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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 June 30, 2012

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	**77-0513190**
(State or other jurisdiction of incorporation or organization)	**(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 July 31, 2012, there were 20,652,098 shares of the Registrant's common stock outstanding.

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FLUIDIGM CORPORATION

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

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

	June 30, 2012 (Unaudited)	December 31, 2011 (Note 2)
ASSETS		
Current assets:		
Cash and cash equivalents	$ 9,854	$ 13,553
Short-term investments	28,018	39,914
Accounts receivable (net of allowances of $375 and $366 at June 30, 2012 and December 31, 2011, respectively)	9,612	9,253
Inventories	6,610	5,970
Prepaid expenses and other current assets	1,603	1,343
Total current assets	55,697	70,033
Long-term investments	1,001	1,500
Property and equipment, net	4,024	3,256
Other non-current assets	4,210	4,537
Total assets	$ 64,932	$ 79,326
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 3,295	$ 4,010
Accrued compensation and related benefits	2,088	2,442
Other accrued liabilities	2,947	2,787
Deferred revenue, current portion	1,733	2,011
Long-term debt, current portion	2,828	8,921
Line of credit	1,875	0
Total current liabilities	14,766	20,171
Long-term debt, net of current portion	0	1,217
Deferred revenue, net of current portion	944	667
Other non-current liabilities	302	374
Total liabilities	16,012	22,429
Commitments and contingencies		
Stockholders' equity:		
Common stock: $0.001 par value, 200,000 shares authorized at June 30, 2012 and December 31, 2011; 20,633 and 20,231 shares issued and outstanding as of June 30, 2012 and December 31, 2011, respectively	21	20
Additional paid-in capital	282,748	279,428
Accumulated other comprehensive loss	(782)	(754)
Accumulated deficit	(233,067)	(221,797)
Total stockholders' equity	48,920	56,897
Total liabilities and stockholders' equity	$ 64,932	$ 79,326

See accompanying notes.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2012	2011	2012	2011
Revenue:				
Product revenue	$ 12,768	$ 9,711	$ 23,524	$ 18,123
License and collaboration revenue	15	754	38	921
Grant revenue	165	111	331	229
Total revenue	12,948	10,576	23,893	19,273
Costs and expenses:				
Cost of product revenue	3,926	2,965	7,472	5,878
Research and development	3,987	3,422	8,266	6,642
Selling, general and administrative	9,421	7,843	18,824	15,285
Litigation settlement	0	3,000	0	3,000
Total costs and expenses	17,334	17,230	34,562	30,805
Loss from operations	(4,386)	(6,654)	(10,669)	(11,532)
Interest expense	(202)	(512)	(509)	(2,272)
Loss from changes in the fair value of convertible preferred stock warrants	0	0	0	(1,483)
Gain from extinguishment of convertible preferred stock warrants	0	0	0	765
Other income (expense), net	9	42	(52)	108
Loss before income taxes	(4,579)	(7,124)	(11,230)	(14,414)
Provision for income taxes	(1)	(62)	(40)	(110)
Net loss	(4,580)	(7,186)	(11,270)	(14,524)
Deemed dividend related to the change in conversion rate of Series E convertible preferred stock	0	0	0	(9,900)
Net loss attributed to common stockholders	$ (4,580)	$ (7,186)	$ (11,270)	$ (24,424)
Net loss per share attributed to common stockholders, basic and diluted	$ (0.22)	$ (0.36)	$ (0.55)	$ (1.58)
Shares used in computing net loss per share attributed to common stockholders, basic and diluted	20,544	19,975	20,469	15,464
Comprehensive loss	$ (4,584)	$ (7,171)	$ (11,298)	$ (14,520)

See accompanying notes.

