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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2013

or

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

For the transition period from _____ to _____

Commission file number: 001-34180

FLUIDIGM CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

77-0513190
(I.R.S. Employer
Identification Number)

7000 Shoreline Court, Suite 100
South San Francisco, California 94080
(Address of principal executive offices) (Zip Code)

(650) 266-6000
(Registrant's telephone number, including area code)

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

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

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

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

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

As of April 30, 2013, there were 25,420,613 shares of the Registrant's common stock outstanding.

[Table of Contents](#)

FLUIDIGM CORPORATION

TABLE OF CONTENTS

	<u>Page</u>
PART I.	FINANCIAL INFORMATION
Item 1.	3
	Financial Statements (Unaudited)
	Condensed Consolidated Balance Sheets - March 31, 2013 and December 31, 2012
	Condensed Consolidated Statements of Operations and Comprehensive Loss for the three months ended March 31, 2013 and 2012
	Condensed Consolidated Statements of Cash Flows for the three months ended March 31, 2013 and 2012
	Notes to Condensed Consolidated Financial Statements
Item 2.	6
Item 3.	11
Item 4.	17
	Management's Discussion and Analysis of Financial Condition and Results of Operations
	Quantitative and Qualitative Disclosures About Market Risk
	Controls and Procedures
PART II.	18
	OTHER INFORMATION
Item 1.	19
Item 1A.	19
Item 2.	33
Item 6.	33
	Legal Proceedings
	Risk Factors
	Unregistered Sales of Equity Securities and Use of Proceeds
	Exhibits
	SIGNATURES
	EXHIBIT LIST

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

FLUIDIGM CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands, except per share amounts)

	March 31, 2013 (Unaudited)	December 31, 2012 (Note 2)
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 61,815	\$ 58,649
Short-term investments	17,755	21,362
Accounts receivable (net of allowances of \$441 and \$448 at March 31, 2013 and December 31, 2012, respectively)	10,056	12,900
Inventories	7,371	7,169
Prepaid expenses and other current assets	1,560	1,131
Total current assets	98,557	101,211
Long-term investments	7,298	3,666
Property and equipment, net	5,019	4,974
Other non-current assets	2,363	3,881
Total assets	<u>\$ 113,237</u>	<u>\$ 113,732</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 3,214	\$ 2,555
Accrued compensation and related benefits	2,246	2,877
Other accrued liabilities	4,149	4,279
Deferred revenue, current portion	1,928	1,886
Total current liabilities	11,537	11,597
Deferred revenue, net of current portion	1,371	1,241
Other non-current liabilities	205	237
Total liabilities	13,113	13,075
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 10,000 shares authorized, no shares issued and outstanding at March 31, 2013 and December 31, 2012, respectively	0	0
Common stock: \$0.001 par value, 200,000 shares authorized at March 31, 2013 and December 31, 2012; 25,399 and 25,115 shares issued and outstanding as of March 31, 2013 and December 31, 2012, respectively	25	25
Additional paid-in capital	345,244	342,222
Accumulated other comprehensive loss	(772)	(769)
Accumulated deficit	(244,373)	(240,821)
Total stockholders' equity	<u>100,124</u>	<u>100,657</u>
Total liabilities and stockholders' equity	<u>\$ 113,237</u>	<u>\$ 113,732</u>

See accompanying notes.

[Table of Contents](#)

FLUIDIGM CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended	
	March 31,	
	2013	2012
Revenue:		
Product revenue	\$14,254	\$10,756
License revenue	116	23
Grant revenue	<u>165</u>	<u>166</u>
Total revenue	<u>14,535</u>	<u>10,945</u>
Costs and expenses:		
Cost of product revenue	4,259	3,546
Research and development	4,197	4,279
Selling, general and administrative	<u>11,146</u>	<u>9,403</u>
Total costs and expenses	<u>19,602</u>	<u>17,228</u>
Loss from operations	(5,067)	(6,283)
Gain from sale of investment in Verinata	1,777	0
Interest expense	(10)	(307)
Other expense, net	<u>(213)</u>	<u>(61)</u>
Loss before income taxes	(3,513)	(6,651)
Provision for income taxes	<u>(38)</u>	<u>(39)</u>
Net loss	<u>\$ (3,551)</u>	<u>\$ (6,690)</u>
Net loss per share, basic and diluted	<u>\$ (0.14)</u>	<u>\$ (0.33)</u>
Shares used in computing net loss per share, basic and diluted	<u>25,242</u>	<u>20,394</u>
Comprehensive loss	<u>\$ (3,555)</u>	<u>\$ (6,713)</u>

See accompanying notes.

FLUIDIGM CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)
(Unaudited)

	Three Months Ended	
	March 31,	
	2013	2012
Operating activities		
Net loss	\$ (3,551)	\$ (6,690)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	584	495
Stock-based compensation expense	1,255	935
Gain from sale of investment in Verinata	(1,777)	0
Other non-cash items	0	48
Changes in assets and liabilities:		
Accounts receivable	2,933	(577)
Inventories	(439)	(474)
Prepaid expenses and other assets	(397)	(233)
Accounts payable	1,128	(189)
Deferred revenue	319	(465)
Other liabilities	(939)	507
Net cash used in operating activities	(884)	(6,643)
Investing activities		
Purchases of investments	(7,414)	(19,393)
Proceeds from sales and maturities of investments	7,390	24,360
Proceeds from sale of investment in Verinata	3,117	0
Purchases of property and equipment	(698)	(397)
Net cash provided by investing activities	2,395	4,570
Financing activities		
Proceeds from exercise of stock options	1,767	780
Repayment of long-term debt	0	(3,818)
Net cash provided by (used in) financing activities	1,767	(3,038)
Effect of foreign exchange rate fluctuations on cash and cash equivalents	(112)	54
Net increase (decrease) in cash and cash equivalents	3,166	(5,057)
Cash and cash equivalents at beginning of period	58,649	13,553
Cash and cash equivalents at end of period	<u>\$61,815</u>	<u>\$ 8,496</u>

See accompanying notes.

FLUIDIGM CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Description of Business

Fluidigm Corporation (we, our, or us) was incorporated in the State of California in May 1999, to commercialize microfluidic technology initially developed at the California Institute of Technology. In July 2007, we were reincorporated in Delaware. Our headquarters are located in South San Francisco, California. We develop, manufacture, and market microfluidic systems to academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology (Ag-Bio) companies in growth markets, such as single-cell genomics, applied genotyping, and sample preparation for targeted resequencing. Our proprietary microfluidic systems consist of instruments and consumables, including integrated fluidic circuits (IFCs) for nucleic acid analysis, and three families of assay chemistries. These systems are designed to simplify experimental workflow, increase throughput, reduce costs and provide quality data.

2. 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 (U.S. GAAP) and 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. GAAP have been condensed or omitted, and accordingly the balance sheet as of December 31, 2012 has been derived from audited consolidated financial statements at that date but does not include all of the information required by U.S. GAAP for complete financial statements. These financial statements have been prepared on the same basis as our 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 our financial information. The results of operations for the three months ended March 31, 2013 are not necessarily indicative of the results to be expected for the year ending December 31, 2013 or for any other interim period or for any other future year.

The preparation of these condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue, expenses, and related disclosures. On an ongoing basis, we evaluate our estimates, including critical accounting policies or estimates related to revenue recognition, income tax provisions, stock-based compensation, inventory valuation, and allowances for doubtful accounts. We base our estimates on historical experience and on various relevant assumptions that we believe 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 accompanying condensed consolidated financial statements and related financial information should be read in conjunction with the audited consolidated financial statements and the related notes thereto for the year ended December 31, 2012 included in our Annual Report on Form 10-K filed with the SEC.

Reclassifications

Certain items previously reported in the condensed consolidated statement of cash flows have been reclassified to conform to the current period presentation. Such reclassifications do not impact previously reported net cash used in operating activities, net cash provided by investing activities, net cash used in financing activities, or net decrease in cash and cash equivalents.

Net Loss per Share Attributed to Common Stockholders

Our basic and diluted net loss per share is calculated by dividing net loss by the weighted-average number of shares of common stock outstanding for the period. Our options to purchase common stock are considered to be potentially dilutive common shares but have been excluded from the calculation of diluted net loss per share as their effect is anti-dilutive.

The following potentially dilutive common shares were excluded from the computation of diluted net loss per share for the interim periods presented because including them would have been anti-dilutive (in thousands):

	Three Months ended March 31,	
	2013	2012
Options to purchase common stock	3,731	3,176

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

Comprehensive Loss

The following is a summary of comprehensive loss (in thousands):

	Three Months ended March 31,	
	2013	2012
Net loss	(3,551)	(6,690)
Other comprehensive loss	(4)	(23)
Comprehensive loss	<u>(3,555)</u>	<u>(6,713)</u>

Comprehensive loss is comprised of net loss, unrealized gains and losses on our investments, and foreign currency translation adjustments.

Investment, at Cost

At December 31, 2012, we had a minority equity investment in Verinata Health, Inc. (Verinata), a privately-held company, that was included in other non-current assets and accounted for under the cost method of accounting. Under the cost method of accounting, the investment was carried at cost and adjusted only for other than temporary declines in value. No such declines were identified and the carrying value of the investment at December 31, 2012 was \$1.3 million.

In February 2013, Illumina, Inc. (Illumina) acquired Verinata for \$350 million in cash and up to an additional \$100 million in milestone payments through 2015. In March 2013, we received cash proceeds of \$3.1 million in exchange for our ownership interest in Verinata, resulting in a gain of \$1.8 million. If the milestone payments become payable in the future, we could receive up to \$3.2 million in additional proceeds.

Legal Matters

From time to time, we may be subject to various legal proceedings and claims arising in the ordinary course of business. We assess contingencies to determine the degree of probability and range of possible loss for potential accrual in our financial statements. An estimated loss contingency is accrued in the financial statements if it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. In connection with our obligations relating to certain intellectual property rights, there is a loss contingency of up to \$1 million which may be possible but is not considered probable. No such amounts are accrued at March 31, 2013.

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

3. Inventories

Inventories consist of the following as of (in thousands):

	March 31, 2013	December 31, 2012
Raw materials	\$ 2,445	\$ 2,846
Work-in-process	1,572	1,369
Finished goods	3,354	2,954
	<u>\$ 7,371</u>	<u>\$ 7,169</u>

4. Fair Value of Financial Instruments

As a basis for considering fair value, we follow 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 us to develop our own assumptions.

Our cash equivalents are classified as Level I because they are valued using quoted market prices. Our investments are classified as Level II because the inputs to these valuations are derived from or corroborated by observable market data. Depending on the security, the income and market approaches are used in the model driven valuations. Inputs into these models include recently executed transaction prices for our investment securities or the securities of comparable issuers and yield curves. The following table sets forth our financial instruments that were measured at fair value by level within the fair value hierarchy (in thousands):

	March 31, 2013				December 31, 2012			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Assets								
Money market funds	\$ 18	\$ 0	\$ 0	\$ 18	\$ 17	\$ 0	\$ 0	\$ 17
U.S. government and agency securities	0	26,557	0	26,557	0	26,579	0	26,579
Total assets measured at fair value	<u>\$ 18</u>	<u>\$26,557</u>	<u>\$ 0</u>	<u>\$26,575</u>	<u>\$ 17</u>	<u>\$26,579</u>	<u>\$ 0</u>	<u>\$26,596</u>

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

The following is a summary of investments and cash equivalents at March 31, 2013 (in thousands):

	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
U.S. government and agency securities	\$ 26,551	\$ 7	\$ (1)	\$ 26,557

The contractual maturity dates of \$17.8 million of our investments are within one year. The contractual maturity dates of our remaining investments are less than two years.

The following is a summary of cash and cash equivalents (in thousands):

	March 31, 2013	December 31, 2012
Cash	\$ 60,293	\$ 57,082
U.S. government and agency security	1,504	\$ 1,550
Money market funds	18	17
Cash and cash equivalents	\$ 61,815	\$ 58,649

5. Long-Term Debt

We entered into a long-term loan agreement in March 2005 that was subsequently amended in 2006, 2008, 2009, and 2010 (as amended, the Loan Agreement). Commencing in March 2011, we made principal and interest payments of \$0.6 million per month and, as required under the Loan Agreement, we made an additional principal payment of \$2.3 million in March 2012. Using the effective interest method, a majority of the March 2012 payment was accrued as interest expense in periods prior to 2010 with the remainder being recognized through the extended maturity date of February 2013. In June 2012, we elected to make another principal payment in the amount of \$1.9 million using proceeds from our Line of Credit (see Note 7). During the three months ended September 30, 2012, we paid the remaining balance due and the Loan Agreement was terminated.

6. Line of Credit

In December 2010, we entered into a two-year bank line of credit agreement (as amended, the Line of Credit) that provided us with the ability to borrow up to \$7.0 million, subject to certain covenants and other restrictions, and bore interest at a rate equal to the greater of (i) 4.25% or (ii) the prime rate plus 1.00% per year. In December 2012, the Line of Credit was amended to extend the term for an additional two years and provide us with the ability to borrow up to \$10.0 million, of which \$6.0 million is available on a non-formula basis, subject to certain covenants and other restrictions. The balance of \$4.0 million is available based on eligible receivables. The Line of Credit is collateralized by our assets, excluding our intellectual property, and bears interest at a rate equal to the greater of (i) 3.75% or (ii) the prime rate plus 0.50% per year. At March 31, 2013, there was no outstanding balance on the Line of Credit and we were in compliance with all applicable covenants.

