;
- (iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and
- (iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the secretary or an assistant secretary or of the transfer agent or other agent of the corporation that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

An “**electronic transmission**” means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

7.3 NOTICE TO STOCKHOLDERS SHARING AN ADDRESS

Except as otherwise prohibited under the DGCL, without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the corporation under the provisions of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any

stockholder who fails to object in writing to the corporation, within 60 days of having been given written notice by the corporation of its intention to send the single notice, shall be deemed to have consented to receiving such single written notice.

7.4 NOTICE TO PERSON WITH WHOM COMMUNICATION IS UNLAWFUL

Whenever notice is required to be given, under the DGCL, the certificate of incorporation or these bylaws, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

7.5 WAIVER OF NOTICE

Whenever notice is required to be given to stockholders, directors or other persons under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders or the board of directors, as the case may be, need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII — INDEMNIFICATION

8.1 INDEMNIFICATION OF DIRECTORS AND OFFICERS IN THIRD PARTY PROCEEDINGS

Subject to the other provisions of this Article VIII, the corporation shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**") (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director of the corporation or an officer of the corporation, or while a director of the corporation or officer of the corporation is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such Proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any Proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the corporation,

and, with respect to any criminal action or proceeding, had reasonable cause to believe that such person's conduct was unlawful.

8.2 INDEMNIFICATION OF DIRECTORS AND OFFICERS IN ACTIONS BY OR IN THE RIGHT OF THE CORPORATION

Subject to the other provisions of this Article VIII, the corporation shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the corporation, or while a director or officer of the corporation is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation; except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

8.3 SUCCESSFUL DEFENSE

To the extent that a present or former director or officer of the corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding described in Section 8.1 or Section 8.2, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

8.4 INDEMNIFICATION OF OTHERS

Subject to the other provisions of this Article VIII, the corporation shall have power to indemnify its employees and its agents to the extent not prohibited by the DGCL or other applicable law. The board of directors shall have the power to delegate the determination of whether employees or agents shall be indemnified to such person or persons as the board of determines.

8.5 ADVANCED PAYMENT OF EXPENSES

Expenses (including attorneys' fees) incurred by an officer or director of the corporation in defending any Proceeding shall be paid by the corporation in advance of the final disposition of such Proceeding upon receipt of a written request therefor (together with documentation reasonably evidencing such expenses) and an undertaking by or on behalf of the person to repay such amounts if it shall ultimately be determined that the person is not entitled to be indemnified under this Article VIII or the DGCL. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents may be so paid upon such terms and conditions, if any, as the corporation deems reasonably appropriate and shall be subject to the corporation's expense guidelines. The right to advancement of expenses shall not apply to any claim for which indemnity is excluded pursuant to these bylaws, but shall apply to any Proceeding referenced in Section 8.6(ii) or 8.6(iii) prior to a determination that the person is not entitled to be indemnified by the corporation.

8.6 LIMITATION ON INDEMNIFICATION

Subject to the requirements in Section 8.3 and the DGCL, the corporation shall not be obligated to indemnify any person pursuant to this Article VIII in connection with any Proceeding (or any part of any Proceeding):

(i) for which payment has actually been made to or on behalf of such person under any statute, insurance policy, indemnity provision, vote or otherwise, except with respect to any excess beyond the amount paid;

(ii) for an accounting or disgorgement of profits pursuant to Section 16(b) of the 1934 Act, or similar provisions of federal, state or local statutory law or common law, if such person is held liable therefor (including pursuant to any settlement arrangements);

(iii) for any reimbursement of the corporation by such person of any bonus or other incentive-based or equity-based compensation or of any profits realized by such person from the sale of securities of the corporation, as required in each case under the 1934 Act (including any such reimbursements that arise from an accounting restatement of the corporation pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the “**Sarbanes-Oxley Act**”), or the payment to the corporation of profits arising from the purchase and sale by such person of securities in violation of Section 306 of the Sarbanes-Oxley Act), if such person is held liable therefor (including pursuant to any settlement arrangements);

(iv) initiated by such person against the corporation or its directors, officers, employees, agents or other indemnitees, unless (a) the board of directors authorized the Proceeding (or the relevant part of the Proceeding) prior to its initiation, (b) the corporation provides the indemnification, in its sole discretion, pursuant to the powers vested in the corporation under applicable law, (c) otherwise required to be made under Section 8.7 or (d) otherwise required by applicable law; or

(v) if prohibited by applicable law; *provided, however*, that if any provision or provisions of this Article VIII shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (1) the validity, legality and enforceability of the remaining provisions of this Article VIII (including, without limitation, each portion of any paragraph or clause containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (2) to the fullest extent possible, the provisions of this Article VIII (including, without limitation, each such portion of any paragraph or clause containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

8.7 DETERMINATION; CLAIM

If a claim for indemnification or advancement of expenses under this Article VIII is not paid in full within 90 days after receipt by the corporation of the written request therefor, the claimant shall be entitled to an adjudication by a court of competent jurisdiction of his or her entitlement to such indemnification or advancement of expenses. The corporation shall indemnify such person against any and all expenses that are incurred by such person in connection with any action for indemnification or advancement of expenses from the corporation under this Article VIII, to the extent such person is successful in such action, and to the extent not prohibited by law. In any such suit, the corporation shall, to the fullest extent not prohibited by law, have the burden of proving that the claimant is not entitled to the requested indemnification or advancement of expenses.

8.8 NON-EXCLUSIVITY OF RIGHTS

The indemnification and advancement of expenses provided by, or granted pursuant to, this Article VIII shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under the certificate of incorporation or any statute, bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advancement of expenses, to the fullest extent not prohibited by the DGCL or other applicable law.

8.9 INSURANCE

The corporation may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under the provisions of the DGCL.

8.10 SURVIVAL

The rights to indemnification and advancement of expenses conferred by this Article VIII shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

8.11 EFFECT OF REPEAL OR MODIFICATION

Any amendment, alteration or repeal of this Article VIII shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to such amendment, alteration or repeal.

8.12 CERTAIN DEFINITIONS

For purposes of this Article VIII, references to the "**corporation**" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Article VIII with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued. For purposes of this Article VIII, references to "**other enterprises**" shall include employee benefit plans; references to "**finances**" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "**serving at the request of the corporation**" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the

interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this Article VIII.

ARTICLE IX — GENERAL MATTERS

9.1 EXECUTION OF CORPORATE CONTRACTS AND INSTRUMENTS

Except as otherwise provided by law, the certificate of incorporation or these bylaws, the board of directors may authorize any officer or officers, or agent or agents, to enter into any contract or execute any document or instrument in the name of and on behalf of the corporation; such authority may be general or confined to specific instances. Unless so authorized or ratified by the board of directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount.

9.2 FISCAL YEAR

The fiscal year of the corporation shall be fixed by resolution of the board of directors and may be changed by the board of directors.

9.3 SEAL

The corporation may adopt a corporate seal, which shall be adopted and which may be altered by the board of directors. The corporation may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

9.4 CONSTRUCTION; DEFINITIONS

Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term “**person**” includes both an entity and a natural person.

ARTICLE X — AMENDMENTS

These bylaws may be adopted, amended or repealed by the stockholders entitled to vote; *provided, however*, that the affirmative vote of the holders of at least 66 2/3% of the total voting power of outstanding voting securities, voting together as a single class, shall be required for the stockholders of the corporation to alter, amend or repeal, or adopt any bylaw inconsistent with, the following provisions of these bylaws: Article II, Sections 3.1, 3.2, 3.4 and 3.11 of Article III, Article VIII and this Article X (including, without limitation, any such Article or Section as renumbered as a result of any amendment, alteration, change, repeal, or adoption of any other Bylaw). The board of directors shall also have the power to adopt, amend or repeal bylaws; *provided, however*, that a bylaw amendment adopted by stockholders which specifies the votes that shall be necessary for the election of directors shall not be further amended or repealed by the board of directors.

BUSINESS FINANCING AGREEMENT

Borrower: FLUIDIGM CORPORATION
7000 Shoreline Court, Suite 100
South San Francisco, CA 94080

Lender: BRIDGE BANK, National Association
55 Almaden Boulevard, Suite 100
San Jose, CA 95113

This BUSINESS FINANCING AGREEMENT, dated as of December 16, 2010, is made and entered into between BRIDGE BANK, NATIONAL ASSOCIATION (“**Lender**”) and FLUIDIGM CORPORATION, a Delaware corporation (“**Borrower**”) on the following terms and conditions:

1. REVOLVING CREDIT LINE.

- 1.1 Advances.** Subject to the terms and conditions of this Agreement, from the date on which this Agreement becomes effective until the Maturity Date, Lender will make Advances to Borrower not exceeding the Credit Limit or the Borrowing Base, whichever is less; provided that in no event shall Lender be obligated to make any Advance that results in an Overadvance or while any Overadvance is outstanding. Amounts borrowed under this Section may be repaid and reborrowed during the term of this Agreement. It shall be a condition to each Advance that (a) a Advance Request acceptable to Lender has been received by Lender, (b) all of the representations and warranties set forth in Section 3 are true and correct on the date of such Advance as though made at and as of each such date, and (c) no Default has occurred and is continuing, or would result from such Advance.
- 1.2 Advance Requests.** Borrower may request that Lender make an Advance by delivering to Lender a Advance Request therefor and Lender shall be entitled to rely on all the information provided by Borrower to Lender on or with the Advance Request. The Lender may honor Advance Requests, instructions or repayments given by the Borrower (if an individual) or by any Authorized Person.
- 1.3 Due Diligence.** Lender may audit Borrower’s Receivables and any and all records pertaining to the Collateral, at Lender’s sole discretion and at Borrowers expense. Lender shall require such an audit prior to the initial Advances and not more frequently than annually thereafter, and more frequently at any time Advances an Event of Default exists. Lender may at any time and from time to time contact Account Debtors and other persons obligated or knowledgeable in respect of Receivables to confirm the Receivable Amount of such Receivables, to determine whether Receivables constitute Eligible Receivables, and for any other purpose in connection with this Agreement. If any of the Collateral or Borrower’s books or records pertaining to the Collateral are in the possession of a third party, Borrower authorizes that third party to permit Lender or its agents to have access to perform inspections or audits thereof and to respond to Lender’s requests for information concerning such Collateral and records.
- 1.4 Collections.** Lender shall have the exclusive right to receive all Collections on all Receivables. Borrower shall (i) immediately notify, transfer and deliver to Lender all Collections Borrower receives, (ii) deliver to Lender a detailed cash receipts journal on Friday of every second week until the lockbox is operational, and (iii) immediately enter into a collection services agreement acceptable to Lender (the “**Lockbox Agreement**”). Borrower shall use the lockbox address as the remit to and payment address for all of Borrower’s Collections and it will be considered an immediate Event of Default if this does not occur or the lockbox is not operational within 45 days of the date of this Agreement. Lender shall credit payments received by Lender from Borrower to Borrower’s Account Balance upon receipt by Lender; provided that upon the occurrence and during the continuance of any Event of Default, Lender may apply all Collections to the Obligations in such order and manner as Lender may determine. Lender has no duty to do any act other than to apply such amounts as required above. If an item of Collections is not honored or Lender does not receive good funds for any reason, the amount shall be included in the Account Balance as if the Collections had not been received and Finance Charges shall continue to accrue thereon. All Collections received to the lockbox or otherwise received by Lender will be deposited to Borrower’s non-interest bearing operating account maintained with Lender and will not be credited against the Account Balance until so paid by Borrower (or so applied by Lender pursuant hereto). Lender shall have, with respect to any goods related to the Receivables, all the rights and remedies of an unpaid seller under the California Uniform Commercial Code and other applicable law, including the rights of replevin, claim and delivery, reclamation and stoppage in transit. Borrower shall maintain segregated accounts as to all cash and cash equivalents of Borrower existing on the date hereof and after- arising cash and cash equivalents. Borrower shall employ all pre-existing cash and cash equivalents in the conduct and operation of its business prior to using any of its after-arising cash and cash-equivalents, and all after-arising cash and cash equivalents shall be maintained in accounts at Lender.
- 1.5 Receivables Activity Report.** Within 30 days after the end of each Monthly Period, Lender shall send to Borrower a report covering the transactions for that Monthly Period, including the amount of all Advances, Collections, Adjustments, Finance Charges, and other fees and charges. The accounting shall be deemed correct and conclusive unless Borrower makes written objection to Lender within 30 days after the Lender sends the accounting to Borrower.

- 1.6 Adjustments.** In the event any Adjustment or dispute is asserted by any Account Debtor, Borrower shall promptly advise Lender and shall, subject to the Lender's approval, resolve such disputes and advise Lender of any Adjustments; provided that in no case will the aggregate Adjustments made with respect to any Receivable exceed 2% of its original Receivable Amount unless Borrower has obtained the prior written consent of Lender.
- 1.7 Recourse; Maturity.** Advances and the other Obligations shall be with full recourse against Borrower. On the Maturity Date, the Borrower will pay all then outstanding Advances and other Obligations to the Lender or such earlier date as shall be herein provided.
- 1.8 Letter of Credit Line.** Subject to the terms and conditions of this Agreement, Lender hereby agrees to issue or cause an Affiliate to issue letters of credit for the account of Borrower (each, a "Letter of Credit" and collectively, "Letters of Credit") from time to time; provided that (a) the Letter of Credit Obligations shall not at any time exceed the Letter of Credit Sublimit and (b) the Letter of Credit Obligations will be treated as Advances for purposes of determining availability under the Credit Limit and shall decrease, on a dollar-for-dollar basis, the amount available for other Advances. The form and substance of each Letter of Credit shall be subject to approval by Lender, in its sole discretion. No Letter of Credit shall have an expiration date subsequent to the Maturity Date. Each Letter of Credit shall be subject to the additional terms of the Letter of Credit agreements, applications and any related documents required by Lender in connection with the issuance thereof (each, a "Letter of Credit Agreement"). Each draft paid under any Letter of Credit shall be repaid by Borrower in accordance with the provisions of the applicable Letter of Credit Agreement. No Letter of Credit shall be made that results in an Overadvance or while any Overadvance is outstanding. Upon the Maturity Date, the amount of Letter of Credit Obligations shall be secured by unencumbered cash on terms acceptable to Lender if the term of this Agreement is not extended by Lender.
- 1.9 Cash Management Services.** Borrower may use availability hereunder up to the Cash Management Sublimit for Lender's cash management services, which may include merchant services, direct deposit of payroll, business credit card, and check cashing services identified in various cash management services agreements related to such services (the "Cash Management Services"). The entire Cash Management Sublimit will be treated as an Advance for purposes of determining availability under the Credit Limit and shall decrease, on a dollar-for-dollar basis, the amount available for other Advances. The Cash Management Services shall be subject to additional terms set forth in applicable cash management services agreements.
- 1.10 Foreign Exchange Facility.** Borrower may enter in foreign exchange forward contracts with Lender under which Borrower commits to purchase from or sell to Lender a set amount of foreign currency more than one business day after the contract date (the "FX Forward Contract"). The total FX Forward Contracts at any one time may not exceed 10 times the amount of the FX Sublimit. Ten percent (10%) of the amount of each outstanding FX Forward Contract shall be treated as an Advance for purposes of determining availability under the Credit Limit and shall decrease, on a dollar-for-dollar basis, the amount available for other Advances. Lender may terminate the FX Forward Contracts if an Event of Default occurs. Each FX Forward Contract shall be subject to additional terms set forth in the applicable FX Forward Contract or other agreements executed in connection with the foreign exchange facility.
- 1.11 Overadvances.** Upon any occurrence of an Overadvance, Borrower shall immediately pay down the Advances so that, after giving effect to such payments, no Overadvance exists.

2. FEES AND FINANCE CHARGES.

- 2.1 Finance Charges.** Lender may, but is not required to, deduct the amount of accrued Finance Charge from Collections received by Lender. Within 10 days of each Month End, Borrower shall pay to Lender any accrued and unpaid Finance Charge as of such Month End. Lender may, at its option, charge such Finance Charge, and any other amounts payable hereunder, against any of Borrower's deposit accounts or against the Account Balance, in which case those amounts shall thereafter accrue Finance Charges at the rate then applicable hereunder. Any Finance Charge not paid when due shall be compounded by becoming a part of the Obligations, and such Finance Charge shall thereafter accrue Finance Charges at the rate then applicable hereunder. All payments shall be free and clear of any taxes, withholdings, duties, impositions or other charges, to the end that Lender will receive the entire amount of any Obligations payable hereunder, regardless of source of payment.
- 2.2 Fees.**
- (a) **Termination Fee.** In the event this Agreement is terminated prior to the first anniversary of the date of this Agreement, Borrower shall pay the Termination Fee to Lender; provided that if such termination is in connection with a refinancing or transfer by Lender to another division of Lender then no Termination Fee shall be payable.
- (b) **Facility Fee.** Borrower shall pay the Facility Fee to Lender promptly upon the execution of this Agreement and annually thereafter.

- (c) **Letter of Credit Fees.** Borrower shall pay to Lender fees upon the issuance of each Letter of Credit, upon the payment or negotiation of each draft under any Letter of Credit and upon the occurrence of any other activity with respect to any Letter of Credit (including without limitation, the transfer, amendment or cancellation of any Letter of Credit) determined in accordance with Lender's standard fees and charges then in effect for such activity.
- (d) **Cash Management and FX Forward Contract Fees.** Borrower shall pay to Lender fees in connection with the Cash Management Services and the FX Forward Contracts as determined in accordance with Lender's standard fees and charges then in effect for such activity.
- (e) **Due Diligence Fee.** Borrower shall pay a fee of \$700 to Lender promptly upon the execution of this Agreement and \$500 annually thereafter.

3. REPRESENTATIONS AND WARRANTIES. Borrower represents and warrants:

- 3.1** No representation, warranty or other statement of Borrower in any certificate or written statement given to Lender contains any untrue statement of a material fact or omits to state a material fact necessary to make the statement contained in the certificates or statement not misleading (it being recognized by Lender that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).
- 3.2** Borrower is duly existing and in good standing in its state of formation and qualified and licensed to do business in, and in good standing in, any state in which the conduct of its business or its ownership of property requires that it be qualified, except to the extent that the failure to be so qualified could not reasonably be expected to result in a material adverse effect upon Borrower's business.
- 3.3** The execution, delivery and performance of this Agreement has been duly authorized, and does not conflict with Borrower's organizational documents, nor constitute an Event of Default under any material agreement by which Borrower is bound. Borrower is not in default in any material respect under any material agreement to which or by which it is bound.
- 3.4** Borrower has good title to the Collateral and all inventory is in all material respects of good and marketable quality, free from material defects/
- 3.5** Borrower's name, form of organization, chief executive office, and the place where the records concerning all Receivables and Collateral are kept is set forth at the beginning of this Agreement (or as otherwise updated by Borrower in a written notice delivered to Lender), Borrower is located at its address for notices set forth in this Agreement (or such other location as updated by Borrower in a written notice delivered to Lender).

4. MISCELLANEOUS PROVISIONS. Borrower will:

- 4.1** Maintain its corporate existence and good standing in its jurisdictions of incorporation and maintain its qualification in each jurisdiction necessary to Borrower's business or operations.
- 4.2** Not merge or consolidate with or into any other business organization, form any subsidiary or acquire all or substantially all of the capital stock or property of a third party, unless (i) any such subsidiary or acquired entity becomes a "borrower" under this Agreement or guaranties the Obligations pursuant to a guaranty satisfactory in form and substance to Lender and (ii) Lender has previously consented to the applicable transaction in writing, which consent shall not be unreasonably withheld.
- 4.3** Not transfer all or substantially all of its assets to another person or entity and not transfer any of its assets to another person or entity unless done in the ordinary course of business in exchange for fair value unless Lender has previously consented to the applicable transaction in writing, which consent shall not be unreasonably withheld. The parties hereto agree that each of the following shall be deemed to be in the "ordinary course of business" for purposes of this Agreement: (a) licensing arrangements involving universities, governmental agencies, research institutions and corporate partners (b) strategic partnerships, strategic collaborations, sponsored research collaborations and development transactions, (b) transactions involving the sale or exclusive licensing of Intellectual Property, that is outside the scope of Borrower's business in the biotechnology field, that is not being commercialized or monetized by the Borrower.
- 4.4** Give Lender at least 10 days prior written notice of changes to its name, organization, chief executive office or location of records.
- 4.5** Pay all its material taxes including gross payroll, withholding and sales taxes when due and will deliver satisfactory evidence of payment to Lender if requested.

4.6 Maintain:

- (a) insurance satisfactory to Lender as to amount, nature and carrier covering property damage (including loss of use and occupancy) to any of the Borrower's properties, business interruption insurance, public liability insurance including coverage for contractual liability, product liability and workers' compensation, and any other insurance which is usual for the Borrower's business. Each such policy shall provide for at least thirty (30) days prior notice to Lender of any cancellation thereof.
- (b) all risk property damage insurance policies (including without limitation windstorm coverage, and hurricane coverage as applicable) covering the tangible property comprising the collateral. Each insurance policy must be for the full replacement cost of the collateral and include a replacement cost endorsement. The insurance must be issued by an insurance company acceptable to Lender and must include a lender's loss payable endorsement in favor of Lender in a form acceptable to Lender.

Upon the request of Lender, Borrower shall deliver to Lender a copy of each insurance policy, or, if permitted by Lender, a certificate of insurance listing all insurance in force.

4.7 Immediately transfer and deliver to Lender all Collections Borrower receives.

4.8 Not create, incur, assume, or be liable for any indebtedness for borrowed money, other than Permitted Indebtedness, or liens other than Permitted Liens, and not covenant to any third party (other than Lighthouse Capital Partners V, L.P. as to its Intellectual Property) to not create a lien on any of its assets, except (i) covenants that would not otherwise be enforceable to restrict Borrower from granting a lien on its assets under applicable law, including without limitation, Sections 9406, 9407 and 9408 of the California Uniform Commercial Code, (ii) covenants with respect to assets that are otherwise subject to a Permitted Lien provided that such restrictions are limited to the assets subject to such Permitted Lien and (iii) covenants with such restrictions in agreements, provided that such covenants do not prohibit or restrict Borrower from assigning, mortgaging, pledging, granting a security interest in or upon or encumbering Borrower's assets in favor of Lender, and provided further that the counter parties to such covenants are not permitted to receive a security interest in Borrower's assets.

4.9 [Intentionally omitted].

4.10 Provide the following financial information and statements in form and content acceptable to Lender, and such additional information as reasonably requested by Lender from time to time. Lender has the right to reasonably request additional financial information from Borrower, and to use such additional information to calculate any applicable financial covenants in this Agreement.

- (a) Within 180 days of the fiscal year end (by June 10, 2011 as to 2009 financial statements), the annual financial statements of Borrower, certified and dated by an authorized officer. These financial statements must be audited (with an opinion satisfactory to the Lender) by a Certified Public Accountant acceptable to Lender. The statements shall be prepared on a consolidated basis.
- (b) No later than 30 days after the end of each month (including the last period in each fiscal year), monthly financial statements of Borrower, certified and dated by an authorized officer. The monthly statements shall be prepared on a consolidated basis and the quarterly statements on a consolidated and consolidating basis.
- (c) Promptly, upon receipt of any management letters received by Borrower from Borrower's auditor.
- (d) Copies of the Form 10-K Annual Report, Form 10-Q Quarterly Report and Form 8-K Current Report for Borrower concurrent with the date of filing with the Securities and Exchange Commission.
- (e) Financial projections approved by Borrower's board of directors covering a time period reasonably acceptable to Lender and specifying the assumptions used in creating the projections. Draft annual projections and budget shall in any case be provided to Lender no less than 30 days prior to the beginning of each fiscal year and final projections and budget no less than 30 days after the beginning of each fiscal year.
- (f) Within 30 days of the end of each month, a compliance certificate of Borrower, signed by an authorized officer and setting forth (i) the information and computations (in sufficient detail) to establish compliance with all financial covenants at the end of the period covered by the financial statements then being furnished and (ii) whether there existed as of the date of such financial statements and whether there exists as of the date of the certificate, any Event of Default under this Agreement and, if any such Event of Default exists, specifying the nature thereof and the action Borrower is taking and proposes to take with respect thereto.

- (g) Prior to or concurrent with the initial Advances, and so long as any Advances are outstanding, within 5 days after the end of each Semi-Monthly Period, a borrowing base certificate, in form and substance satisfactory to Lender, setting forth Eligible Receivables and Receivable Amounts as of the last day of the preceding calendar month.
- (h) Prior to any Advances, and so long as any Advances are outstanding, within 5 days after the end of each Semi-Monthly Period, a detailed aging of Borrower's receivables by invoice or a summary aging by account debtor, together with payable aging, inventory analysis, deferred revenue report, and such other matters as Lender may reasonably request.
- (i) Promptly upon Lender's request, such other books, records, statements, lists of property and accounts, budgets, forecasts or reports as to Borrower and as to each guarantor of Borrower's obligations to Lender as Lender may reasonably request.

4.11 Maintain its primary depository and operating accounts and a significant portion of its investment account balances with Lender and, in the case of any deposit or investment accounts not maintained with Lender, grant to Lender a first priority perfected security interest in and "control" (within the meaning of Section 9104 of the California Uniform Commercial Code) of such deposit or investment account pursuant to documentation acceptable to Lender; provided that the foregoing provisions of this Section 4.11 shall not apply to the bank account maintained at Silicon Valley Bank with a balance of approximately \$60,000 which cash collateralized a letter of credit issued in favor of Borrower's landlord.

4.12 Provide to Lender promptly upon the execution hereof, the following documents which shall be in form satisfactory to Lender a subordination/intercreditor agreement by Lighthouse Capital Partners V, L.P. and any other party holding Indebtedness, or liens on assets of, Borrower, in favor of Lender.

4.13 [Intentionally omitted.]

4.14 Maintain Borrower's financial condition as follows, determined monthly, as of the last day of each month, using generally accepted accounting principles consistently applied and used consistently with prior practices (except to the extent modified by the definitions herein):

- (a) Asset Coverage Ratio not at any time less than 1.75 to 1.0, decreasing to 1.55 to 1.0 upon the Term Sheet Milestone, and reverting to 1.75 to 1.0 on January 31, 2011.
- (b) Effective Tangible Net Worth not at any time less than \$10,000,000 with compliance determined commencing with Borrower's financial statements for the period ending January 31, 2011.