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

	Six Months Ended June 30,	
	2012	2011
Operating activities		
Net loss	$ (11,270)	$ (14,524)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	688	503
Stock-based compensation expense	2,014	1,328
Loss from changes in the fair value of convertible preferred stock warrants	0	1,483
Gain from extinguishment of convertible preferred stock warrants	0	(765)
Write-off of debt discount upon note repayment	0	1,157
Amortization of debt discount and issuance cost	43	122
Loss on disposal of property and equipment	25	0
Changes in assets and liabilities:		
Accounts receivable	(348)	(2,245)
Inventories	(876)	42
Prepaid expenses and other assets	70	174
Accounts payable	(722)	(173)
Deferred revenue	(2)	600
Other liabilities	(265)	(610)
Net cash used in operating activities	(10,643)	(12,908)
Investing activities		
Purchases of investments	(22,365)	(57,712)
Proceeds from sales and maturities of investments	34,760	3,490
Purchases of property and equipment	(1,239)	(714)
Increase in restricted cash	0	(21)
Net cash provided by (used in) investing activities	11,156	(54,957)
Financing activities		
Proceeds from initial public offering, net of issuance costs	0	76,946
Proceeds from exercise of stock options	1,306	242
Proceeds from note	0	5,000
Repayment of note	0	(5,000)
Repayment of long-term debt	(7,353)	(1,831)
Proceeds from line of credit	1,875	0
Repayment of line of credit	0	(3,125)
Net cash (used in) provided by financing activities	(4,172)	72,232
Effect of foreign exchange rate fluctuations on cash and cash equivalents	(40)	39
Net (decrease) increase in cash and cash equivalents	(3,699)	4,406
Cash and cash equivalents at beginning of period	13,553	5,723
Cash and cash equivalents at end of period	$ 9,854	$ 10,129
Non-cash investing and financing activities		
Conversion of convertible preferred stock to common stock upon initial public offering	$ 0	$ 184,550
Issuance of convertible preferred stock warrants in connection with note and warrant agreement and long-term debt	$ 0	$ 1,157
Extinguishment of convertible preferred stock warrants upon initial public offering	$ 0	$ 765
Conversion of convertible preferred stock warrants to common stock warrants	$ 0	$ 1,535
Issuance of common stock in connection with net exercise of convertible preferred stock warrants	$ 0	$ 1,392

See accompanying notes.

FLUIDIGM CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Description of Business

Fluidigm Corporation (we 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 consisting of instruments, including aftermarket instruments and services, and consumables, including chips, assays and other reagents, to leading academic institutions, diagnostic laboratories, and pharmaceutical, biotechnology and agricultural biotechnology (Ag-Bio) companies. Our proprietary microfluidic 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, 2011 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 and six months ended June 30, 2012 are not necessarily indicative of the results to be expected for the year ending December 31, 2012 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, 2011 included in our Annual Report on Form 10-K filed with the SEC.

Amended and Restated Certificate of Incorporation

In January 2011, we amended and restated our Certificate of Incorporation to decrease the conversion price of our Series E convertible preferred stock from $24.22 to $18.63 per share. As a result, we recognized a deemed dividend of $9.9 million, reflecting the fair value of the additional shares of common stock to be issued as a result of the change in conversion price of the Series E convertible preferred stock. The deemed dividend increased the net loss attributed to common stockholders in the calculation of basic and diluted net loss per share.

Initial Public Offering

On February 9, 2011, our registration statement on Form S-1 relating to an initial public offering (IPO) of our common stock was declared effective by the SEC. Upon the closing of our IPO in February 2011, we sold 6,392,083 shares of common stock and received cash proceeds of approximately $77.0 million, net of underwriting discounts, commissions and offering expenses. Concurrently, all outstanding shares of convertible preferred stock converted by their terms into approximately 11,480,000 shares of common stock and the related carrying value of approximately $184.6 million, plus $9.9 million of deemed dividend, was reclassified to common stock and additional paid-in capital.

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

Net Loss per Share Attributed to Common Stockholders

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

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2012	2011	2012	2011
Options to purchase common stock	3,125	2,314	3,125	2,229

Comprehensive Loss

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

In 2011, the Financial Accounting Standards Board amended guidance requiring companies to present the components of other comprehensive income (OCI) either in a single continuous statement of comprehensive income, or in two separate but consecutive statements of net income and other comprehensive income. We adopted this guidance on January 1, 2012 and elected to disclose the components of OCI in a single continuous statement during interim reporting periods.