7. Commitments and Contingencies

On April 9, 2013, we entered into an amendment (the Amendment) to the lease agreement dated as of September 4, 2010 (as amended, the Lease) relating to the lease of office and laboratory space at our headquarters located at 7000 Shoreline Court, South San Francisco, California. The Amendment provides for an expansion of the premises covered under the Lease to include space that is currently being subleased by us from a third party through March 31, 2014. The term of the Amendment expires on April 30, 2020 with an option to renew for an additional five years; payment of base rent with rent escalation; and payment of certain operating expenses during the term of the Amendment. The Amendment also provides for an allowance of approximately \$0.7 million for tenant improvements, which, to the extent not used by March 31, 2015, will be used to offset base rent obligations, and an additional allowance of approximately \$0.5 million for tenant improvements, which, if used, will be repaid in equal monthly payments with interest at a rate of 9% per annum over the remaining term of the Lease.

Future minimum lease payments under the Amendment are as follows (in thousands):

Years ending December 31:	
2013 (remainder of year)	\$ 598
2014	1,169
2015	1,510
2016	1,812
2017	2,356
2018 and thereafter	8,482
Total minimum payments	\$ 15,927

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

8. Stock-Based Compensation

During the three months ended March 31, 2013, we granted to certain employees options to purchase 1,093,000 shares of common stock. Of these options, options to purchase 49,000 shares were granted with exercise prices ranging from \$15.27 to \$16.50 per share, options to purchase 477,000 shares were granted with exercise price of \$16.73 per share, and options to purchase 567,000 shares were granted with exercise prices ranging from \$17.24 to \$18.58 per share. These options had a total grant date fair value of \$10.2 million that will be recognized as expense over their respective four-year vesting periods.

We recognized stock-based compensation expense of \$1.3 million and \$0.9 million during the three months ended March 31, 2013 and 2012, respectively. As of March 31, 2013, we had \$19.3 million of unrecognized stock-based compensation costs, which are expected to be recognized over a weighted average period of 3.2 years.

9. Income Taxes

Income taxes are primarily comprised of state and foreign income taxes. The provision or benefit for income taxes for the periods presented differs from the 34% U.S. Federal statutory rate primarily due to maintaining a valuation allowance for U.S. losses and tax assets, which we do not consider to be realizable. Income tax expense primarily consists of amounts payable in foreign jurisdictions.

10. Information About Geographic Areas

We operate in one reporting segment, which is the development, manufacturing and commercialization of microfluidic systems consisting of instruments and consumables, including IFCs for nucleic acid analysis and three families of assay chemistries, for academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and Ag-Bio companies in growth markets, such as single-cell genomics, applied genotyping, and sample preparation for targeted resequencing.

The following table presents product revenue by geography based on the billing address of our customers for each period presented (in thousands):

	Three Months Ended	
	March 31,	
	2013	2012
United States	\$ 6,919	\$ 5,812
Europe	3,501	2,568
Asia-Pacific	1,915	1,195
Japan	1,499	991
Other	420	190
Total	<u>\$14,254</u>	<u>\$10,756</u>

Our license and grant revenues are primarily generated in the United States.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis should be read together with our condensed consolidated financial statements and the notes to those statements included elsewhere in this Form 10-Q. This Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or Exchange Act, that are based on our management's beliefs and assumptions and on information currently available to our management. The forward-looking statements are contained principally in the section entitled "Risk Factors" and this Management's Discussion and Analysis of Financial Condition and Results of Operations. Forward-looking statements include information concerning our possible or assumed future cash flow, revenue, sources of revenue and results of operations, unit sales, business strategies, financing plans, competitive position, industry environment, potential growth opportunities and the effects of competition. Forward-looking statements include statements that are not historical facts and can be identified by terms such as "anticipates," "believes," "could," "seeks," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or similar expressions and the negatives of those terms.

Forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. We discuss these risks in greater detail in Part II, Item 1A, "Risk Factors," elsewhere in this Form 10-Q, and in our Annual Report on Form 10-K filed with the Securities and Exchange Commission, or SEC. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent our management's beliefs and assumptions only as of the date of this Form 10-Q.

Except as required by law, we assume no obligation to update these forward-looking statements, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future. You should read this Form 10-Q completely and with the understanding that our actual future results may be materially different from what we expect.

"Fluidigm," the Fluidigm logo, "BioMark," "Access Array," "C₁," "EP1," "SNPtype," and "DELTAgene" are trademarks or registered trademarks of Fluidigm Corporation. Other service marks, trademarks and trade names referred to in this Form 10-Q are the property of their respective owners.

In this Form 10-Q, "we," "us" and "our" refer to Fluidigm Corporation and its subsidiaries.

Overview

We develop, manufacture, and market microfluidic systems to leading academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology, or Ag-Bio, companies in growth markets, such as single-cell genomics, applied genotyping, and sample preparation for targeted resequencing. Our proprietary microfluidic systems consist of instruments and consumables, including integrated fluidic circuits, or IFCs, assays, and reagents. We actively market four microfluidic systems, including 13 different commercial IFCs for nucleic acid analysis, and three families of assay chemistries. Our systems are designed to significantly simplify experimental workflow, increase throughput, and reduce costs, while providing the excellent data quality demanded by our customers. In addition, our proprietary technology enables genetic analysis that in many instances was previously impractical. We have sold over 730 systems to customers in over 30 countries worldwide.

We have launched several product lines, including our BioMark System for gene expression analysis, genotyping, and digital polymerase chain reaction, or digital PCR, in 2006; our EP1 System for single nucleotide polymorphism, or SNP, genotyping, and digital PCR in 2008; our Access Array System for target enrichment in 2009; our BioMark HD System for high-throughput gene expression analysis, targeted single-cell gene expression analysis, SNP genotyping, and digital PCR in 2011; and our C₁ Single-Cell Auto Prep System for single-cell sample preparation for single-cell analysis in June 2012. In addition, in May 2011, we launched assay products, including our DELTAgene assays for gene expression, our SNPtype assays for SNP genotyping, and our Access Array Target-Specific primers for targeted next-generation DNA sequencing. Our systems utilize one or more IFCs designed for particular applications and include specialized instrumentation and software, as well as assays and other 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, Middle Eastern, and Asia-Pacific countries. Our manufacturing operations are primarily located in Singapore. Our facility in Singapore manufactures our instruments and fabricates all of our IFCs for commercial sale and for our research and development purposes. Our South San Francisco facility fabricates IFCs for our research and development purposes, and manufactures our assays and produces other reagents for commercial sale.

[Table of Contents](#)

Our total revenue grew from \$33.6 million in 2010 to \$52.3 million in 2012, and for the three months ended March 31, 2013, our total revenue was \$14.5 million. We have incurred significant net losses since our inception in 1999 and, as of March 31, 2013, our accumulated deficit was \$244.4 million.

Critical Accounting Policies, Significant Judgments and Estimates

Our condensed consolidated financial statements and the related notes included elsewhere in this Form 10-Q are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, 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 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.

There have been no material changes in our critical accounting policies and estimates in the preparation of our condensed consolidated financial statements during the three months ended March 31, 2013 compared to those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2012, as filed with the SEC on March 12, 2013.

Results of Operations

Revenue

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

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

	Three Months Ended March 31,	
	2013	2012
<i>Revenue:</i>		
Instruments	\$ 7,905	\$ 5,900
Consumables	6,349	4,856
Product revenue	14,254	10,756
License revenue	116	23
Grant revenue	165	166
Total revenue	<u>\$14,535</u>	<u>\$10,945</u>

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):

	Three Months Ended March 31,			
	2013		2012	
United States	\$ 6,919	49%	\$ 5,812	54%
Europe	3,501	25%	2,568	24%
Asia-Pacific	1,915	13%	1,195	11%
Japan	1,499	10%	991	9%
Other	420	3%	190	2%
Total	<u>\$14,254</u>	100%	<u>\$10,756</u>	100%

Our customers include academic research institutions, clinical laboratories, and pharmaceutical, biotechnology, and Ag-Bio companies worldwide. Total revenue from our five largest customers in each of the periods presented comprised 21% of our total revenue in the three months ended March 31, 2013 and 2012, respectively.

Comparison of the Three Months Ended March 31, 2013 and March 31, 2012

Total Revenue

Total revenue increased by \$3.6 million, or 33%, to \$14.5 million for the three months ended March 31, 2013 compared to \$10.9 million for the three months ended March 31, 2012.

Product Revenue

Product revenue increased by \$3.5 million, or 33%, to \$14.3 million for the three months ended March 31, 2013, compared to \$10.8 million for the three months ended March 31, 2012.

Consumables revenue increased by \$1.5 million, or 31%, primarily due to growth in IFC sales volume, driven by a 37% year-over-year increase in the installed base of our instrument systems, partially offset by a change in the sales mix to IFCs with lower average selling prices. Annualized IFC pull-through was within our historical range of between \$40,000 to \$50,000 per system for our analytical systems and slightly above our historical range of \$10,000 to \$15,000 per system for our preparatory systems. Increases in assays and reagents sales also contributed to the increase in consumables revenue.

Instrument revenue increased by \$2.0 million, or 34%, primarily driven by increases in unit sales of our preparatory systems, which include our C₁ Single-Cell Auto Prep System, first sold as a new product in the third quarter of 2012, as well as sales of our service offerings.

We expect total unit sales of both instruments and consumables to increase over time as we continue our efforts to grow our customer base, expand our geographic market coverage, and launch new products. However, we expect the average selling prices of our products to fluctuate over time based on market conditions, product mix, and currency fluctuations.

Grant Revenue

Grant revenue consists of a grant from California Institute for Regenerative Medicine, or CIRM. Our CIRM grant was awarded in 2011 in the amount of \$1.9 million to be earned over a three-year period. The CIRM grant revenue is recognized as the related research and development services are performed, and costs associated with the grants are recognized as research and development expense during the period incurred.

Grant revenue was \$0.2 million for each of the three months ended March 31, 2013 and 2012.

Cost of Product Revenue

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

	Three Months Ended March 31,	
	2013	2012
Cost of product revenue	\$4,259	\$3,546
Product margin	70%	67%

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

Cost of product revenue increased \$0.7 million, or 20%, to \$4.3 million for the three months ended March 31, 2013 from \$3.5 million for the three months ended March 31, 2012, due to higher sales volumes. Cost of product revenue as a percentage of related revenue was 30% and 33% for the three months ended March 31, 2013 and 2012, respectively. This improvement was primarily due to a favorable change in the sales mix to higher margin instruments, particularly the C₁ Single-Cell Auto Prep System, and, in addition, higher assays and reagents sales volumes, and lower warranty costs. These improvements were offset in part by higher service and freight costs.

[Table of Contents](#)

Operating Expenses

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

	Three Months Ended	
	March 31,	
	2013	2012
Research and development	\$ 4,197	\$ 4,279
Selling, general and administrative	11,146	9,403
Total operating expenses	<u>\$15,343</u>	<u>\$13,682</u>

Research and Development

Research and development expense consists primarily of personnel and 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 enhancing our technologies and supporting development and commercialization of new and existing products and services.

Research and development expense decreased \$0.1 million, or 2%, to \$4.2 million for the three months ended March 31, 2013 compared to \$4.3 million for the three months ended March 31, 2012. The decrease in research and development expense was primarily due to a decrease in lab supplies and equipment costs of \$0.2 million, offset by an increase in compensation costs and other employee-related expenses of \$0.1 million. We incurred these costs to support our development and commercialization of new and existing products and services.

We believe that our continued investment in research and development is essential to our long-term competitive position and these expenses may 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 \$1.7 million, or 19%, to \$11.1 million for the three months ended March 31, 2013 compared to \$9.4 million for the three months ended March 31, 2012. The increase was primarily due to an increase in compensation costs and other employee-related expenses of \$1.4 million and an increase in sales and marketing activities of \$0.3 million. The increase was primarily driven by expansion of worldwide commercial capabilities to support our growth, and to a lesser extent general and administrative expense to support our growth.

We expect selling, general and administrative expense to increase in future periods as we continue to grow our sales, technical support, marketing, and administrative headcount, support increased product sales, broaden our customer base, and incur additional costs to support our expanding global footprint and the overall growth in our business.

[Table of Contents](#)

Interest Expense and Other Expense, Net

We have incurred interest expense and amortization of debt discount related to our long-term debt. The following table presents interest expense and other income and expense items for each period presented (in thousands):

	Three Months Ended	
	March 31,	
	2013	2012
Interest expense	\$ (10)	\$ (307)
Gain from sale of investment in Verinata	1,777	—
Other expense, net	(213)	(61)

In September 2012, we paid the remaining balance due under our long-term debt. Accordingly, we did not incur any interest expense on long-term debt during the three months ended March 31, 2013. As a result, interest expense decreased \$0.3 million, or 97%, for the three months ended March 31, 2013 compared to the three months ended March 31, 2012. We expect interest expense to be less in 2013 compared to 2012 because we have fully repaid our long-term debt.