5. SECURITY INTEREST. To secure the prompt payment and performance to Lender of all of the Obligations, Borrower hereby grants to Lender a continuing security interest in the Collateral. Borrower is not authorized to sell, assign, transfer or otherwise convey any Collateral without Lender's prior written consent, except for (i) the sale of finished inventory in the Borrower's usual course of business, (ii) transactions permitted pursuant to Section 4.3 of this Agreement, (iii) Permitted Liens. Borrower agrees to sign any instruments and documents requested by Lender to evidence, perfect, or protect the interests of Lender in the Collateral. Borrower agrees to deliver to Lender the originals of all instruments, chattel paper and documents evidencing or related to Receivables and Collateral. Borrower shall not grant or permit any lien or security in the Collateral or any interest therein other than Permitted Liens.

Notwithstanding anything in this Agreement, the Collateral shall not under any circumstance include, and no security interest is granted in, (i) more than 65% of the issued and outstanding voting securities of any subsidiary of Borrower that is not incorporated or organized in the United States, (ii) Borrower's Intellectual Property, or (iii) any property subject to a security interest to secure Indebtedness permitted by clause (c) of the definition of Permitted Indebtedness to the extent that the grant of a security interest or lien therein is prohibited under the terms of the agreement governing such Indebtedness (provided, that, the foregoing exclusion of this clause (iii) shall in no way be construed (A) to apply to the extent that any described prohibition is unenforceable or ineffective under applicable law, or (B) to apply to the extent that any consent or waiver has been obtained that would permit Lender's security interest or lien to attach thereto notwithstanding the prohibition or restriction contained in such agreement). The term "Intellectual Property" means the intellectual property assets of Borrower excluded from the collateral securing the Lighthouse Loan (as defined below).

6. POWER OF ATTORNEY. Until all Obligations (other than inchoate indemnity obligations) are paid in full and Lender has no further commitment to make Advances hereunder, Borrower irrevocably appoints Lender and its successors and as true and lawful attorney in fact, and authorizes Lender (a) to, whether or not there has been an Event of Default, (i) demand, collect, receive, sue, and give releases to any Account Debtor for the monies due or which may become due upon or with respect to the Receivables and to compromise, prosecute, or defend any action, claim, case or proceeding relating to the Receivables, including the filing of a claim or the voting of such claims in any bankruptcy case, all in Lender's name or Borrower's name, as Lender may choose; (ii) prepare, file and sign Borrower's name on any notice, claim, assignment, demand, draft, or notice of or satisfaction of lien or mechanics' lien or similar document; (iii) notify all Account Debtors with respect to the Receivables to

pay Lender directly; (iv) receive and open all mail addressed to Borrower for the purpose of collecting the Receivables; (v) endorse Borrower's name on any checks or other forms of payment on the Receivables; (vi) execute on behalf of Borrower any and all instruments, documents, financing statements and the like to perfect Lender's interests in the Receivables and Collateral; (vii) debit any Borrower's deposit accounts maintained with Lender for any and all Obligations due under this Agreement; and (viii) do all acts and things necessary or expedient, in furtherance of any such purposes described in clauses (i) through (viii), and (b) to, upon the occurrence and during the continuance of an Event of Default, sell, assign, transfer, pledge, compromise, or discharge the whole or any part of the Receivables. Upon the occurrence and continuation of an Event of Default, all of the power of attorney rights granted by Borrower to Lender hereunder shall be applicable with respect to all Receivables and all Collateral.

7. DEFAULT AND REMEDIES.

7.1 Events of Default. The occurrence of any one or more of the following shall constitute an Event of Default hereunder.

- (a) **Failure to Pay.** Borrower fails to make a payment when due under this Agreement.
- (b) **Lien Priority.** Lender fails to have an enforceable first lien (except for (i) Permitted Liens which arise or relate to indebtedness under clauses (b) (if disclosed on the applicable schedule hereto on the date hereof as senior in lien priority) and (c) of the definition of Permitted Indebtedness or under clauses (c) or (e) of the definition of Permitted Liens), (ii) any prior liens to which Lender has consented in writing) on or security interest in the Collateral, and (iii) Permitted Liens that by operation of law would have priority over Lender's lien.
- (c) **False Information.** Borrower (or any guarantor) has given Lender any materially false or misleading information or representations or has failed to disclose any material fact relating to the subject matter of this Agreement.
- (d) **Reserved.**
- (e) **Bankruptcy.** Borrower (or any guarantor) files a bankruptcy petition, a bankruptcy petition is filed against Borrower (or any guarantor) and such petition is not dismissed or stayed within 60 days of such filing, or Borrower (or any guarantor) makes a general assignment for the benefit of creditors.
- (f) **Receivers.** A receiver or similar official is appointed for a substantial portion of Borrower's (or any guarantor's) business, or the business is terminated.
- (g) **Judgments.** Any judgments or arbitration awards are entered against Borrower (or any guarantor), or Borrower (or any guarantor) enters into any settlement agreements with respect to any litigation or arbitration and the aggregate amount of all such judgments, awards, and agreements exceeds \$100,000.
- (h) **Material Adverse Change.** A material adverse change occurs, or is reasonably likely to occur, in Borrower's (or any guarantor's) business condition (financial or otherwise), operations, properties or prospects, or ability to repay the credit.
- (i) **Cross-default.** Any default occurs under any agreement in connection with any credit for borrowed money in excess of \$100,000 of Borrower (or any guarantor) or which Borrower (or any guarantor) has guaranteed (other than trade amounts payable incurred in the ordinary course of business and not more than 90 days past due).
- (j) **Default under Related Documents.** Any default occurs under any guaranty, subordination agreement, security agreement, deed of trust, mortgage, or other document required by or delivered in connection with this Agreement or any such document is no longer in effect.
- (k) **Other Agreements.** Borrower (or any guarantor) fails to meet the conditions of, or fails to perform any obligation under any other agreement Borrower (or any guarantor) has with Lender or any Affiliate of Lender.
- (l) **Change of Control.** Any transaction or series of related transactions occurs in which the stockholders of Borrower who were not stockholders immediately prior to the first such transaction own more than fifty percent (50%) of the voting stock of Borrower immediately after giving effect to such transaction or related series of such related transactions (other than by the sale of Borrower's equity securities in a public offering or to venture capital investors).
- (m) **Other Breach Under Agreement.** Borrower fails to meet the conditions of, or fails to perform any obligation under, any term of this Agreement not specifically referred to above.

- 7.2 Remedies.** Upon the occurrence and during the continuance of an Event of Default, (1) without implying any obligation to do so, Lender may cease making Advances or extending any other financial accommodations to Borrower; (2) all or a portion of the Obligations shall be, at the option of and upon demand by Lender, or with respect to an Event of Default described in Section 7.1(e), automatically and without notice or demand, due and payable in full; and (3) Lender shall have and may exercise all the rights and remedies under this Agreement and under applicable law, including the rights and remedies of a secured party under the California Uniform Commercial Code, all the power of attorney rights described in Section 6 with respect to all Collateral, and the right to collect, dispose of, sell, lease, use, and realize upon all Receivables and all Collateral in any commercial reasonable manner.
- 8. ACCRUAL OF INTEREST.** All interest and finance charges hereunder calculated at an annual rate shall be based on a year of 360 days, which results in a higher effective rate of interest than if a year of 365 or 366 days were used. If any amount due under Section 2.2, amounts due under Section 9, and any other Obligations not otherwise bearing interest hereunder is not paid when due, such amount shall bear interest at a per annum rate equal to the Finance Charge Percentage until the earlier of (i) payment in good funds or (ii) entry of a trial judgment thereof, at which time the principal amount of any money judgment remaining unsatisfied shall accrue interest at the highest rate allowed by applicable law.
- 9. FEES, COSTS AND EXPENSES; INDEMNIFICATION.** The Borrower will promptly pay to Lender, after receipt of reasonably detailed information with respect thereto, all fees, costs and expenses (including fees of attorneys and professionals and their costs and expenses) that Lender incurs or may from time to time impose in connection with any of the following: (a) preparing, negotiating, administering, and enforcing this Agreement or any other agreement executed in connection herewith, including any amendments, waivers or consents in connection with any of the foregoing, (b) any litigation or dispute (whether instituted by Lender, Borrower or any other person) in any way relating to the Receivables, the Collateral, this Agreement or any other agreement executed in connection herewith or therewith, (c) enforcing any rights against Borrower or any guarantor, or any Account Debtor, (d) protecting or enforcing its interest in the Receivables or the Collateral, (e) collecting the Receivables and the Obligations, or (f) the representation of Lender in connection with any bankruptcy case or insolvency proceeding involving Borrower, any Receivable, the Collateral, any Account Debtor, or any guarantor. Borrower shall indemnify and hold Lender harmless from and against any and all claims, actions, damages, costs, expenses, and liabilities of any nature whatsoever arising in connection with any of the foregoing.
- 10. INTEGRATION, SEVERABILITY WAIVER, CHOICE OF LAW, FORUM AND VENUE.** This Agreement and any related security or other agreements required by this Agreement, collectively: (a) represent the sum of the understandings and agreements between Lender and Borrower concerning this credit; (b) replace any prior oral or written agreements between Lender and Borrower concerning this credit; and (c) are intended by Lender and Borrower as the final, complete and exclusive statement of the terms agreed to by them. In the event of any conflict between this Agreement and any other agreements required by this Agreement, this Agreement will prevail. If any provision of this Agreement is deemed invalid by reason of law, this Agreement will be construed as not containing such provision and the remainder of the Agreement shall remain in full force and effect. Lender retains all of its rights, even if it makes an Advance after a default. If Lender waives a default, it may enforce a later default. Any consent or waiver under, or amendment of, this Agreement must be in writing, and no such consent, waiver, or amendment shall imply any obligation by Lender to make any subsequent consent, waiver, or amendment. **THIS AGREEMENT SHALL BE GOVERNED BY AND INTERPRETED IN ACCORDANCE WITH THE INTERNAL LAWS OF THE STATE OF CALIFORNIA. THE PARTIES HERETO AGREE THAT ALL ACTIONS OR PROCEEDINGS ARISING IN CONNECTION WITH THIS AGREEMENT OR ANY OTHER RELATED DOCUMENTS SHALL BE TRIED AND LITIGATED ONLY IN THE STATE AND FEDERAL COURTS LOCATED IN THE COUNTY OF SANTA CLARA, CALIFORNIA, OR, AT THE SOLE OPTION OF LENDER, IN ANY OTHER COURT IN WHICH LENDER SHALL INITIATE LEGAL OR EQUITABLE PROCEEDINGS AND WHICH HAS JURISDICTION OVER THE SUBJECT MATTER AND PARTIES IN CONTROVERSY. EACH PARTY HERETO WAIVES ANY RIGHT TO ASSERT THE DOCTRINE OF FORUM NON CONVENIENS OR TO OBJECT TO VENUE TO THE EXTENT ANY PROCEEDING IS BROUGHT IN ACCORDANCE WITH THIS SECTION AND STIPULATES THAT THE STATE AND FEDERAL COURTS LOCATED IN THE COUNTY OF SANTA CLARA, CALIFORNIA SHALL HAVE IN PERSONAM JURISDICTION AND VENUE OVER EACH SUCH PARTY FOR THE PURPOSE OF LITIGATING ANY SUCH DISPUTE, CONTROVERSY, OR PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT, OR ANY OTHER RELATED DOCUMENTS. SERVICE OF PROCESS SUFFICIENT FOR PERSONAL JURISDICTION IN ANY ACTION AGAINST THE BORROWER MAY BE MADE BY REGISTERED OR CERTIFIED MAIL, RETURN RECEIPT REQUESTED, TO ITS ADDRESS SPECIFIED FOR NOTICES PURSUANT TO SECTION 11.**
- 11. NOTICES; TELEPHONIC AND TELEFAX AUTHORIZATIONS.** All notices shall be given to lender and borrower at the addresses or faxes set forth on the signature page of this agreement and shall be deemed to have been delivered and received: (a) if mailed, three (3) calendar days after deposited in the United States mail, first class, postage pre-paid, (b) one (1) calendar day after deposit with an overnight mail or messenger service; or (c) on the same date of confirmed transmission if sent by hand delivery, telecopy, telefax or telex. Lender may honor telephone or telefax instructions for Advances or repayments given, or purported to be given, by any one of the Authorized Persons. Borrower will indemnify and hold Lender harmless from all liability, loss, and costs in connection with any act resulting from telephone or telefax instructions Lender reasonably believes are made by any Authorized Person. This paragraph will survive this Agreement's termination, and will benefit Lender and its officers, employees, and agents.
- 12. DEFINITIONS AND CONSTRUCTION.**
- 12.1 Definitions.** In this Agreement:

“**Account Balance**” means at any time the aggregate of the Advances outstanding as reflected on the records maintained by Lender, together with any past due Finance Charges thereon.

“**Account Debtor**” has the meaning in the California Uniform Commercial Code and includes any person liable on any Receivable, including without limitation, any guarantor of any Receivable and any issuer of a letter of credit or banker’s acceptance assuring payment thereof.

“**Adjustments**” means all discounts, allowances, disputes, offsets, defenses, rights of recoupment, rights of return, warranty claims, or short payments, asserted by or on behalf of any Account Debtor with respect to any Receivable.

“**Advance**” means an advance made by Lender to Borrower under this Agreement.

“**Advance Rate**” means 80% or such greater or lesser percentage as Lender may from time to time establish in its sole discretion upon notice to Borrower, including any adjustment based on Lender’s initial field examination.

“**Advance Request**” means a writing in form and substance satisfactory to Lender and signed by an Authorized Person requesting an Advance.

“**Agreement**” means this Business Financing Agreement.

“**Affiliate**” means, as to any person or entity, any other person or entity directly or indirectly controlling or controlled by, or under direct or indirect common control with, such person or entity.

“**Asset Coverage Ratio**” means all unrestricted cash and cash equivalents, plus Eligible Receivables, divided by the total amount of the Obligations (other than Obligations which are cash collateralized).

“**Authorized Person**” means Borrower (if an individual) or any one of the individuals authorized to sign on behalf of the Borrower, and any other individual designated by any one of such authorized signers.

“**Borrowing Base**” means at any time the sum of (i) the Eligible Receivable Amount multiplied by the applicable Advance Rate, minus (ii) such reserves as Lender may deem proper and necessary from time to time.

“**Cash Management Sublimit**” means \$250,000.

“**Collateral**” means all of Borrower’s rights and interest in any and all personal property, whether now existing or hereafter acquired or created and wherever located, and all products and proceeds thereof and accessions thereto, including but not limited to the following (collectively, the “Collateral”): (a) all accounts (including health care insurance receivables), chattel paper (including tangible and electronic chattel paper), inventory (including all goods held for sale or lease or to be furnished under a contract for service, and including returns and repossessions), equipment (including all accessions and additions thereto), instruments (including promissory notes), investment property (including securities and securities entitlements), documents (including negotiable documents), deposit accounts, letter of credit rights, money, any commercial tort claim of Borrower which is now or hereafter identified by Borrower or Lender, general intangibles (including payment intangibles but excluding Intellectual Property), goods (including fixtures) and all of Borrower’s books and records with respect to any of the foregoing, and the computers and equipment containing said books and records; and (b) any and all cash proceeds and/or noncash proceeds thereof, including without limitation, proceeds of Intellectual Property, insurance proceeds, and all supporting obligations and the security therefore or for any right to payment.

“**Collections**” means all payments from or on behalf of an Account Debtor with respect to Receivables.

“**Compliance Certificate**” means a certificate in the form attached as **Exhibit A** to this Agreement by an Authorized Person that, among other things, the representations and warranties set forth in this Agreement are true and correct as of the date such certificate is delivered.

“**Credit Limit**” means \$4,000,000 (increasing to \$7,000,000 after the Term Sheet Milestone), which is intended to be the maximum amount of Advances at any time outstanding.

“**Default**” means any Event of Default or any event that with notice, lapse of time or otherwise would constitute an Event of Default.

“**Deferred Revenue**” is all amounts received or invoiced, as appropriate, in advance of performance under contracts and not yet recognized as revenue.

“Effective Tangible Net Worth” means Borrower’s stated stockholders’ equity plus Subordinated Debt less all intangible assets of the Borrower including without limitation goodwill, trademarks, patents, copyrights, and organization expense.

“Eligible Receivable” means a Receivable that satisfies all of the following:

- (a) The Receivable has been created by Borrower in the ordinary course of Borrower’s business and without any obligation on the part of Borrower to render any further performance, other than Deferred Revenue arising from maintenance and service contracts.
- (b) There are no conditions which must be satisfied before Borrower is entitled to receive payment of the Receivable, and the Receivable does not arise from COD sales, consignments or guaranteed sales.
- (c) The Account Debtor upon the Receivable does not claim any defense to payment of the Receivable, whether well founded or otherwise.
- (d) The Receivable is not that portion of Receivables that is subject to, or may be reasonably be expected to be subject to, any counterclaims or offsets against Borrower (including offsets for any “contra accounts” owed by Borrower to the Account Debtor for goods purchased by Borrower or for services performed for Borrower).
- (e) The Receivable represents a genuine obligation of the Account Debtor and to the extent any credit balances exist in favor of the Account Debtor, such credit balances shall be deducted in calculating the Receivable Amount.
- (f) Borrower has sent an invoice to the Account Debtor in the amount of the Receivable.
- (g) Borrower is not prohibited by the laws of the state where the Account Debtor is located from bringing an action in the courts of that state to enforce the Account Debtor’s obligation to pay the Receivable. Borrower has taken all appropriate actions to ensure access to the courts of the state where Account Debtor is located, including, where necessary; the filing of a Notice of Business Activities Report or other similar filing with the applicable state agency or the qualification by Borrower as a foreign corporation authorized to transact business in such state.
- (h) The Receivable is owned by Borrower free of any title defects or any liens or interests of others except the security interest in favor of Lender, and Lender has a perfected, first priority security interest in such Receivable.
- (i) The Account Debtor on the Receivable is not any of the following: (1) an employee, Affiliate, parent or subsidiary of Borrower, or an entity which has common officers or directors with Borrower; (2) the U.S. government or any agency or department of the U.S. government unless previously approved in writing by Lender; (3) any person or entity located in a foreign country unless previously approved in writing by Lender; or (4) an Account Debtor as to which 35% or more of the aggregate dollar amount of all outstanding Receivables owing from such Account Debtor have not been paid within 90 days from invoice date.
- (j) The Receivable is not in default (a Receivable will be considered in default if any of the following occur: (i) the Receivable is not paid within 90 days from its invoice date; (ii) the Account Debtor obligated upon the Receivable suspends business, makes a general assignment for the benefit of creditors, or fails to pay its debts generally as they come due; or (iii) any petition is filed by or against the Account Debtor obligated upon the Receivable under any bankruptcy law or any other law or laws for the relief of debtors).
- (k) The Receivable does not arise from the sale of goods which remain in Borrower’s possession or under Borrower’s control.
- (l) The Receivable is not evidenced by a promissory note or chattel paper, nor is the Account Debtor obligated to Borrower under any other obligation which is evidenced by a promissory note.
- (m) The Receivable is not that portion of Receivables due from an Account Debtor which is in excess of 30% of Borrower’s aggregate dollar amount of all outstanding Receivables.
- (n) The Receivable is otherwise acceptable to Lender.

“Eligible Receivable Amount” means at any time the sum of the Receivable Amounts of the Eligible Receivables.

“Equipment” means equipment and fixtures in which Borrower has an interest.

“**Event of Default**” has the meaning set forth in Section 7.1.

“**Facility Fee**” means a payment of an annual fee equal to \$30,000 due upon the date of this Agreement and each anniversary thereof so long as any Advance is outstanding or available hereunder.

“**Finance Charge**” means for each Monthly Period an interest amount equal to the Finance Charge Percentage of the average daily Account Balance outstanding during such Monthly Period.

“**Finance Charge Percentage**” means a rate per year equal to the Prime Rate plus 2.25 percentage points (decreasing to the Prime Rate plus 1.00 percentage point after the Term Sheet Milestone equity investment or subordinated debt funding occurs), plus an additional 5.00 percentage points during any period that an Event of Default has occurred and is continuing.

“**FX Sublimit**” means \$750,000 in the aggregate together with the Letter of Credit Sublimit.

“**Intellectual Property**” has the meaning given to such term in Section 5.

“**Inventory**” means and includes all of Borrower’s now owned or hereafter acquired goods, merchandise and other personal property, wherever located, to be furnished under any consignment, arrangement, contract of service or held for sale or lease, all raw materials, work in process, finished goods and materials and supplies of any kind, nature or description which are or might be used or consumed in Borrower’s business or used in selling or furnishing such goods, merchandise and other personal property, and all documents of title or other documents representing them.

“**Lender**” means Bridge Bank, National Association, and its successors and assigns.

“**Letter of Credit**” has the meaning set forth in Section 1.9.

“**Letter of Credit Obligations**” means, at any time, the sum of, without duplication, (i) the maximum amount available to be drawn on all outstanding Letters of Credit issued by Lender or by Lender’s Affiliate for the account of Borrower and (ii) the aggregate amount of all amounts drawn and unreimbursed with respect to Letters of Credit issued by the Lender or by Lender’s Affiliate for the account of Borrower.

“**Letter of Credit Sublimit**” means \$750,000 in the aggregate together with the FX Sublimit.

“**Maturity Date**” means two years from the date hereof or such earlier date as Lender shall have declared the Obligations immediately due and payable pursuant to Section 7.2.

“**Month End**” means the last calendar day of each Monthly Period.

“**Monthly Period**” means each calendar month.

“**Obligations**” means all liabilities and obligations of Borrower to Lender of any kind or nature, present or future, arising under or in connection with this Agreement or under any other document, instrument or agreement, whether or not evidenced by any note, guarantee or other instrument, whether arising on account or by overdraft, whether direct or indirect (including those acquired by assignment) absolute or contingent, primary or secondary, due or to become due, now owing or hereafter arising, and however acquired; including, without limitation, all Advances, Finance Charges, fees, interest, expenses, professional fees and attorneys’ fees.

“**Overadvance**” means at any time an amount equal to the greater of (a) the amounts (if any) by which the total amount of the outstanding Advances (including deemed Advances with respect to the FX Sublimit and the Letter of Credit Sublimit and the total amount of the Cash Management Sublimit) exceeds the lesser of the Credit Limit or the Borrowing Base or (b) the amounts (if any) by which the total amount of the outstanding deemed Advances with respect to the FX Sublimit and Letter of Credit Sublimit taken together, or the Cash Management Sublimit) exceeds the applicable Subfacility Maximum.

“**Permitted Indebtedness**” means:

- (a) Indebtedness under this Agreement or that is otherwise owed to the Lender.
- (b) Indebtedness existing on the date hereof and specifically disclosed on a schedule to this Agreement.
- (c) Purchase money indebtedness (including capital leases) incurred to acquire capital assets in ordinary course of business and not exceeding \$500,000 in total principal amount at any time outstanding.

- (d) Other Indebtedness in an aggregate amount not to exceed \$150,000 at any time outstanding; provided that such indebtedness is junior in priority (if secured) to the Obligations and provided that the incurrence of such Indebtedness does not otherwise cause and Event of Default hereunder.
- (e) Indebtedness incurred in the refinancing of any indebtedness set forth in (a) through (d) above and (g) below, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon the Borrower.
- (f) Subordinated Debt.
- (g) unsecured trade debt incurred in the ordinary course of business.
- (h) Indebtedness arising from the endorsement of negotiable instruments for deposits or collections or similar transactions in the ordinary course of business.
- (i) Indebtedness of Borrower owed to any subsidiary if incurred in the ordinary course of business, consistent with past practices, and, if requested by Lender, subordinated to the Obligations.
- (j) Indebtedness of Borrower under that certain Loan and Security Agreement, dated as of March 29, 2005, with Lighthouse Capital Partners V, L.P., (as amended from time to time, the "Lighthouse Loan").
- (k) Indebtedness in addition to that under (a) through (f) above if Lender has previously consented thereto in writing, which consent shall not be unreasonably withheld.

"Permitted Liens" means:

- (a) Liens securing any of the indebtedness described in clauses (a) through (d) of the definition of Permitted Indebtedness.
- (b) Liens for taxes, fees, assessments or other governmental charges or levies, either not delinquent or being contested in good faith by appropriate proceedings, provided the same have no priority over any of Lender's security interests.
- (c) Liens incurred in connection with the extension, renewal or refinancing of the indebtedness described in clause (e) of the definition of Permitted Indebtedness, provided that any extension, renewal or replacement lien shall be limited to the property encumbered by the existing lien and the principal amount of the indebtedness being extended, renewed or refinanced does not increase.
- (d) Liens securing Subordinated Debt.
- (e) Liens securing the Lighthouse Loan.
- (f) Liens to secure payment of worker's compensation, employment insurance, old age pensions or other social security obligations in the ordinary course of its business.
- (g) license or sublicenses of Intellectual Property granted in the ordinary course of business.
- (h) banker's Liens, rights of setoff and similar Liens incurred on deposit and securities accounts in the ordinary course of business.
- (i) Liens arising from judgments in circumstances not constituting an Event of Default.
- (j) Liens in favor of customs and revenue authorities arising as a matter of law to secure payments of customs duties in connections with the importation of goods.
- (k) Liens on insurance proceeds in favor of insurance companies granted solely as security for financed premiums.
- (l) carriers', warehousemen's, mechanics', landlords', materialmen's, repairmen's or other similar Liens arising in the ordinary course of business which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings.
- (m) Liens with respect to cash collateral to secure Indebtedness otherwise permitted pursuant to clause (i) of the definition of Permitted Indebtedness.

“**Prime Rate**” means the greater of 3.25% per year or the variable per annum rate of interest most recently announced by Lender as its “Prime Rate.” Lender may price loans to its customers at, above, or below the Prime Rate. Any change in the Prime Rate shall take effect at the opening of business on the day specified in the public announcement of a change in Lender’s Prime Rate.

“**Receivable Amount**” means as to any Receivable, the amount due from the Account Debtor after deducting all discounts, credits, offsets, payments or other deductions of any nature whatsoever, whether or not claimed by the Account Debtor.

“**Receivables**” means Borrower’s rights to payment arising in the ordinary course of Borrower’s business, including accounts, chattel paper, instruments, contract rights, documents, general intangibles, letters of credit, drafts, and bankers acceptances.

“**Subfacility Maximum**” means \$250,000 as to the Cash Management Sublimit, and \$750,000 in the aggregate as to the Letter of Credit and FX Sublimits taken together as a whole.

“**Semi-Monthly Period**” means the period ending on the first or 15th of each calendar month.

“**Subordinated Debt**” means indebtedness of Borrower that is expressly subordinated to the indebtedness of Borrower owed to Lender pursuant to a subordination agreement satisfactory in form and substance to Lender.

“**Termination Fee**” means a payment equal to \$35,000.

“**Term Sheet Milestone**” means the receipt by Borrower of an executed term sheet for at least \$15,000,000 of new equity or subordinated debt issued by investors acceptable to Lender with a scheduled closing date no later than January 31, 2011.