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. No such amounts are accrued at June 30, 2012.

3. License, Collaboration and Grant Agreements

License Agreements

On June 30, 2011, we settled certain litigation and entered into a series of patent license agreements with Life Technologies Corporation and its subsidiary, Applied Biosystems, LLC (collectively, Life). These agreements settled litigation filed by us against Life on June 29, 2011 in United States District Court for the Northern District of California and litigation filed by Life against us on June 29, 2011 in United States District Court for the District of Delaware. The agreements resulted in a net $3.0 million payment by us to Life, which was recognized as a litigation settlement expense in our June 30, 2011 condensed consolidated statement of operations because the amount paid by us was principally attributable to resolving Life’s litigation claims with respect to a specific expiring U.S. patent and its foreign counterparts. The agreements also provide for various royalty payments on future sales of certain products by each of the parties. Such royalty payments or receipts have not been and are not expected to be material to us.

Under the terms of the agreements, each party had the option, exercisable for thirty days from the date of the agreements, to limit or preclude certain patent litigation between the parties for a period of two to four years. These rights were subject to certain exceptions and required an additional payment by the party exercising the option at the time of exercise. In July 2011, we exercised our option and paid Life $2.0 million. As a result, subject to certain exceptions, Life may not initiate litigation under its patents existing as of June 30, 2011 against our customers for a period of two years and against us, with respect to our current products and equivalent future products, for a period of four years. The additional payment was included in other assets and is being amortized to selling, general and administrative expense over four years on a straight-line basis beginning in July 2011. The additional payment is being amortized to selling, general and administrative expense because it precludes Life from initiating litigation for a period of four years under its relevant patents for any alleged prior and future infringement by us, and because such preclusion relates to our equivalent future products. Life elected not to exercise its option.

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

In May 2011, we entered into an agreement with Caliper Life Sciences, Inc., which subsequently became a PerkinElmer company (Caliper), to license Caliper's existing patent portfolio in certain fields, including non-invasive prenatal diagnostics, and obtained an option to extend this license to cover additional fields. Additional payments are due if we exercise our option to extend the license. Under this agreement, we made an up-front payment of $0.6 million and our obligation to pay royalties to Caliper commenced in January 2012. In August 2011, we entered into an amendment to the agreement with Caliper and made an additional up-front payment of $0.5 million. Pursuant to the amendment, the rates for royalties payable to Caliper were substantially reduced and the period for which we are obligated to make royalty payments was shortened, with the last payment due in mid-2018 for our existing products at the time of amendment and their future equivalents. If any of our future products are determined to infringe Caliper's patents, the same reduced royalty rates will apply until the respective patents expire. The aggregate $1.1 million of payments to Caliper are being amortized to cost of product revenue on a straight-line basis through July 2018, when our royalty payment obligations are expected to terminate based upon our current products.

Collaboration Agreement

In May 2010, we entered into a collaboration agreement with Novartis Vaccines & Diagnostics, Inc. (Novartis V&D) to develop a new product and received an up-front payment of $0.7 million. Additionally, the collaboration agreement provided for payments to us upon the achievement of multiple defined milestones related to the design and development of product prototypes. The agreement set forth a detailed scope of work, tasks and metrics for each milestone. These product prototypes had not been previously produced by us and the achievement of these and other future milestones was uncertain at the time we entered into the collaboration agreement. We considered each of the milestones to be substantive and, accordingly, we recognized payments received from meeting such milestones as revenue, when each milestone was achieved.

In March 2011, we entered into an amendment to the collaboration agreement and received an additional $0.3 million. Under the amendment, certain milestones were modified and payment terms associated with satisfaction of the milestones were revised. All of our performance obligations under this agreement were satisfied as of December 31, 2011 and there are no other agreements with potential future milestones.