In February 2013, Illumina, Inc. acquired Verinata Health, Inc. (Verinata) for \$350 million in cash and up to an additional \$100 million in milestone payments through 2015. In March 2013, we received cash proceeds of \$3.1 million in exchange for our ownership interest in Verinata, resulting in a gain of \$1.8 million. If the milestone payments become payable in the future, we could receive up to \$3.2 million in additional proceeds. The \$1.8 million gain we recognized did not include any amounts that may be received upon the achievement of future milestones.

Other expense, net consists of foreign exchange gains and losses and interest income. Other expense, net increased \$152,000 to \$213,000 for the three months ended March 31, 2013, compared to \$61,000 for the three months ended March 31, 2012. The increase was mainly driven by net foreign exchange losses of \$0.2 million resulting primarily from an unfavorable change in the Japanese Yen.

Liquidity and Capital Resources

Sources of Liquidity

As of March 31, 2013, our principal sources of liquidity consisted of \$61.8 million of cash and cash equivalents and \$25.1 million of investments. As of March 31, 2013, our working capital totaled \$87.0 million.

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

	Three Months Ended	
	March 31,	
	2013	2012
<i>Cash flow summary</i>		
Net cash used in operating activities	\$ (884)	\$ (6,643)
Net cash provided by investing activities	2,395	4,570
Net cash provided by (used in) financing activities	1,767	(3,038)
Net increase (decrease) in cash and cash equivalents	3,166	(5,057)

Net Cash Used in Operating Activities

We derive cash flows from operations primarily from cash collected from the sale of our products, 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 \$0.9 million for the three months ended March 31, 2013, compared to \$6.6 million for the three months ended March 31, 2012, a decrease of \$5.7 million. Cash used for working capital purposes decreased by \$4.0 million, driven primarily by increased cash collections from our customers and our net loss, excluding non-cash and non-operating items, decreased by \$1.7 million.

Net Cash Provided by Investing Activities

Our primary investing activities consist of purchases, sales, and maturities of our short-term and long-term investments, and capital expenditures for manufacturing, laboratory, and computer equipment and software to support our expanding infrastructure and work force. We expect to continue to expand our manufacturing capability, including improvements in manufacturing productivity, and expect to incur additional costs for capital expenditures related to these efforts in future periods. In addition, we expect to continue to incur costs for capital expenditures for demonstration units and loaner equipment to support our sales and service efforts, and computer equipment and software to support our growth.

[Table of Contents](#)

Net cash provided by investing activities was \$2.4 million during the three months ended March 31, 2013. Net cash provided by investing activities primarily consisted of proceeds from sales and maturities of investments of \$7.4 million and proceeds from sale of investment in Verinata of \$3.1 million, partially offset by purchases of investments of \$7.4 million and purchases of capital equipment of \$0.7 million to support growth in our commercial and manufacturing operations.

Net cash provided by investing activities was \$4.6 million during the three months ended March 31, 2012. Net cash provided by investing activities primarily related to proceeds from sales and maturities of investments of \$24.4 million, partially offset by purchases of investments of \$19.4 million and purchases of capital equipment or \$0.4 million to support our infrastructure and manufacturing operations.

Net Cash Provided by (used in) Financing Activities

Net cash provided from financing activities was \$1.8 million during the three months ended March 31, 2013 from proceeds received in connection with the exercise of options for our common stock.

Net cash used in financing activities was \$3.0 million during the three months ended March 31, 2012 primarily relating to repayment of \$3.8 million on our long-term debt, consisting of principal and balloon payments, partially offset by proceeds received in connection with the exercise of options for our common stock of \$0.8 million.

Capital Resources

At March 31, 2013, our working capital was \$87.0 million, including cash, cash equivalents, and investments of \$86.9 million. We have a bank line of credit agreement that is collateralized by our assets, excluding intellectual property, and provides us the ability to draw up to \$10.0 million, of which \$6.0 million is available on a non-formula basis, subject to certain covenants and other restrictions. The balance of \$4.0 million is available based on eligible receivables. At March 31, 2013, we had no borrowing outstanding under the bank line of credit. We are estimating capital expenditures to be higher in 2013 primarily to continue our improvements in manufacturing productivity, equipment for research and development to support development and commercialization of new and existing products and services, sales demonstration and loaner equipment to service the growth in our global customer base, and computer equipment and software to support our growth.

We believe our existing cash, cash equivalents, and investments will be sufficient to meet our working capital and capital expenditure needs for at least the next 18 months. However, we may experience lower than expected cash generated from operating activities or greater than expected capital expenditures, cost of revenue or operating expenses, and we may need to raise additional capital to expand the commercialization of our products, expand and fund our operations, further our research and development activities, or acquire or invest in a business. 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 associated with litigation or disputes relating to intellectual property rights or otherwise, 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, and the effect of competing technological and market developments. In the future, we may acquire businesses or technologies from third parties, and we may decide to raise additional capital through debt or equity financing to the extent we believe this is necessary to successfully complete these acquisitions. We currently have no material commitments or agreements relating to any such acquisitions.

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

[Table of Contents](#)

Off-Balance Sheet Arrangements

As of March 31, 2013, we have not had any off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K promulgated under the Exchange Act.

Contractual Obligations and Commitments

On April 9, 2013, we entered into an amendment (the Amendment) to the lease agreement dated as of September 4, 2010 (as amended, the Lease) relating to the lease of office and laboratory space at our headquarters located at 7000 Shoreline Court, South San Francisco, California. The Amendment provides for an expansion of the premises covered under the Lease to include space that is currently being subleased by us from a third party through March 31, 2014. The term of the Amendment expires on April 30, 2020 with an option to renew for an additional five years; payment of base rent with rent escalation; and payment of certain operating expenses during the term of the Amendment. The Amendment also provides for an allowance of approximately \$0.7 million for tenant improvements, which, to the extent not used by March 31, 2015, will be used to offset base rent obligations, and an additional allowance of approximately \$0.5 million for tenant improvements, which, if used, will be repaid in equal monthly payments with interest at a rate of 9% per annum over the remaining term of the Lease.

Future minimum lease payments under the Amendment are as follows (in thousands):

Years ending December 31:	
2013 (remainder of year)	\$ 598
2014	1,169
2015	1,510
2016	1,812
2017	2,356
2018 and thereafter	8,482
Total minimum payments	<u>\$15,927</u>

Item 3. 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 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 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 currency denominated cash, receivables and payables as of March 31, 2013 would not have been material. To date, we have not entered into any foreign currency hedging contracts although we may do so in the future.

Interest Rate Sensitivity

We had cash and cash equivalents of \$61.8 million at March 31, 2013. These amounts were held primarily in cash on deposit with banks, cash equivalents, and investments, which are short-term. We had \$25.1 million in investments at March 31, 2013 held primarily in U.S. government agency securities. The contractual maturity periods of \$19.3 million of our investments are within one year. The contractual maturity periods of our remaining investments are less than two years. Cash and cash equivalents and investments are held for working capital purposes. 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.

Fair Value of Financial Instruments

We do not have material exposure to market risk with respect to investments. We do not use derivative financial instruments for speculative or trading purposes. However, we may adopt specific hedging strategies in the future.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2013. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2013, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the three months ended March 31, 2013 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls

Control systems, no matter how well conceived and operated, are designed to provide a reasonable, but not an absolute, level of assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Because of the inherent limitations in any control system, misstatements due to error or fraud may occur and not be detected.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

On November 6, 2012, we filed a complaint against NanoString Technologies, Inc., or NanoString, in the United States District Court in the Northern District of California (Civil Action No. 12-5712), alleging claims of false advertising, unfair competition, and unlawful trade practice in violation of the Lanham Act and corresponding sections of the California Business & Professions Code. Our complaint seeks to enjoin NanoString from continuing to make or disseminate any of the false and misleading claims, misrepresenting and/or exaggerating the performance of its product in comparison with our BioMark System, to require NanoString to retract, remove, or correct the false and misleading advertising claims, and to recover damages and other relief for harm caused to us by NanoString. On January 4, 2013, NanoString answered the complaint, denying the allegations against it. On April 22, 2013, we amended our complaint to add new facts and information in support of our existing claims. We are in the early stages of written discovery.

Item 1A. Risk Factors.

We operate in a rapidly changing environment that involves numerous uncertainties and risks. The following risks and uncertainties may have a material and adverse effect on our business, financial condition or results of operations. You should consider these risks and uncertainties carefully, together with all of the other information included or incorporated by reference in this Form 10-Q. If any of the risks or uncertainties we face were to occur, the trading price of our securities could decline, and you may lose all or part of your investment.

Risks Related to our Business and Strategy

Emerging market opportunities may not develop as quickly as we expect, limiting our ability to successfully market and sell our products, or our product development and strategic plans relating to such markets may change and our entry into these emerging markets may be delayed, if it occurs at all.

The application of our technologies to single-cell genomics, digital polymerase chain reaction, or 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. For example, we launched our C₁ Single-Cell Auto Prep System in June 2012, which applies our technology to, among other things, improve single-cell analytic workflow for single-cell genomics. The future growth of the single-cell genomics market and the success of our new system depend on many factors beyond our control, including recognition and acceptance by the scientific community, and the growth, prevalence, and costs of competing methods of genetic analysis. If the market for single-cell genomics, digital PCR, and sample preparation for next-generation DNA sequencing do not develop as we expect, our business may be adversely affected. Additionally, our success in these emerging markets may depend to a large extent on our ability to successfully market and sell products using our technologies. If we are not able to successfully market and sell our products, or to achieve the revenue or margins we expect, our operating results may be harmed and we may not recover our product development and marketing expenditures. In addition, our product development and strategic plans may change, which could delay or impede our entry into emerging markets.

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. For example, in 2010, 2011, and 2012, we experienced higher sales in the fourth quarter than in the first quarter of the next fiscal year. In addition, revenue from sales of our instruments relative to sales of our consumables may fluctuate or deviate significantly from expectations. The variability in our quarterly results of operations, including revenue from sales of our instruments relative to our consumables, 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 that are difficult to forecast, 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; our complex, variable and, at times, lengthy sales cycle; global economic conditions; and fluctuations in foreign currency exchange rates. Additionally, we have certain customers who have historically placed large orders in multiple quarters during a calendar year. A significant reduction in orders from one or more of these customers could adversely affect our revenue and operating results, and if these customers defer or cancel purchases or otherwise alter their purchasing patterns, our quarter-to-quarter financial results could be significantly impacted.

[Table of Contents](#)

The foregoing factors, 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. 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, which could significantly decrease the price of our common stock.

We have incurred losses since inception, and we may 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 \$3.6 million, \$19.0 million, \$22.5 million, and \$16.9 million during the three months ended March 31, 2013 and the years 2012, 2011, and 2010, respectively. As of March 31, 2013, we had an accumulated deficit of \$244.4 million. These losses have resulted principally from costs incurred in our research and development programs, and from our manufacturing costs and selling, general, and administrative expenses. We may continue to incur substantial operating and net losses and negative cash flow from operations. We expect that our selling, general, and administrative expenses will continue to 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 revenue 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 research and product development efforts do not result in commercially viable products within anticipated timelines, if at all, our business and results of operations will be adversely affected.

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. We have developed design rules for the implementation of our technology that 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. Furthermore, many such reactions take place within the confines of single cells, which have also demonstrated unexpected behavior when grown and manipulated within microfluidic environments. As a result, research and development efforts may be required to transfer certain reactions and cell handling techniques 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.

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 some 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, it is important that our systems be perceived as accurate and reliable by the scientific and medical research community as a whole. Historically, a significant part of our sales and marketing efforts has 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 and our ability to increase our revenue would be adversely affected.

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

Our customer base is primarily composed of academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology, or Ag-Bio, companies 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. Any failure to expand our existing customer base or launch new applications would adversely affect our ability to increase our revenue.

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 companies that design, manufacture, and market instruments and consumables for gene expression analysis, targeted single-cell gene expression analysis, genotyping, PCR, digital 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, microdroplets, 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., Bio-Rad Laboratories, Inc., Illumina, Inc., Life Technologies Corporation, LGC Limited, Luminex Corporation, PerkinElmer, Inc. (through its acquisition of Caliper Life Sciences, Inc.), RainDance Technologies, Inc., Roche Applied Science (a division of Roche Diagnostics Corporation), Sequenom, Inc., Thermo Fisher Scientific Inc., and WaferGen Bio-systems, Inc. have products that compete in certain segments of the market in which we sell our products.

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. Increased competition is likely to result in pricing pressures, which could reduce our profit margins and increase our sales and marketing expenses. In addition, mergers, consolidations, or other strategic transactions between two or more of our competitors, or between our competitor and one of our key customers, could change the competitive landscape and weaken our competitive position, adversely affecting our business.

We may also be faced with false advertising, unfair competition, or unlawful trade practices from our competitors. For example, on November 6, 2012, we filed a complaint in federal district court in the Northern District of California against NanoString Technologies, Inc., or NanoString, alleging claims of false advertising, unfair competition, and unlawful trade practice in violation of the Lanham Act and corresponding sections of the California Business & Professions Code. Prosecuting the lawsuit may be costly and can impose a significant burden on management and employees, and there can be no assurances that a favorable outcome will be obtained in the litigation. Such competitive pressures could cause harm to our business, operating results, and financial condition. Our failure to compete effectively could materially and adversely affect our business, financial condition, and results of operations.