12.2 Construction:

- (a) In this Agreement: (i) references to the plural include the singular and to the singular include the plural; (ii) references to any gender include any other gender; (iii) the terms “include” and “including” are not limiting; (iv) the term “or” has the inclusive meaning represented by the phrase “and/or;” (v) unless otherwise specified, section and subsection references are to this Agreement, and (vi) any reference to any statute, law, or regulation shall include all amendments thereto and revisions thereof.
- (b) Neither this Agreement nor any uncertainty or ambiguity herein shall be construed or resolved using any presumption against either Borrower or Lender, whether under any rule of construction or otherwise. On the contrary, this Agreement has been reviewed by each party hereto and their respective counsel. In case of any ambiguity or uncertainty, this Agreement shall be construed and interpreted according to the ordinary meaning of the words used to accomplish fairly the purposes and intentions of all parties hereto.
- (c) Titles and section headings used in this Agreement are for convenience only and shall not be used in interpreting this Agreement.

13. **JURY TRIAL WAIVER.** THE UNDERSIGNED ACKNOWLEDGE THAT THE RIGHT TO TRIAL BY JURY IS A CONSTITUTIONAL ONE, BUT THAT IT MAY BE WAIVED UNDER CERTAIN CIRCUMSTANCES. TO THE EXTENT PERMITTED BY LAW, EACH PARTY, AFTER CONSULTING (OR HAVING HAD THE OPPORTUNITY TO CONSULT) WITH COUNSEL OF ITS, HIS OR HER CHOICE, KNOWINGLY AND VOLUNTARILY, AND FOR THE MUTUAL BENEFIT OF ALL PARTIES, WAIVES ANY RIGHT TO TRIAL BY JURY IN THE EVENT OF LITIGATION ARISING OUT OF OR RELATED TO THIS AGREEMENT OR ANY OTHER DOCUMENT, INSTRUMENT OR AGREEMENT BETWEEN THE UNDERSIGNED PARTIES.

14. JUDICIAL REFERENCE PROVISION.

14.1 In the event the Jury Trial Waiver set forth above is not enforceable, the parties elect to proceed under this Judicial Reference Provision.

14.2 With the exception of the items specified in clause (c), below, any controversy, dispute or claim (each, a “**Claim**”) between the parties arising out of or relating to this Agreement or any other document, instrument or agreement between the undersigned parties (collectively in this Section, the “**Loan Documents**”), will be resolved by a reference proceeding in California in accordance with the provisions of Sections 638 et seq. of the California Code of Civil Procedure (“**CCP**”), or their successor sections, which shall constitute the exclusive remedy for the resolution of any Claim, including whether the Claim is subject to the reference proceeding. Except as otherwise provided in the Loan Documents, venue for the reference proceeding will be in the state or federal court in the county or district where the

real property involved in the action, if any, is located or in the state or federal court in the county or district where venue is otherwise appropriate under applicable law (the “**Court**”).

- 14.3** The matters that shall not be subject to a reference are the following: (i) nonjudicial foreclosure of any security interests in real or personal property, (ii) exercise of self-help remedies (including, without limitation, set-off), (iii) appointment of a receiver and (iv) temporary, provisional or ancillary remedies (including, without limitation, writs of attachment, writs of possession, temporary restraining orders or preliminary injunctions). This reference provision does not limit the right of any party to exercise or oppose any of the rights and remedies described in clauses (i) and (ii) or to seek or oppose from a court of competent jurisdiction any of the items described in clauses (iii) and (iv). The exercise of, or opposition to, any of those items does not waive the right of any party to a reference pursuant to this reference provision as provided herein.
- 14.4** The referee shall be a retired judge or justice selected by mutual written agreement of the parties. If the parties do not agree within ten (10) days of a written request to do so by any party, then, upon request of any party, the referee shall be selected by the Presiding Judge of the Court (or his or her representative). A request for appointment of a referee may be heard on an ex parte or expedited basis, and the parties agree that irreparable harm would result if ex parte relief is not granted. Pursuant to CCP § 170.6, each party shall have one peremptory challenge to the referee selected by the Presiding Judge of the Court (or his or her representative).
- 14.5** The parties agree that time is of the essence in conducting the reference proceedings. Accordingly, the referee shall be requested, subject to change in the time periods specified herein for good cause shown, to (i) set the matter for a status and trial-setting conference within fifteen (15) days after the date of selection of the referee, (ii) if practicable, try all issues of law or fact within one hundred twenty (120) days after the date of the conference and (iii) report a statement of decision within twenty (20) days after the matter has been submitted for decision.
- 14.6** The referee will have power to expand or limit the amount and duration of discovery. The referee may set or extend discovery deadlines or cutoffs for good cause, including a party’s failure to provide requested discovery for any reason whatsoever. Unless otherwise ordered based upon good cause shown, no party shall be entitled to “priority” in conducting discovery, depositions may be taken by either party upon seven (7) days written notice, and all other discovery shall be responded to within fifteen (15) days after service. All disputes relating to discovery which cannot be resolved by the parties shall be submitted to the referee whose decision shall be final and binding.
- 14.7** Except as expressly set forth herein, the referee shall determine the manner in which the reference proceeding is conducted including the time and place of hearings, the order of presentation of evidence, and all other questions that arise with respect to the course of the reference proceeding. All proceedings and hearings conducted before the referee, except for trial, shall be conducted without a court reporter, except that when any party so requests, a court reporter will be used at any hearing conducted before the referee, and the referee will be provided a courtesy copy of the transcript. The party making such a request shall have the obligation to arrange for and pay the court reporter. Subject to the referee’s power to award costs to the prevailing party, the parties will equally share the cost of the referee and the court reporter at trial.
- 14.8** The referee shall be required to determine all issues in accordance with existing case law and the statutory laws of the State of California. The rules of evidence applicable to proceedings at law in the State of California will be applicable to the reference proceeding. The referee shall be empowered to enter equitable as well as legal relief, enter equitable orders that will be binding on the parties and rule on any motion which would be authorized in a court proceeding, including without limitation motions for summary judgment or summary adjudication. The referee shall issue a decision at the close of the reference proceeding which disposes of all claims of the parties that are the subject of the reference. Pursuant to CCP § 644, such decision shall be entered by the Court as a judgment or an order in the same manner as if the action had been tried by the Court and any such decision will be final, binding and conclusive. The parties reserve the right to appeal from the final judgment or order or from any appealable decision or order entered by the referee. The parties reserve the right to findings of fact, conclusions of laws, a written statement of decision, and the right to move for a new trial or a different judgment, which new trial, if granted, is also to be a reference proceeding under this provision.
- 14.9** If the enabling legislation which provides for appointment of a referee is repealed (and no successor statute is enacted), any dispute between the parties that would otherwise be determined by reference procedure will be resolved and determined by arbitration. The arbitration will be conducted by a retired judge or justice, in accordance with the California Arbitration Act §1280 through §1294.2 of the CCP as amended from time to time. The limitations with respect to discovery set forth above shall apply to any such arbitration proceeding.
- 14.10** THE PARTIES RECOGNIZE AND AGREE THAT ALL CONTROVERSIES, DISPUTES AND CLAIMS RESOLVED UNDER THIS REFERENCE PROVISION WILL BE DECIDED BY A REFEREE AND NOT BY A JURY. AFTER CONSULTING (OR HAVING HAD THE OPPORTUNITY TO CONSULT) WITH COUNSEL OF ITS, HIS OR HER OWN CHOICE, EACH PARTY KNOWINGLY AND VOLUNTARILY, AND FOR THE MUTUAL BENEFIT OF ALL PARTIES, AGREES THAT THIS REFERENCE PROVISION WILL APPLY TO ANY CONTROVERSY, DISPUTE OR CLAIM BETWEEN OR AMONG THEM ARISING OUT OF OR IN ANY WAY RELATED TO, THIS AGREEMENT OR THE OTHER LOAN DOCUMENTS.

15. **EXECUTION, EFFECTIVENESS, SURVIVAL.** This Agreement may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. This Agreement and the other documents executed in connection herewith constitute the entire contract among the parties relating to the subject matter hereof and supersede any and all previous agreements and understandings, oral or written, relating to the subject matter hereof. Delivery of an executed counterpart of a signature page of this Agreement by telecopy shall be effective as delivery of a manually executed counterpart of this Agreement. This Agreement shall become effective upon the execution and delivery hereof by Borrower and Lender and shall continue in full force and effect until the Maturity Date and thereafter so long as any Obligations (other than inchoate indemnity obligations) remain outstanding hereunder. Lender reserves the right to issue press releases, advertisements, and other promotional materials describing any successful outcome of services provided on Borrower's behalf. Borrower agrees that Lender shall have the right to identify Borrower by name in those materials.
16. **OTHER AGREEMENTS.** Any security agreements, liens and/or security interests securing payment of any obligations of Borrower owing to Lender or its Affiliates also secure the Obligations, and are valid and subsisting and are not adversely affected by execution of this Agreement. An Event of Default under this Agreement constitutes a default under other outstanding agreements between Borrower and Lender or its Affiliates.

[Signature page to follow.]

IN WITNESS WHEREOF, Borrower and Lender have executed this Agreement on the day and year above written.

BORROWER:

LENDER:

FLUIDIGM CORPORATION

BRIDGE BANK, NATIONAL ASSOCIATION

By: /s/ Gajus V. Worthington
Name: Gajus V. Worthington
Title: CEO

By: /s/ Chris Hill
Name: Chris Hill
Title: VP

Address for Notices:

Address for Notices:

7000 Shoreline Court, Suite 100
South San Francisco, CA 94080
Fax: (650) 871-7152

55 Almaden Blvd.
San Jose, CA 95113
Fax: (408) 423-8510

Signature page to Business Financing Agreement

Exhibit A
COMPLIANCE CERTIFICATE

TO: BRIDGE BANK, NATIONAL ASSOCIATION (the “Lender”)
FROM: FLUIDIGM CORPORATION, a Delaware corporation (the “Borrower”)

The undersigned authorized officers of Fluidigm Corporation hereby certifies that in accordance with the terms and conditions of the Business Financing Agreement between Borrower and Lender (the “Agreement”), (i) the Borrower is in complete compliance for the period ending _____ with all required covenants except as noted below and (ii) all representations and warranties of such Borrower stated in the Agreement are true and correct in all material respects as of the date hereof. Attached herewith are the required documents supporting the above certification. The undersigned officer further certifies that the accompanying financial statements are prepared in accordance with Generally Accepted Accounting Principles (GAAP) and are consistently applied from one period to the next except (i) as explained in an accompanying letter or footnotes and (ii) with respect to unaudited financial statements, for the absence of footnotes and subject to year end adjustments.

Please indicate compliance status by circling Yes/No under “Complies” column.

<u>Reporting Covenant</u>	<u>Required</u>	<u>Complies</u>	
Consolidated monthly financial statements	Within 30 days of the end of each calendar month	Yes	No
Consolidated and consolidating quarterly financial statements	Within 30 days of the end of each calendar quarter	Yes	No
Compliance Certificate	Within 30 days of the end of each calendar month	Yes	No
A/R & A/P Agings and Borrowing Base Certificate	Prior to or concurrent with the initial Advance and if any Advances outstanding, semi-monthly within 5 days of the 1 st and 15 th of each month	Yes	No
Consolidated annual financial statements (CPA audited)	Within 180 days of each FYE	Yes	No
10-K, 10-Q, and 8-K reports	Concurrent with SEC filing dates (where applicable)	Yes	No
A/R & Collateral Audit	Prior to the initial Advance and annually thereafter	Yes	No
Draft annual financial projections and budget	At least 30 days before each FYE	Yes	No
Annual financial projections and budget	Within 30 days of each FYE	Yes	No

Comments Regarding Exceptions: See Attached.

Sincerely,

FLUIDIGM CORPORATION, a Delaware corporation

SIGNATURE

TITLE

DATE

BANK USE ONLY		
Received by:	_____ AUTHORIZED SIGNER	
Date:	_____	
Verified:	_____ AUTHORIZED SIGNER	
Date:	_____	
Compliance Status	Yes	No

FLUIDIGM CORPORATION
INDEMNIFICATION AGREEMENT

This Indemnification Agreement (“**Agreement**”) is made as of _____, 20___, by and between Fluidigm Corporation, a Delaware corporation (the “**Company**”), and _____ (“**Indemnitee**”).

WHEREAS, the Company and Indemnitee recognize the significant cost of directors’ and officers’ liability insurance and the general reductions in the coverage of such insurance;

WHEREAS, the Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting officers and directors to expensive litigation risks at the same time as the coverage of liability insurance has been severely limited; and

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve as officers and directors of the Company and to indemnify its officers and directors so as to provide them with the maximum protection permitted by law.

NOW, THEREFORE, in consideration for Indemnitee’s services as an officer or director of the Company, the Company and Indemnitee hereby agree as follows:

1. Definitions.

(a) A “**Change in Control**” shall be deemed to occur upon the earliest to occur after the date of this Agreement of any of the following events:

(i) *Acquisition of Stock by Third Party.* Any Person (as defined below) is or becomes the Beneficial Owner (as defined below), directly or indirectly, of securities of the Company representing fifteen percent (15%) or more of the combined voting power of the Company’s then outstanding securities;

(ii) *Change in Board Composition.* During any period of two consecutive years (not including any period prior to the execution of this Agreement), individuals who at the beginning of such period constitute the Company’s board of directors, and any new directors (other than a director designated by a person who has entered into an agreement with the Company to effect a transaction described in Sections 1(a)(i), 1(a)(iii) or 1(a)(iv)) whose election by the board of directors or nomination for election by the Company’s stockholders was approved by a vote of at least two-thirds of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute at least a majority of the members of the Company’s board of directors;

(iii) *Corporate Transactions.* The effective date of a merger or consolidation of the Company with any other entity, other than a merger or consolidation which would result in the voting securities of the Company outstanding immediately prior to such merger or consolidation continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 50% of the combined voting power of the voting securities of the surviving entity outstanding immediately after such merger or consolidation and with the power to elect at least a majority of the board of directors or other governing body of such surviving entity;

(iv) *Liquidation.* The approval by the stockholders of the Company of a complete liquidation of the Company or an agreement for the sale or disposition by the Company of all or substantially all of the Company's assets; and

(v) *Other Events.* Any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or in response to any similar item on any similar schedule or form) promulgated under the Securities Exchange Act of 1934, as amended, whether or not the Company is then subject to such reporting requirement.

For purposes of this Section 1(a), the following terms shall have the following meanings:

(1) **"Person"** shall have the meaning as set forth in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended; *provided, however,* that **"Person"** shall exclude (i) the Company, (ii) any trustee or other fiduciary holding securities under an employee benefit plan of the Company, and (iii) any corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company.

(2) **"Beneficial Owner"** shall have the meaning given to such term in Rule 13d-3 under the Securities Exchange Act of 1934, as amended; *provided, however,* that **"Beneficial Owner"** shall exclude any Person otherwise becoming a Beneficial Owner by reason of (i) the stockholders of the Company approving a merger of the Company with another entity or (ii) the Company's board of directors approving a sale of securities by the Company to such Person.

(b) **"Corporate Status"** describes the status of a person who is or was a director, trustee, general partner, managing member, officer, employee, agent or fiduciary of the Company or any other Enterprise.

(c) **"DGCL"** means the General Corporation Law of the State of Delaware.

(d) **"Disinterested Director"** means a director of the Company who is not and was not a party to the Proceeding in respect of which indemnification is sought by Indemnitee.

(e) **"Enterprise"** means the Company and any other corporation, partnership, limited liability company, joint venture, trust, employee benefit plan or other enterprise of which Indemnitee is or was serving at the request of the Company as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary.

(f) **"Expenses"** include all reasonable attorneys' fees, retainers, court costs, transcript costs, fees and costs of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees, and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, a Proceeding. Expenses also include (i) Expenses incurred in connection with any appeal resulting from any Proceeding, including without limitation the premium, security for, and other costs relating to any cost bond, supersedeas bond or other appeal bond or their equivalent, and (ii) for purposes of Section 12(d), Expenses incurred by Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company. Expenses, however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments or fines against Indemnitee.

(g) **“Independent Counsel”** means a law firm, or a partner or member of a law firm, that is experienced in matters of corporation law and neither presently is, nor in the past five years has been, retained to represent (i) the Company or Indemnitee in any matter material to either such party (other than as Independent Counsel with respect to matters concerning Indemnitee under this Agreement, or other indemnitees under similar indemnification agreements), or (ii) any other party to the Proceeding giving rise to a claim for indemnification hereunder. Notwithstanding the foregoing, the term **“Independent Counsel”** shall not include any person who, under the applicable standards of professional conduct then prevailing, would have a conflict of interest in representing either the Company or Indemnitee in an action to determine Indemnitee’s rights under this Agreement.

(h) **“Proceeding”** means any threatened, pending or completed action, suit, arbitration, mediation, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or proceeding, whether brought in the right of the Company or otherwise and whether of a civil, criminal, administrative or investigative nature, including any appeal therefrom and including without limitation any such Proceeding pending as of the date of this Agreement, in which Indemnitee was, is or will be involved as a party, a potential party, a non-party witness or otherwise by reason of (i) the fact that Indemnitee is or was a director or officer of the Company, (ii) any action taken by Indemnitee or any action or inaction on Indemnitee’s part while acting as a director or officer of the Company, or (iii) the fact that he or she is or was serving at the request of the Company as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary of the Company or any other Enterprise, in each case whether or not serving in such capacity at the time any liability or Expense is incurred for which indemnification or advancement of expenses can be provided under this Agreement.

(i) Reference to **“other enterprises”** shall include employee benefit plans; references to **“fines”** shall include any excise taxes assessed on a person with respect to any employee benefit plan; references to **“serving at the request of the Company”** shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner he or she reasonably believed to be in the best interests of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner **“not opposed to the best interests of the Company”** as referred to in this Agreement.

2. **Indemnity in Third-Party Proceedings.** The Company shall indemnify Indemnitee in accordance with the provisions of this Section 2 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 2, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his or her behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the Company and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was unlawful.

3. **Indemnity in Proceedings by or in the Right of the Company.** The Company shall indemnify Indemnitee in accordance with the provisions of this Section 3 if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Company to procure a judgment in its favor. Pursuant to this Section 3, Indemnitee shall be indemnified to the fullest extent permitted by applicable law against all Expenses and, to the fullest extent permitted by law, amounts paid in settlement actually and reasonably incurred by Indemnitee or on Indemnitee’s behalf in connection with such Proceeding or any claim, issue or matter therein, if Indemnitee acted in good faith and in a manner he or she reasonably believed

to be in or not opposed to the best interests of the Company. No indemnification shall be made under this Section 3 in respect of any claim, issue or matter as to which Indemnitee shall have been adjudged by a court of competent jurisdiction to be liable to the Company, unless and only to the extent that the Delaware Court of Chancery or any court in which the Proceeding was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification for such expenses as the Delaware Court of Chancery or such other court shall deem proper.

4. **Indemnification for Expenses of a Party Who is Wholly or Partly Successful.** To the extent that Indemnitee is a party to or a participant in and is successful (on the merits or otherwise) in defense of any Proceeding or any claim, issue or matter therein, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith. To the extent permitted by applicable law, if Indemnitee is not wholly successful in such Proceeding but is successful, on the merits or otherwise, in defense of one or more but less than all claims, issues or matters in such Proceeding, the Company shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with (a) each successfully resolved claim, issue or matter and (b) any claim, issue or matter related to any such successfully resolved claim, issuer or matter. For purposes of this section, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

5. **Indemnification for Expenses of a Witness.** To the extent that Indemnitee is, by reason of his or her Corporate Status, a witness in any Proceeding to which Indemnitee is not a party, Indemnitee shall be indemnified to the extent permitted by applicable law against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith.

6. **Additional Indemnification.**

(a) Notwithstanding any limitation in Sections 2, 3 or 4, the Company shall indemnify Indemnitee to the fullest extent permitted by applicable law if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding (including a Proceeding by or in the right of the Company to procure a judgment in its favor) against all Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred by Indemnitee or on his or her behalf in connection with the Proceeding or any claim, issue or matter therein.

(b) For purposes of Section 6(a), the meaning of the phrase "**to the fullest extent permitted by applicable law**" shall include, but not be limited to:

- (i) the fullest extent permitted by the provision of the DGCL that authorizes or contemplates additional indemnification by agreement, or the corresponding provision of any amendment to or replacement of the DGCL; and
- (ii) the fullest extent authorized or permitted by any amendments to or replacements of the DGCL adopted after the date of this Agreement that increase the extent to which a corporation may indemnify its officers and directors.

7. **Exclusions.** Notwithstanding any provision in this Agreement, the Company shall not be obligated under this Agreement to make any indemnity in connection with any Proceeding (or any part of any Proceeding):

(a) for which payment has actually been made to or on behalf of Indemnitee under any statute, insurance policy, indemnity provision, vote or otherwise, except with respect to any excess beyond the amount paid;

(b) for an accounting or disgorgement of profits pursuant to Section 16(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of federal, state or local statutory law or common law, if Indemnitee is held liable therefor (including pursuant to any settlement arrangements);

(c) for any reimbursement of the Company by Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Company, as required in each case under the Securities Exchange Act of 1934, as amended (including any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "**Sarbanes-Oxley Act**"), or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act), if Indemnitee is held liable therefor (including pursuant to any settlement arrangements);

(d) initiated by Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by Indemnitee against the Company or its directors, officers, employees, agents or other indemnitees, unless (i) the Company's board of directors authorized the Proceeding (or the relevant part of the Proceeding) prior to its initiation, (ii) the Company provides the indemnification, in its sole discretion, pursuant to the powers vested in the Company under applicable law, (iii) otherwise authorized in Section 12(d) or (iv) otherwise required by applicable law; or

(e) if prohibited by applicable law.

8. **Advances of Expenses.** The Company shall advance the Expenses incurred by Indemnitee in connection with any Proceeding, and such advancement shall be made as soon as reasonably practicable, but in any event no later than 30 days, after the receipt by the Company of a written statement or statements requesting such advances from time to time (which shall include invoices received by Indemnitee in connection with such Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditure made that would cause Indemnitee to waive any privilege accorded by applicable law shall not be included with the invoice). Advances shall be unsecured and interest free and made without regard to Indemnitee's ability to repay such advances. Indemnitee hereby undertakes to repay any advance to the extent that it is ultimately determined that Indemnitee is not entitled to be indemnified by the Company. This Section 8 shall not apply to the extent advancement is prohibited by law and shall not apply to any Proceeding for which indemnity is not permitted under this Agreement, but shall apply to any Proceeding referenced in Section 7(b) or 7(c) prior to a determination that Indemnitee is not entitled to be indemnified by the Company.

9. **Procedures for Notification and Defense of Claim.**

(a) Indemnitee shall notify the Company in writing of any matter with respect to which Indemnitee intends to seek indemnification or advancement of Expenses as soon as reasonably practicable following the receipt by Indemnitee of notice thereof. The written notification to the Company shall include, in reasonable detail, a description of the nature of the Proceeding and the facts underlying the Proceeding. The failure by Indemnitee to notify the Company will not relieve the Company from any liability which it may have to Indemnitee hereunder or otherwise than under this Agreement, and any delay in so notifying the

Company shall not constitute a waiver by Indemnitee of any rights, except to the extent that such failure or delay materially prejudices the Company.

(b) If, at the time of the receipt of a notice of a Proceeding pursuant to the terms hereof, the Company has directors' and officers' liability insurance in effect, the Company shall give prompt notice of the commencement of the Proceeding to the insurers in accordance with the procedures set forth in the applicable policies. The Company shall thereafter take all commercially-reasonable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such Proceeding in accordance with the terms of such policies.

(c) In the event the Company may be obligated to make any indemnity in connection with a Proceeding, the Company shall be entitled to assume the defense of such Proceeding with counsel approved by Indemnitee, which approval shall not be unreasonably withheld, upon the delivery to Indemnitee of written notice of its election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee for any fees or expenses of counsel subsequently incurred by Indemnitee with respect to the same Proceeding. Notwithstanding the Company's assumption of the defense of any such Proceeding, the Company shall be obligated to pay the fees and expenses of Indemnitee's counsel to the extent (i) the employment of counsel by Indemnitee is authorized by the Company, (ii) counsel for the Company or Indemnitee shall have reasonably concluded that there is a conflict of interest between the Company and Indemnitee in the conduct of any such defense such that Indemnitee needs to be separately represented, (iii) the Company is not financially or legally able to perform its indemnification obligations or (iv) the Company shall not have retained, or shall not continue to retain, such counsel to defend such Proceeding. The Company shall have the right to conduct such defense as it sees fit in its sole discretion. Regardless of any provision in this Agreement, Indemnitee shall have the right to employ counsel in any Proceeding at Indemnitee's personal expense. The Company shall not be entitled, without the consent of Indemnitee, to assume the defense of any claim brought by or in the right of the Company.

(d) Indemnitee shall give the Company such information and cooperation in connection with the Proceeding as may be reasonably appropriate.

(e) The Company shall not be liable to indemnify Indemnitee for any settlement of any Proceeding (or any part thereof) without the Company's prior written consent, which shall not be unreasonably withheld.

(f) The Company shall not settle any Proceeding (or any part thereof) without Indemnitee's prior written consent, which shall not be unreasonably withheld.

10. Procedures upon Application for Indemnification.

(a) To obtain indemnification, Indemnitee shall submit to the Company a written request, including therein or therewith such documentation and information as is reasonably available to Indemnitee and as is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification following the final disposition of the Proceeding. The Company shall, as soon as reasonably practicable after receipt of such a request for indemnification, advise the board of directors that Indemnitee has requested indemnification. Any delay in providing the request will not relieve the Company from its obligations under this Agreement, except to the extent such failure is prejudicial.

(b) Upon written request by Indemnitee for indemnification pursuant to Section 10(a), a determination with respect to Indemnitee's entitlement thereto shall be made in the specific case (i) if a Change in Control shall have occurred, by Independent Counsel in a written opinion to the Company's board of directors, a copy of which shall be delivered to Indemnitee or (ii) if a Change in Control shall not have occurred, (A) by a majority vote of the Disinterested Directors, even though less than a quorum of the Company's board of directors, (B) by a committee of Disinterested Directors designated by a majority vote of the Disinterested Directors, even though less than a quorum of the Company's board of directors, (C) if there are no such Disinterested Directors or, if such Disinterested Directors so direct, by Independent Counsel in a written opinion to the Company's board of directors, a copy of which shall be delivered to Indemnitee or (D) if so directed by the Company's board of directors, by the stockholders of the Company. If it is determined that Indemnitee is entitled to indemnification, payment to Indemnitee shall be made within ten days after such determination. Indemnitee shall cooperate with the person, persons or entity making the determination with respect to Indemnitee's entitlement to indemnification, including providing to such person, persons or entity upon reasonable advance request any documentation or information that is not privileged or otherwise protected from disclosure and that is reasonably available to Indemnitee and reasonably necessary to such determination. Any costs or expenses (including attorneys' fees and disbursements) reasonably incurred by Indemnitee in so cooperating with the person, persons or entity making such determination shall be borne by the Company, to the extent permitted by applicable law.