Pursuant to the collaboration agreement, we granted an option to Novartis V&D to exclusively license our technology in specific areas of prenatal health and diagnostics. The collaboration agreement specifically provided that it would automatically terminate if the option was not exercised on or before April 30, 2012. The option expired unexercised on April 30, 2012 and the collaboration agreement terminated in accordance with its terms, effective May 1, 2012.

Grant Agreement

In April 2009, we were awarded a grant from the California Institute for Regenerative Medicine (CIRM) in the amount of $0.8 million to be earned over a two-year period. Under the grant, we designed and developed prototype microfluidic systems for use in stem cell research. The final payment under this grant was received in September 2011. In May 2011, we were awarded a second grant from CIRM in the amount of $1.9 million to be earned over a three-year period. Under this grant, we continue to design and develop prototype microfluidic systems for use in stem cell research. The CIRM grant revenue is recognized as the related research and development services are performed, and costs associated with the grant were recognized as research and development expense during the period incurred.

4. Inventories

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

	June 30, 2012	December 31, 2011
Raw materials	$3,262	$ 2,396
Work-in-process	1,029	1,009
Finished goods	2,319	2,565
	$6,610	$ 5,970

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

5. Fair Value of Financial Instruments

Our financial instruments consist principally of cash and cash equivalents, investments, accounts receivable, accounts payable and long-term debt. Our cash equivalents, accounts receivable and accounts payable have short maturities or repayment periods. Accordingly, their carrying values approximated their fair values. Our long-term debt had a fair value of approximately $2.9 million and $10.6 million at June 30, 2012 and December 31, 2011, respectively, which was determined using a model that discounts the contractual cash flows using a market rate of interest for an equivalent borrowing at the reporting date. 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 of these models include recently executed transaction prices for our investment securities or the securities of comparable issuers and yield curves. The fair value of our long-term debt is determined by using Level III inputs as described above. Our convertible preferred stock warrants are valued using Level III inputs, the valuation of which is discussed in Note 9. The following table sets forth our financial instruments that were measured at fair value by level within the fair value hierarchy (in thousands):

	June 30, 2012				December 31, 2011			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Assets								
Money market funds	$ 14	$ 0	$ 0	$ 14	$1,799	$ 0	$ 0	$ 1,799
U.S. government and agency securities	0	29,019	0	29,019	0	41,414	0	41,414
Total assets measured at fair value	$ 14	$29,019	$ 0	$29,033	$1,799	$41,414	$ 0	$43,213

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

Upon the closing of our IPO, then outstanding convertible preferred stock warrants were net exercised, converted into warrants to purchase common stock or expired unexercised. We did not have any outstanding convertible preferred stock warrants in 2012. Changes in the value of convertible preferred stock warrants as of June 30, 2011 were as follows (in thousands):

Fair value as of December 31, 2010	$ 1,052
Issuances	1,157
Exercises	(1,392)
Changes in fair value	1,483
Extinguishment of convertible preferred stock warrants	(765)
Conversion to common stock warrants	(1,535)
Fair value as of June 30, 2011	$ 0

The following is a summary of investments at June 30, 2012 (in thousands):

	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
U.S. government and agency securities	$ 29,022	$ 2	$ (5)	$ 29,019

The contractual maturity dates of $28.0 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):

	June 30, 2012	December 31, 2011
Cash	$ 9,840	$ 11,754
Money market funds	14	1,799
Cash and cash equivalents	$ 9,854	$ 13,553

6. Note and Warrant Purchase Agreement 2011

In January 2011, we entered into a note and warrant purchase agreement (the Note Agreement) with existing stockholders, including certain of our officers and directors, under which we issued subordinated secured promissory notes (the Notes) with an aggregate principal amount of $5.0 million bearing interest at a rate of 8% per year. Our obligations under the Notes were secured by our assets, excluding intellectual property, and were subordinated to senior indebtedness under the Loan Agreement (see Note 7) and the Line of Credit (see Note 8). Notes issued under the Note Agreement matured on the earliest to occur of the closing of the next financing in which we issued and sold shares of capital stock of least $25.0 million, a change of control as defined in the Note Agreement, or January 6, 2012 (the maturity date). In connection with the Note Agreement, we issued warrants to acquire a total of 103,182 shares of Series E-1 convertible preferred stock at $0.02 per share. The fair value of these warrants, based on a contemporaneous valuation, was $1.2 million and was recognized as an original issue discount amortizable over the expected life of the borrowing. As a result of our IPO in February 2011, the warrants were net exercised for 103,182 shares of our common stock and we repaid all principal and interest outstanding under these Notes in February and March 2011. Upon repayment of the Notes, the unamortized discount of $1.2 million was immediately recognized as interest expense.