Our business depends on research and development spending levels of academic, clinical, and governmental research institutions, and pharmaceutical, biotechnology, and Ag-Bio companies, a reduction in which could limit our ability to sell our products and adversely affect our business.

We expect that our revenue in the foreseeable future will be derived primarily from sales of our microfluidic systems and integrated fluidic circuits, or IFCs, to academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and Ag-Bio companies 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 concerns regarding the federal government budget sequestration, the availability of resources 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 products. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by these customers. For example, reductions in capital and operating expenditures by these customers may result in lower than expected sales of our microfluidic systems and IFCs. These reductions and delays may result from factors that are not within our control, such as:

- changes in economic conditions;
- natural disasters;
- 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;

[Table of Contents](#)

- 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, could materially and adversely affect our operations or financial condition.

We may not be able to develop new products or enhance the capabilities of our existing microfluidic systems to keep pace with rapidly changing technology and customer requirements, which could have a material adverse effect on our business, revenue, financial condition, and operating results.

Our success depends on our ability to develop new products and 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 single-cell genomics, gene expression analysis, genotyping, and digital PCR, 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 and cost-effective 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 typically plan improvements to our 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. In addition, if we introduce enhanced systems but fail to manage product transitions effectively, customers may delay or forgo purchases of our systems and our operating results may be adversely affected by product obsolescence and excess inventory. 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.

If one or more of our manufacturing facilities become unavailable or inoperable, we will be unable to continue manufacturing our instruments, IFCs, and/or assays 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 instruments and IFCs for commercial sale at our facility in Singapore and our assays for commercial sale at our headquarters in South San Francisco, California. No other manufacturing or assembly facilities are currently available to us, particularly facilities of the size and scope required by our Singapore operations. Our facilities and the equipment we use to manufacture our instruments, IFCs, and assays would be costly to replace and could require substantial lead time to repair or replace. Our facilities may be harmed or rendered inoperable by natural or man-made disasters, which may render it difficult or impossible for us to manufacture our products for some period of time. The inability to manufacture our products, combined with our limited inventory of 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.

The current leases for our manufacturing facility in Singapore expire at various times through August 2016 and our current lease for office and laboratory space at our headquarters in South San Francisco expires in April 2020. If we are unable to secure new leases upon the expiration of our current leases or if either of our facilities becomes otherwise unavailable to us, and we are required to move our operations to a new manufacturing facility, we will incur significant expense in connection with the establishment of a new facility. A move would be administratively and logistically challenging and would delay and otherwise adversely affect our manufacturing activities and business operations. We cannot provide assurances that we will be able to secure new leases on our existing manufacturing facilities or a new manufacturing facility on acceptable terms, if at all.

[Table of Contents](#)

We are dependent on single source suppliers for some of the components and materials used in our products, 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 products. We do not have long term contracts with our suppliers of these components and materials. The loss of the single source suppliers of any of the following components and/or materials would require significant time and effort to locate and qualify an alternative source of supply:

- The IFCs 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.
- The reader for our BioMark System requires specialized custom camera lenses, fiber light guides, and other components that are available from a limited number of sources.
- Specialized pneumatic and electronic components for our C₁ Single-Cell Auto Prep System are available from a limited number of sources.
- The raw materials for our DELTAgene and SNPtype assays and Access Array Target-Specific primers 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 products or cause delays in shipment of our products; 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 may encounter unforeseen situations in the manufacturing and assembly of our products 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, which may increase our manufacturing costs, delay production of our products, reduce our product margin, and adversely impact our business. If we are unable to keep up with demand for our products by successfully manufacturing and shipping our products in a timely manner, our revenue could be impaired, market acceptance for our products could be adversely affected and our customers might instead purchase our competitors' products.

All of our instruments and IFCs for commercial sale are manufactured at our facility in Singapore. Production of the elastomeric block that is at the core of our IFCs is a complex process requiring advanced clean rooms, sophisticated equipment, and strict adherence to procedures. Any contamination of the clean room, equipment malfunction, or failure to strictly follow procedures can significantly reduce our yield in one or more batches. We have in the past experienced variations in yields due to such factors. A drop in yield can increase our cost to manufacture our IFCs or, in more severe cases, require us to halt the manufacture of our IFCs until the problem is resolved. Identifying and resolving the cause of a drop in yield can require substantial time and resources.

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

Our products could become subject to regulation as medical devices by the U.S. Food and Drug Administration, or FDA, or other regulatory agencies in the future.

Our products are currently labeled and sold to academic institutions, life sciences laboratories, and pharmaceutical, biotechnology, and Ag-Bio companies for research purposes only, and not as diagnostic tests or medical devices. As products labeled for research use only, and used by our customers for research purposes only, they are subject only to limited regulation as medical devices by the FDA under 21 Code of Federal Regulations Section 809.10(c) with respect to their labeling. Research use only products are not currently subject to regulation as medical devices by comparable agencies of other countries. However, if we change the labeling of our products in the future to include indications for human diagnostic

[Table of Contents](#)

applications or medical uses, or we have knowledge that our customers are using our products for diagnostic purposes, our products or related applications could be subject to additional regulation as in vitro diagnostic devices, such as under the FDA's pre- and post-market regulations for medical devices. For example, if we wish to label and market our products for use in performing clinical diagnostics, we would first need to obtain FDA pre-market clearance or approval (depending on any product's specific intended use and any such modified labeling claims), unless otherwise exempt from clearance or approval requirements. Obtaining FDA clearance or approval can be expensive and uncertain, and 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 clearance or approval. 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, the 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 elect to use our research use only labeled products in their own laboratory developed tests, or LDTs, 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 any LDTs that our customers develop may require us to change our business model in order to maintain compliance with these laws. The FDA 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. Additionally, in June 2011 the FDA issued a draft guidance document intended to clarify the types of in vitro diagnostic products that are properly labeled "for research use only." The draft guidance states that merely including a labeling statement that the product is for research purposes only will not necessarily render the device exempt from the FDA's clearance, approval, or other requirements if the circumstances surrounding the distribution of the product indicate that the manufacturer knows its product is, or intends for its product to be, offered for clinical diagnostic uses. These circumstances may include written or verbal marketing claims regarding a product's performance in clinical applications and a manufacturer's provision of technical support for clinical applications. If the FDA imposes significant changes to the regulation of LDTs, or modifies its approach to our products labeled for research use only, but which may be used by our customers for clinical use, it could reduce our revenue or increase our costs and adversely affect our business, prospects, results of operations or financial condition.

We may be required to proactively achieve compliance with certain FDA regulations and to conform our manufacturing operations to the FDA's good manufacturing practice regulations for medical devices, known as the Quality System Regulation, or QSR, 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 QSR. For clinical diagnostic products that are regulated as medical devices, the FDA enforces the QSR through periodic unannounced inspections of registered manufacturing facilities. If we are required to comply with the QSR, 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.

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

Our performance is substantially dependent on the performance of our senior management, particularly Gajus V. Worthington, our president and chief executive officer. Additionally, to expand our research and product development efforts, we need key scientists skilled in areas such as molecular and cellular biology, assay development, and manufacturing. We also need highly trained technical support personnel with the necessary scientific background and ability to understand our systems at a technical level to effectively support potential new customers and the expanding needs of current customers. Competition for these people is intense. Because of the complex and technical nature of our systems 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.

The loss of the services of any member of our senior management or our scientific or technical support 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. 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. We do not maintain fixed term employment contracts or significant key man life insurance with any of our employees.

If we are unable to integrate future acquisitions successfully, our operating results and prospects could be harmed.

In the future, we may make acquisitions to improve our product offerings or expand into new markets. Our future acquisition strategy will depend on our ability to identify, negotiate, complete, and integrate acquisitions and, if necessary, to obtain satisfactory debt or equity financing to fund those acquisitions. Mergers and acquisitions are inherently risky, and any transaction we complete may not be successful. Any merger or acquisition we may pursue would involve numerous risks, including but not limited to the following:

- difficulties in integrating and managing the operations, technologies, and products of the companies we acquire;
- diversion of our management's attention from normal daily operation of our business;
- our inability to maintain the key business relationships and the reputations of the businesses we acquire;
- our inability to retain key personnel of the acquired company;
- uncertainty of entry into markets in which we have limited or no prior experience and in which competitors have stronger market positions;
- our dependence on unfamiliar affiliates and customers of the companies we acquire;
- insufficient revenue to offset our increased expenses associated with acquisitions;
- our responsibility for the liabilities of the businesses we acquire, including those which we may not anticipate; and
- our inability to maintain internal standards, controls, procedures, and policies.

We may be unable to secure the equity or debt funding necessary to finance future acquisitions on terms that are acceptable to us. If we finance acquisitions by issuing equity or convertible debt securities, our existing stockholders will likely experience dilution, and if we finance future acquisitions with debt funding, we will incur interest expense and may have to comply with financial covenants and secure that debt obligation with our assets.

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

The global credit and financial markets have been experiencing volatility and disruptions, including diminished liquidity and credit availability, increased concerns about inflation and deflation, and the downgrade of U.S. debt and exposure risks on other sovereign debts, decreased consumer confidence, lower economic growth, volatile energy costs, increased unemployment rates, and uncertainty about economic stability. 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 clinical research and development. Continuation or further deterioration of these financial and macroeconomic conditions could significantly harm our sales, profitability, and results of operations.

We generate a substantial portion of our revenue internationally and are subject to various risks relating to such international activities, which could adversely affect our sales and operating performance. In addition, any disruption or delay in the shipping or off-loading of our products, whether domestically or internationally, may have an adverse effect on our financial condition and results of operations.

During the three months ended March 31, 2013 and the years 2012, 2011, and 2010, approximately 51%, 47%, 47%, and 45%, 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 other international areas. Engaging in international business inherently involves a number of difficulties and risks, including:

- required compliance with existing and changing foreign regulatory requirements and laws;
- required compliance with anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act and U.K. Bribery Act, data privacy requirements, labor laws, and anti-competition regulations;
- 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;
- unstable economic, political, and regulatory conditions;

[Table of Contents](#)

- potentially adverse tax consequences, tariffs, customs charges, bureaucratic requirements, and other trade barriers;
- difficulties and costs of staffing and managing foreign operations; and
- difficulties protecting or procuring intellectual property rights.

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

In addition, a majority of our product sales are currently denominated in U.S. dollars and fluctuations in the value of the U.S. dollar relative to foreign currencies could decrease demand for our products and adversely impact our financial performance. For example, 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, or 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.

We rely on shipping providers to deliver products to our customers globally. Labor, 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, energy-related tie-ups, or other factors could disrupt or delay shipping or off-loading of our products domestically and internationally. Such disruptions or delays may have an adverse effect on our financial condition and results of operations.

If we are unable to manage our anticipated growth effectively, our business could be harmed.

The rapid growth of our business has placed a significant strain on our managerial, operational, and financial resources and systems. 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 facilities located in Singapore and South San Francisco, California, are sufficient to meet our short-term manufacturing needs. The current leases for our facilities in Singapore expire at various times through August 2016 and our current lease for office and laboratory space at our headquarters in South San Francisco expires in April 2020. In order to meet 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 2014. 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. We cannot provide assurances that we will be able to secure a lease on a new manufacturing facility on acceptable terms, if at all.

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

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

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. We generally provide warranties that our microfluidic systems will meet performance expectations and will be free from defects. We also 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.

In manufacturing our products, including our systems, IFCs, and assays, we depend upon third parties for the supply of various components, many of which require a significant degree of technical expertise to produce. In addition, we purchase certain products from third-party suppliers for resale. If our suppliers fail to produce components to specification or provide defective products to us for resale and our quality control tests and procedures fail to detect such errors or defects, or if we or our suppliers 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;

[Table of Contents](#)

- 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.

In addition, certain of our products are marketed for use with products sold by third parties. For example, our Access Array System is marketed as compatible with all major next-generation DNA sequencing instruments. If such third-party products are not produced to specification, are produced in accordance with modified specifications, or are defective, they may not be compatible with our products. In such case, the reliability and performance of our products may be compromised.

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

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. Although we sell reagents for use with certain of our products, our customers may purchase these reagents directly from third-party 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 over the formulation of reagents sold by third-party suppliers, and the performance of our products might be adversely affected if the formulation of these reagents is changed. If one or more of these reagents were to become unavailable or were reformulated, our ability to market and sell our products could be materially and adversely affected.

In addition, the use of a reagent for a particular process may be covered by one or more patents relating to the reagent itself, the use of the reagent for the particular process, the performance of that process, or the equipment required to perform the process. Typically, reagent suppliers, who are either the patent holders or their authorized licensees, sell the reagents along with a license or covenant not to sue with respect to such patents. The license accompanying the sale of a reagent often purports to restrict the purposes for which the reagent may be used. If a patent holder or authorized licensee were to assert against us or our customers that the license or covenant relating to a reagent precluded its use with our systems, our ability to sell and market our products could be materially and adversely affected. For example, our BioMark System involves real-time quantitative PCR, or qPCR. Leading suppliers of reagents for real-time qPCR reactions include Life Technologies Corporation and Roche Applied Science, who are our direct competitors, and their licensees. These real-time qPCR 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 real-time qPCR 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.