(c) In the event the determination of entitlement to indemnification is to be made by Independent Counsel pursuant to Section 10(b), the Independent Counsel shall be selected as provided in this Section 10(c). If a Change in Control shall not have occurred, the Independent Counsel shall be selected by the Company's board of directors, and the Company shall give written notice to Indemnitee advising him or her of the identity of the Independent Counsel so selected. If a Change in Control shall have occurred, the Independent Counsel shall be selected by Indemnitee (unless Indemnitee shall request that such selection be made by the Company's board of directors, in which event the preceding sentence shall apply), and Indemnitee shall give written notice to the Company advising it of the identity of the Independent Counsel so selected. In either event, Indemnitee or the Company, as the case may be, may, within ten days after such written notice of selection shall have been given, deliver to the Company or to Indemnitee, as the case may be, a written objection to such selection; *provided, however*, that such objection may be asserted only on the ground that the Independent Counsel so selected does not meet the requirements of "Independent Counsel" as defined in Section 1 of this Agreement, and the objection shall set forth with particularity the factual basis of such assertion. Absent a proper and timely objection, the person so selected shall act as Independent Counsel. If such written objection is so made and substantiated, the Independent Counsel so selected may not serve as Independent Counsel unless and until such objection is withdrawn or a court has determined that such objection is without merit. If, within 20 days after the later of (i) submission by Indemnitee of a written request for indemnification pursuant to Section 10(a) hereof and (ii) the final disposition of the Proceeding, the parties have not agreed upon an Independent Counsel, either the Company or Indemnitee may petition a court of competent jurisdiction for resolution of any objection which shall have been made by the Company or Indemnitee to the other's selection of Independent Counsel and for the appointment as Independent Counsel of a person selected by the court or by such other person as the court shall designate, and the person with respect to whom all objections are so resolved or the person so appointed shall act as Independent Counsel under Section 10(b) hereof. Upon the due commencement of any judicial proceeding or arbitration pursuant to Section 12(a) of this Agreement, the Independent Counsel shall be discharged and relieved of any further responsibility in such capacity (subject to the applicable standards of professional conduct then prevailing).

(d) The Company agrees to pay the reasonable fees and expenses of any Independent Counsel and to fully indemnify such counsel against any and all Expenses, claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

11. Presumptions and Effect of Certain Proceedings.

(a) In making a determination with respect to entitlement to indemnification hereunder, the person, persons or entity making such determination shall, to the fullest extent not prohibited by law, presume that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 10(a) of this Agreement, and the Company shall, to the fullest extent not prohibited by law, have the burden of proof to overcome that presumption in connection with the making by such person, persons or entity of any determination contrary to that presumption.

(b) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of *nolo contendere* or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Company or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that his or her conduct was unlawful.

(c) For purposes of any determination of good faith, Indemnitee shall be deemed to have acted in good faith to the extent Indemnitee relied in good faith on (i) the records or books of account of the Enterprise, including financial statements, (ii) information supplied to Indemnitee by the officers of the Enterprise in the course of their duties, (iii) the advice of legal counsel for the Enterprise or its board of directors or counsel selected by any committee of the board of directors or (iv) information or records given or reports made to the Enterprise by an independent certified public accountant, an appraiser, investment banker or other expert selected with reasonable care by the Enterprise or its board of directors or any committee of the board of directors. The provisions of this Section 11(c) shall not be deemed to be exclusive or to limit in any way the other circumstances in which Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement.

(d) Neither the knowledge, actions nor failure to act of any other director, officer, agent or employee of the Enterprise shall be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

12. Remedies of Indemnitee.

(a) Subject to Section 12(e), in the event that (i) a determination is made pursuant to Section 10 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 8 or 12(d) of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 10 of this Agreement within 90 days after the later of the receipt by the Company of the request for indemnification or the final disposition of the Proceeding, (iv) payment of indemnification pursuant to this Agreement is not made (A) within ten days after a determination has been made that Indemnitee is entitled to indemnification or (B) with respect to indemnification pursuant to Sections 4, 5 and 12(d) of this Agreement, within 30 days after receipt by the Company of a written request therefor, or (v) the Company or any other person or entity takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or proceeding designed to deny, or to recover from, Indemnitee the benefits provided or intended to be provided to Indemnitee hereunder, Indemnitee shall be entitled to an adjudication by a court

of competent jurisdiction of his or her entitlement to such indemnification or advancement of Expenses. Indemnitee shall commence such proceeding seeking an adjudication within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 12(a); *provided, however*, that the foregoing clause shall not apply in respect of a proceeding brought by Indemnitee to enforce his or her rights under Section 4 of this Agreement. The Company shall not oppose Indemnitee's right to seek any such adjudication in accordance with this Agreement.

(b) Neither (i) the failure of the Company, its board of directors, any committee or subgroup of the board of directors, Independent Counsel or stockholders to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor (ii) an actual determination by the Company, its board of directors, any committee or subgroup of the board of directors, Independent Counsel or stockholders that Indemnitee has not met the applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has or has not met the applicable standard of conduct. In the event that a determination shall have been made pursuant to Section 10 of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding commenced pursuant to this Section 12 shall be conducted in all respects as a *de novo* trial, on the merits, and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding commenced pursuant to this Section 12, the Company shall, to the fullest extent not prohibited by law, have the burden of proving Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be.

(c) To the fullest extent not prohibited by law, the Company shall be precluded from asserting in any judicial proceeding commenced pursuant to this Section 12 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court that the Company is bound by all the provisions of this Agreement. If a determination shall have been made pursuant to Section 10 of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding commenced pursuant to this Section 12, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statements not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) To the extent not prohibited by law, the Company shall indemnify Indemnitee against all Expenses that are incurred by Indemnitee in connection with any action for indemnification or advancement of Expenses from the Company under this Agreement unless as a part of such action, the court of competent jurisdiction determines that each of the material assertions made by Indemnitee as a basis for such action were not made in good faith or were frivolous or to the extent Indemnitee is successful in such action, and, if requested by Indemnitee, shall (as soon as reasonably practicable, but in any event no later than 30 days, after receipt by the Company of a written request therefor) advance such Expenses to Indemnitee, subject to the provisions of Section 8.

(e) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification shall be required to be made prior to the final disposition of the Proceeding.

13. Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amounts incurred by Indemnitee, whether for Expenses, judgments, fines or amounts paid or to be paid in settlement, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (i) the relative benefits received by the Company and Indemnitee as a

result of the events and transactions giving rise to such Proceeding; and (ii) the relative fault of Indemnitee and the Company (and its other directors, officers, employees and agents) in connection with such events and transactions.

14. Non-exclusivity. The rights of indemnification and to receive advancement of Expenses as provided by this Agreement shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law, the Company's certificate of incorporation or bylaws, any agreement, a vote of stockholders or a resolution of directors, or otherwise. To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement of Expenses than would be afforded currently under the Company's certificate of incorporation and bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change, subject to the restrictions expressly set forth herein or therein. Except as expressly set forth herein, no right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. Except as expressly set forth herein, the assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

15. Primary Responsibility. The Company acknowledges that Indemnitee has or may have certain rights to indemnification and advancement of expenses provided by other entities and/or organizations (collectively, the "**Secondary Indemnitors**"). The Company hereby agrees (i) that it is the indemnitor of first resort (i.e., its obligations to Indemnitee are primary and any obligation of the Secondary Indemnitors to advance Expenses or to provide indemnification for the same Expenses or liabilities incurred by Indemnitee in connection with a Proceeding are secondary), (ii) that it shall be required to advance the full amount of Expenses incurred by Indemnitee and shall be liable for the full amount of all Expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the certificate of incorporation or bylaws of the Company (or any other agreement between the Company and Indemnitee), without regard to any rights Indemnitee may have against the Secondary Indemnitors, and (iii) that, to the extent not in contravention of any insurance policy or policies providing liability or other insurance for the Company or any director, trustee, general partner, managing member, officer, employee, agent or fiduciary of the Company or any other Enterprise, it irrevocably waives, relinquishes and releases the Secondary Indemnitors from any and all claims against the Secondary Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Secondary Indemnitors on behalf of Indemnitee with respect to any claim for which indemnification is required under the terms of this Agreement shall affect the foregoing and the Secondary Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Company. The Company and Indemnitee agree that the Secondary Indemnitors are express third party beneficiaries of the terms of this Section 15.

16. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment of amounts otherwise indemnifiable hereunder (or for which advancement is provided hereunder) if and to the extent that Indemnitee has otherwise actually received payment for such amounts under any insurance policy, contract, agreement or otherwise.

17. Insurance. The Company shall, from time to time, make the good faith determination whether or not it is practicable for the Company to obtain and maintain a policy or policies of insurance with reputable insurance companies providing the officers and directors of the Company with coverage for losses from wrongful acts, or to ensure the Company's performance of its indemnification obligations under this

Agreement. Among other considerations, the Company will weigh the costs of obtaining such insurance coverage against the protection afforded by such coverage. In all policies of director and officer liability insurance, Indemnatee shall be named as an insured in such a manner as to provide Indemnatee the same rights and benefits as are accorded to the most favorably insured of the Company's directors, if Indemnatee is a director; or of the Company's officers, if Indemnatee is not a director of the Company but is an officer. Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain such insurance if the Company determines in good faith that such insurance is not reasonably available, if the premium costs for such insurance are disproportionate to the amount of coverage provided, if the coverage provided by such insurance is limited by exclusions so as to provide an insufficient benefit, or if Indemnatee is covered by similar insurance maintained by a subsidiary or parent of the Company.

18. Subrogation. In the event of any payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnatee, who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Company to bring suit to enforce such rights.

19. Services to the Company. Indemnatee agrees to serve as a director or officer of the Company or, at the request of the Company, as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary of another Enterprise, for so long as Indemnatee is duly elected or appointed or until Indemnatee tenders his or her resignation or is removed from such position. Indemnatee may at any time and for any reason resign from such position (subject to any other contractual obligation or any obligation imposed by operation of law), in which event the Company shall have no obligation under this Agreement to continue Indemnatee in such position. This Agreement shall not be deemed an employment contract between the Company (or any of its subsidiaries or any Enterprise) and Indemnatee. Indemnatee specifically acknowledges that any employment with the Company (or any of its subsidiaries or any Enterprise) is at will, and Indemnatee may be discharged at any time for any reason, with or without cause, with or without notice, except as may be otherwise expressly provided in any executed, written employment contract between Indemnatee and the Company (or any of its subsidiaries or any Enterprise), any existing formal severance policies adopted by the Company's board of directors or, with respect to service as a director or officer of the Company, the Company's certificate of incorporation or bylaws or the DGCL. No such document shall be subject to any oral modification thereof.

20. Successors. This Agreement shall be binding upon the Company and its successors and assigns, including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business or assets of the Company, and shall inure to the benefit of Indemnatee and Indemnatee's heirs, executors and administrators. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Company, by written agreement, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place.

21. Severability. Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to court order or other applicable law, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. If any provision or provisions of this Agreement shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, legality and enforceability of the remaining provisions of this Agreement (including without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby and shall remain enforceable to the fullest

extent permitted by law; (ii) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (iii) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

22. **Enforcement.** The Company expressly confirms and agrees that it has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve as a director or officer of the Company, and the Company acknowledges that Indemnitee is relying upon this Agreement in serving as a director or officer of the Company.

23. **Entire Agreement.** This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; *provided, however*, that this Agreement is a supplement to and in furtherance of the Company's certificate of incorporation and bylaws and applicable law.

24. **Modification and Waiver.** No supplement, modification or amendment to this Agreement shall be binding unless executed in writing by the parties hereto. No amendment, alteration or repeal of this Agreement shall adversely affect any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in his or her Corporate Status prior to such amendment, alteration or repeal. No waiver of any of the provisions of this Agreement shall constitute or be deemed a waiver of any other provision of this Agreement nor shall any waiver constitute a continuing waiver.

25. **Notices.** All notices and other communications required or permitted hereunder shall be in writing and shall be mailed by registered or certified mail, postage prepaid, sent by facsimile or electronic mail or otherwise delivered by hand, messenger or courier service addressed:

(a) if to Indemnitee, to Indemnitee's address, facsimile number or electronic mail address as shown on the signature page of this Agreement or in the Company's records, as may be updated in accordance with the provisions hereof; or

(b) if to the Company, to the attention of the Chief Executive Officer or Chief Financial Officer of the Company at 7000 Shoreline Court, Suite 100, South San Francisco, CA 94080, or at such other current address as the Company shall have furnished to Indemnitee, with a copy (which shall not constitute notice) to Robert Kornegay, Wilson Sonsini Goodrich & Rosati, P.C., 650 Page Mill Road, Palo Alto, California 94304.

Each such notice or other communication shall for all purposes of this Agreement be treated as effective or having been given (i) if delivered by hand, messenger or courier service, when delivered (or if sent *via* a nationally-recognized overnight courier service, freight prepaid, specifying next-business-day delivery, one business day after deposit with the courier), or (ii) if sent *via* mail, at the earlier of its receipt or three days after the same has been deposited in a regularly-maintained receptacle for the deposit of the United States mail, addressed and mailed as aforesaid, or (iii) if sent *via* facsimile, upon confirmation of facsimile transfer or, if sent *via* electronic mail, upon confirmation of delivery when directed to the relevant electronic mail address, if sent during normal business hours of the recipient, or if not sent during normal business hours of the recipient, then on the recipient's next business day.

26. **Applicable Law and Consent to Jurisdiction.** This Agreement and the legal relations among the parties shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its conflict of laws rules. The Company and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court of Chancery, and not in any other state or federal court in the United States of America or any court in any other country, (ii) consent to submit to the exclusive jurisdiction of the Delaware Court of Chancery for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) appoint, to the extent such party is not otherwise subject to service of process in the State of Delaware, The Corporation Trust Company, Wilmington, Delaware as its agent in the State of Delaware as such party's agent for acceptance of legal process in connection with any such action or proceeding against such party with the same legal force and validity as if served upon such party personally within the State of Delaware, (iv) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court of Chancery, and (v) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court of Chancery has been brought in an improper or inconvenient forum.

27. **Counterparts.** This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. This Agreement may also be executed and delivered by facsimile signature and in counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute one and the same Agreement. Only one such counterpart signed by the party against whom enforceability is sought needs to be produced to evidence the existence of this Agreement.

28. **Captions.** The headings of the paragraphs of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof.

(signature page follows)

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

FLUIDIGM CORPORATION

Signature of Authorized Signatory

Print Name

Title

Address: 7000 Shoreline Court, Suite 100

South San Francisco, CA 94080

AGREED TO AND ACCEPTED:

INDEMNITEE:

Signature

Print Name

Title

Address: _____

FLUIDIGM CORPORATION
2011 EQUITY INCENTIVE PLAN

Adopted and approved January 20, 2011 and
effective as of the Company's initial public offering.

1. Purposes of the Plan. The purposes of this Plan are:

- to attract and retain the best available personnel for positions of substantial responsibility,
- to provide additional incentive to Employees, Directors and Consultants, and
- to promote the success of the Company's business.

The Plan permits the grant of Incentive Stock Options, Nonstatutory Stock Options, Restricted Stock, Restricted Stock Units, Stock Appreciation Rights, Performance Units and Performance Shares.

2. Definitions. As used herein, the following definitions will apply:

(a) "Administrator" means the Board or any of its Committees as will be administering the Plan, in accordance with Section 4 of the Plan.

(b) "Applicable Laws" means the requirements relating to the administration of equity-based awards under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any foreign country or jurisdiction where Awards are, or will be, granted under the Plan.

(c) "Award" means, individually or collectively, a grant under the Plan of Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares.

(d) "Award Agreement" means the written or electronic agreement setting forth the terms and provisions applicable to each Award granted under the Plan. The Award Agreement is subject to the terms and conditions of the Plan.

(e) "Board" means the Board of Directors of the Company.

(f) "Change in Control" means the occurrence of any of the following events:

(i) A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group ("Person"), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50%

of the total voting power of the stock of the Company; provided, however, that for purposes of this subsection (i), the acquisition of additional stock by any one Person, who is considered to own more than 50% of the total voting power of the stock of the Company will not be considered a Change in Control; or

(ii) A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any twelve (12) month period by Directors whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this clause (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the twelve (12) month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, 50% or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least 50% of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this definition, persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing, a transaction will not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Code Section 409A, as it has been and may be amended from time to time, and any proposed or final Treasury Regulations and Internal Revenue Service guidance that has been promulgated or may be promulgated thereunder from time to time.

Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (i) its sole purpose is to change the state of the Company's incorporation, or (ii) its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(g) "Code" means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or regulation thereunder shall include such section or regulation, any

valid regulation promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

(h) “Committee” means a committee of Directors or of other individuals satisfying Applicable Laws appointed by the Board in accordance with Section 4 hereof.

(i) “Common Stock” means the common stock of the Company.

(j) “Company” means Fluidigm Corporation, a Delaware corporation, or any successor thereto.

(k) “Consultant” means any person, including an advisor, engaged by the Company or a Parent or Subsidiary to render services to such entity.

(l) “Director” means a member of the Board.

(m) “Disability” means total and permanent disability as defined in Section 22(e)(3) of the Code, provided that in the case of Awards other than Incentive Stock Options, the Administrator in its discretion may determine whether a permanent and total disability exists in accordance with uniform and non-discriminatory standards adopted by the Administrator from time to time.

(n) “Employee” means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. Neither service as a Director nor payment of a director’s fee by the Company will be sufficient to constitute “employment” by the Company.

(o) “Exchange Act” means the Securities Exchange Act of 1934, as amended.

(p) “Exchange Program” means a program under which (i) outstanding Awards are surrendered or cancelled in exchange for Awards of the same type (which may have higher or lower exercise prices and different terms), Awards of a different type, and/or cash, (ii) Participants would have the opportunity to transfer any outstanding Awards to a financial institution or other person or entity selected by the Administrator, and/or (iii) the exercise price of an outstanding Award is increased or reduced. The Administrator will determine the terms and conditions of any Exchange Program in its sole discretion.

(q) “Fair Market Value” means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Select Market, the Nasdaq Global Market or the Nasdaq Capital Market of The Nasdaq Stock Market, its Fair Market Value will be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, the Fair Market Value of a Share will be the mean between the high bid and low asked prices for the Common Stock on the day of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(iii) For purposes of any Awards granted on the Registration Date, the Fair Market Value will be the initial price to the public as set forth in the final prospectus included within the registration statement in Form S-1 filed with the Securities and Exchange Commission for the initial public offering of the Company's Common Stock; or

(iv) In the absence of an established market for the Common Stock, the Fair Market Value will be determined in good faith by the Administrator.

(r) "Fiscal Year" means the fiscal year of the Company.

(s) "Incentive Stock Option" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(t) "Inside Director" means a Director who is an Employee.

(u) "Nonstatutory Stock Option" means an Option that by its terms does not qualify or is not intended to qualify as an Incentive Stock Option.

(v) "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(w) "Option" means a stock option granted pursuant to the Plan.

(x) "Outside Director" means a Director who is not an Employee.

(y) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(z) "Participant" means the holder of an outstanding Award.

(aa) "Performance Share" means an Award denominated in Shares which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine pursuant to Section 10.

(bb) "Performance Unit" means an Award which may be earned in whole or in part upon attainment of performance goals or other vesting criteria as the Administrator may determine and which may be settled for cash, Shares or other securities or a combination of the foregoing pursuant to Section 10.

(cc) "Period of Restriction" means the period during which the transfer of Shares of Restricted Stock are subject to restrictions and therefore, the Shares are subject to a substantial

risk of forfeiture. Such restrictions may be based on the passage of time, the achievement of target levels of performance, or the occurrence of other events as determined by the Administrator.

(dd) “Plan” means this 2011 Equity Incentive Plan.

(ee) “Registration Date” means the effective date of the first registration statement that is filed by the Company and declared effective pursuant to Section 12(g) of the Exchange Act, with respect to any class of the Company’s securities.

(ff) “Restricted Stock” means Shares issued pursuant to a Restricted Stock award under Section 7 of the Plan, or issued pursuant to the early exercise of an Option.

(gg) “Restricted Stock Unit” means a bookkeeping entry representing an amount equal to the Fair Market Value of one Share, granted pursuant to Section 8. Each Restricted Stock Unit represents an unfunded and unsecured obligation of the Company.

(hh) “Rule 16b-3” means Rule 16b-3 of the Exchange Act or any successor to Rule 16b-3, as in effect when discretion is being exercised with respect to the Plan.

(ii) “Section 16(b)” means Section 16(b) of the Exchange Act.

(jj) “Service Provider” means an Employee, Director or Consultant.

(kk) “Share” means a share of the Common Stock, as adjusted in accordance with Section 13 of the Plan.

(ll) “Stock Appreciation Right” means an Award, granted alone or in connection with an Option, that pursuant to Section 9 is designated as a Stock Appreciation Right.

(mm) “Subsidiary” means a “subsidiary corporation”, whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan.

(a) Stock Subject to the Plan. Subject to the provisions of Section 13 of the Plan, the maximum aggregate number of Shares that may be issued under the Plan is 1,250,000 Shares, plus (i) any Shares that, as of the Registration Date, have been reserved but not issued pursuant to any awards granted under the Fluidigm Corporation 1999 Stock Option Plan and the Fluidigm Corporation 2009 Equity Incentive Plan (the “Existing Plans”) and are not subject to any awards granted thereunder, and (ii) any Shares subject to stock options or similar awards granted under the Existing Plans that expire or otherwise terminate without having been exercised in full and Shares issued pursuant to awards granted under the Existing Plans that are forfeited to or repurchased by the Company, with the maximum number of Shares to be added to the Plan pursuant to clauses (i) and (ii) equal to 3,022,096 Shares. The Shares may be authorized, but unissued, or reacquired Common Stock.

(b) Automatic Share Reserve Increase. The number of Shares available for issuance under the Plan will be increased on the first day of each Fiscal Year beginning with the

2012 Fiscal Year, in an amount equal to the least of (i) 1,000,000 Shares, (ii) 4% of the outstanding Shares on the last day of the immediately preceding Fiscal Year or (iii) such number of Shares determined by the Board.

(c) Lapsed Awards. If an Award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an Exchange Program, or, with respect to Restricted Stock, Restricted Stock Units, Performance Units or Performance Shares, is forfeited to or repurchased by the Company due to failure to vest, the unpurchased Shares (or for Awards other than Options or Stock Appreciation Rights the forfeited or repurchased Shares) which were subject thereto will become available for future grant or sale under the Plan (unless the Plan has terminated). With respect to Stock Appreciation Rights, only Shares actually issued (i.e., the net Shares issued) pursuant to a Stock Appreciation Right will cease to be available under the Plan; all remaining Shares under Stock Appreciation Rights will remain available for future grant or sale under the Plan (unless the Plan has terminated). Shares that have actually been issued under the Plan under any Award will not be returned to the Plan and will not become available for future distribution under the Plan; provided, however, that if Shares issued pursuant to Awards of Restricted Stock, Restricted Stock Units, Performance Shares or Performance Units are repurchased by the Company or are forfeited to the Company, such Shares will become available for future grant under the Plan. Shares used to pay the exercise price of an Award or to satisfy the tax withholding obligations related to an Award will become available for future grant or sale under the Plan. To the extent an Award under the Plan is paid out in cash rather than Shares, such cash payment will not result in reducing the number of Shares available for issuance under the Plan. Notwithstanding the foregoing and, subject to adjustment as provided in Section 13, the maximum number of Shares that may be issued upon the exercise of Incentive Stock Options will equal the aggregate Share number stated in Section 3(a), plus, to the extent allowable under Section 422 of the Code and the Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan pursuant to Sections 3(b) and 3(c).

(d) Share Reserve. The Company, during the term of this Plan, will at all times reserve and keep available such number of Shares as will be sufficient to satisfy the requirements of the Plan.

4. Administration of the Plan.

(a) Procedure.

(i) Multiple Administrative Bodies. Different Committees with respect to different groups of Service Providers may administer the Plan.

(ii) Section 162(m). To the extent that the Administrator determines it to be desirable to qualify Awards granted hereunder as “performance-based compensation” within the meaning of Section 162(m) of the Code, the Plan will be administered by a Committee of two (2) or more “outside directors” within the meaning of Section 162(m) of the Code.

(iii) Rule 16b-3. To the extent desirable to qualify transactions hereunder as exempt under Rule 16b-3, the transactions contemplated hereunder will be structured to satisfy the requirements for exemption under Rule 16b-3.

(iv) Other Administration. Other than as provided above, the Plan will be administered by (A) the Board or (B) a Committee, which committee will be constituted to satisfy Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan, and in the case of a Committee, subject to the specific duties delegated by the Board to such Committee, the Administrator will have the authority, in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Awards may be granted hereunder;

(iii) to determine the number of Shares to be covered by each Award granted hereunder;

(iv) to approve forms of Award Agreements for use under the Plan;

(v) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any Award granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Award or the Shares relating thereto, based in each case on such factors as the Administrator will determine;

(vi) to determine the terms and conditions of any, and to institute any Exchange Program;

(vii) to construe and interpret the terms of the Plan and Awards granted pursuant to the Plan;

(viii) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of satisfying applicable foreign laws or for qualifying for favorable tax treatment under applicable foreign laws;

(ix) to modify or amend each Award (subject to Section 18 of the Plan), including but not limited to the discretionary authority to extend the post-termination exercisability period of Awards and to extend the maximum term of an Option (subject to Section 6(b) of the Plan regarding Incentive Stock Options);

(x) to allow Participants to satisfy withholding tax obligations in such manner as prescribed in Section 14 of the Plan;

(xi) to authorize any person to execute on behalf of the Company any instrument required to effect the grant of an Award previously granted by the Administrator;

(xii) to allow a Participant to defer the receipt of the payment of cash or the delivery of Shares that would otherwise be due to such Participant under an Award; and

(xiii) to make all other determinations deemed necessary or advisable for administering the Plan.

(c) Effect of Administrator's Decision. The Administrator's decisions, determinations and interpretations will be final and binding on all Participants and any other holders of Awards.