7. 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). In connection with the Loan Agreement, we issued warrants to purchase a total of 209,960 shares of our convertible preferred stock to the lender. 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. As of June 30, 2012, the outstanding balance under the Loan Agreement was $2.8 million, all of which is classified as current on our condensed consolidated balance sheet at June 30, 2012. Upon the closing of our IPO in February 2011, the warrants to purchase 209,960 shares of our convertible preferred

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

stock that were held by the lender were converted to warrants to purchase shares of common stock. In July 2011, the lender net exercised these warrants at an exercise price of $12.11 per share and was issued 70,731 shares of common stock. As of June 30, 2012, we were in compliance with our loan covenants under this agreement.

8. Line of Credit

In December 2010, we entered into a two-year bank line of credit agreement (as amended, the Line of Credit), that is collateralized by our accounts receivable. The Line of Credit provides us with the ability to borrow up to $7.0 million, subject to certain covenants and other restrictions, and bears interest at a rate of the greater of (i) 4.25% or (ii) the prime rate, as defined in the Line of Credit, plus 1.00% per year. At June 30, 2012, the effective rate of interest on the Line of Credit was 5.50% and the outstanding balance was $1.9 million. There was no outstanding balance under the Line of Credit at December 31, 2011. As of June 30, 2012, we were in compliance with our covenants under this agreement.

9. Convertible Preferred Stock Warrants

On February 10, 2011, we had outstanding warrants to purchase 489,880 shares of our convertible preferred stock that had been granted at various times since 2001. Warrants to purchase our convertible preferred stock were recognized at fair value using the Black-Scholes option pricing model and classified as liabilities because the warrants may have conditionally obligated us to transfer assets at some point in the future. The warrants were subject to remeasurement to fair value at each balance sheet date, and any change in fair value was recognized in the condensed consolidated statements of operations and comprehensive loss as loss from changes in the fair value of convertible preferred stock warrants. The fair value of these warrants was approximately $3.7 million at February 10, 2011, which was an increase in fair value of approximately $1.5 million since December 31, 2010. Upon the closing of our IPO, warrants for approximately 103,182 shares of our convertible preferred stock were net exercised and the related liability of $1.4 million was reclassified to additional paid-in capital; warrants to purchase 209,960 shares of our convertible preferred stock were converted into warrants to purchase common stock and the related liability of $1.5 million was reclassified to additional paid-in capital; and the remaining warrants to purchase 176,738 shares of our convertible preferred stock expired unexercised and the related liability of $0.8 million was recognized as gain from extinguishment of convertible preferred stock warrants.

10. Stock-Based Compensation

During the three months ended June 30, 2012, we granted to certain employees options to purchase 110,000 shares of common stock. During the six months ended June 30, 2012, we granted to certain employees options to purchase 988,000 shares of common stock. Of these options, options to purchase 68,000 shares were granted with exercise prices ranging from $13.68 to $14.00 per share, options to purchase 463,000 shares were granted with exercise prices ranging from $14.42 to $14.87 per share, options to purchase 421,000 shares were granted with exercise prices ranging from $15.04 to $15.49 per share, and the remainder of the options were granted with exercise prices ranging from $15.61 to $15.73 per share. These options had a total grant date fair value of $7.9 million that will be recognized as expense over their respective four-year vesting periods.

The computation of the fair value of stock options and other equity instruments using the Black-Scholes option pricing model requires inputs such as the fair value of our common stock. For options granted prior to our IPO in February 2011, we performed contemporaneous valuations to determine the fair value of our common stock.