We have limited experience in marketing, selling, and distributing our products, and if we are unable to expand our direct sales and marketing force or distribution capabilities to adequately address our customers' needs, our business may be adversely affected.

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, our BioMark HD System for genomic analysis was introduced for commercial sale in 2011, we began producing and selling assays for use with our IFCs in May 2011, and we launched our C₁ Single-Cell Auto Prep System for single cell sample preparation for single-cell analysis in June 2012. 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

[Table of Contents](#)

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 revenue 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 and adversely impact our business operations.

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, 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 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 identify 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, or NASDAQ, the SEC or other regulatory authorities, which would require additional financial and management resources.

Risks associated with a company-wide implementation of an enterprise resource planning, or ERP, system may adversely affect our business and results of operations or the effectiveness of internal control over financial reporting.

We have been implementing a company-wide ERP system to handle the business and financial processes within our operations and corporate functions. ERP implementations are complex and time-consuming projects that involve substantial expenditures on system software and implementation activities that can continue for several years. ERP implementations also require transformation of business and financial processes in order to reap the benefits of the ERP system. Our business and results of operations may be adversely affected if we experience operating problems and/or cost overruns during the ERP implementation process, or if the ERP system and the associated process changes do not give rise to the benefits that we expect. Additionally, if we do not effectively implement the ERP system as planned or if the system does not operate as intended, it could adversely affect the effectiveness of our internal controls over financial reporting.

Our future capital needs are uncertain and we may need to raise additional funds in the future, which may cause dilution to stockholders or may be upon terms that are not favorable to us.

We believe that 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 for various purposes, including:

- expanding the commercialization of our products;
- funding our operations;
- furthering our research and development; and
- acquiring other businesses or assets and licensing technologies.

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;

[Table of Contents](#)

- 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, delay development or commercialization of our products, or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. We also may have to reduce marketing, customer support, or other resources devoted to our products, or cease operations. Any of these factors could harm our operating results.

Our 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. If we undergo ownership changes, our ability to utilize NOLs could be 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.

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. 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. 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. 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, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. 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;
- The patents of others may have an adverse effect on our business; and
- Others may independently develop similar or alternative products and technologies or duplicate any of our products and technologies.

To the extent our intellectual property, including licensed intellectual property, offers inadequate protection, or is found to be invalid or unenforceable, our competitive position and our business could be adversely affected.

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, any of which could be time-intensive and costly and may adversely impact our business or 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 could result in substantial legal fees and could adversely affect the scope of our patent protection. 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.

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 impeding our entry into such markets or as a means to extract substantial license and royalty payments from us. 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 our existing and targeted markets, and 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. In June 2011, we resolved this dispute by entering into a license agreement with Life Technologies Corporation which, among other matters, granted us a non-exclusive license to the '934 patent and its foreign counterparts.

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 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, which would have an adverse effect on our business.

We rely on licenses in order to be able to use various proprietary technologies that are material to our business, including our core IFC and multi-layer soft lithography technologies. 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.

Our rights to use the technology we license are subject to the negotiation and continuation of those licenses. 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. 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 and the license is terminated, we might be barred from marketing, producing, and selling some or all of our products, which would have an adverse effect on our business.

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 IFCs, which incorporate technology developed with U.S. government grants. All of our instruments, including microfluidic systems, and IFCs for commercial sale 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.

[Table of Contents](#)

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. In June 2012, the licensors requested a continued waiver of the domestic manufacturing requirement with respect to the relevant patents. 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. A loss of key research personnel 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

Our stock price may fluctuate significantly, particularly if holders of substantial amounts of our stock attempt to sell, and holders may have difficulty selling their shares based on current trading volumes of our stock. In addition, numerous other factors could result in substantial volatility in the trading price of our stock.

Our stock is currently traded on NASDAQ, but we can provide no assurance that we will be able to maintain an active trading market on NASDAQ or any other exchange in the future. The trading volume of our stock tends to be low relative to our total outstanding shares, and we have several stockholders, including affiliated stockholders, who hold substantial blocks of our stock. As of March 31, 2013, we had 25,399,047 shares of common stock outstanding, and stockholders holding at least 5% of our stock, individually or with affiliated persons or entities, collectively beneficially owned or controlled approximately 46% of such shares. Sales of large numbers of shares by any of our large stockholders could adversely affect our trading price, particularly given our relatively small historic trading volumes. If stockholders holding shares of our common stock sell, indicate an intention to sell, or if it is perceived that they will sell, substantial amounts of their common stock in the public market, the trading price of our common stock could decline. Moreover, if there is no active trading market or if the volume of trading is limited, holders of our common stock may have difficulty selling their shares.

In addition, the trading price of our common stock 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 or communications by us or our competitors relating to, among other things, new commercial products, technological advances, significant contracts, commercial relationships, capital commitments, acquisitions or sales of businesses, and/or misperceptions in or speculation by the market regarding such announcements or communications;
- 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 clinical research 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 in connection with raising additional capital or otherwise;
- any major change to the composition of our board of directors or management; and
- general economic conditions and slow or negative growth of our markets.

[Table of Contents](#)

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. 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 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 publish unfavorable research about our business or cease to cover our business, our stock price and trading volume could decline.

The trading market for our common stock may rely, in part, on the research and reports that equity research analysts publish about us and our business. We do 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.

Our directors, executive officers, and large stockholders have substantial control over and could limit your ability to influence the outcome of key transactions, including changes of control.

As of March 31, 2013, our current executive officers, directors, stockholders holding at least 5% of our outstanding stock, and their respective affiliates, collectively beneficially owned or controlled approximately 51% of the outstanding shares of our common stock. Accordingly, these executive officers, directors, large stockholders, and their respective affiliates, acting as a group, can have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of our assets, or any other significant corporate transactions. These stockholders may also delay or prevent a change of control of us, even if such a change of control would benefit our other stockholders. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

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

Provisions in our certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control or changes in our management, including 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.

[Table of Contents](#)

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

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

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Use of Proceeds

On February 9, 2011, our registration statement on Form S-1 (File No. 333-170965) was declared effective for the initial public offering of our common stock, or IPO. Through March 31, 2013, the net proceeds from our IPO have been applied as follows: \$5.0 million for the repayment of promissory notes issued in January 2011, \$5.0 million for the repayment of our bank line of credit, \$33.3 million for research and development expenses, \$10.2 million for general corporate purposes including selling, general and administrative expenses, and litigation settlement expense, and \$4.8 million for capital expenditures. On June 30, 2011, we paid \$3.0 million in connection with the settlement of certain patent litigation with Life Technologies Corporation, or Life. In July 2011, we paid Life an additional \$2.0 million in connection with our exercise of an option under the terms of our agreements with Life to limit or preclude certain patent litigation between the parties over a period of two to four years. Other than the aggregate payment of \$5.0 million to Life, there has been no material change in the planned use of proceeds from our IPO from that described in the final prospectus filed with the SEC pursuant to Rule 424(b) on February 10, 2011.

Item 6. Exhibits.

<u>Exhibit Number</u>	<u>Description</u>	<u>Incorporated by Reference From Form</u>	<u>Incorporated by Reference From Exhibit Number</u>	<u>Date Filed</u>
10.19A	Second Amendment to Lease Agreement between ARE-San Francisco No. 17, LLC and the registrant, dated April 9, 2013	Filed herewith		
31.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 of President and Chief Executive Officer	Filed herewith		
31.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 of Chief Financial Officer	Filed herewith		
32.1(1)	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 of President and Chief Executive Officer	Furnished herewith		
32.2(1)	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 of Chief Financial Officer	Furnished herewith		
101.INS(2)	XBRL Instance Document	Furnished herewith		
101.SCH(2)	XBRL Taxonomy Extension Schema Document	Furnished herewith		
101.CAL(2)	XBRL Taxonomy Extension Calculation Linkbase Document	Furnished herewith		
101.LAB(2)	XBRL Taxonomy Extension Label Linkbase Document	Furnished herewith		
101.PRE(2)	XBRL Taxonomy Extension Presentation Linkbase Document	Furnished herewith		
101.DEF(2)	XBRL Taxonomy Extension Definition Document	Furnished herewith		

[Table of Contents](#)

- (1) In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release No. 33-8238 and 34-47986, Final Rule: Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Form 10-Q and will not be deemed "filed" for purposes of Section 18 of the Exchange Act. Such certifications will not be deemed to be incorporated by reference into any filings under the Securities Act or the Exchange Act, except to the extent that the registrant specifically incorporates it by reference.
- (2) XBRL (eXtensible Business Reporting Language) information is furnished and not filed or a part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Securities Exchange Act of 1934, and otherwise is not subject to liability under these sections.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

FLUIDIGM CORPORATION

Dated: May 9, 2013

By: /s/ Gajus V. Worthington
Gajus V. Worthington
President and Chief Executive Officer

Dated: May 9, 2013

By: /s/ Vikram Jog
Vikram Jog
Chief Financial Officer

EXHIBIT LIST

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SECOND AMENDMENT TO LEASE

THIS SECOND AMENDMENT TO LEASE (this “**Second Amendment**”) is made as of April 9, 2013, by and between **ARE-SAN FRANCISCO NO. 17, LLC**, a Delaware limited liability company (“**Landlord**”), and **FLUIDIGM CORPORATION**, a Delaware corporation (“**Tenant**”).

RECITALS

A. Landlord and Tenant are now parties to that certain Lease Agreement dated as of September 14, 2010, as amended by that certain First Amendment to Lease dated as of September 22, 2010, and as further amended by that certain letter agreement dated August 2, 2012 (as amended, the “**Lease**”). Pursuant to the Lease, Tenant leases certain premises (“**Original Premises**”) in a building located at 7000 Shoreline Court, South San Francisco, California. The Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. Landlord and Tenant acknowledge and agree that, as of the date hereof, a portion of the Building consisting of approximately 19,177 rentable square feet, as shown on **Exhibit A** attached hereto (“**Expansion Premises**”), is currently subject to that certain Amended and Restated Lease Agreement between Landlord and Achaogen, Inc., a Delaware corporation (“**Achaogen**”), dated December 29, 2010 (as the same may have been or may in the future may be amended, the “**Achaogen Lease**”).

C. Landlord and Tenant acknowledge that, prior to the Expansion Premises Commencement Date (as defined in Section 3 below), Tenant intends to enter into a sublease agreement with Achaogen pursuant to which Tenant shall sublease the Expansion Premises from Achaogen prior to the Expansion Premises Commencement Date (the “**Achaogen Sublease**”), which Achaogen Sublease shall require Landlord’s written consent in the form of a consent to sublease agreement by and among Landlord, Tenant and Achaogen (“**Consent to Sublease**”).

D. Landlord and Tenant desire, subject to the terms and conditions set forth below, to among other things, (i) extend the term of the Lease, and (ii) expand the Original Premises to include the Expansion Premises.

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Base Term.** The Base Term of the Lease for the Premises (which, after the Expansion Premises Commencement Date, shall include the Expansion Premises) is hereby extended until April 30, 2020 (the “**Expiration Date**”).
2. **Expansion Premises.** In addition to the Original Premises, commencing on the Expansion Premises Commencement Date (as defined below), Landlord leases to Tenant, and Tenant leases from Landlord, the Expansion Premises.
3. **Delivery.** The “**Expansion Premises Commencement Date**” shall be the earlier to occur of (i) April 1, 2014, or (ii) the day after the termination of the Achaogen Lease, if the Achaogen Lease terminates prior to March 31, 2014; provided, however, that if the Achaogen Lease has terminated due to a casualty or Taking (as such term is defined in the Achaogen Lease), such casualty or Taking shall be deemed to have occurred during the Base Term of the Lease and the rights and obligations of Landlord and Tenant with respect thereto shall be governed by Section 18 or Section 19 of the Lease, as applicable. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Expansion Premises Commencement Date and the expiration date of the Term when such are established in the form of the “**Acknowledgement of**

Expansion Premises Commencement Date” attached hereto as **Exhibit B**; provided, however, Tenant’s failure to execute and deliver such acknowledgment shall not affect Landlord’s rights hereunder.

Notwithstanding anything to the contrary contained herein, Tenant and Landlord acknowledge and agree that the commencement of the Lease with respect to the Expansion Premises on or before April 1, 2014, is conditioned on the satisfaction of the following conditions precedent (“**Conditions Precedent**”): that Achaogen enter into an amendment of the Achaogen Lease with Landlord, which amendment shall be acceptable to Landlord, in its reasonable discretion, pursuant to which Achaogen waives its right to extend the term of the Achaogen Lease with respect to the Expansion Premises, and that Achaogen, Landlord and Tenant enter into the Consent to Sublease. Neither Landlord nor Tenant shall have any liability whatsoever to each other relating to or arising from Landlord’s inability or failure to cause the Conditions Precedent to be satisfied. The execution and delivery by Landlord and Achaogen of an amendment of the Achaogen Lease pursuant to which Achaogen waives its right to extend the term thereof with respect to the Expansion Premises shall be deemed to satisfy the foregoing condition with respect to the Achaogen Lease amendment.