5. Eligibility. Nonstatutory Stock Options, Stock Appreciation Rights, Restricted Stock, Restricted Stock Units, Performance Shares and Performance Units may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

6. Stock Options.

(a) Limitations. Each Option will be designated in the Award Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Participant during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds one hundred thousand dollars (\$100,000), such Options will be treated as Nonstatutory Stock Options. For purposes of this Section 6(a), Incentive Stock Options will be taken into account in the order in which they were granted. The Fair Market Value of the Shares will be determined as of the time the Option with respect to such Shares is granted.

(b) Term of Option. The term of each Option will be stated in the Award Agreement. In the case of an Incentive Stock Option, the term will be ten (10) years from the date of grant or such shorter term as may be provided in the Award Agreement. Moreover, in the case of an Incentive Stock Option granted to a Participant who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Incentive Stock Option will be five (5) years from the date of grant or such shorter term as may be provided in the Award Agreement.

(c) Option Exercise Price and Consideration.

(i) Exercise Price. The per share exercise price for the Shares to be issued pursuant to exercise of an Option will be determined by the Administrator, subject to the following:

(1) In the case of an Incentive Stock Option

a) granted to an Employee who, at the time the Incentive Stock Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the per Share exercise price will be no less than one hundred ten percent (110%) of the Fair Market Value per Share on the date of grant.

b) granted to any Employee other than an Employee described in paragraph (A) immediately above, the per Share exercise price will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant.

(2) In the case of a Nonstatutory Stock Option, the per Share exercise price will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant.

(3) Notwithstanding the foregoing, Options may be granted with a per Share exercise price of less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code.

(ii) Waiting Period and Exercise Dates. At the time an Option is granted, the Administrator will fix the period within which the Option may be exercised and will determine any conditions that must be satisfied before the Option may be exercised.

(iii) Form of Consideration. The Administrator will determine the acceptable form of consideration for exercising an Option, including the method of payment. In the case of an Incentive Stock Option, the Administrator will determine the acceptable form of consideration at the time of grant. Such consideration may consist entirely of: (1) cash; (2) check; (3) promissory note, to the extent permitted by Applicable Laws, (4) other Shares, provided that such Shares have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option will be exercised and provided that accepting such Shares will not result in any adverse accounting consequences to the Company, as the Administrator determines in its sole discretion; (5) consideration received by the Company under a broker-assisted (or other) cashless exercise program (whether through a broker or otherwise) implemented by the Company in connection with the Plan; (6) by net exercise; (7) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws; or (8) any combination of the foregoing methods of payment.

(d) Exercise of Option.

(i) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder will be exercisable according to the terms of the Plan and at such times and under such conditions as determined by the Administrator and set forth in the Award Agreement. An Option may not be exercised for a fraction of a Share.

An Option will be deemed exercised when the Company receives: (i) notice of exercise (in such form as the Administrator may specify from time to time) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised (together with applicable withholding taxes). Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Award Agreement and the Plan. Shares issued upon exercise of an Option will be issued in the name of the Participant or, if requested by the Participant, in the name of the Participant and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to an Option, notwithstanding the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 13 of the Plan.

Exercising an Option in any manner will decrease the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(ii) Termination of Relationship as a Service Provider. If a Participant ceases to be a Service Provider, other than upon the Participant's termination as the result of the Participant's death or Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for three (3) months following the Participant's termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iii) Disability of Participant. If a Participant ceases to be a Service Provider as a result of the Participant's Disability, the Participant may exercise his or her Option within such period of time as is specified in the Award Agreement to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Award Agreement). In the absence of a specified time in the Award Agreement, the Option will remain exercisable for twelve (12) months following the Participant's termination. Unless otherwise provided by the Administrator, if on the date of termination the Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will revert to the Plan. If after termination the Participant does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(iv) Death of Participant. If a Participant dies while a Service Provider, the Option may be exercised following the Participant's death within such period of time as is specified in the Award Agreement to the extent that the Option is vested on the date of death (but in no event may the option be exercised later than the expiration of the term of such Option as set forth in the Award Agreement), by the Participant's designated beneficiary, provided such beneficiary has been designated prior to Participant's death in a form acceptable to the Administrator. If no such beneficiary has been designated by the Participant, then such Option may be exercised by the personal representative of the Participant's estate or by the person(s) to whom the Option is transferred pursuant to the Participant's will or in accordance with the laws of descent and distribution. In the absence of a specified time in the Award Agreement, the Option will remain exercisable for twelve (12) months following Participant's death. Unless otherwise provided by the Administrator, if at the time of death Participant is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option will immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

7. Restricted Stock.

(a) Grant of Restricted Stock. Subject to the terms and provisions of the Plan, the Administrator, at any time and from time to time, may grant Shares of Restricted Stock to Service Providers in such amounts as the Administrator, in its sole discretion, will determine.

(b) Restricted Stock Agreement. Each Award of Restricted Stock will be evidenced by an Award Agreement that will specify the Period of Restriction, the number of Shares granted, and such other terms and conditions as the Administrator, in its sole discretion, will determine. Unless the Administrator determines otherwise, the Company as escrow agent will hold Shares of Restricted Stock until the restrictions on such Shares have lapsed.

(c) Transferability. Except as provided in this Section 7 or the Award Agreement, Shares of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated until the end of the applicable Period of Restriction.

(d) Other Restrictions. The Administrator, in its sole discretion, may impose such other restrictions on Shares of Restricted Stock as it may deem advisable or appropriate.

(e) Removal of Restrictions. Except as otherwise provided in this Section 7, Shares of Restricted Stock covered by each Restricted Stock grant made under the Plan will be released from escrow as soon as practicable after the last day of the Period of Restriction or at such other time as the Administrator may determine. The Administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed.

(f) Voting Rights. During the Period of Restriction, Service Providers holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless the Administrator determines otherwise.

(g) Dividends and Other Distributions. During the Period of Restriction, Service Providers holding Shares of Restricted Stock will be entitled to receive all dividends and other distributions paid with respect to such Shares, unless the Administrator provides otherwise. If any such dividends or distributions are paid in Shares, the Shares will be subject to the same restrictions on transferability and forfeitability as the Shares of Restricted Stock with respect to which they were paid.

(h) Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed will revert to the Company and again will become available for grant under the Plan.

8. Restricted Stock Units.

(a) Grant. Restricted Stock Units may be granted at any time and from time to time as determined by the Administrator. After the Administrator determines that it will grant Restricted Stock Units under the Plan, it will advise the Participant in an Award Agreement of the terms, conditions, and restrictions related to the grant, including the number of Restricted Stock Units.

(b) Vesting Criteria and Other Terms. The Administrator will set vesting criteria in its discretion, which, depending on the extent to which the criteria are met, will determine the number of Restricted Stock Units that will be paid out to the Participant. The Administrator may set vesting criteria based upon the achievement of Company-wide, business unit, or individual goals (including, but not limited to, continued employment), or any other basis determined by the Administrator in its discretion.

(c) Earning Restricted Stock Units. Upon meeting the applicable vesting criteria, the Participant will be entitled to receive a payout as determined by the Administrator. Notwithstanding the foregoing, at any time after the grant of Restricted Stock Units, the Administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

(d) Form and Timing of Payment. Payment of earned Restricted Stock Units will be made as soon as practicable after the date(s) determined by the Administrator and set forth in the Award Agreement. The Administrator, in its sole discretion, may only settle earned Restricted Stock Units in cash, Shares, or a combination of both.

(e) Cancellation. On the date set forth in the Award Agreement, all unearned Restricted Stock Units will be forfeited to the Company.

9. Stock Appreciation Rights.

(a) Grant of Stock Appreciation Rights. Subject to the terms and conditions of the Plan, a Stock Appreciation Right may be granted to Service Providers at any time and from time to time as will be determined by the Administrator, in its sole discretion.

(b) Number of Shares. The Administrator will have complete discretion to determine the number of Stock Appreciation Rights granted to any Service Provider.

(c) Exercise Price and Other Terms. The per share exercise price for the Shares to be issued pursuant to exercise of a Stock Appreciation Right will be determined by the Administrator and will be no less than one hundred percent (100%) of the Fair Market Value per Share on the date of grant. Otherwise, subject to Section 6(a) of the Plan, the Administrator, subject to the provisions of the Plan, will have complete discretion to determine the terms and conditions of Stock Appreciation Rights granted under the Plan.

(d) Stock Appreciation Right Agreement. Each Stock Appreciation Right grant will be evidenced by an Award Agreement that will specify the exercise price, the term of the Stock

Appreciation Right, the conditions of exercise, and such other terms and conditions as the Administrator, in its sole discretion, will determine.

(e) Expiration of Stock Appreciation Rights. A Stock Appreciation Right granted under the Plan will expire upon the date determined by the Administrator, in its sole discretion, and set forth in the Award Agreement. Notwithstanding the foregoing, the rules of Section 6(b) relating to the maximum term and Section 6(d) relating to exercise also will apply to Stock Appreciation Rights.

(f) Payment of Stock Appreciation Right Amount. Upon exercise of a Stock Appreciation Right, a Participant will be entitled to receive payment from the Company in an amount determined by multiplying:

(i) The difference between the Fair Market Value of a Share on the date of exercise over the exercise price; times

(ii) The number of Shares with respect to which the Stock Appreciation Right is exercised.

At the discretion of the Administrator, the payment upon Stock Appreciation Right exercise may be in cash, in Shares of equivalent value, or in some combination thereof.

10. Performance Units and Performance Shares.

(a) Grant of Performance Units/Shares. Performance Units and Performance Shares may be granted to Service Providers at any time and from time to time, as will be determined by the Administrator, in its sole discretion. The Administrator will have complete discretion in determining the number of Performance Units and Performance Shares granted to each Participant.

(b) Value of Performance Units/Shares. Each Performance Unit will have an initial value that is established by the Administrator on or before the date of grant. Each Performance Share will have an initial value equal to the Fair Market Value of a Share on the date of grant.

(c) Performance Objectives and Other Terms. The Administrator will set performance objectives or other vesting provisions (including, without limitation, continued status as a Service Provider) in its discretion which, depending on the extent to which they are met, will determine the number or value of Performance Units/Shares that will be paid out to the Service Providers. The time period during which the performance objectives or other vesting provisions must be met will be called the "Performance Period." Each Award of Performance Units/Shares will be evidenced by an Award Agreement that will specify the Performance Period, and such other terms and conditions as the Administrator, in its sole discretion, will determine. The Administrator may set performance objectives based upon the achievement of Company-wide, divisional, or individual goals, applicable federal or state securities laws, or any other basis determined by the Administrator in its discretion.

(d) Earning of Performance Units/Shares. After the applicable Performance Period has ended, the holder of Performance Units/Shares will be entitled to receive a payout of the

number of Performance Units/Shares earned by the Participant over the Performance Period, to be determined as a function of the extent to which the corresponding performance objectives or other vesting provisions have been achieved. After the grant of a Performance Unit/Share, the Administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such Performance Unit/Share.

(e) Form and Timing of Payment of Performance Units/Shares. Payment of earned Performance Units/Shares will be made as soon as practicable after the expiration of the applicable Performance Period. The Administrator, in its sole discretion, may pay earned Performance Units/Shares in the form of cash, in Shares (which have an aggregate Fair Market Value equal to the value of the earned Performance Units/Shares at the close of the applicable Performance Period) or in a combination thereof.

(f) Cancellation of Performance Units/Shares. On the date set forth in the Award Agreement, all unearned or unvested Performance Units/Shares will be forfeited to the Company, and again will be available for grant under the Plan.

11. Leaves of Absence/Transfer Between Locations. Unless the Administrator provides otherwise, vesting of Awards granted hereunder will be suspended during any unpaid leave of absence. A Participant will not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, or any Subsidiary. For purposes of Incentive Stock Options, no such leave may exceed three (3) months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then six (6) months following the first (1st) day of such leave any Incentive Stock Option held by the Participant will cease to be treated as an Incentive Stock Option and will be treated for tax purposes as a Nonstatutory Stock Option.

12. Transferability of Awards. Unless determined otherwise by the Administrator, an Award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Participant, only by the Participant. If the Administrator makes an Award transferable, such Award will contain such additional terms and conditions as the Administrator deems appropriate.

13. Adjustments; Dissolution or Liquidation; Merger or Change in Control.

(a) Adjustments. In the event that any dividend or other distribution (whether in the form of cash, Shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of Shares or other securities of the Company, or other change in the corporate structure of the Company affecting the Shares occurs, the Administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the Plan, will adjust the number and class of Shares that may be delivered under the Plan and/or the number, class, and price of Shares covered by each outstanding Award, and the numerical Share limits in Section 3 of the Plan.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator will notify each Participant as soon as practicable prior to the effective date of such proposed transaction. To the extent it has not been previously exercised, an Award will terminate immediately prior to the consummation of such proposed action.

(c) Change in Control. In the event of a merger or Change in Control, each outstanding Award will be treated as the Administrator determines, including, without limitation, that each Award be assumed or an equivalent option or right substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. The Administrator will not be required to treat all Awards similarly in the transaction.

In the event that the successor corporation does not assume or substitute for the Award, the Participant will fully vest in and have the right to exercise all of his or her outstanding Options and Stock Appreciation Rights, including Shares as to which such Awards would not otherwise be vested or exercisable, all restrictions on Restricted Stock and Restricted Stock Units will lapse, and, with respect to Awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at one hundred percent (100%) of target levels and all other terms and conditions met. In addition, if an Option or Stock Appreciation Right is not assumed or substituted in the event of a Change in Control, the Administrator will notify the Participant in writing or electronically that the Option or Stock Appreciation Right will be exercisable for a period of time determined by the Administrator in its sole discretion, and the Option or Stock Appreciation Right will terminate upon the expiration of such period.

For the purposes of this subsection (c), an Award will be considered assumed if, following the Change in Control, the Award confers the right to purchase or receive, for each Share subject to the Award immediately prior to the Change in Control, the consideration (whether stock, cash, or other securities or property) received in the Change in Control by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the Change in Control is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of an Option or Stock Appreciation Right or upon the payout of a Restricted Stock Unit, Performance Unit or Performance Share, for each Share subject to such Award, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the Change in Control.

Notwithstanding anything in this Section 13(c) to the contrary, an Award that vests, is earned or paid-out upon the satisfaction of one or more performance goals will not be considered assumed if the Company or its successor modifies any of such performance goals without the Participant's consent; provided, however, a modification to such performance goals only to reflect the successor corporation's post-Change in Control corporate structure will not be deemed to invalidate an otherwise valid Award assumption.

(d) Outside Director Awards. With respect to Awards granted to an Outside Director that are assumed or substituted for, if on the date of or following such assumption or substitution the Participant's status as a Director or a director of the successor corporation, as

applicable, is terminated other than upon a voluntary resignation by the Participant (unless such resignation is at the request of the acquirer), then the Participant will fully vest in and have the right to exercise Options and/or Stock Appreciation Rights as to all of the Shares underlying such Award, including those Shares which would not otherwise be vested or exercisable, all restrictions on Restricted Stock and Restricted Stock Units will lapse, and, with respect to Performance Units and Performance Shares, all performance goals or other vesting criteria will be deemed achieved at one hundred percent (100%) of target levels and all other terms and conditions met.

14. Tax.

(a) Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof), the Company will have the power and the right to deduct or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local, foreign or other taxes (including the Participant's FICA obligation) required to be withheld with respect to such Award (or exercise thereof).

(b) Withholding Arrangements. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit a Participant to satisfy such tax withholding obligation, in whole or in part by (without limitation) (a) paying cash, (b) electing to have the Company withhold otherwise deliverable cash or Shares having a Fair Market Value equal to the minimum statutory amount required to be withheld, or (c) delivering to the Company already-owned Shares having a Fair Market Value equal to the minimum statutory amount required to be withheld. The Fair Market Value of the Shares to be withheld or delivered will be determined as of the date that the taxes are required to be withheld.

(c) Compliance With Code Section 409A. Awards will be designed and operated in such a manner that they are either exempt from the application of, or comply with, the requirements of Code Section 409A such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A, except as otherwise determined in the sole discretion of the Administrator. The Plan and each Award Agreement under the Plan is intended to meet the requirements of Code Section 409A and will be construed and interpreted in accordance with such intent, except as otherwise determined in the sole discretion of the Administrator. To the extent that an Award or payment, or the settlement or deferral thereof, is subject to Code Section 409A the Award will be granted, paid, settled or deferred in a manner that will meet the requirements of Code Section 409A, such that the grant, payment, settlement or deferral will not be subject to the additional tax or interest applicable under Code Section 409A.

15. No Effect on Employment or Service. Neither the Plan nor any Award will confer upon a Participant any right with respect to continuing the Participant's relationship as a Service Provider with the Company, nor will they interfere in any way with the Participant's right or the Company's right to terminate such relationship at any time, with or without cause, to the extent permitted by Applicable Laws.

16. Date of Grant. The date of grant of an Award will be, for all purposes, the date on which the Administrator makes the determination granting such Award, or such other later date as is determined by the Administrator. Notice of the determination will be provided to each Participant within a reasonable time after the date of such grant.

17. Term of Plan. Subject to Section 21 of the Plan, the Plan will become effective upon the later to occur of (i) its adoption by the Board or (ii) immediately prior to the Registration Date. It will continue in effect for a term of ten (10) years from the date adopted by the Board, unless terminated earlier under Section 18 of the Plan.

18. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Company will obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan will impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Administrator, which agreement must be in writing and signed by the Participant and the Company. Termination of the Plan will not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Awards granted under the Plan prior to the date of such termination.

19. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares will not be issued pursuant to the exercise of an Award unless the exercise of such Award and the issuance and delivery of such Shares will comply with Applicable Laws and will be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Award, the Company may require the person exercising such Award to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

20. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, will relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority will not have been obtained.

21. Stockholder Approval. The Plan will be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted by the Board. Such stockholder approval will be obtained in the manner and to the degree required under Applicable Laws.

FLUIDIGM CORPORATION
2011 EQUITY INCENTIVE PLAN
NOTICE OF GRANT OF STOCK OPTION

Unless otherwise defined herein, the terms defined in the Fluidigm Corporation 2011 Equity Incentive Plan (the “Plan”) will have the same defined meanings in this Notice of Grant of Stock Option (the “Notice of Grant”) and Terms and Conditions of Stock Option Grant, attached hereto as Exhibit A (together, the “Agreement”).

Participant: _____
Address: _____

Participant has been granted an Option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Agreement, as follows:

Grant Number _____
 Date of Grant _____
 Vesting Commencement Date _____
 Number of Shares Granted _____
 Exercise Price per Share \$ _____
 Total Exercise Price \$ _____
 Type of Option _____ Incentive Stock Option
 _____ Nonstatutory Stock Option
 Term/Expiration Date _____

Vesting Schedule:

Subject to accelerated vesting as set forth below or in the Plan, this Option will be exercisable, in whole or in part, in accordance with the following schedule:

[Twenty-five percent (25%) of the Shares subject to the Option will vest on the one (1) year anniversary of the Vesting Commencement Date, and one forty-eighth (1/48th) of the Shares subject to the Option will vest each month thereafter on the same day of the month as the Vesting Commencement Date (and if there is no corresponding day, on the last day of the month), subject to Participant continuing to be a Service Provider through each such date.]

Termination Period:

This Option will be exercisable for [three (3) months] after Participant ceases to be a Service Provider, unless such termination is due to Participant's death or Disability, in which case this Option will be exercisable for [twelve (12) months] after Participant ceases to be a Service Provider. Notwithstanding the foregoing sentence, in no event may this Option be exercised after the Term/Expiration Date as provided above and may be subject to earlier termination as provided in Section 13(c) of the Plan.

By Participant's signature and the signature of the Company's representative below, Participant and the Company agree that this Option is granted under and governed by the terms and conditions of the Plan and this Agreement. Participant has reviewed the Plan and this Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Agreement and fully understands all provisions of the Plan and Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions relating to the Plan and Agreement. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT

FLUIDIGM CORPORATION

Signature

By

Print Name

Title

Address:

EXHIBIT A

TERMS AND CONDITIONS OF STOCK OPTION GRANT

1. Grant of Option. The Company hereby grants to the Participant named in the Notice of Grant (“Participant”) an option (the “Option”) to purchase the number of Shares, as set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the “Exercise Price”), subject to all of the terms and conditions in this Agreement and the Plan, which is incorporated herein by reference. Subject to Section 18(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and the terms and conditions of this Agreement, the terms and conditions of the Plan will prevail.

If designated in the Notice of Grant as an Incentive Stock Option (“ISO”), this Option is intended to qualify as an ISO under Section 422 of the Internal Revenue Code of 1986, as amended (the “Code”). However, if this Option is intended to be an Incentive Stock Option, to the extent that it exceeds the \$100,000 rule of Code Section 422(d) it will be treated as a Nonstatutory Stock Option (“NSO”). Further, if for any reason this Option (or portion thereof) will not qualify as an ISO, then, to the extent of such nonqualification, such Option (or portion thereof) shall be regarded as a NSO granted under the Plan. In no event will the Administrator, the Company or any Parent or Subsidiary or any of their respective employees or directors have any liability to Participant (or any other person) due to the failure of the Option to qualify for any reason as an ISO.

2. Vesting Schedule. Except as provided in Section 3, the Option awarded by this Agreement will vest in accordance with the vesting provisions set forth in the Notice of Grant. Shares scheduled to vest on a certain date or upon the occurrence of a certain condition will not vest in Participant in accordance with any of the provisions of this Agreement, unless Participant will have been continuously a Service Provider from the Date of Grant until the date such vesting occurs.

3. Administrator Discretion. The Administrator, in its discretion, may accelerate the vesting of the balance, or some lesser portion of the balance, of the unvested Option at any time, subject to the terms of the Plan. If so accelerated, such Option will be considered as having vested as of the date specified by the Administrator.

4. Exercise of Option.

(a) Right to Exercise. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Agreement.

(b) Method of Exercise. This Option is exercisable by delivery of an exercise notice, in the form attached as Exhibit B (the “Exercise Notice”) or in a manner and pursuant to such procedures as the Administrator may determine, which will state the election to exercise the Option, the number of Shares in respect of which the Option is being exercised (the “Exercised Shares”), and such other representations and agreements as may be required by the Company pursuant to the provisions of the Plan. The Exercise Notice will be completed by Participant and delivered to the Company. The Exercise Notice will be accompanied by payment of the aggregate Exercise Price as

to all Exercised Shares together with any applicable tax withholding. This Option will be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

5. Method of Payment. Payment of the aggregate Exercise Price will be by any of the following, or a combination thereof, at the election of Participant:

- (a) cash;
- (b) check;
- (c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or
- (d) surrender of other Shares which have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares, provided that accepting such Shares, in the sole discretion of the Administrator, will not result in any adverse accounting consequences to the Company.

6. Tax Obligations.

(a) Withholding of Taxes. Notwithstanding any contrary provision of this Agreement, no certificate representing the Shares will be issued to Participant, unless and until satisfactory arrangements (as determined by the Administrator) will have been made by Participant with respect to the payment of income, employment and other taxes which the Company determines must be withheld with respect to such Shares. To the extent determined appropriate by the Company in its discretion, it will have the right (but not the obligation) to satisfy any tax withholding obligations by reducing the number of Shares otherwise deliverable to Participant. If Participant fails to make satisfactory arrangements for the payment of any required tax withholding obligations hereunder at the time of the Option exercise, Participant acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver the Shares if such withholding amounts are not delivered at the time of exercise.

(b) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Participant herein is an ISO, and if Participant sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (i) the date two (2) years after the Grant Date, or (ii) the date one (1) year after the date of exercise, Participant will immediately notify the Company in writing of such disposition. Participant agrees that Participant may be subject to income tax withholding by the Company on the compensation income recognized by Participant.

(c) Code Section 409A. Under Code Section 409A, an option that vests after December 31, 2004 (or that vested on or prior to such date but which was materially modified after October 3, 2004) that was granted with a per Share exercise price that is determined by the Internal Revenue Service (the "IRS") to be less than the Fair Market Value of a Share on the date of grant (a "Discount Option") may be considered "deferred compensation." A Discount Option may result in (i) income recognition by Participant prior to the exercise of the option, (ii) an additional twenty percent (20%) federal income tax, and (iii) potential penalty and interest charges. The Discount

Option may also result in additional state income, penalty and interest charges to the Participant. Participant acknowledges that the Company cannot and has not guaranteed that the IRS will agree that the per Share exercise price of this Option equals or exceeds the Fair Market Value of a Share on the Date of Grant in a later examination. Participant agrees that if the IRS determines that the Option was granted with a per Share exercise price that was less than the Fair Market Value of a Share on the date of grant, Participant will be solely responsible for Participant's costs related to such a determination.

7. Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until certificates representing such Shares will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant. After such issuance, recordation and delivery, Participant will have all the rights of a stockholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares.

8. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND WILL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

9. Address for Notices. Any notice to be given to the Company under the terms of this Agreement will be addressed to the Company at Fluidigm Corporation, 7000 Shoreline Court, Suite 100, South San Francisco, CA 94080, or at such other address as the Company may hereafter designate in writing.

10. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Participant only by Participant.

11. Binding Agreement. Subject to the limitation on the transferability of this grant contained herein, this Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

12. Additional Conditions to Issuance of Stock. If at any time the Company will determine, in its discretion, that the listing, registration or qualification of the Shares upon any securities

exchange or under any state or federal law, or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of Shares to Participant (or his or her estate), such issuance will not occur unless and until such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Company. The Company will make all reasonable efforts to meet the requirements of any such state or federal law or securities exchange and to obtain any such consent or approval of any such governmental authority. Assuming such compliance, for income tax purposes the Exercised Shares will be considered transferred to Participant on the date the Option is exercised with respect to such Exercised Shares.

13. Plan Governs. This Agreement is subject to all terms and provisions of the Plan. In the event of a conflict between one or more provisions of this Agreement and one or more provisions of the Plan, the provisions of the Plan will govern. Capitalized terms used and not defined in this Agreement will have the meaning set forth in the Plan.

14. Administrator Authority. The Administrator will have the power to interpret the Plan and this Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any Shares subject to the Option have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Agreement.

15. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to Options awarded under the Plan or future options that may be awarded under the Plan by electronic means or request Participant's consent to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through any on-line or electronic system established and maintained by the Company or another third party designated by the Company.

16. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Agreement.

17. Agreement Severable. In the event that any provision in this Agreement will be held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Agreement.

18. Modifications to the Agreement. This Agreement constitutes the entire understanding of the parties on the subjects covered. Participant expressly warrants that he or she is not accepting this Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. Notwithstanding anything to the contrary in the Plan or this Award Agreement, the Company reserves the right to revise this Award Agreement as it deems necessary or advisable, in its sole discretion and without the consent of Participant, to

comply with Code Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Section 409A of the Code in connection to this Option.

19. Amendment, Suspension or Termination of the Plan. By accepting this Award, Participant expressly warrants that he or she has received an Option under the Plan, and has received, read and understood a description of the Plan. Participant understands that the Plan is discretionary in nature and may be amended, suspended or terminated by the Company at any time.