We recognized stock-based compensation expense of $1.1 million and $0.5 million during the three months ended June 30, 2012 and 2011, respectively. During the six months ended June 30, 2012 and 2011, we recognized stock-based compensation of $2.0 million and $1.3 million, respectively. As of June 30, 2012, we had $11.7 million of unrecognized stock-based compensation costs, which is expected to be recognized over a weighted average period of 3.13 years.

11. 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.

12. 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 chips, assays and other reagents, for the life science and Ag-Bio industries.

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

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 June 30,		Six Months Ended June 30,	
	2012	2011	2012	2011
United States	$ 6,499	$ 5,164	$ 12,311	$ 9,306
Europe	2,841	2,408	5,409	4,555
Asia-Pacific	2,021	667	3,216	1,650
Japan	998	1,287	1,989	2,187
Other	409	185	599	425
Total	$ 12,768	$ 9,711	$ 23,524	$ 18,123

Our license and collaboration revenue is primarily generated in the United States and grant revenue is generated in Singapore and 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 sections 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, 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," "C_1," "EP1," "Dynamic Array," "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 for growth markets in the life science and agricultural biotechnology, or Ag-Bio, industries. Our proprietary microfluidic systems consist of instruments and consumables, including chips, assays and other reagents. 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 actively market four microfluidic systems, including nine different commercial chips for nucleic acid research and three families of assays, to leading academic institutions, diagnostic laboratories, and pharmaceutical, biotechnology and Ag-Bio companies. We have sold over 565 systems to customers in over 25 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 SNP genotyping and digital PCR in 2008, our Access Array system for target enrichment in 2009, our BioMark HD real-time PCR system for high-throughput gene expression analysis, single-cell analysis, single nucleotide polymorphism, or SNP, genotyping and digital PCR in 2011, and our C_1 Single-Cell AutoPrep system for single-cell analysis in June 2012. In addition, in May 2011, we launched our assay and reagent products, including our DELTAgene assays for gene expression, including single-cell analysis, our SNPtype assays for SNP genotyping, and our Access Array Target-Specific primers for next generation DNA sequencing. Our systems utilize one or more chips 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 chips for commercial sale and for our research and development purposes. Our South San Francisco facility fabricates chips for our research and development purposes and manufactures our assays and produces other reagents for commercial sale.

Our total revenue grew from $25.4 million in 2009 to $42.9 million in 2011, and for the six months ended June 30, 2012, our total revenue was $23.9 million. We have incurred significant net losses since our inception in 1999 and, as of June 30, 2012, our accumulated deficit was $233.1 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 and six months ended June 30, 2012 compared to those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2011, as filed with the SEC on March 26, 2012.

Results of Operation

Revenue

We generate revenue from sales of our products, license and collaboration agreements and government grants. Our product revenue consists of sales of instruments, including aftermarket instruments and services, and consumables, including chips, assays and other reagents. We have also entered into license and collaboration agreements and research and development contracts, 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 June 30,		Six Months Ended June 30,	
	2012	2011	2012	2011
Revenue:				
Instruments	$ 6,898	$ 6,434	$ 12,798	$ 11,391
Consumables	5,870	3,277	10,726	6,732
Product revenue	12,768	9,711	23,524	18,123
License and collaboration revenue	15	754	38	921
Grant revenue	165	111	331	229
Total revenue	$ 12,948	$ 10,576	$ 23,893	$ 19,273

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 June 30,				Six Months Ended June 30,			
	2012		2011		2012		2011	
United States	$ 6,499	51%	$5,164	53%	$12,311	52%	$ 9,306	51%
Europe	2,841	22%	2,408	25%	5,409	23%	4,555	25%
Asia-Pacific	2,021	16%	667	7%	3,216	14%	1,650	9%
Japan	998	8%	1,287	13%	1,989	8%	2,187	12%
Other	409	3%	185	2%	599	3%	425	3%
Total	$12,768	100%	$9,711	100%	$23,524	100%	$18,123	100%

Our customers include academic research institutions, diagnostic laboratories, and pharmaceutical, biotechnology and Ag-Bio companies worldwide. Total revenue from our five largest customers in each of the periods presented, respectively, comprised 25% and 21% of our total revenue in the three and six months ended June 30, 2012, respectively, and 16% and 12% of our total revenue for the three and six months ended June 30, 2011, respectively. As we expand our business internationally, we expect our product revenue from outside of the United States to increase as a percentage of our total product revenue.