Except as set forth in the Lease or this Second Amendment: (i) Landlord shall have no obligation for any defects in the Expansion Premises; and (ii) Tenant’s occupancy of the Expansion Premises pursuant to the terms of the Achaogen Sublease shall be conclusive evidence that Tenant accepts the Expansion Premises and that the Expansion Premises are in good condition.

Tenant agrees and acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Expansion Premises, and/or the suitability of the Expansion Premises for the conduct of Tenant’s business, and Tenant waives any implied warranty that the Expansion Premises are suitable for the Permitted Use.

4. **Definition of Premises.** Commencing on the Expansion Premises Commencement Date, the defined term “**Premises**” on Page 1 of the Lease is deleted in its entirety and replaced with the following:

“**Premises:** That portion of the Project, containing approximately 48,405 rentable square feet (“**RSF**”), consisting of (i) approximately 29,228 rentable square feet (the “**Original Premises**”), and (ii) approximately 19,177 rentable square feet (“**Expansion Premises**”), all as determined by Landlord, as shown on **Exhibit A**.”

As of the Expansion Premises Commencement Date, **Exhibit A** to the Lease is amended to include **Exhibit A** attached to this Second Amendment.

5. **Base Rent.**

a. Original Premises. Tenant shall continue to pay Base Rent for the Original Premises as provided for in the Lease through April 30, 2015. Commencing on May 1, 2015, Base Rent for the Original Premises shall be an amount equal to \$2.60 per rentable square foot of the Original Premises per month. Thereafter, on each May 1st during the Base Term (each an “**Adjustment Date**”), Base Rent for the Original Premises shall be increased by multiplying the Base Rent payable with respect to the Original Premises immediately before such Original Premises Adjustment Date by 1.3% (the “**Rent Adjustment Percentage**”) and adding the resulting amount to the Base Rent payable with respect to the Original Premises immediately before such Original Premises Adjustment Date. Base Rent for the Original Premises, as so adjusted, shall be due in equal monthly installments each in advance on the first day of each and every calendar month during the applicable calendar year.

b. Expansion Premises. Commencing on the Expansion Premises Commencement Date, Base Rent for the Expansion Premises shall be an amount equal to \$2.90 per rentable square foot of the Expansion Premises per month; provided, however, that if the Expansion Premises Commencement Date occurs prior to April 1, 2014, Base Rent for the Expansion Premises shall be equal to \$1.70 per rentable square foot of the Expansion Premises per month through March 31, 2014. Commencing on May 1, 2015, Tenant shall pay Base Rent for the Expansion Premises at the same rate per rentable square foot that Tenant is then paying for the Original Premises during the Base Term, as adjusted pursuant to Section 5(a) above. Base Rent for the Expansion Premises, as so adjusted, shall be due in equal monthly installments each in advance on the first day of each and every calendar month during the applicable calendar year.

Notwithstanding anything to the contrary contained in this Second Amendment, for the period commencing on April 1, 2014, through June 30, 2014, Tenant shall not be required to pay Base Rent for the Expansion Premises only. Commencing on July 1, 2014, Tenant shall commence (or resume, as applicable) paying full Base Rent for the Expansion Premises pursuant to this Section 5(b).

c. TI Rent. In addition to the Tenant Improvement Allowance (as defined in the Work Letter attached to this Second Amendment as **Exhibit C**), Landlord shall, subject to the terms of the Work Letter, make available to Tenant the Additional Tenant Improvement Allowance (as defined in the Work Letter) for the construction of the Tenant Improvements. Commencing on the first day of the month following the date on which any portion of the Additional Tenant Improvement Allowance is funded to Tenant ("**Initial Payment Date**") and continuing thereafter on the first day of each month of the Base Term, Tenant shall pay to Landlord the amount necessary to fully amortize the amount of the Additional Tenant Improvement Allowance actually funded by Landlord, if any, in equal monthly payments with interest at a rate of 9% per annum over the remaining Base Term ("**TI Rent**"). If any portion of the Additional Tenant Improvement Allowance is funded to Tenant after the Initial Payment Date, the monthly amount of TI Rent payable by Tenant shall be adjusted in order to fully amortize such amounts funded after the Initial Funding Date in equal monthly payments with interest at a rate of 9% per annum over the remaining Base Term.

6. **Tenant's Share of Operating Expenses.** Tenant shall continue to pay Operating Expenses as provided for in the Lease through the day immediately preceding the Expansion Premises Commencement Date. Commencing on the Expansion Premises Commencement Date, Tenant's Share of Operating Expenses payable by Tenant under the Lease shall be increased by 14.06%, and commencing on May 1, 2015, the total Tenant's Share of Operating Expenses which shall be payable by Tenant under the Lease shall be equal to 35.49%.

Commencing on May 1, 2015, Tenant's Share of each earthquake deductible or occurrence of uninsured earthquake damage affecting the Premises shall not exceed \$7.50 per rentable square of the Premises (including the Expansion Premises) (the "**Current Cap**"). On June 1, 2015, and on the first day of each month thereafter through the Expiration Date, the Current Cap shall be reduced by \$0.125 per rentable square foot of the Premises (including the Expansion Premises). Following earthquake damage to the Project during the period between April 1, 2015, and the Expiration Date, Tenant shall pay Tenant's Share of any such deductible or uninsured damage in equal monthly installments amortized over the balance of the Base Term. For the avoidance of doubt, the existing caps of insurance deductibles and uninsured earthquake damage set forth in the third full paragraph of Section 5 of the Lease shall apply through April 30, 2015, and the caps provided for in this paragraph shall apply from May 1, 2015, through April 30, 2020, and shall thereafter be of no further force or effect.

7. **Intentionally Omitted.**

8. **Right to Extend Term.** As of the date of this Second Amendment, Section 39(a) of the Lease is hereby deleted and replaced with the following:
- “(a) **Extension Right.** Tenant shall have 1 right (“**Extension Right**”) to extend the term of this Lease for 5 years (an “**Extension Term**”) on the same terms and conditions as this Lease (other than Base Rent, Tenant’s Share and the Work Letters) by giving Landlord written notice of its election to exercise the Extension Right at least 9 months prior, and no earlier than 12 months prior, to the Expiration Date.
- Notwithstanding anything to the contrary contained in this Lease, if Tenant exercises its Extension Right hereunder, commencing on May 1, 2020, Tenant’s Share of each earthquake deductible or occurrence of uninsured earthquake damage affecting the Premises shall not exceed \$7.50 per rentable square of the Premises (the “**Extension Cap**”). On June 1, 2020, and on the first day of each month thereafter through the expiration of the Extension Term, the Extension Cap shall be reduced by \$0.125 per rentable square foot of the Premises. Following earthquake damage to the Project during the period between May 1, 2020, and the expiration of the Extension Term, Tenant shall pay Tenant’s Share of any such deductible or uninsured damage in equal monthly installments amortized over the balance of the Extension Term.
- Upon the commencement of the Extension Term, Base Rent shall be payable at the Market Rate (as defined below). Base Rent shall thereafter be adjusted on each annual anniversary of the commencement of the Extension Term by a percentage as determined by Landlord and agreed to by Tenant at the time the Market Rate is determined. As used herein, “**Market Rate**” shall mean the market rental rate for comparable laboratory space in South San Francisco, California, as determined by Landlord and agreed to by Tenant.
- If, on or before the date which is 180 days prior to the Expiration Date, Tenant has not agreed with Landlord’s determination of the Market Rate and the rent escalations during the Extension Term after negotiating in good faith, Tenant may by written notice to Landlord not later than 180 days prior to the expiration of the Base Term of the Lease, elect arbitration as described in Section 39(b) below. If Tenant does not elect such arbitration, Tenant shall be deemed to have waived any right to extend the Term of the Lease and the Extension Right shall terminate.”
9. **Removal of Tenant Improvements.** Tenant shall not be required to remove any Tenant Improvements existing in the Original Premises or the Expansion Premises as of the date of this Second Amendment or any Tenant Improvements constructed in the Original Premises or the Expansion Premises pursuant to the Work Letter at the expiration or earlier termination of the Term nor shall Tenant have the right to remove any such Tenant Improvements at any time. If Tenant constructs any Tenant Improvements in the Expansion Premises prior to the Expansion Premises Commencement Date, Tenant shall obtain Achaogen’s consent to such Tenant Improvements pursuant to the Achaogen Sublease and Landlord shall not charge any fee under the Achaogen Lease in connection with such Tenant Improvements. The Consent to Sublease shall provide that Achaogen shall not be required to remove any such Tenant Improvements constructed in the Expansion Premises at the expiration or earlier termination of the Achaogen Lease nor shall Achaogen have the right to remove any such Tenant Improvements at any time.
10. **Landlord’s Furniture.** During Tenant’s occupancy of the Expansion Premises under the Achaogen Sublease and during the Term of the Lease with respect to the Expansion Premises, Tenant shall have the right to use in the Premises the furniture belonging to Landlord located within the Expansion Premises as of the date of this Second Amendment (“**Landlord’s Furniture**”). If, any time after the date of this Second Amendment, Tenant does not want to use certain items of Landlord’s Furniture, Tenant shall notify Landlord in writing of such item(s) of Landlord Furniture that Tenant does not want to use and Landlord shall inform Tenant whether Tenant may remove such item(s) of Landlord’s Furniture from the Premises and, if Landlord authorizes the removal of such item(s) of Landlord’s Furniture, any reasonable requirements, if any, of Landlord in connection with Tenant’s removal from the Premises of such item(s) of Landlord’s Furniture. If Landlord does not authorize Tenant to remove such item(s), Landlord shall cause such item(s) to be removed, at Landlord’s sole cost, within 10 business days of Landlord receipt of Tenant’s written request for such removal by Landlord.

Except as otherwise set forth in this Second Amendment, (i) Tenant shall accept Landlord's furniture in its condition as of the date Tenant occupies the Expansion Premises pursuant to the Achaogen Sublease, (ii) Landlord shall have no obligation for any defects in Landlord's Furniture, and (iii) Tenant's taking possession of the Expansion Premises under the Achaogen Sublease shall be conclusive evidence that Tenant accepts Landlord's Furniture and that Landlord's Furniture was in good condition at the time possession was taken. Tenant agrees and acknowledges that, except as otherwise set forth in the Lease or this Second Amendment, neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of Landlord's Furniture.

11. **Signage.** So long as Tenant leases at least 48,000 rentable square feet in the Building, Tenant shall have the right to display, at Tenant's sole cost and expense, Tenant's name and logo in a location on the west wing of the Building in the location shown on **Exhibit D** hereto ("**Building Sign**"). For purposes of the preceding sentence, the Expansion Premises shall be considered leased during the term of the Achaogen Sublease. Tenant further acknowledges and agrees that the Building Sign including, without limitation, the location, size, color and type, shall be subject to Landlord's prior written approval, which shall not be unreasonably withheld and shall be consistent with Landlord's signage program at the Project and applicable Legal Requirements. Tenant shall be responsible, at Tenant's sole cost and expense, for the maintenance of the Building Sign, for the removal of the Building Sign at the expiration or earlier termination of this Lease and for the repair all damage resulting from such removal.
12. **Brokers.** Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**"), other than Cresa, in connection with the transaction reflected in this Second Amendment. Landlord and Tenant each hereby agrees to indemnify and hold the other harmless from and against any claims by any Broker, other than the brokers, if any named in this Second Amendment, claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.
13. **Provisions of Achaogen Lease as to Expansion Premises During Term of Achaogen Sublease.** During the term of the Achaogen Sublease with respect to the Expansion Premises only, Landlord shall: (a) not include in Operating Expenses thereunder any amounts that could not then be included in Operating Expenses under the Lease; and (b) not require Tenant to indemnify Landlord for any Claims to the extent Tenant would not be required to indemnify Landlord for such Claims under Section 16 of the Lease.
14. **Miscellaneous.**
 - a. This Second Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Second Amendment may be amended only by an agreement in writing, signed by the parties hereto.
 - b. This Second Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective successors and assigns.
 - c. This Second Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this Second Amendment attached thereto.
 - d. Except as amended and/or modified by this Second Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect,

unaltered and unchanged by this Second Amendment. In the event of any conflict between the provisions of this Second Amendment and the provisions of the Lease, the provisions of this Second Amendment shall prevail. Whether or not specifically amended by this Second Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Second Amendment.

e. The date applicable to the Expansion Premises in subpart (i) of the last sentence of Section 30(a) of the Lease shall be the commencement date of the Achaogen Sublease.

IN WITNESS WHEREOF, the parties hereto have executed this Second Amendment as of the day and year first above written.