20. Governing Law. This Agreement will be governed by the laws of the State of California, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this Option or this Agreement, the parties hereby submit to and consent to the jurisdiction of the State of California, and agree that such litigation will be conducted in the courts of San Francisco County, California, or the federal courts for the United States for the Northern District of California, and no other courts, where this Option is made and/or to be performed.

EXHIBIT B
FLUIDIGM CORPORATION
2011 EQUITY INCENTIVE PLAN
EXERCISE NOTICE

Fluidigm Corporation
7000 Shoreline Court, Suite 100
South San Francisco, CA 94080

Attention: _____

1. **Exercise of Option.** Effective as of today, _____, _____, the undersigned (“Purchaser”) hereby elects to purchase _____ shares (the “Shares”) of the Common Stock of Fluidigm Corporation (the “Company”) under and pursuant to the 2011 Equity Incentive Plan (the “Plan”) and the Stock Option Agreement dated _____ (the “Agreement”). The purchase price for the Shares will be \$_____, as required by the Agreement.

2. **Delivery of Payment.** Purchaser herewith delivers to the Company the full purchase price of the Shares and any required tax withholding to be paid in connection with the exercise of the Option.

3. **Representations of Purchaser.** Purchaser acknowledges that Purchaser has received, read and understood the Plan and the Agreement and agrees to abide by and be bound by their terms and conditions.

4. **Rights as Stockholder.** Until the issuance (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company) of the Shares, no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares subject to the Option, notwithstanding the exercise of the Option. The Shares so acquired will be issued to Purchaser as soon as practicable after exercise of the Option. No adjustment will be made for a dividend or other right for which the record date is prior to the date of issuance, except as provided in Section 13 of the Plan.

5. **Tax Consultation.** Purchaser understands that Purchaser may suffer adverse tax consequences as a result of Purchaser’s purchase or disposition of the Shares. Purchaser represents that Purchaser has consulted with any tax consultants Purchaser deems advisable in connection with the purchase or disposition of the Shares and that Purchaser is not relying on the Company for any tax advice.

6. Entire Agreement; Governing Law. The Plan and Agreement are incorporated herein by reference. This Exercise Notice, the Plan and the Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Purchaser with respect to the subject matter hereof, and may not be modified adversely to the Purchaser's interest except by means of a writing signed by the Company and Purchaser. This agreement is governed by the internal substantive laws, but not the choice of law rules, of California.

Submitted by:

Accepted by:

PURCHASER

FLUIDIGM CORPORATION

Signature

By

Print Name

Its

Address:

Date Received

FLUIDIGM CORPORATION
2011 EQUITY INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT

Unless otherwise defined herein, the terms defined in the Fluidigm Corporation 2011 Equity Incentive Plan (the "Plan") will have the same defined meanings in this Restricted Stock Unit Award Agreement (the "Award Agreement").

NOTICE OF RESTRICTED STOCK UNIT GRANT

Participant Name:

Address:

You have been granted the right to receive an Award of Restricted Stock Units, subject to the terms and conditions of the Plan and this Award Agreement, as follows:

Grant Number _____

Date of Grant _____

Vesting Commencement Date _____

Number of Restricted Stock Units _____

Vesting Schedule:

Subject to any acceleration provisions contained in the Plan or set forth below, the Restricted Stock Unit will vest in accordance with the following schedule:

[INSERT VESTING SCHEDULE.]

In the event Participant ceases to be a Service Provider for any or no reason before Participant vests in the Restricted Stock Unit, the Restricted Stock Unit and Participant's right to acquire any Shares hereunder will immediately terminate.

By Participant's signature and the signature of the representative of Fluidigm Corporation (the "Company") below, Participant and the Company agree that this Award of Restricted Stock Units is granted under and governed by the terms and conditions of the Plan and this Award Agreement, including the Terms and Conditions of Restricted Stock Unit Grant, attached hereto as Exhibit A, all of which are made a part of this document. Participant has reviewed the Plan and this

Award Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Award Agreement and fully understands all provisions of the Plan and Award Agreement. Participant hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions relating to the Plan and Award Agreement. Participant further agrees to notify the Company upon any change in the residence address indicated below.

PARTICIPANT:

FLUIDIGM CORPORATION

Signature

By

Print Name

Title

Residence Address:

EXHIBIT A

TERMS AND CONDITIONS OF RESTRICTED STOCK UNIT GRANT

1. Grant. The Company hereby grants to the individual named in the Notice of Grant attached as Part I of this Award Agreement (the "Participant") under the Plan an Award of Restricted Stock Units, subject to all of the terms and conditions in this Award Agreement and the Plan, which is incorporated herein by reference. Subject to Section 18 of the Plan, in the event of a conflict between the terms and conditions of the Plan and the terms and conditions of this Award Agreement, the terms and conditions of the Plan will prevail.

2. Company's Obligation to Pay. Each Restricted Stock Unit represents the right to receive a Share on the date it vests. Unless and until the Restricted Stock Units will have vested in the manner set forth in Section 3, Participant will have no right to payment of any such Restricted Stock Units. Prior to actual payment of any vested Restricted Stock Units, such Restricted Stock Unit will represent an unsecured obligation of the Company, payable (if at all) only from the general assets of the Company. Any Restricted Stock Units that vest in accordance with Sections 3 or 4 will be paid to Participant (or in the event of Participant's death, to his or her estate) in whole Shares, subject to Participant satisfying any applicable tax withholding obligations as set forth in Section 7. Subject to the provisions of Section 4, such vested Restricted Stock Units will be paid in Shares as soon as practicable after vesting, but in each such case within the period ending no later than the date that is two and one-half (2 1/2) months from the end of the Company's tax year that includes the vesting date.

3. Vesting Schedule. Except as provided in Section 4, and subject to Section 5, the Restricted Stock Units awarded by this Award Agreement will vest in accordance with the vesting provisions set forth in the Notice of Grant. Restricted Stock Units scheduled to vest on a certain date or upon the occurrence of a certain condition will not vest in Participant in accordance with any of the provisions of this Award Agreement, unless Participant will have been continuously a Service Provider from the Date of Grant until the date such vesting occurs.

4. Administrator Discretion. The Administrator, in its discretion, may accelerate the vesting of the balance, or some lesser portion of the balance, of the unvested Restricted Stock Units at any time, subject to the terms of the Plan. If so accelerated, such Restricted Stock Units will be considered as having vested as of the date specified by the Administrator.

Notwithstanding anything in the Plan or this Award Agreement to the contrary, if the vesting of the balance, or some lesser portion of the balance, of the Restricted Stock Units is accelerated in connection with Participant's termination as a Service Provider (provided that such termination is a "separation from service" within the meaning of Section 409A, as determined by the Company), other than due to death, and if (x) Participant is a "specified employee" within the meaning of Section 409A at the time of such termination as a Service Provider and (y) the payment

of such accelerated Restricted Stock Units will result in the imposition of additional tax under Section 409A if paid to Participant on or within the six (6) month period following Participant's termination as a Service Provider, then the payment of such accelerated Restricted Stock Units will not be made until the date six (6) months and one (1) day following the date of Participant's termination as a Service Provider, unless the Participant dies following his or her termination as a Service Provider, in which case, the Restricted Stock Units will be paid in Shares to the Participant's estate as soon as practicable following his or her death. It is the intent of this Award Agreement to comply with the requirements of Section 409A so that none of the Restricted Stock Units provided under this Award Agreement or Shares issuable thereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. For purposes of this Award Agreement, "Section 409A" means Section 409A of the Code, and any proposed, temporary or final Treasury Regulations and Internal Revenue Service guidance thereunder, as each may be amended from time to time.

5. Forfeiture upon Termination of Status as a Service Provider. Notwithstanding any contrary provision of this Award Agreement, the balance of the Restricted Stock Units that have not vested as of the time of Participant's termination as a Service Provider for any or no reason and Participant's right to acquire any Shares hereunder will immediately terminate.

6. Death of Participant. Any distribution or delivery to be made to Participant under this Award Agreement will, if Participant is then deceased, be made to Participant's designated beneficiary, or if no beneficiary survives Participant, the administrator or executor of Participant's estate. Any such transferee must furnish the Company with (a) written notice of his or her status as transferee, and (b) evidence satisfactory to the Company to establish the validity of the transfer and compliance with any laws or regulations pertaining to said transfer.

7. Withholding of Taxes. Notwithstanding any contrary provision of this Award Agreement, no certificate representing the Shares will be issued to Participant, unless and until satisfactory arrangements (as determined by the Administrator) will have been made by Participant with respect to the payment of income, employment and other taxes which the Company determines must be withheld with respect to such Shares. The Administrator, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit Participant to satisfy such tax withholding obligation, in whole or in part (without limitation) by (a) paying cash, (b) electing to have the Company withhold otherwise deliverable Shares having a Fair Market Value equal to the minimum amount required to be withheld, (c) delivering to the Company already vested and owned Shares having a Fair Market Value equal to the amount required to be withheld, or (d) selling a sufficient number of such Shares otherwise deliverable to Participant through such means as the Company may determine in its sole discretion (whether through a broker or otherwise) equal to the amount required to be withheld. To the extent determined appropriate by the Company in its discretion, it will have the right (but not the obligation) to satisfy any tax withholding obligations by reducing the number of Shares otherwise deliverable to Participant. If Participant fails to make satisfactory arrangements for the payment of any required tax withholding obligations hereunder at the time any applicable Restricted Stock Units otherwise are scheduled to vest pursuant to Sections 3

or 4, Participant will permanently forfeit such Restricted Stock Units and any right to receive Shares thereunder and the Restricted Stock Units will be returned to the Company at no cost to the Company.

8. Rights as Stockholder. Neither Participant nor any person claiming under or through Participant will have any of the rights or privileges of a stockholder of the Company in respect of any Shares deliverable hereunder unless and until certificates representing such Shares will have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to Participant. After such issuance, recordation and delivery, Participant will have all the rights of a stockholder of the Company with respect to voting such Shares and receipt of dividends and distributions on such Shares.

I. 9. No Guarantee of Continued Service. PARTICIPANT ACKNOWLEDGES AND AGREES THAT THE VESTING OF THE RESTRICTED STOCK UNITS PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) AND NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS AWARD OF RESTRICTED STOCK UNITS OR ACQUIRING SHARES HEREUNDER. PARTICIPANT FURTHER ACKNOWLEDGES AND AGREES THAT THIS AWARD AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND WILL NOT INTERFERE IN ANY WAY WITH PARTICIPANT'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY EMPLOYING OR RETAINING PARTICIPANT) TO TERMINATE PARTICIPANT'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

10. Address for Notices. Any notice to be given to the Company under the terms of this Award Agreement will be addressed to the Company at Fluidigm Corporation, 7000 Shoreline Court, Suite 100, South San Francisco, CA 94080, or at such other address as the Company may hereafter designate in writing.

11. Grant is Not Transferable. Except to the limited extent provided in Section 6, this grant and the rights and privileges conferred hereby will not be transferred, assigned, pledged or hypothecated in any way (whether by operation of law or otherwise) and will not be subject to sale under execution, attachment or similar process. Upon any attempt to transfer, assign, pledge, hypothecate or otherwise dispose of this grant, or any right or privilege conferred hereby, or upon any attempted sale under any execution, attachment or similar process, this grant and the rights and privileges conferred hereby immediately will become null and void.

12. Binding Agreement. Subject to the limitation on the transferability of this grant contained herein, this Award Agreement will be binding upon and inure to the benefit of the heirs, legatees, legal representatives, successors and assigns of the parties hereto.

13. Additional Conditions to Issuance of Stock. If at any time the Company will determine, in its discretion, that the listing, registration or qualification of the Shares upon any securities exchange or under any state or federal law, or the consent or approval of any governmental regulatory authority is necessary or desirable as a condition to the issuance of Shares to Participant (or his or her estate), such issuance will not occur unless and until such listing, registration, qualification, consent or approval will have been effected or obtained free of any conditions not acceptable to the Company. Where the Company determines that the delivery of the payment of any Shares will violate federal securities laws or other applicable laws, the Company will defer delivery until the earliest date at which the Company reasonably anticipates that the delivery of Shares will no longer cause such violation. The Company will make all reasonable efforts to meet the requirements of any such state or federal law or securities exchange and to obtain any such consent or approval of any such governmental authority.

14. Plan Governs. This Award Agreement is subject to all terms and provisions of the Plan. In the event of a conflict between one or more provisions of this Award Agreement and one or more provisions of the Plan, the provisions of the Plan will govern. Capitalized terms used and not defined in this Award Agreement will have the meaning set forth in the Plan.

15. Administrator Authority. The Administrator will have the power to interpret the Plan and this Award Agreement and to adopt such rules for the administration, interpretation and application of the Plan as are consistent therewith and to interpret or revoke any such rules (including, but not limited to, the determination of whether or not any Restricted Stock Units have vested). All actions taken and all interpretations and determinations made by the Administrator in good faith will be final and binding upon Participant, the Company and all other interested persons. No member of the Administrator will be personally liable for any action, determination or interpretation made in good faith with respect to the Plan or this Award Agreement.

16. Electronic Delivery. The Company may, in its sole discretion, decide to deliver any documents related to Restricted Stock Units awarded under the Plan or future Restricted Stock Units that may be awarded under the Plan by electronic means or request Participant's consent to participate in the Plan by electronic means. Participant hereby consents to receive such documents by electronic delivery and agrees to participate in the Plan through any on-line or electronic system established and maintained by the Company or another third party designated by the Company.

17. Captions. Captions provided herein are for convenience only and are not to serve as a basis for interpretation or construction of this Award Agreement.

18. Agreement Severable. In the event that any provision in this Award Agreement will be held invalid or unenforceable, such provision will be severable from, and such invalidity or unenforceability will not be construed to have any effect on, the remaining provisions of this Award Agreement.

19. Modifications to the Agreement. This Award Agreement constitutes the entire understanding of the parties on the subjects covered. Participant expressly warrants that he or she is not accepting this Award Agreement in reliance on any promises, representations, or inducements other than those contained herein. Modifications to this Award Agreement or the Plan can be made only in an express written contract executed by a duly authorized officer of the Company. Notwithstanding anything to the contrary in the Plan or this Award Agreement, the Company reserves the right to revise this Award Agreement as it deems necessary or advisable, in its sole discretion and without the consent of Participant, to comply with Section 409A or to otherwise avoid imposition of any additional tax or income recognition under Section 409A in connection to this Award of Restricted Stock Units.

20. Amendment, Suspension or Termination of the Plan. By accepting this Award, Participant expressly warrants that he or she has received an Award of Restricted Stock Units under the Plan, and has received, read and understood a description of the Plan. Participant understands that the Plan is discretionary in nature and may be amended, suspended or terminated by the Company at any time.

21. Governing Law. This Award Agreement will be governed by the laws of the State of California, without giving effect to the conflict of law principles thereof. For purposes of litigating any dispute that arises under this Award of Restricted Stock Units or this Award Agreement, the parties hereby submit to and consent to the jurisdiction of the State of California, and agree that such litigation will be conducted in the courts of San Francisco County, California, or the federal courts for the United States for the Northern District of California, and no other courts, where this Award of Restricted Stock Units is made and/or to be performed.

4060.LICI.006 Harvard

CO-EXCLUSIVE LICENSE AGREEMENT

Between

President and Fellows of Harvard College

And

Mycometrix Corporation

Effective as of October 15, 2000

Re: Harvard Case [***]

In consideration of the mutual promises and covenants set forth below, the parties hereto agree as follows:

ARTICLE I
DEFINITIONS

[***] Information has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

As used in this Agreement, the following terms shall have the following meanings:

- 1.1 ACADEMIC RESEARCH PURPOSES: use of PATENT RIGHTS for academic research or other not-for-profit scholarly purposes which are undertaken at a non-profit or governmental institution that does not use the PATENT RIGHTS in the production or manufacture of products for sale or the performance of services for a fee.
- 1.2 AFFILIATE: any entity which controls, is controlled by, or is under common control with a party by ownership or control of at least fifty percent (50%) of the voting stock or other ownership. Unless otherwise specified, the term LICENSEE includes AFFILIATES.
- 1.3 FIELD: use of PATENT RIGHTS to develop, manufacture, use, offer for sale, sell, or import components and products in FIELD I and/or FIELD II:
FIELD I: [***]
FIELD II: [***]

[***] Information has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

- 1.4 HARVARD: President and Fellows of Harvard College, a nonprofit Massachusetts educational corporation having offices at the Office for Technology and Trademark Licensing, Holyoke Center, Suite 727, 1350 Massachusetts Avenue, Cambridge, Massachusetts 02138.
- 1.5 LICENSED PROCESSES: the processes covered by at least one VALID CLAIM included within the PATENT RIGHTS.
- 1.6 LICENSED PRODUCTS: products covered by at least one VALID CLAIM included within the PATENT RIGHTS or products made or services provided in accordance with or by means of LICENSED PROCESSES.
- 1.7 LICENSEE: Mycometrix Corporation, a corporation organized under the laws of California having its principal offices at 213 East Grand Avenue, South San Francisco, CA 94080.
- 1.8 NET SERVICE INCOME: SERVICE INCOME less LICENSEE's actual direct and indirect cost for research, development and/or services provided.
- 1.9 NET SALES: the amount actually received for sales, leases, or other transfers of LICENSED PRODUCTS, less:
- (i) customary trade, quantity or cash discounts and non-affiliated brokers' or agents' commissions actually allowed and taken;
 - (ii) amounts repaid or credited by reason of rejection or return;
 - (iii) to the extent separately stated on purchase orders, invoices, or other documents of sale, taxes levied on and/or other governmental charges made as to production, sale, transportation, delivery or use and paid by or on behalf of LICENSEE; and
 - (iv) reasonable charges for delivery or transportation provided by third parties and cost of insurance in transit, if separately stated.

NET SALES also includes the fair market value of any non-cash consideration received by LICENSEE for the sale, lease, or transfer of LICENSED PRODUCTS.

If a LICENSED PRODUCT is sold as a combination product containing the LICENSED PRODUCT and one or more other components, NET SALES shall be calculated by multiplying the gross amount invoiced for the sale of the combination product by the fraction $A/A+B$ where A is the average gross selling price of the LICENSED PRODUCT sold separately by LICENSEE and B is the average gross selling price of such other components of the combination products sold separately by LICENSEE during the relevant royalty payment period.

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In the event that LICENSEE grants a sublicense hereunder, and receives payments based upon SUBLICENSEE's sales of LICENSED PRODUCTS, LICENSEE may upon approval from HARVARD (which shall not be unreasonably withheld) modify the definition of NET SALES for the purposes of calculating royalties payable to HARVARD on such SUBLICENSEE's sales to be the same as the definition of NET SALES on which such royalties to LICENSEE are calculated.

- 1.10 SERVICE INCOME: the total financial consideration received by LICENSEE for commercial services performed on a fee-for-service basis using the LICENSED PRODUCTS or LICENSED PROCESSES by LICENSEE under a contract with a third party, where such services are based primarily on the use of fully functional LICENSED PRODUCTS or LICENSED PROCESSES (as applicable) for their intended commercial use (such as, for example, where LICENSEE performs commercial-scale genotyping services for a pharmaceutical company on a fee-for-service basis using fully developed microfluidics chips comprising LICENSED PRODUCTS). SERVICE INCOME shall not include amounts received in connection with research and/or development of LICENSED PRODUCTS or LICENSED PROCESSES themselves.
- 1.11 PATENT RIGHTS: The applications and patents as listed in Appendix A of this Agreement, the allowed claims of such applications, the inventions described and claimed therein, and any divisions or continuations of the applications and patents as listed in Appendix A, and specific claims of any continuations-in-part of such applications to the extent the specific claims are directed to subject matter described in the applications and patents listed in Appendix A in a manner sufficient to support such specific claims under 35 U.S.C., patents issuing thereon or reissues thereof, and any and all foreign patents and patent applications corresponding thereto, all to the extent owned or controlled by HARVARD.
- 1.12 SUBLICENSE INCOME: the amount paid to LICENSEE by a third party (other than an AFFILIATE of LICENSEE) (a) for the sublicensing of PATENT RIGHTS to a third party as well as (b) for the related licensing of LICENSEE's own patent rights or know-how or LICENSEE's in-licensed non-HARVARD technologies, including but not limited to (i) license fees, (ii) milestone payments, (iii) royalties, (iv) the fair market value in cash of any non-cash consideration for such sublicense, and (v) in the event that LICENSEE receives any payment for equity in consideration for the grant of sublicense rights that included a premium over the fair market value of such equity, the amount of such premium. LICENSEE shall be responsible for determining such fair market value with reasonable business judgment.
- 1.13 SUBLICENSEE: any non-AFFILIATE granted a sublicense of any of the rights HARVARD has granted to LICENSEE under Section 3.1.
- 1.14 TERRITORY: Worldwide.

***] Information has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

- 1.15 VALID CLAIM: either (i) a claim of an issued patent that has not been held unenforceable or invalid by an agency or a court of competent jurisdiction in any unappealable or unappealed decision or (ii) a claim of a published, pending patent application, which claim is substantially identical to a corresponding claim in a subsequently issued patent having priority to the patent application.
- 1.16 The terms “Public Law 96-517” and “Public Law 98-620” include all amendments to those statutes.
- 1.17 The terms “sold” and “sell” include, without limitation, leases and other transfers and similar transactions.

ARTICLE II
REPRESENTATIONS

- 2.1 HARVARD is owner by assignment from [***], in the US and foreign patent applications corresponding thereto, and in the inventions described and claimed therein. Inventorship will be finalized in the near future.
- 2.2 HARVARD has authority to issue licenses under PATENT RIGHTS.
- 2.3 HARVARD is committed to the policy that ideas or creative works produced at HARVARD should be used for the greatest possible public benefit, and believes that every reasonable incentive should be provided for the prompt introduction of such ideas into public use, all in a manner consistent with the public interest.
- 2.4 LICENSEE is prepared and intends to diligently develop the invention and to bring products to market which are subject to this Agreement, specifically including one or more products in the FIELD selected from a [***].
- 2.5 LICENSEE is desirous of obtaining a co-exclusive license in the FIELD and in the TERRITORY in order to practice the PATENT RIGHTS in the United States and in certain foreign countries, and to manufacture, use and sell in the commercial market the products made in accordance therewith, and HARVARD is desirous of granting such a license to LICENSEE in accordance with the terms of this Agreement.

ARTICLE III
GRANT OF RIGHTS

- 3.1 HARVARD hereby grants to LICENSEE and LICENSEE accepts, subject to the terms and conditions hereof, in the TERRITORY a co-exclusive commercial license under PATENT

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RIGHTS in FIELD I and in FIELD II to make and have made, to use and have used, to sell and have sold, and to offer for sale and have offered for sale the LICENSED PRODUCTS, and to practice the LICENSED PROCESSES, for the life of the PATENT RIGHTS. HARVARD will grant no more than two commercial licenses in FIELD I at any time and will grant no more than two commercial licenses in FIELD II at any time and HARVARD will not grant other licenses in the FIELD except as required by HARVARD's obligations in Section 3.2(a) or as permitted Section 3.2(b). Such co-exclusive license shall include the right to grant sublicenses under the following circumstances: (i) LICENSEE can demonstrate that it has added significant value to the PATENT RIGHTS to be sublicensed, and that such a sublicense also contains a substantial and essentially simultaneous license of LICENSEE owned intellectual property, or (ii) LICENSEE grants a sublicense under other HARVARD patent rights licensed exclusively to LICENSEE which are dominated by PATENT RIGHTS, and such sublicense under PATENT RIGHTS is necessary to practice such other HARVARD patent rights.

3.2 The granting and exercise of this license is subject to the following conditions:

- (a) HARVARD's "Statement of Policy in Regard to Inventions, Patents and Copyrights," dated August 10, 1998, Public Law 96-517, Public Law 98-620. In addition, this Agreement is subject to HARVARD's obligations under agreements with other sponsors of research, provided that such obligations are not in conflict with the rights granted hereunder. Any right granted in this Agreement greater than that permitted under Public Law 96-517, or Public Law 98-620, shall be subject to modification as may be required to conform to the provisions of those statutes.
- (b) HARVARD reserves the right to make and use, and grant to others non-exclusive licenses to make and use solely for ACADEMIC RESEARCH PURPOSES the subject matter described and claimed in PATENT RIGHTS.
- (c) LICENSEE shall use commercially reasonable efforts to effect introduction of the LICENSED PRODUCTS into the commercial market as soon as practicable, consistent with sound and reasonable business practice and judgment; thereafter, until the expiration of this Agreement, LICENSEE shall endeavor to keep LICENSED PRODUCTS reasonably available to the public.
- (d) At any time after three years from the effective date of this Agreement and as HARVARD's sole remedy for such non-performance, HARVARD may increase the license maintenance royalty under Section 4.4 to [***] (\$[***) dollars each in FIELD I and in FIELD II in year 2004 and [***] (\$[***) dollars each in FIELD I and FIELD II per year each year beginning in 2005, if in HARVARD's reasonable judgment, the Progress Reports furnished by LICENSEE do not demonstrate that LICENSEE has satisfied at least one of the following conditions, which non-performance is not cured within ninety (90) days following the written notification of such by HARVARD to LICENSEE:

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- (i) has put the licensed subject matter into commercial use in at least one of the countries hereby licensed, directly or through a sublicense, and is keeping the licensed subject matter reasonably available to the public; or
 - (ii) is engaged in research, development, manufacturing, marketing or sublicensing activity appropriate to achieving 3.2(d)(i).
- (e) In all sublicenses granted by LICENSEE hereunder, LICENSEE shall include a requirement that the SUBLICENSEE use commercially reasonable efforts to bring the subject matter of the sublicense into commercial use. LICENSEE shall further provide in such sublicenses that such sublicenses are subject and subordinate to the terms and conditions of this Agreement, except: (i) the SUBLICENSEE may not further sublicense; and (ii) the rate of royalty on NET SALES paid by the SUBLICENSEE to the LICENSEE. Copies of the relevant provisions of all sublicense agreements shall be provided promptly to HARVARD. HARVARD agrees to maintain any information contained in such provisions in confidence, except as otherwise required by law, however, HARVARD may include in its usual reports annual amounts of royalties paid.
- (f) A license in any other field of use in addition to the FIELD shall be the subject of a separate agreement and shall require LICENSEE's submission of evidence, satisfactory to HARVARD, demonstrating LICENSEE's willingness and ability to develop and commercialize in such other field of use the kinds of products or processes likely to be encompassed in such other fields.
- (g) To the extent that federal funds are used to support research leading to a patent or patent application in the PATENT RIGHTS, LICENSEE shall cause any LICENSED PRODUCT produced for sale by LICENSEE or SUBLICENSEES in the United States to be manufactured substantially in the United States during the period of exclusivity of this license in the United States.
- 3.4 All rights reserved to the United States Government and others under Public Law 96-517, and Public Law 98-620, shall remain and shall in no way be affected by this Agreement.