Comparison of the Three Months Ended June 30, 2012 and June 30, 2011

Total Revenue

Total revenue increased by $2.4 million, or 22%, to $12.9 million for the three months ended June 30, 2012 compared to $10.6 million for the three months ended June 30, 2011.

Product Revenue

Product revenue increased by $3.1 million, or 31%, to $12.8 million for the three months ended June 30, 2012 compared to $9.7 million for the three months ended June 30, 2011. Consumables revenue increased by $2.6 million, or 79%, primarily due to increased sales of production genotyping chips, particularly the 96.96 Dynamic Array. Increased sales of gene expression and Access Array chips, and assays, also contributed to our overall consumables revenue growth. Chip sales growth was driven both by the increase in analytical chip pull-through and the increase in the installed base of instrument systems. Instrument revenue increased by $0.5 million, or 7%, due to increased sales of our analytical systems, primarily driven by increased unit sales of our BioMark HD system, which has a higher average selling price compared to our other systems. Increased service revenue and sales of aftermarket instruments also contributed to the growth in instrument revenue. The increase in analytical instrument revenue was offset by lower unit sales of Access Array systems, and to a much lesser extent lower average selling price of the BioMark HD system.

We expect 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.

License and Collaboration Revenue

License and collaboration revenue was $15,000 for the three months ended June 30, 2012 compared to $0.8 million for the three months ended June 30, 2011. In May 2010, we entered into a collaboration agreement with Novartis Vaccines & Diagnostics, Inc., or Novartis V&D, which provided us with milestone payments for the design and development of product prototypes. All of our performance obligations under this agreement were satisfied as of December 31, 2011, which resulted in the decrease in license and collaboration revenue in the three months ended June 30, 2012 compared to the same period in 2011.

Pursuant to the collaboration agreement, we granted an option to Novartis V&D to exclusively license our technology in specific areas of prenatal health and diagnostics. The collaboration agreement specifically provided that it would automatically terminate if the option was not exercised on or before April 30, 2012. The option expired unexercised on April 30, 2012 and the collaboration agreement terminated in accordance with its terms, effective May 1, 2012.

Grant Revenue

Grant revenue consists of a grant from California Institute for Regenerative Medicine, or CIRM, and an incentive grant from Singapore Economic Development Board, or EDB. Our first CIRM grant was awarded in 2009 in the amount of $0.8 million to be earned over a two-year period. Our second 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 increased $54,000, or 49%, to $165,000 for the three months ended June 30, 2012 compared to $111,000 for the three months ended June 30, 2011. The increase is due to the revenue earned under the second CIRM grant. We did not have any revenue from the EDB grants in the three months ended June 30, 2012 as the grant agreement with the EDB was completed in May 2011. Based on correspondence with EDB, we believe we have satisfied our obligations applicable to our EDB grant revenue through June 30, 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 June 30,	
	2012	2011
Cost of product revenue	$3,926	$2,965
Product margin	69%	69%

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

Cost of product revenue increased $1.0 million, or 32%, to $3.9 million for the three months ended June 30, 2012 from $3.0 million for the three months ended June 30, 2011 due to increased product sales. Cost of product revenue as a percentage of related revenue was consistent at 31% for the three months ended June 30, 2012 and June 30, 2011. This was due to higher product mix of higher margin consumables relative to instrument systems; lower chip manufacturing costs due to increased production and chip yield improvements; and lower chip replacement costs. This was offset by higher instrument costs due to lower unit production volume.