LANDLORD:

ARE-SAN FRANCISCO NO. 17, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership,
managing member

By: ARE-QRS CORP., a Maryland corporation,
general partner

By: /s/ Eric S. Johnson
Its: Vice President
Real Estate Legal Affairs

TENANT:

FLUIDIGM CORPORATION,
a Delaware corporation

By: /s/ Vikram Jog
Its: Chief Financial Officer

EXHIBIT A

Expansion Premises

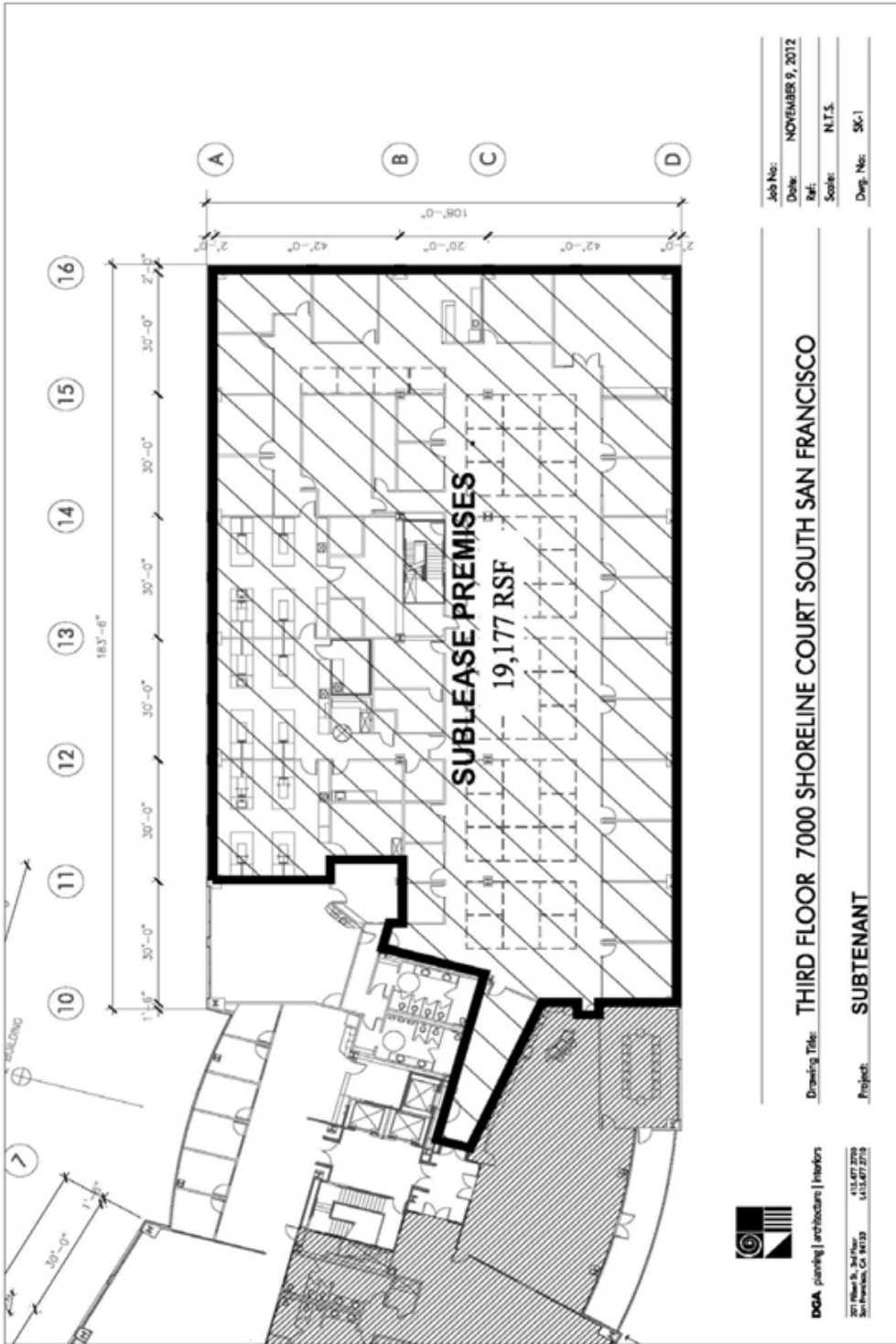


EXHIBIT B

Acknowledgment of Expansion Premises Commencement Date

This **ACKNOWLEDGMENT OF EXPANSION PREMISES COMMENCEMENT DATE** is made this _____ day of _____, between **ARE-SAN FRANCISCO NO. 17, LLC**, a Delaware limited liability company ("**Landlord**"), and **FLUIDIGM CORPORATION**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease Agreement dated as of September 14, 2010, as amended by that First Amendment to Lease dated as of September 22, 2010, as further amended by that certain letter agreement dated August 2, 2012, and as further amended by that certain Second Amendment to Lease dated as of _____, 2013 (as amended, the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

Landlord and Tenant hereby acknowledge and agree, for all purposes of the Lease, that the Expansion Premises Commencement Date is _____, and the Expiration Date of the Lease shall be midnight on April 30, 2020. In case of a conflict between the terms of the Lease and the terms of this Acknowledgment of Expansion Premises Commencement Date, this Acknowledgment of Expansion Premises Commencement Date shall control for all purposes.

IN WITNESS WHEREOF, Landlord and Tenant have executed this **ACKNOWLEDGMENT OF EXPANSION PREMISES COMMENCEMENT DATE** to be effective on the date first above written.

LANDLORD:

ARE-SAN FRANCISCO NO. 17, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership,
managing member

By: ARE-QRS CORP., a Maryland corporation,
general partner

By: _____
Its: _____

TENANT:

FLUIDIGM CORPORATION,
a Delaware corporation

By: _____
Its: _____

EXHIBIT C

Work Letter

THIS WORK LETTER (this “**Work Letter**”) is incorporated into that certain Lease Agreement dated as of September 14, 2010, as amended by that First Amendment to Lease dated as of September 22, 2010, and as further amended by that certain Second Amendment to Lease of even date herewith (as amended, the “**Lease**”), by and between **ARE-SAN FRANCISCO NO. 17, LLC**, a Delaware limited liability company (“**Landlord**”), and **FLUIDIGM CORPORATION**, a Delaware corporation (“**Tenant**”). Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

1. General Requirements.

(a) **Tenant’s Authorized Representative.** Tenant designates Les Winchester (“**Tenant’s Representative**”) as the only person authorized to act for Tenant pursuant to this Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication (“**Communication**”) from or on behalf of Tenant in connection with this Work Letter unless such Communication is in writing from Tenant’s Representative. Tenant may change Tenant’s Representative at any time upon not less than 5 business days advance written notice to Landlord.

(b) **Landlord’s Authorized Representative.** Landlord designates Todd Miller and Rob Kain (either such individual acting alone, “**Landlord’s Representative**”) as the only persons authorized to act for Landlord pursuant to this Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Work Letter unless such Communication is in writing from Landlord’s Representative. Landlord may change either Landlord’s Representative at any time upon not less than 5 business days advance written notice to Tenant.

(c) **Architects, Consultants and Contractors.** Landlord and Tenant hereby acknowledge and agree that the architect (the “**TI Architect**”) for the Tenant Improvements (as defined in Section 2(a) below), the general contractor and any subcontractors for the Tenant Improvements shall be selected by Tenant, subject to Landlord’s approval, which approval shall not be unreasonably withheld, conditioned or delayed. Landlord shall be named a third party beneficiary of any contract entered into by Tenant with the TI Architect, any consultant, any contractor or any subcontractor, and of any warranty made by any contractor or any subcontractor. Landlord hereby approves of DGA as Tenant’s architect and Landmark as Tenant’s general contractor.

2. Tenant Improvements.

(a) **Tenant Improvements Defined.** As used herein, “**Tenant Improvements**” shall mean all improvements to the Premises (including the Expansion Premises) desired by Tenant of a fixed and permanent nature. Other than funding the TI Allowance (as defined below) as provided herein, Landlord shall not have any obligation whatsoever with respect to the finishing of the Premises for Tenant’s use and occupancy.

(b) **Tenant’s Space Plans.** Tenant shall be responsible for the delivery to Landlord of schematic drawings and outline specifications (the “**TI Design Drawings**”) detailing Tenant’s requirements for the Tenant Improvements. Not more than 10 days thereafter, Landlord shall deliver to Tenant the written objections, questions or comments of Landlord and the TI Architect with regard to the TI Design Drawings. Tenant shall cause the TI Design Drawings to be revised to address such written comments and shall resubmit said drawings to Landlord for approval within 10 days thereafter. Such process shall continue until Landlord has approved the TI Design Drawings. Landlord approves of the Tenant Improvements described on **Schedule 1** of this Work Letter and shall not unreasonably withhold its consent to the TI Design Drawings to the extent consistent therewith.

(c) **Working Drawings.** Not later than 15 business days following the approval of the TI Design Drawings by Landlord, Tenant shall cause the TI Architect to prepare and deliver to Landlord for review and comment construction plans, specifications and drawings for the Tenant Improvements (“**TI Construction Drawings**”), which TI Construction Drawings shall be prepared substantially in accordance with the TI Design Drawings. Tenant shall be solely responsible for ensuring that the TI Construction Drawings reflect Tenant’s requirements for the Tenant Improvements. Landlord shall deliver its written comments on the TI Construction Drawings to Tenant not later than 10 business days after Landlord’s receipt of the same; provided, however, that Landlord may not disapprove any matter that is consistent with the TI Design Drawings. Tenant and the TI Architect shall consider all such comments in good faith and shall, within 10 business days after receipt, notify Landlord how Tenant proposes to respond to such comments. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the TI Construction Drawings is consistent with the TI Design Drawings or otherwise reasonably acceptable to Landlord, Landlord shall approve the TI Construction Drawings submitted by Tenant. Once approved by Landlord, subject to the provisions of Section 4 below, Tenant shall not materially modify the TI Construction Drawings except as may be reasonably required in connection with the issuance of the TI Permit (as defined in Section 3(a) below).

(d) **Approval and Completion.** If any dispute regarding the design of the Tenant Improvements is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord’s and Tenant’s positions with respect to such dispute, (ii) that all costs and expenses resulting from any such decision by Tenant shall be payable out of the TI Allowance (as defined in Section 5(b) below) or otherwise payable by Tenant, and (iii) Tenant’s decision will not affect the base Building, structural components of the Building or any Building systems (in which case Landlord shall make the final decision). Any changes to the TI Construction Drawings following Landlord’s and Tenant’s approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

(e) **No Obligation to Building Tenant Improvements.** Notwithstanding anything to the contrary contained in this Work Letter, Tenant’s failure to design or construct the Tenant Improvements or meet any of the time periods set forth in this Work Letter for the construction of the Tenant Improvements shall not be a default under the Lease. Nothing contained in this Work Letter shall delay the Expansion Premises Commencement Date or the Expansion Premises Rent Commencement Date.

3. Performance of the Tenant Improvements.

(a) **Commencement and Permitting of the Tenant Improvements.** Tenant shall commence construction of the Tenant Improvements upon obtaining and delivering to Landlord a building permit (the “**TI Permit**”) authorizing the construction of the Tenant Improvements consistent with the TI Construction Drawings approved by Landlord. The cost of obtaining the TI Permit shall be payable from the TI Allowance. Landlord shall assist Tenant in obtaining the TI Permit. Prior to the commencement of the Tenant Improvements, Tenant shall deliver to Landlord a copy of any contract with Tenant’s contractors (including the TI Architect), and certificates of insurance from any contractor performing any part of the Tenant Improvement evidencing industry standard commercial general liability, automotive liability, “builder’s risk”, and workers’ compensation insurance. Tenant shall cause the general contractor to provide a certificate of insurance naming Landlord, Alexandria Real Estate Equities, Inc., and Landlord’s lender (if any) as additional insureds for the general contractor’s liability coverages required above.

(b) **Selection of Materials, Etc.** Where more than one type of material or structure is indicated on the TI Construction Drawings approved by Tenant and Landlord, the option will be within Tenant’s reasonable discretion if the matter concerns the Tenant Improvements, and within Landlord’s sole and absolute subjective discretion if the matter concerns the structural components of the Building or any Building System.

(c) **Tenant Liability.** Tenant shall be responsible for correcting any deficiencies or defects in the Tenant Improvements.

(d) **Substantial Completion.** Tenant shall substantially complete or cause to be substantially completed the Tenant Improvements in a good and workmanlike manner, in accordance with the TI Permit subject, in each case, to Minor Variations and normal “punch list” items of a non-material nature which do not interfere with the use of the Premises (“**Substantial Completion**” or “**Substantially Complete**”). Upon Substantial Completion of the Tenant Improvements, Tenant shall require the TI Architect and the general contractor to execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects (“**AIA**”) document G704. For purposes of this Work Letter, “**Minor Variations**” shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the TI Permit); (ii) to comport with good design, engineering, and construction practices which are not material; or (iii) to make reasonable adjustments for field deviations or conditions encountered during the construction of the Tenant Improvements.

4. **Changes.** Any changes requested by Tenant to the Tenant Improvements after the delivery and approval by Landlord of the TI Design Drawings, shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord, which approval shall not be unreasonably withheld, conditioned or delayed.

(a) **Tenant’s Right to Request Changes.** If Tenant shall request changes (“**Changes**”), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a “**Change Request**”), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant’s Representative. Landlord shall review and approve or disapprove such Change Request within 10 business days thereafter, provided that Landlord’s approval shall not be unreasonably withheld, conditioned or delayed.