ARTICLE IV
ROYALTIES

- 4.1 LICENSEE shall pay to HARVARD a non-refundable license royalty fee in the sum of [***] dollars (\$[***]) payable within thirty (30) days of the execution date of this Agreement.
- 4.2 (a) In consideration of the right and license granted herein, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty of [***] percent ([***]) on NET SALES of LICENSED PRODUCTS sold by LICENSEE.

[***] Information has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

(b) In the event that a single LICENSED PRODUCT or LICENSED PROCESS is covered by HARVARD intellectual property in addition to PATENT RIGHTS, which is licensed to LICENSEE under other agreements as of the date of this Agreement, then the total royalty payment due HARVARD under all such agreements including this Agreement shall be [***] percent ([***)] of NET SALES. LICENSEE shall notify HARVARD of the identity of each license agreement that includes patent rights covering the product or process, and HARVARD shall distribute the royalties evenly among such agreements.

(c) As consideration for the rights granted hereunder, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty in the form of stock of LICENSEE as follows:

(i) LICENSEE shall issue to HARVARD [***] shares of the Common Stock of LICENSEE ("Shares") pursuant to the terms of a mutually acceptable Stock Subscription Agreement, provided, however, that HARVARD shall be subject to and enter into appropriate agreements and related documents as required of other stockholders of LICENSEE.

(ii) HARVARD represents and warrants to LICENSEE that:

(1) HARVARD is acquiring the Shares for its own account for investment and not with a view to, or for sale in connection with any distribution thereof, nor with any present intention of distributing or selling the same; and HARVARD has no present or contemplated agreement, undertaking, arrangement, obligation, indebtedness or commitment providing for the disposition thereof.

(2) HARVARD has full power and authority to enter into and to perform this Agreement in accordance with its terms.

(3) HARVARD has sufficient knowledge and experience in investing in companies similar to LICENSEE so as to be able to evaluate the risks and merits of its investment in LICENSEE and is able financially to bear the risks thereof.

(iii) Each certificate representing the Shares shall bear a legend substantially in the following form:

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“The shares represented by this certificate have not been registered under the Securities Act of 1933 or any state securities law and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a registration statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Corporation shall have received an opinion of counsel satisfactory to the Corporation that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable securities laws.”

“The shares represented by this certificate are subject to a mutually agree-upon Stock Purchase and Right of First Refusal Agreement with this Corporation, a copy of which Stock Purchase and Right of First Refusal Agreement is available for inspection at the offices of the Corporation or may be made available upon request.”

The foregoing legend shall be removed from the certificates representing any Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to the Securities Act of 1933, as amended.

If at any time prior to the time the Shares are eligible for resale pursuant to an exemption from registration under the Securities Act of 1933, as amended, LICENSEE proposes to register any of its Common Stock, under the Securities Act of 1933, except at LICENSEE’s initial public offering or any offering pursuant to Forms S-4 or S-8, LICENSEE shall offer HARVARD the opportunity to have its Shares registered under the registration statement to be filed at such time. HARVARD will be offered the right to register its Shares under the same terms, conditions and restrictions as other shareholders with piggyback registration rights and the inclusion of any Shares in such registration statement shall be subject to the approval of the underwriters of such offering

(iv) HARVARD’s ownership rights to Shares shall not be affected should the license pursuant to this Agreement be converted to a non-exclusive one.

(d) In the case of sublicenses, LICENSEE shall also pay to HARVARD a royalty of [***] of SUBLICENSE INCOME. If compensation for such a sublicense of PATENT RIGHTS is bundled with compensation received for the sublicensing of the other HARVARD patent rights licensed to LICENSEE under other agreements as of the date of this Agreement, LICENSEE shall pay HARVARD only [***] of the total compensation received no matter how many license agreements from HARVARD are involved. In such a case, LICENSEE shall notify HARVARD of the identity of each license agreement involved and HARVARD shall distribute its [***] of

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compensation equally among those license agreements, including this Agreement.

(e) LICENSEE shall pay HARVARD [***] of NET SERVICE INCOME. If SERVICE INCOME is bundled with service income under another license to LICENSEE as of the date of this Agreement, LICENSEE shall pay a royalty of [***] of NET SERVICE INCOME received from each and every third party (“Third Party”) to which services are provided. LICENSEE shall notify HARVARD of the identity of each license agreement involved in the services and HARVARD shall distribute its [***] of compensation equally among those license agreements, including this Agreement.

(f) If other co-exclusive licenses in the same FIELD and TERRITORY are granted after the date this Agreement is executed, the above financial compensation shall not exceed the financial compensation to be paid by other licensees in the same FIELD and TERRITORY during the term of the co-exclusive license provided LICENSEE accepts any less favorable terms included in such other license.

If stock is part of the financial compensation to be paid by other licensees in the same FIELD and TERRITORY, the fair market value of the stock shall be the same as the price per share which other investors paid in the last round of financing unless the stock is publicly traded.

4.3 On sales between LICENSEE and its AFFILIATES for resale or incorporation into products, the royalty shall be paid on the NET SALES of the AFFILIATE. On sales between LICENSEE and sublicensees for resale, the royalty shall be paid on the SUBLICENSE INCOME.

4.4 No later than January 1 of each calendar year indicated below, LICENSEE shall pay to HARVARD the following non-refundable license maintenance royalty and/or advance on royalties. Such payments shall be credited against running royalties due for that calendar year and Royalty Reports shall reflect such a credit. Such payments shall not be credited against milestone payments (if any) nor against royalties due for any subsequent calendar year nor against such payments due under any other agreements with HARVARD.

	FIELD I	FIELD II
January 1, 2002	[***]	[***]
January 1, 2003	[***]	[***]
January 1, 2004	[***]	[***]
each year thereafter	[***]	[***]

ARTICLE V
REPORTING

5.1 Prior to signing this Agreement, LICENSEE has provided to HARVARD a written business plan under which LICENSEE intends to bring the subject matter of the licenses

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granted hereunder into commercial use upon execution of this Agreement. Such plan includes proposed marketing efforts.

- 5.2 No later than sixty (60) days after June 30 of each calendar year, LICENSEE shall provide to HARVARD a written annual Progress Report describing progress on research and development, regulatory approvals, manufacturing, sublicensing, marketing and sales during the most recent twelve (12) month period ending June 30 and plans for the forthcoming year. If multiple technologies are covered by the license granted hereunder, the Progress Report shall provide the information set forth above for each technology. If progress differs from that anticipated in the plan required under Section 5.1, LICENSEE shall explain the reasons for the difference and propose a modified plan for HARVARD's review. LICENSEE shall also provide any reasonable additional data HARVARD requires to evaluate LICENSEE's performance.
- 5.3 LICENSEE shall report to HARVARD the date of first sale of LICENSED PRODUCTS (or results of LICENSED PROCESSES) in each country within thirty (30) days of occurrence.
- 5.4 (a) LICENSEE shall submit to HARVARD within sixty (60) days after each calendar half year ending June 30 and December 31, a Royalty Report setting forth for such half year at least the following information:
- (i) the number of LICENSED PRODUCTS sold by LICENSEE in each country;
 - (ii) total billings and amounts actually received for such LICENSED PRODUCTS;
 - (iii) an accounting for all LICENSED PROCESSES used or sold;
 - (iv) deductions applicable to determine the NET SALES thereof;
 - (v) the amount of SERVICE INCOME received by LICENSEE and an accounting of all deductions to yield NET SERVICE INCOME;
 - (vi) the amount of SUBLICENSE INCOME received by LICENSEE; and
 - (vii) the amount of royalty due thereon, or, if no royalties are due to HARVARD for any reporting period, the statement that no royalties are due.
- Such report shall be certified as correct by an officer of LICENSEE and shall include a detailed listing of all deductions from royalties.
- (b) LICENSEE shall pay to HARVARD with each such Royalty Report the amount of royalty due with respect to such half year. If multiple technologies are covered by the license granted hereunder, LICENSEE shall specify which PATENT RIGHTS are utilized for each LICENSED PRODUCT and LICENSED PROCESS included in the Royalty Report.

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- (c) All payments due hereunder shall be deemed received when funds are credited to HARVARD's bank account and shall be payable by check or wire transfer in United States dollars. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate existing in the United States (as reported in the New York Times or the Wall Street Journal) on the last working day of each royalty period. No transfer, exchange, collection or other charges shall be deducted from such payments.
 - (d) All such reports shall be maintained in confidence by HARVARD except as required by law; however, HARVARD may include in its usual reports annual amounts of royalties paid.
 - (e) Late payments shall be subject to a charge of one and one-half percent (1.5%) per month, or \$250, whichever is greater.
- 5.5 In the event of acquisition, merger, change of corporate name or change in make-up, organization, or identity, LICENSEE shall notify HARVARD in writing within thirty (30) days of such event.
- 5.6 If by law, regulation or fiscal policy of a particular country, conversion into United States dollars or transfer of funds of a convertible currency to the United States is restricted or forbidden, LICENSEE shall give HARVARD prompt notice in writing and shall pay the royalty and other amounts due through such means or methods as are lawful in such country as HARVARD may reasonably designate. Failing the designation by HARVARD of such lawful means or methods within thirty (30) days after such notice is given to HARVARD, LICENSEE shall deposit such royalty or other payment in local currency to the credit of HARVARD in a recognized banking institution designated by HARVARD, or if none is designated by HARVARD within the thirty (30) day period described above, in a recognized banking institution selected by LICENSEE and identified in a written notice to HARVARD by LICENSEE, and such deposit shall fulfill all obligations of LICENSEE to HARVARD with respect to such royalties. When in any country in which the law or regulations prohibit both the transmittal and deposit of royalties on sales in such country, royalty payments shall be suspended for as long as such prohibition is in effect, and as soon as such prohibition ceases to be in effect, all royalties which LICENSEE would have been under obligation to transmit or deposit, but for the prohibition, shall be deposited or transmitted promptly to the extent allowable.

ARTICLE VI
RECORD KEEPING

- 6.1 LICENSEE shall keep, and shall require its SUBLICENSEES to keep, accurate records (together with supporting documentation) of LICENSED PRODUCTS made, used or sold under this Agreement, and SERVICE INCOME and SUBLICENSE INCOME received by LICENSEE under this Agreement, appropriate to determine the amount of royalties due to HARVARD hereunder. Such records shall be retained for three (3) years following the end of the reporting period to which they relate. For such three year period, they shall be

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available during normal business hours upon reasonable advance notice for examination by a certified public accountant selected by HARVARD, and reasonably acceptable to LICENSEE, for the sole purpose of verifying reports and payments hereunder. In conducting examinations pursuant to this Section 6.1, HARVARD's accountant shall have access to all records which HARVARD reasonably believes to be relevant to the calculation of royalties under Article IV. HARVARD agrees to maintain any information contained in such records in confidence, except as otherwise required by law and except information in regarding the amount of royalties due.

- 6.2 HARVARD's accountant shall not disclose to HARVARD any information other than information relating to the accuracy of reports and payments made hereunder.
- 6.3 Such examination by HARVARD's accountant shall be at HARVARD's expense, except that if such examination shows an underreporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then LICENSEE shall pay the cost of such examination as well as any additional sum that would have been payable to HARVARD had the LICENSEE reported correctly, plus interest on said sum at the rate of one and one-half percent (1.5%) per month.

ARTICLE VII
DOMESTIC AND FOREIGN PATENT FILING AND MAINTENANCE

- 7.1 Upon execution of this Agreement, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all reasonable expenses HARVARD has incurred for the preparation, filing, prosecution, maintenance and counseling with respect to PATENT RIGHTS. Such expenses total [* * *] as of October 1, 2000. Thereafter, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all such future reasonable expenses prior to termination of this Agreement upon receipt of invoices from HARVARD.
- 7.2 HARVARD shall be responsible for the preparation, filing, prosecution and maintenance of any and all patent applications and patents included in PATENT RIGHTS. HARVARD will instruct counsel to directly notify HARVARD and LICENSEE and provide them copies of any official communications from the United States and foreign patent offices relating to said prosecution, and to provide LICENSEE with advance draft copies of all relevant communications to the various patent offices, so that LICENSEE may be informed and apprised of the continuing prosecution of patent applications in PATENT RIGHTS. LICENSEE shall have reasonable opportunities to participate in decision making on all key decisions affecting filing, prosecution and maintenance of patents and patent applications in PATENT RIGHTS. HARVARD will use reasonable efforts to incorporate LICENSEE's reasonable suggestions regarding said prosecution. HARVARD shall use all reasonable efforts to amend any patent application to include claims reasonably requested by LICENSEE to protect LICENSED PRODUCTS.
- 7.3 HARVARD and LICENSEE shall cooperate fully in the preparation, filing, prosecution and maintenance of PATENT RIGHTS and of all patents and patent applications licensed to LICENSEE hereunder, executing all papers and instruments or requiring members of

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HARVARD to execute such papers and instruments so as to enable HARVARD to apply for, to prosecute and to maintain patent applications and patents in HARVARD's name in any country. Each party shall provide to the other prompt notice as to all matters which come to its attention and which may affect the preparation, filing, prosecution or maintenance of any such patent applications or patents.

- 7.4 LICENSEE may elect to surrender its PATENT RIGHTS in any country upon sixty (60) days written notice to HARVARD. Such notice shall not relieve LICENSEE from responsibility to reimburse HARVARD for patent-related expenses incurred prior to the expiration of the (60) day notice period.
- 7.5 If HARVARD elects not to prosecute or maintain any of the patents or patent applications relating to PATENT RIGHTS or any portion thereof in any country, LICENSEE shall be given sufficient notice of HARVARD's decision so that LICENSEE may request that HARVARD continue prosecuting or maintaining such patents or patent applications, at LICENSEE's expense. If HARVARD elects not to prosecute or maintain such patents or patent applications after such request by LICENSEE, then LICENSEE shall have the right, but not the obligation, at its own expense to prosecute and maintain such patents and patent applications or portion thereof in such country and in HARVARD's name. If LICENSEE assumes 100% of the costs to file, prosecute, and maintain certain patents and patent applications relating to the PATENT RIGHTS pursuant to this Section 7.5, and, if HARVARD licenses the PATENT RIGHTS to one or more co-exclusive licensees designated in Section 3.1 after such time, then HARVARD will credit LICENSEE with the costs LICENSEE has paid in excess of fifty percent (50%) if one other licensee, due for the preparation, filing, prosecution and maintenance of patents and patent applications relating to PATENT RIGHTS pursuant to Section 7.1 above.
- 7.6 If LICENSEE can demonstrate that it is not being adequately informed or apprised of the continuing prosecution of patents or patent applications in PATENT RIGHTS, or that it is not being provided with reasonable opportunities to participate in decision making or that its interests are not being adequately protected, LICENSEE shall be entitled to engage, at LICENSEE's expense, independent patent counsel to review and evaluate patent prosecution and filing of patents and patent applications included in PATENT RIGHTS.

ARTICLE VIII
INFRINGEMENT

- 8.1 With respect to any PATENT RIGHTS that are licensed to LICENSEE pursuant to this Agreement, LICENSEE shall have the right to prosecute in its own name and at its own expense any infringement of such patent. HARVARD agrees to notify LICENSEE promptly of each infringement of such patents of which HARVARD, as applicable, is or becomes aware. Before LICENSEE commences an action with respect to any infringement of such patents, LICENSEE shall give careful consideration to the views of HARVARD and to potential effects on the public interest in making its decision whether or not to sue.

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8.2 LICENSEE acknowledges that other co-exclusive licensees of PATENT RIGHTS designated in Section 3.1 shall have rights identical to LICENSEE to prosecute infringers and that co-exclusive licensees will be bound by the identical terms of this Section 8.2. In any prosecution instigated by LICENSEE and in which HARVARD, as necessary, is also named plaintiff as owner of the PATENT RIGHTS, LICENSEE must notify other co-exclusive licensees of the existence of such legal action and allow other co-exclusive licensees to join as a plaintiff upon co-exclusive licensees' request. In addition, in the event other co-exclusive licensees instigate an infringement prosecution, LICENSEE hereby consents to being joined as a plaintiff in such suit solely for the purpose of procuring standing to bring the action and at the sole expense of the instigating co-exclusive licensee. To the extent that LICENSEE desires to participate in any strategic decisions affecting the prosecution of the action brought by other co-exclusive licensees, LICENSEE acknowledges that it and co-exclusive licensees will necessarily have to reach a mutual agreement concerning litigation expenses and strategy. In no event shall HARVARD incur any liability or expense in connection with any action of co-exclusive licensees, joint or otherwise.

During any such litigation, HARVARD will agree to not license any defendant or accused infringer of the PATENT RIGHTS in the litigation, without LICENSEE's prior written consent.

8.3 (a) If LICENSEE elects to commence an action as described above, HARVARD may, to the extent permitted by law, elect to join as parties in that action. Regardless of whether HARVARD elects to join as parties, HARVARD shall cooperate fully with LICENSEE in connection with any such action.

(b) HARVARD agrees to join as a party in any action if required by law to do so in order to bring an action under the PATENT RIGHTS.

(c) LICENSEE shall reimburse HARVARD for any costs incurs with LICENSEE's approval, including reasonable attorneys' fees, as part of an action brought by LICENSEE, irrespective of whether HARVARD becomes a co-plaintiff.

8.4 If LICENSEE elects to commence an action as described above, LICENSEE may deduct from its royalty payments to HARVARD with respect to the patent(s) subject to suit an amount not exceeding fifty percent (50%) of LICENSEE's expenses and costs of such action, including reasonable attorneys' fees; provided, however, that such reduction shall not exceed fifty percent (50%) of the total royalty due to HARVARD with respect to the patent(s) subject to suit for each calendar year. If such fifty percent (50%) of LICENSEE's expenses and costs exceeds the amount of royalties deducted by LICENSEE for any calendar year, LICENSEE may to that extent reduce the royalties due to HARVARD from LICENSEE in succeeding calendar years, but never by more than fifty percent (50%) of the total royalty due in any one year with respect to the patent(s) subject to suit.

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- 8.5 No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the prior written consent of HARVARD which consent shall not be unreasonably withheld.
- 8.6 Recoveries or reimbursements from actions commenced by LICENSEE pursuant to this Article shall first be applied to reimburse LICENSEE, HARVARD for litigation costs not paid from royalties and then to reimburse HARVARD for royalties deducted by LICENSEE pursuant to Section 8.4. Any remaining recoveries or reimbursements shall be shared as follows:
- (a) If the amount is lost profits or lost royalties, LICENSEE shall receive an amount equal to the damages the court determines LICENSEE has suffered as a result of the infringement less the amount of any royalties that would have been due HARVARD on sales of LICENSED PRODUCTS lost by LICENSEE as a result of the infringement had LICENSEE made such sales, and HARVARD shall receive an amount equal to the royalties it would have received if such sales had been made by LICENSEE, and
 - (b) As to awards other than lost profits or lost royalties, fifty percent (50%) to LICENSEE and fifty percent (50%) to HARVARD.
 - (c) If two or more co-exclusive licensees undertake the suit, the provision of this Section 8.6 will be modified to take into account each co-exclusive licensee's expenses and lost profits.
- 8.7 If LICENSEE elects not to exercise its right to prosecute an infringement of the PATENT RIGHTS pursuant to this Article, HARVARD may do so at its own expense, controlling such action and retaining all recoveries therefrom. LICENSEE shall cooperate fully with HARVARD in connection with any such action.
- 8.8 If a declaratory judgment action is brought naming LICENSEE as a defendant and alleging invalidity of any of the PATENT RIGHTS, HARVARD may elect to take over the sole defense of the action at its own expense. LICENSEE shall cooperate fully with HARVARD in connection with any such action. HARVARD shall consult with LICENSEE regarding such defense.

ARTICLE IX
TERMINATION OF AGREEMENT

- 9.1 This Agreement, unless terminated as provided herein, shall remain in effect until the last patent or patent application in PATENT RIGHTS has expired or been abandoned.
- 9.2 HARVARD may terminate this Agreement as follows:
- (a) If LICENSEE does not make a payment due hereunder and fails to cure such non-payment (including the payment of interest in accordance with Section 5.4(e)) within

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thirty (30) days after the date of notice in writing of such non-payment by HARVARD.

- (b) If LICENSEE defaults in its obligations under Sections 10.3(c) and 10.3(d) to procure and maintain insurance.
- (c) If LICENSEE shall become insolvent, shall make an assignment for the benefit of creditors, or shall have a petition in bankruptcy filed for or against it. Such termination shall be effective immediately upon HARVARD giving written notice to LICENSEE.
- (d) If an examination by HARVARD's accountant pursuant to Article V shows an underreporting or underpayment by LICENSEE in excess of twenty percent (20%) for any twelve (12) month period, provided that such underreporting or underpayment is not determined to be inadvertent or the result of an honest mistake.
- (e) If LICENSEE is convicted of a felony relating to the manufacture, use, or sale of LICENSED PRODUCTS.
- (f) Except as provided in Subsections (a), (b), and (c) above, if LICENSEE defaults in the performance of any material obligations under this Agreement and the default has not been remedied within forty-five (45) days after the date of notice in writing of such default by HARVARD.

9.3 LICENSEE shall provide, in all sublicenses granted by it under this Agreement, that LICENSEE's interest in such sublicenses shall at HARVARD's option terminate or be assigned to HARVARD upon termination of this Agreement; however, LICENSEE shall have the option to nominate one of its sublicensees as a substitute for LICENSEE. The proposed substitute must (i) have a net worth of at least equivalent to the net worth LICENSEE had as of the date of this Agreement and (ii) have available resources and sufficient scientific, business and other expertise comparable to LICENSEE in order to satisfy its obligations under this Agreement. At least sixty (60) days prior to termination of this Agreement, LICENSEE shall provide HARVARD with written notice of LICENSEE's nominee together with documentation sufficient to demonstrate the requirements set forth in subparagraphs (i) and (ii) above for HARVARD's approval, which shall not be unreasonably withheld. HARVARD shall notify LICENSEE in writing of its decision prior to termination of this Agreement. If HARVARD approves LICENSEE's nominee, LICENSEE shall assign this Agreement to its nominee and its nominee shall accept the assignment no later than thirty (30) days after the termination date of this Agreement.

In the event that HARVARD disapproved LICENSEE's first nominee, prior to the termination date of this Agreement, LICENSEE shall have the option to nominate one of its other sublicensees for HARVARD's approval which shall not be unreasonably withheld.

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- 9.4 LICENSEE may terminate this Agreement by giving ninety (90) days advance written notice of termination to HARVARD. Upon termination, LICENSEE shall submit a final Royalty Report to HARVARD and any royalty payments and unreimbursed patent expenses invoiced by HARVARD shall become immediately payable.
- 9.5 Sections 6.1, 6.2, 6.3, 7.1, 9.4, 9.5, 10.2, 10.3, 10.4, and 10.7 of this Agreement shall survive termination.

ARTICLE X
GENERAL

- 10.1 HARVARD does not warrant the validity of the PATENT RIGHTS licensed hereunder and make no representations whatsoever with regard to the scope of the licensed PATENT RIGHTS or that such PATENT RIGHTS may be exploited by LICENSEE, an AFFILIATE, or SUBLICENSEE without infringing other patents, provided, however, HARVARD represents that it has no knowledge of any facts or circumstances as of the execution date of this Agreement that would render any of the PATENT RIGHTS invalid or unenforceable. HARVARD represents and warrants, to the best of its knowledge, that HARVARD owns all right, title and interest in and to the PATENT RIGHTS.
- 10.2 HARVARD EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES AND MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE PATENT RIGHTS OR INFORMATION SUPPLIED BY HARVARD, LICENSED PROCESSES OR LICENSED PRODUCTS CONTEMPLATED BY THIS AGREEMENT.
- 10.3 (a) LICENSEE shall indemnify, defend and hold harmless HARVARD and its current or former directors, governing board members, trustees, officers, faculty, medical and professional staff, employees, students, and agents and their respective successors, heirs and assigns (collectively, the "INDEMNITEES"), from and against any claim, liability, cost, expense, damage, deficiency, loss or obligation of any kind or nature (including, without limitation, reasonable attorney's fees and other costs and expenses of litigation) (collectively, "Claims"), based upon, arising out of, or otherwise relating to this Agreement, including without limitation any cause of action relating to product liability concerning any product, process, or service made, used or sold pursuant to any right or license granted under this Agreement, provided, however, that such indemnification shall not apply to any liability, damage, loss, or expense to the extent directly attributable to the negligent activities, reckless misconduct or intentional misconduct of Indemnitees.
- (b) Each Indemnitee that intends to claim indemnification under Section 10.3(a) shall promptly notify LICENSEE of any claim or action in respect of which the Indemnitee intends to claim such indemnification, and LICENSEE shall assume the defense thereof with counsel mutually satisfactory to LICENSEE and HARVARD. The failure to deliver notice to LICENSEE within a reasonable time after the

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commencement of any such claim or action, if materially prejudicial to its ability to defend such action, shall relieve LICENSEE of any liability to the Indemnitee under Section 10.3(a) with respect to such action, but the omission so to deliver notice to LICENSEE will not relieve it of any liability that it may have to any Indemnitee otherwise than under Section 10.3(a). HARVARD and any other Indemnitee, and their respective employees and agents, shall cooperate fully with LICENSEE and its legal representatives in the investigation of any claim or action covered by the indemnification under Section 10.3(a).

- (c) Beginning at the time any such product, process or service is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in amounts not less than \$2,000,000 per incident and \$2,000,000 annual aggregate and naming the Indemnitees as additional insureds. During clinical trials of any such product, process or service, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in such equal or lesser amount as HARVARD shall require, naming the Indemnitees as additional insureds. Such commercial general liability insurance shall provide: (i) product liability coverage; and (ii) broad form contractual liability coverage for LICENSEE's indemnification under this Agreement. If LICENSEE elects to self-insure all or part of the limits described above (including deductibles or retentions which are in excess of \$250,000 annual aggregate) such self-insurance program must be acceptable to HARVARD and the Risk Management Foundation of the Harvard Medical Institutions, Inc. in their sole discretion. The minimum amounts of insurance coverage required shall not be construed to create a limit of LICENSEE's liability with respect to its indemnification under this Agreement.
- (d) LICENSEE shall provide HARVARD with written evidence of such insurance upon request of HARVARD. LICENSEE shall provide HARVARD with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance; if LICENSEE does not obtain replacement insurance providing comparable coverage within such fifteen (15) day period, HARVARD shall have the right to terminate this Agreement effective at the end of such fifteen (15) day period without notice or any additional waiting periods.
- (e) LICENSEE shall maintain such commercial general liability insurance beyond the expiration or termination of this Agreement during: (i) the period that any product, process, or service, relating to, or developed pursuant to, this Agreement is being commercially distributed or sold by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE; and (ii) a reasonable period after the period referred to in Subsection (e)(i) above which in no event shall be less than fifteen (15) years.