(b) **Implementation of Changes.** If Landlord approves such Change, Tenant may cause the approved Change to be instituted. If any TI Permit modification or change is required as a result of such Change, Tenant shall promptly provide Landlord with a copy of such TI Permit modification or change.

5. **Costs.**

(a) **Budget For Tenant Improvements.** Before the commencement of construction of the Tenant Improvements, Tenant shall obtain a detailed breakdown, by trade, of the costs incurred or that will be incurred, in connection with the design and construction of The Tenant Improvements (the “**Budget**”), and deliver a copy of the Budget to Landlord for Landlord’s approval, which shall not be unreasonably withheld or delayed. The Budget shall be based upon the TI Construction Drawings approved by Landlord and shall include a payment to Landlord of administrative rent (“**Administrative Rent**”) equal to 1% of the TI Costs (as hereinafter defined) for monitoring and inspecting the construction of the Tenant Improvements, which sum shall be payable from the TI Allowance. Such Administrative Rent shall include, without limitation, all out-of-pocket costs, expenses and fees incurred by or on behalf of Landlord arising from, out of, or in connection with, such monitoring of the construction of the Tenant Improvements, and shall be payable out of the TI Allowance.

(b) **TI Allowance.** Landlord shall provide to Tenant a tenant improvement allowance (collectively, the “**TI Allowance**”) as follows:

1. a “**Tenant Improvement Allowance**” in the maximum amount of \$15.00 per rentable square foot in the Premises (including the Expansion Premises), or \$726,075 in the aggregate, which is included in the Base Rent set forth in the Lease; and

2. an “**Additional Tenant Improvement Allowance**” in the maximum amount of \$10.00 per rentable square foot in the Premises (including the Expansion Premises, or \$484,050 in the aggregate, which shall, to the extent used, result in TI Rent as set forth in the Second Amendment.

The TI Allowance shall be disbursed in accordance with this Work Letter. Tenant shall have no right to the use or benefit (except as provided below with respect to the Tenant Improvement Allowance) of any portion of the TI Allowance not required for the construction of (i) the Tenant Improvements described in the TI Construction Drawings approved pursuant to Section 2(d) or (ii) any Changes pursuant to Section 4. Except as provided in the immediately following sentence, Tenant shall have no right to any portion of the TI Allowance that is not disbursed before the last day of the month that is 12 months after the Expansion Premises Commencement Date. Following such 12 month period, any portion of the Tenant Improvement Allowance remaining unused shall be applied to Base Rent coming due in the immediately following 6 month period pursuant to a schedule reasonably acceptable to Landlord and Tenant until such unused portion of the Tenant Improvement Allowance has been exhausted.

(c) **Costs Includable in TI Allowance.** The **TI Allowance** shall be used solely for the payment of design, permits and construction costs in connection with the construction of the Tenant Improvements, including, without limitation, the cost of electrical power and other utilities used in connection with the construction of the Tenant Improvements, the cost of preparing the TI Design Drawings and the TI Construction Drawings, all costs set forth in the Budget, including Landlord’s Administrative Rent, and the cost of Changes (collectively, “**TI Costs**”). Notwithstanding anything to the contrary contained herein, the **TI Allowance** shall not be used to purchase any furniture, personal property or other non-Building system materials or equipment, including, but not be limited to, Tenant’s voice or data cabling, non-ducted biological safety cabinets and other scientific equipment not incorporated into the Tenant Improvements.

(d) **Excess TI Costs.** Landlord shall have no obligation to bear any portion of the cost of any of the Tenant Improvements except to the extent of the TI Allowance. If at any time and from time-to-time, the remaining TI Costs under the Budget exceed the remaining unexpended TI Allowance (the “**Excess TI Costs**”), Tenant shall directly pay, without any right to reimbursement from Landlord, any necessary funds to cover such Excess TI Costs, and Tenant shall deliver evidence of such payment to Landlord, before any initial or further TI Allowance is utilized for the Tenant Improvements. Notwithstanding anything to the contrary set forth in this Section 5(d), Tenant shall be fully and solely liable for TI Costs and the cost of Minor Variations in excess of the TI Allowance.

(e) **Payment for TI Costs.** During the course of design and construction of the Tenant Improvements, Landlord shall reimburse Tenant for TI Costs once a month against a draw request in Landlord’s standard form, containing evidence of payment of such TI Costs by Tenant and such certifications, lien waivers (including a conditional lien release for each progress payment and unconditional lien releases for the prior month’s progress payments), inspection reports and other matters as Landlord customarily obtains, to the extent of Landlord’s approval thereof for payment, no later than 30 days following receipt of such draw request. Upon completion of the Tenant Improvements (and prior to any final disbursement of the TI Allowance), Tenant shall deliver to Landlord: (i) sworn statements setting forth the names of all contractors and first tier subcontractors who did the work and final, unconditional lien waivers from all such contractors and first tier subcontractors; (ii) as-built plans (one copy in print format and two copies in electronic CAD format) for such Tenant Improvements; (iii) a certification of substantial completion in Form AIA G704, (iv) a certificate of occupancy for the Premises; and (v) copies of all operation and maintenance manuals and warranties affecting the Premises. Notwithstanding anything to the contrary contained herein, Tenant shall at all times have not less than a 10% retainage with respect to its general contractor for the Tenant Improvements and as a condition to payment of any draw requests Landlord shall be entitled to confirm that the percentage of work completed is consistent with the percentage of payment then being sought.

6. **Miscellaneous.**

(a) **Consents.** Whenever consent or approval of either party is required under this Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, except as may be expressly set forth herein to the contrary.

(b) **Modification.** No modification, waiver or amendment of this Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

(c) **Tenant Improvements.** The construction by Tenant of the Tenant Improvements shall be governed by this Work Letter and the provisions of Section 12 of the Lease shall not apply thereto.

Schedule 1

Description of Tenant Improvements

Suite 100

- Note 1: Add a wall mounted pass through in room 204A. (TBD)
- Note 2: Add door between room 205A and 207. (TBD)
- Note 3: Remove door and wall off. (TBD)
- Note 4: Add sink, sink will be relocated from room 211. (TBD)
- Note 5: Add new ceiling grid and lights in training room 201. Add power and data outlets in multiple locations in floor. (TBD)
- Add power and data to conference room floors. (TBD)
- Add or relocate 3 card readers on the first floor.

Suite 371

- Note 1: Remove door and wall off. (at move in)
- Note 2: Remove sprinkler system in room 359 and demo walls (at move in)
- Note 3: Remove small offices and replace with cubicles.
- Note 4: Build additional lab space by removing (2) offices, (1) file storage, (1) conference room.
- Note 5: Add new egress door for Achaogen using door from note 1. Door will open into alcove in front of service elevator.
- Add or relocate 2 card readers on the third floor.

(continued on next page)

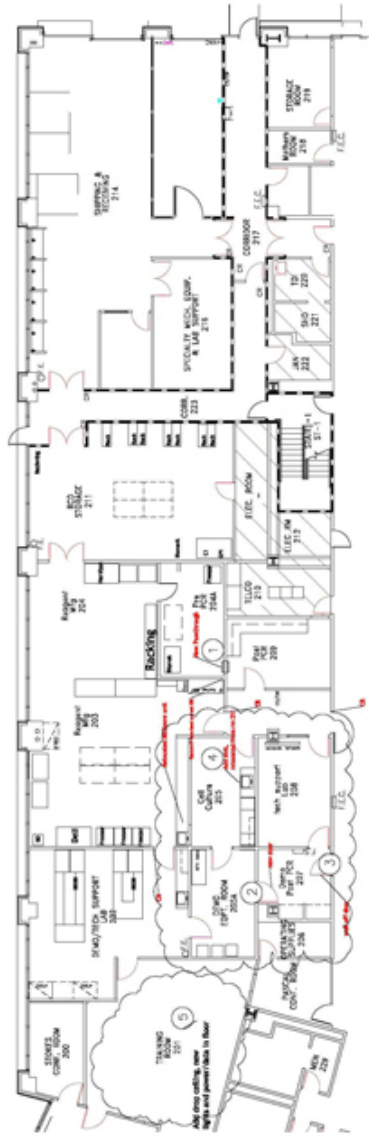
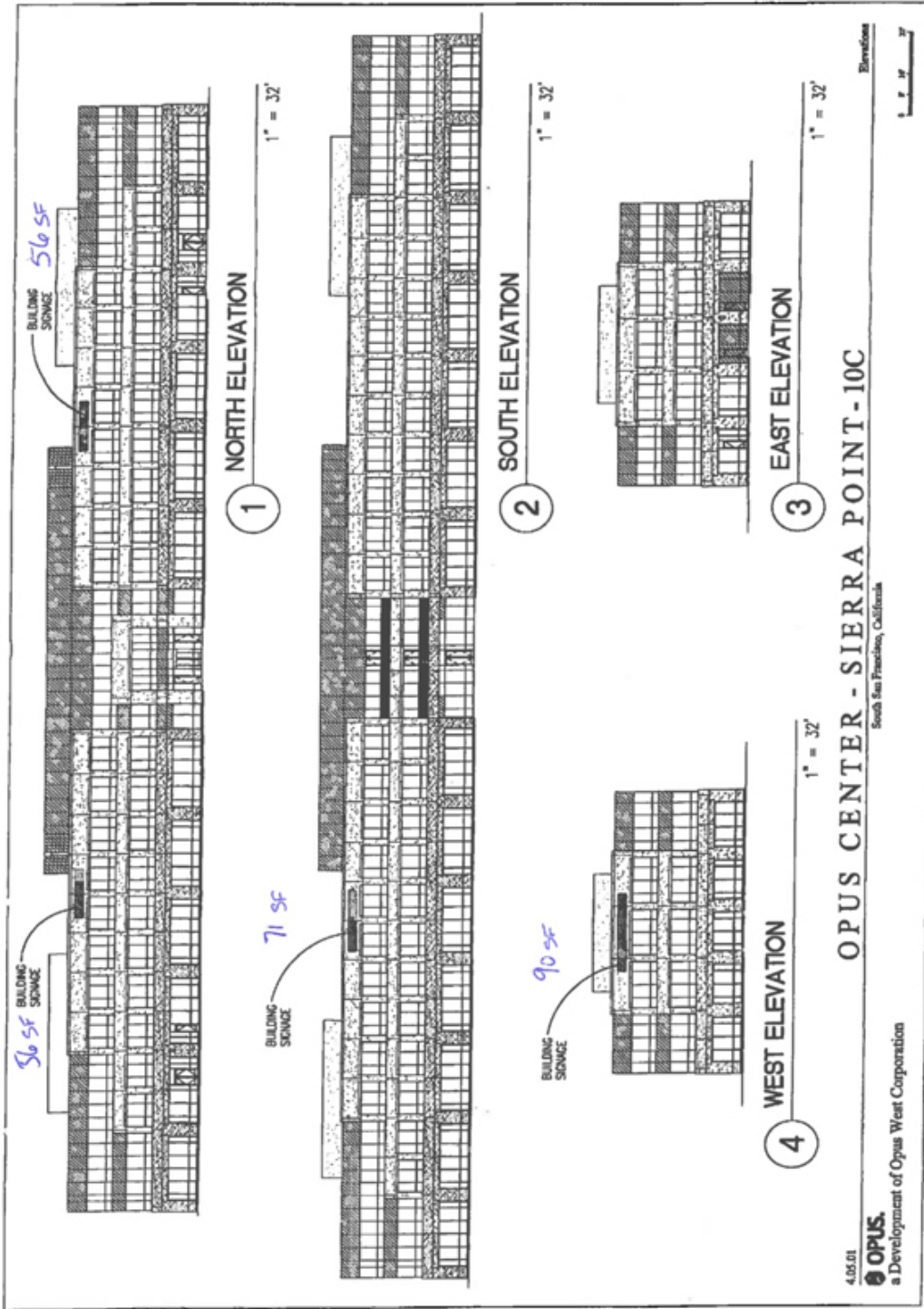


EXHIBIT D

Signage Location



**CERTIFICATION OF THE PRESIDENT AND CHIEF EXECUTIVE OFFICER
PURSUANT TO SECURITIES EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Gajus V. Worthington, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Fluidigm Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 9, 2013

By: /s/ Gajus V. Worthington
Gajus V. Worthington
President and Chief Executive Officer

**CERTIFICATION OF THE CHIEF FINANCIAL OFFICER
PURSUANT TO SECURITIES EXCHANGE ACT RULES 13a-14(a) AND 15d-14(a),
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Vikram Jog, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Fluidigm Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: May 9, 2013

By: /s/ Vikram Jog
Vikram Jog
Chief Financial Officer

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

I, Gajus V. Worthington, the chief executive officer of Fluidigm Corporation (the "Company"), certify for the purposes of 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge,

(i) the Quarterly Report of the Company on Form 10-Q for the quarter ended March 31, 2013 (the "Report"), fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Gajus V. Worthington
Gajus V. Worthington
President and Chief Executive Officer

Date: May 9, 2013

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

I, Vikram Jog, the chief financial officer of Fluidigm Corporation (the "Company"), certify for the purposes of 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my knowledge,

(i) the Quarterly Report of the Company on Form 10-Q for the quarter ended March 31, 2013 (the "Report"), fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Vikram Jog
Vikram Jog
Chief Financial Officer

Date: May 9, 2013