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- 10.4 LICENSEE shall not use HARVARD's name or insignia, or any adaptation of them, or the name of any of HARVARD's inventors in any advertising, promotional or sales literature without the prior written approval of HARVARD.
- 10.5 Without the prior written approval of HARVARD in each instance, neither this Agreement nor the rights granted hereunder shall be transferred or assigned in whole or in part by LICENSEE to any person whether voluntarily or involuntarily, by operation of law or otherwise, except that each of LICENSEE and its AFFILIATES may assign this Agreement in connection with a merger, consolidation or sale or transfer of all or substantially all of its assets. This Agreement shall be binding upon the respective successors, legal representatives and assignees of HARVARD and LICENSEE.
- 10.6 The interpretation and application of the provisions of this Agreement shall be governed by the laws of the Commonwealth of Massachusetts.
- 10.7 LICENSEE shall comply with all applicable laws and regulations. In particular, it is understood and acknowledged that the transfer of certain commodities and technical data is subject to United States laws and regulations controlling the export of such commodities and technical data, including all Export Administration Regulations of the United States Department of Commerce. These laws and regulations among other things, prohibit or require a license for the export of certain types of technical data to certain specified countries. LICENSEE hereby agrees and gives written assurance that it will comply with all United States laws and regulations controlling the export of commodities and technical data, that it will be solely responsible for any violation of such by LICENSEE or its AFFILIATES or SUBLICENSEES, and that it will defend and hold HARVARD, CHILDREN, and MIT harmless in the event of any legal action of any nature occasioned by such violation.
- 10.8 LICENSEE agrees: (i) to obtain all regulatory approvals required for the manufacture and sale of LICENSED PRODUCTS and LICENSED PROCESSES; and (ii) to utilize appropriate patent marking on such LICENSED PRODUCTS. LICENSEE also agrees to register or record this Agreement as is required by law or regulation in any country where the license is in effect.
- 10.9 Any notices to be given hereunder shall be sufficient if signed by the party (or party's attorney) giving same and either: (i) delivered in person; (ii) mailed certified mail return receipt requested; or (iii) faxed to other party if the sender has evidence of successful transmission and if the sender promptly sends the original by ordinary mail, in any event to the following addresses:

If to LICENSEE:

Mycometrix Corporation
213 E. Grand Ave.
South San Francisco, CA 94080
Attention:
Fax: (650)-

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If to HARVARD:

Office for Technology and Trademark Licensing
Harvard University
Holyoke Center, Suite 727
1350 Massachusetts Avenue
Cambridge, MA 02138
Fax: (617) 495-9568

By such notice either party may change their address for future notices.

Notices delivered in person shall be deemed given on the date delivered. Notices sent by fax shall be deemed given on the date faxed. Notices mailed shall be deemed given on the date postmarked on the envelope.

- 10.10 Should a court of competent jurisdiction later hold any provision of this Agreement to be invalid, illegal, or unenforceable, and such holding is not reversed on appeal, it shall be considered severed from this Agreement. All other provisions, rights and obligations shall continue without regard to the severed provision, provided that the remaining provisions of this Agreement are in accordance with the intention of the parties.
- 10.11 In the event of any controversy or claim arising out of or relating to any provision of this Agreement or the breach thereof, the parties shall try to settle such conflict amicably between themselves. Subject to the limitation stated in the final sentence of this Section 10.11, any such conflict which the parties are unable to resolve promptly shall be settled through arbitration conducted in accordance with the rules of the American Arbitration Association. The demand for arbitration shall be filed within a reasonable time after the controversy or claim has arisen, and in no event after the date upon which institution of legal proceedings based on such controversy or claim would be barred by the applicable statute of limitation. Such arbitration shall be held in Boston, Massachusetts. The award through arbitration shall be final and binding. Either party may enter any such award in a court having jurisdiction or may make application to such court for judicial acceptance of the award and an order of enforcement, as the case may be. Notwithstanding the foregoing, either party may, without recourse to arbitration, assert against the other party a third-party claim or cross-claim in any action brought by a third party, to which the subject matter of this Agreement may be relevant.
- 10.12 This Agreement constitutes the entire understanding between the parties and neither party shall be obligated by any condition or representation other than those expressly stated herein or as may be subsequently agreed to by the parties hereto in writing.

[The remainder of this page is intentionally blank.]

***] Information has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

APPENDIX A

The following comprise PATENT RIGHTS:

[* * *]

[* * *]

[***] Information has been omitted and filed separately with the Securities and Exchange Commission. Confidential treatment has been requested with respect to the omitted portions.

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated December 3, 2010, except for the last paragraph of Note 1, as to which the date is January , 2011, in Amendment No. 3 to the Registration Statement (Form S-1 No. 333-170965) and related Prospectus of Fluidigm Corporation for the registration of shares of its common stock.

ERNST & YOUNG LLP

Palo Alto, California

The foregoing consent is in the form that will be signed upon the completion of the restatement of the capital accounts described in the last paragraph of Note 1 to the consolidated financial statements.

/s/ Ernst & Young LLP

Palo Alto, California

January 28, 2011

January 28, 2011

CERTAIN PORTIONS OF THIS LETTER AND ITS APPENDICES HAVE BEEN OMITTED AND FILED SEPARATELY WITH THE COMMISSION. CONFIDENTIAL TREATMENT HAS BEEN REQUESTED WITH RESPECT TO THE OMITTED PORTIONS. OMITTED INFORMATION HAS BEEN REPLACED IN THIS LETTER WITH A PLACEHOLDER IDENTIFIED BY THE MARK “[*]”.**

Via EDGAR and Overnight Delivery

Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-1004

Attention: Russell Mancuso, Branch Chief
Joseph McCann, Division of Corporation Finance
Mary Beth Breslin, Senior Attorney
Brian Cascio, Accounting Branch Chief
Martin James, Senior Assistant Chief Accountant
Jeanne Bennett, Division of Corporation Finance

**Re: Fluidigm Corporation
Registration Statement on Form S-1
Amended January 7, 2011 and January 18, 2011
File No. 333-170965**

Ladies and Gentlemen:

On behalf of Fluidigm Corporation (“Fluidigm” or the “Company”), we submit this letter in response to comments from the staff (the “Staff”) of the Securities and Exchange Commission (“SEC” or the “Commission”) received by letter dated January 25, 2011, relating to Fluidigm’s Registration Statement on Form S-1 (File No. 333-170965) (the “Registration Statement”).

Because of the commercially sensitive nature of information contained herein, this submission is accompanied by a request for confidential treatment for selected portions of this letter and the supplemental materials. The Company is requesting confidential treatment for selected portions of this letter and the supplemental materials, including in connection with the Freedom of Information Act, and has filed a separate letter with the Office of Freedom of Information and Privacy Act Operations in connection with that request, pursuant to Rule 83 of the Commission’s Rules on Information and Requests, 17 C.F.R. § 200.83. For the Staff’s reference, we have enclosed a copy of the Company’s letter to the Office of Freedom of Information and Privacy Act Operations as well as a copy of this correspondence, marked to show the portions redacted from the version filed via EDGAR and for which the Company is requesting confidential treatment.

On behalf of Fluidigm, we are concurrently filing via EDGAR Amendment No. 3 to the Registration Statement (the “Amendment”), and for the convenience of the Staff, we are providing to the Staff by overnight

delivery copies of this letter and marked copies of the Amendment (against the Amendment No. 1 to the Registration Statement filed on January 7, 2011). The Amendment as filed via EDGAR is marked as specified in Item 310 of Regulation S-T.

In this letter, we have recited the comments from the Staff in italicized, bold type and have followed each comment with Fluidigm's response. Except as otherwise specifically indicated, page references herein correspond to the page of the Amendment.

Artwork

- 1. Please note that you may include text in your artwork only to the extent necessary to explain briefly the visuals in the presentation. Text such as "Nano-volume Fluid Handling," "Massively Parallel," and "Integration" in the inside front cover artwork appears unnecessary in explaining the visuals in your presentation. Please revise accordingly.***

In response to the Staff's comment, the Company has revised the text included in the artwork to more accurately describe the image presented.

The Fluidigm Solution, page 3

- 2. Please revise here or in an appropriate section of your document to disclose the substance of your response to prior comment 4 regarding your current and anticipated continued focus of your research and development efforts on the molecular diagnostic market.***

In response to the Staff's comment, the Company has revised the disclosure on page 3 under The Fluidigm Solution to include the requested information.

The Offering, page 7

- 3. We note you intend to use a portion of the offering proceeds to repay a portion of the notes issued in January 2011. Please revise to quantify the portion of the offering proceeds to be used to repay notes held by affiliates. In this regard, we note your disclosure on page 119.***

In response to the Staff's comment, the Company has added the requested disclosure under The Offering on page 7 and Use of Proceeds on page 33.

- 4. Please reconcile your disclosure on page 7 that the conversion of all currently outstanding shares of convertible preferred stock would result in the issuance of 20,784,926 shares of common stock with the 19,860,495 figure disclosed on page 128.***

The Company has revised page 128 of the Description of Capital Stock section to update the number of shares of common stock to be issued upon conversion of the preferred stock.

Capitalization, page 34

- 5. Please explain your basis for the assumed net exercise of your Series E-1 preferred stock warrants issued January 6, 2011. Please clarify whether there are any contractual agreements for the exercise***

of these warrants. In addition, since there are several pro forma adjustments please revise to separately disclose each of the pro forma adjustments.

The Company supplementally advises the Staff that Section 8 of the Series E-1 preferred stock warrants provides that the warrants will expire immediately prior to the closing of a firm commitment underwritten initial public offering of the Company. The Series E-1 preferred stock warrants further provide in Section 2(e) under "Automatic Exercise" that the warrants shall be automatically exercised pursuant to the net exercise provisions in Section 2(b) immediately prior to the expiration of the warrant. The form of Series E-1 preferred stock warrant has been filed as Exhibit B to Exhibit 4.7 to the Registration Statement. Accordingly, the Company has assumed the net exercise of the Series E-1 preferred stock warrants in connection with this offering. The exercise price of the Series E-1 preferred stock warrants is \$0.02 per share. As discussed with the Staff on January 26, 2011, the Company has revised the description of the pro forma adjustments on page 34 to disclose the exercise price of the Series E-1 preferred stock warrants in order to clarify that the net exercise of the warrants is not expected to result in a material reduction in the number of shares issuable under the warrants.

Non-invasive Prenatal Diagnostics Collaboration, page 79

6. *We refer to sections 3.1(c) and 9.1 of exhibit 10.21. Please revise to disclose the term of the agreement. Please also revise to disclose the milestone payment amounts set forth in section 6.1(a) of exhibit 10.21 as well as the payment amounts in sections 4.1 and 4.2 of exhibit 10.22.*

As discussed with the Staff on January 26, 2011, the Company has revised page 79 to provide the requested disclosure.

Property and Environmental Matters, page 88

7. *We refer to your disclosure on page 33 concerning the intended use of proceeds for expansion of facilities and manufacturing operations. Please revise to discuss the adequacy of your existing, facilities and manufacturing operations and your current plans for expansion. Please refer to Instruction 1 to Item 102 of Regulation S-K.*

The Company has revised page 88 of the Property and Environmental Matters section to add additional disclosure regarding the adequacy of its existing facilities and manufacturing operations and its current plans for expansion. The Company supplementally advises the Staff that a portion of the proceeds of this offering are expected to be used to upgrade and improve the Company's existing facilities and to purchase capital equipment for such facilities, not to expand its facilities or purchase real property. The disclosure on page 33 has been revised accordingly.

Registration Rights, page 129

8. *We note your disclosure that the aggregate common shares to which registration rights apply includes shares of common stock issued on conversion of outstanding preferred stock; however, the aggregate number of registration rights shares is less than the number of shares of common stock issued on conversion of preferred stock. Please advise or revise.*

The Company has revised page 129 of the Registration Rights section to correct and clarify the number of shares to which registration rights apply.

Note 3. License Agreement, page F-19

9. ***With [sic] see your response to prior comment 27. Please clarify how you determined the \$1,676,000 fair value of the sub-licensee's preferred stock received for the sale of the sub-license, whether this was based on third party sales of similar preferred stock, an independent valuation, or other valuation methodologies. If your valuation is based on third party sales please explain to us why you believe that there were sufficient sales to establish a fair value of this preferred stock. Please also tell us about the sub licensee and whether this is a public or private company.***

The Company supplementally advises the Staff that it considered several sources of information in determining the fair value as of December 31, 2009 of the Series C-1 Preferred Stock received from the sub-licensee including its capital structure, the enterprise value of the sub-licensee as determined by a contemporaneous valuation of the sub-licensee and recent sales of the sub-licensee's Series C Preferred Stock. The sub-licensee sold Series C Preferred Stock, including sales to unrelated third parties, at a price of \$0.935 per share on October 9, 2009, and sold additional Series C Preferred Stock on December 14, 2009 at \$0.935 per share. These equity transactions occurred shortly before and after November 16, 2009, the date the Company entered into a license agreement with the sub-licensee. The terms of the sub-licensee's Series C and Series C-1 Preferred Stock are virtually identical, except that the Series C-1 Preferred Stock is junior in liquidation preference. The Company utilized the enterprise value of the sub-licensee based on a recent third party valuation received from the sub-licensee, as adjusted by deducting outstanding debt and adding cash on hand at December 31, 2009 to calculate the sub-licensee's equity value. The Company then allocated the equity value to the various classes of the sub-licensee's outstanding stock, taking into consideration liquidation preferences to arrive at an estimated fair value per share for the Series C-1 stock of \$0.769. The Company believes it is reasonable to apply a minority discount (also referred to as a discount for lack of control) of 10% to 15% to determine the fair value of the Series C-1 shares since the Series C shares represent a controlling interest of approximately 56% of the sub-licensee and are likely to have substantial board representation, whereas the Series C-1 shares represent 3.9% of the sub-licensee and do not have control or board representation. Accordingly, the Company further reduced the value of the Series C-1 stock by applying a minority interest discount of 12.5% to arrive at an estimated fair value per share of \$0.673 for the Series C-1 shares, or a total investment value of \$1,676,000, which is less than the \$0.935 per share liquidation preference of the Series C-1 shares and less than the value of the sub-licensee's Series C shares.

The Company supplementally advises the Staff that the sub-licensee is an early-stage private company developing clinical diagnostic tests. The sub-licensee does not have any approved products or revenues and is financed by venture capital investors.

Note 10. Stock-Based Compensation, page F-29

10. ***We reference your response to prior comment 33. Please clarify the specific nature of the two discounts, "discount rate" and "discount for lack of marketability," the basis for each discount and how the amount of any discount was determined. Please explain the reason you continued to use significant discounts for options granted in January 2011 after the registration statement was filed and after you received an estimated price range from your underwriters. In addition, clarify your reference to the months to the liquidity event of 12 and how this was considered in your December 15, 2010***

valuation. We note the discussion in your response that your valuation assumes a successful IPO scenario and the estimated price range from your underwriters assumes an offering in the first quarter 2011.

As the Staff notes in its comment, the December 15, 2010 valuation used for the Company's January 4, 2011 grants was performed under the assumption that the Company would experience a liquidity event from either an initial public offering in early 2011 or a sale/merger in approximately 12 months. As discussed below, the value of the Company was determined under both scenarios at the enterprise level, and the resulting equity values were each weighted based on the relative respective probabilities of a sale/merger or initial public offering outcome. Specifically, the probability of an initial public offering was weighted at sixty percent (60%), and the probability of a sale/merger of the Company was weighted at forty percent (40%).

[***]

[***] the Company initiated the initial public offering process that resulted in the filing of the registration statement on December 3, 2010.[***]

[***]

[***]

[***]

The balance of the Company's response provides additional detail concerning the valuation methodologies applied.

Sale/Merger Valuation Analysis

The valuation of the Company under the sale/merger scenario involved a two step valuation approach using generally accepted valuation methodologies, including discounted cash flow analyses and a separate comparative valuation analysis.

The discounted cash flow analysis measured the value of the Company based on estimated future cash flows, discounted to their present value using a rate commensurate with the associated risks and uncertainties. Estimated future cash flows were based on financial projections provided by the Company's management through 2013 and a terminal value assumption. The discount rate was determined based on venture capital required rates of return for companies at a comparable stage of development to the Company. The Company and its valuation expert determined that the Company's stage of development fell between the fourth and pre-IPO stages based on the venture capital required rate of return data. The terminal value was determined using an exit multiple approach. An exit multiple of 4.75x revenue was applied to the Company's 2013 revenue. The exit multiple was selected with reference to the average and median revenue multiples observed for comparable companies in the industry. The Company and the valuation expert determined that a discount rate in the range of 25-35% was appropriate. The December 15, 2010 valuation discounted the Company's expected future cash flows at a rate of 30% to determine the Company's enterprise value under the sale/merger scenario, resulting in a range of enterprise values between \$147.6 million and \$185.3 million, with a midpoint of approximately \$166.4 million. The relevant enterprise valuation range was developed by running sensitivity analyses on the discount rate and terminal value inputs to the model used in the December 15, 2010 valuation.

For purposes of the sale/merger analysis, the comparable public company analysis measured the value of the Company based on multiples of enterprise value to the last-twelve-months and 2011 estimated sales at ten publicly traded companies in the Company's industry. These multiples were then applied to the Company's last- twelve-months and 2011 forecast sales. This comparative valuation analysis resulted in an enterprise valuation range of \$153.3 million to \$171.5 million, with a midpoint of \$162.4 million.

To determine the equity value of the Company under the sale/merger scenario, the Company equally weighted the midpoint valuation established under the discounted cash flow analysis and the comparable public company analysis to arrive at an enterprise value of \$164.4 million. The Company believes equal weighting of the valuations determined under the two methodologies was appropriate given the insignificant deviation between the two valuations. The resulting enterprise value was then adjusted by subtracting interest bearing obligations and adding total cash at December 15, 2010. The equity value was then allocated to the various classes of securities, including common shares outstanding, using the Option-Pricing Method (OPM) consistent with the AICPA guidelines to arrive at an estimated value per common share. A discount for lack of marketability was applied to the per share value of the common stock derived using the OPM to reflect the increased risk and inconvenience of owning a privately-held stock arising from the inability to readily sell the shares. The inability to readily sell shares of a company increases the owner's exposure to changing market conditions and increases the risk of ownership. Because of the lack of marketability and the resulting increased risk associated with ownership of a privately-held stock, an investor typically demands a higher return or yield in comparison to a similar but publicly-traded stock. An indication of the discount for lack of marketability was developed using a put option model assuming a 12 month holding period until completion of a sale/merger liquidity event. A put option model values what the illiquid security holder lacks, the ability to sell his or her shares. Theoretically, a holder of an illiquid security and a put option and a holder of an identical but liquid security are in the same financial position. The put option model has the benefit of being company-specific (through the use of a company-specific volatility rate) and verifiable and has relatively few inputs (risk free rate, term and volatility). On this basis, the marketability discount rate of 17.6% was utilized in the December 15, 2010 valuation.

The Company advises the Staff that the discount for lack of marketability was only applied to the sale/merger scenario and resulted in a per share common stock value of \$1.59 (without giving effect to the reverse stock split). The reference to the months to a liquidity event is based on management's estimate of the time period required to complete a sale/merger.

IPO Valuation Analysis

The valuation was also performed under an IPO liquidity event scenario. The intent of this analysis is to mimic the pricing analysis performed by investment bankers for an IPO and is designed to establish the value of the Company's common stock as of the valuation date by first estimating the value of the Company at the expected IPO date and then discounting that value back to the present. Since the Company had received preliminary valuation materials from its investment bankers, the valuation expert had adequate visibility to perform this analysis as of December 15, 2010.

The valuation of the common stock under the IPO scenario involved a multi-step process. The first step involved estimating the enterprise value of the Company as of an estimated IPO date, in this case January 31, 2011. The enterprise value was estimated based on an analysis of sales multiples for comparable public companies. Based on the observed multiples for traded companies, a range of multiples was selected to apply to the Company's 2011 and 2012 projected sales. Multiples were selected based on six publicly traded companies in the Company's industry. Four companies were removed from the comparable companies list (as compared to the list used for purposes of the sale/merger scenario) because the Company's investment bankers had not used those companies in their valuation models. This analysis resulted in a range of enterprise values from \$152.8 million to \$187.9 million based on 2011 forecasts and \$184.7 to \$234.3 million based on 2012 forecasts.

To determine the post-money equity value trading range of the Company, the enterprise value was adjusted by subtracting projected interest bearing obligations and adding projected cash, including IPO proceeds, as of the expected IPO date. This amount was then adjusted for an IPO discount (15%) and for other transaction costs to arrive at an equity value filing range. Next, the amount of IPO proceeds was deducted in order to come to a pre-money equity value filing range. This value was then discounted from the expected IPO date (January 31, 2011) to the valuation date (December 15, 2010) at an appropriate discount rate and divided by fully diluted shares outstanding as of December 15, 2010 to arrive at a per share common stock value of \$7.01 (prior to adjustment for the recent reverse stock split).

Conclusion

The common stock values resulting from the two scenarios were then weighted based on management's assessment of the probability of occurrence of each scenario (60% IPO at \$7.01 per share and 40% sale/merger at \$1.59 per share) with a resulting per share common stock value of \$4.84. [***] In addition, the Company believes the substantial difference between the IPO and sale/merger valuations is appropriate and reflective of the Company's circumstances and the estimated valuation ranges. As of December 15, 2010, the liquidation preference for the Company's outstanding preferred stock totaled approximately \$190 million [***]. The liquidation preference operates by guaranteeing preferred stockholders that the proceeds of any sale or merger will be distributed first to preferred stockholders as a return of their original investments; these mandatory distributions to preferred stockholders must be satisfied prior to any distributions being made to holders of common stock. Accordingly, based on the actual distribution that would occur in any likely sale/merger scenario and the estimated valuation ranges noted above, potentially all of the enterprise value of the Company would be distributed back to preferred stockholders, and distributions, if any, to common stockholders would be *de minimus*. Only in an IPO scenario does the value of the common stock rise to approach the estimated price range of the IPO because if an IPO is completed, the liquidation preferences of the preferred stock will disappear and no longer apply. [***]

11. ***Please explain to us why your estimated fair value per common share of \$4.84 at January 4, 2011 is significantly lower than the valuation from the underwriters of \$6.75 to \$8.75 received on January 5, 2011. We note that the estimated price range from your underwriters assumes an offering in the first quarter 2011. In addition, tell us how you considered the preferred stock issuances in your estimate of the fair value of your common stock since these are converted to common on a one-to-one basis. Please also explain to us how you considered the decrease in the conversion price of the Series E preferred stock from \$14 per share to \$10.77 in January 2011 in the valuation of your common stock.***

As referenced in the Company's response to the Staff's comment number 10 above, the estimated fair value of \$4.84 (pre-split) per common share was based on the weighted average of the IPO scenario fair value of \$7.01 (pre-split) per share of common stock and the sale/merger scenario fair value of \$1.59 (pre-split) per share of common stock. The weighted average value considers the possibility that the IPO will not occur and the fact that the Company has been considering alternative strategic paths. As of the date of the valuation and the time of the option grants, the Company did not have clear visibility as to the likelihood of either scenario, and the weightings reflected management's best estimates of the relative likelihoods of two transactions.

The Company considered the decrease in the conversion price of the Series E preferred stock in its calculations because the decrease in the conversion price resulted in an increase in the Company's fully diluted capitalization. The Company does not believe that the \$10.77 (pre-split) should be considered an indication of valuation, however, and is in fact substantially above the banker's estimates of an offering price range. The Company needed the consent of its outstanding Series E preferred stockholders in order to amend the auto-conversion provisions of its charters, which would have permitted preferred stockholders to block any initial public offering that was concluded at a price less than \$19.90 (pre-split). Because the Company sold shares to the Series E preferred stockholders at prices substantially above current valuations, the Company agreed to reduce the conversion of the Series E preferred stock as an incentive for the Series E preferred stockholders to consent to remove the auto-conversion threshold. Again, however, the negotiations and determinations were not based on any current valuation of the Company, as evidenced by the investors' agreement to a conversion price substantially in excess of the high end of the Company's estimated offering range.

The Company also supplementally advises the Staff that since January 4, 2011, it has granted a *de minimus* number of additional options to new employees who are not executive officers. On January 20, 2011, it granted options to acquire an aggregate of 18,010 pre-split shares of common stock to four new employees. On January 24, 2011, it granted 8,000 pre-split shares of common stock to one new employee. The exercise price for these new employee grants was \$4.84 (pre-split).

Interim Note 12. Subsequent Events page F-50

12. ***Please revise to clarify your accounting treatment for the reduction in the conversion price of the Series E convertible preferred stock from \$14 per share to \$10.77 per share.***

In response to the Staff's comment, the Company has revised page F-52, Interim Note 12, Subsequent Events to clarify the Company's accounting treatment for the reduction in the conversion price of the Series E convertible preferred stock from \$14.00 (pre-split) per share to \$10.77 (pre-split) per share and included the pro forma impact of such accounting treatment in the summary financial statements on page 8 and the selected financial statements on page 38.

Exhibits, page II-4

13. ***Please file the bank line of credit agreement that you reference on page F-50 or explain why you believe that it is not required to be filed pursuant to Item 601(b)(10) of Regulation S-K.***

In response to the Staff's comment, the Company has filed the bank line of credit with Bridge Bank, National Association, as Exhibit 4.8 to the Amendment.

* * * * *

Re: Fluidigm Corporation

January 28, 2011

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The Company acknowledges your reference to Rules 460 and 461 relating to requests for acceleration of a registration statement. The Company intends to provide for adequate time after the filing of any amendments for further review before submitting a request for acceleration, if any.

Pursuant to Rule 472, the Amendment is filed herewith in response to the Staff's Comments.

Please acknowledge receipt of this letter and the enclosed materials by stamping the enclosed duplicate of this letter and returning it to the undersigned in the envelope provided.

Please direct your questions or comments to me (650/320-4557), David Segre (650/320-4554) or Robert Kornegay (650/320-4533). In addition, we respectfully request that you provide a facsimile of any additional comments you may have to my attention as well as that of Messrs. Segre and Kornegay at (650/493-6811). Thank you for your assistance.

Very truly yours,

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

/s/ Asaf Kharal, Esq.

cc: Gajus V. Worthington
Vikram Jog
William M. Smith
Fluidigm Corporation