Operating Expenses

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

	Three Months Ended June 30,	
	2012	2011
Research and development	$ 3,987	$ 3,422
Selling, general and administrative	9,421	7,843
Litigation settlement	—	3,000
Total operating expenses	$13,408	$14,265

Research and Development

Research and development expense consists primarily of personnel costs, independent contractor costs, prototype and material expenses and other allocated facilities and information technology expenses. We have made substantial investments in research and development since our inception.

Research and development expense was $4.0 million for the three months ended June 30, 2012, an increase of $0.6 million, or 17%, compared to $3.4 million for the three months ended June 30, 2011. The increase in research and development expense was primarily due to an increase in compensation costs and related expenses, including stock-based compensation, of $0.4 million, and lab supplies and equipment costs of $0.2 million, compared to the three months ended June 30, 2011. These increased costs were in support of 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 $1.6 million, or 20%, to $9.4 million for the three months ended June 30, 2012 compared to $7.8 million for the three months ended June 30, 2011. The increase as compared to the three months ended June 30, 2011 was primarily due to an increase in compensation costs and related expenses, including stock-based compensation, of $0.8 million, an increase in sales and marketing activities of $0.3 million, an increase in recruiting and consulting of $0.2 million, and an increase in other costs of $0.1 million. The increase in selling, general and administrative expenses was driven by costs related to being a public company, and expansion of our worldwide commercial capabilities 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 expanded global footprint and the overall growth in our business.

Litigation Settlement

On June 30, 2011, we settled certain litigation and entered into a series of patent license agreements resulting in a net $3.0 million payment by us to Life Technologies and its subsidiary, Applied Biosystems, LLC, referred to collectively as Life. The payment was recognized as litigation settlement expense in our June 30, 2011 condensed consolidated statement of operations because the amount paid by us was principally attributable to resolving Life's litigation claims with respect to a specific expiring U.S. patent and its foreign counterparts.

Under the terms of the agreements, each party had the option, exercisable for thirty days from the date of the agreements, to limit or preclude certain patent litigation between the parties over a period of two to four years. These rights were subject to certain exceptions and required an additional payment by the party exercising the option at the time of exercise. In July 2011, we exercised our option and paid Life $2.0 million. As a result, subject to certain exceptions, Life may not initiate litigation under its patents existing as of June 30, 2011 against our customers for a period of two years and against us, with respect to our current products and equivalent future products, for a period of four years. The additional payment was recorded in other assets and is being amortized to selling, general and administrative expense over four years on a straight-line basis beginning in July 2011. The additional payment is being amortized to selling, general and administrative expense because it precludes Life from initiating litigation for a period of four years under its relevant patents for any alleged prior and future infringement by us, and because such preclusion relates to our equivalent future products. Life elected not to exercise its option.

We had no similar settlement in the three months ended June 30, 2012.

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

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

	Three Months Ended June 30,	
	2012	2011
Interest expense	$ (202)	$ (512)
Other income, net	9	42

Interest expense decreased $0.3 million, or 61%, to $0.2 million for the three months ended June 30, 2012 compared to $0.5 million for the three months ended June 30, 2011. The decrease is primarily due to the reduction in the principal amount of our long-term debt beginning in March 2011, when we began making principal and interest payments totaling $0.6 million per month and, as required under out loan agreement, we made an additional principal payment of $2.3 million in March 2012. In June 2012, we elected to make another principal payment of $1.9 million using proceeds from our line of credit. We expect interest expense to decrease in 2012 compared to 2011 as we repay our outstanding debt.

Comparison of the Six Months Ended June 30, 2012 and June 30, 2011

Total Revenue

Total revenue increased by $4.6 million, or 24%, to $23.9 million for the six months ended June 30, 2012 compared to $19.3 million for the six months ended June 30, 2011.

Product Revenue

Product revenue increased by $5.4 million, or 30%, to $23.5 million for the six months ended June 30, 2012 compared to $18.1 million for the six months ended June 30, 2011. Consumables revenue increased by $4.0 million, or 59%, primarily due to increased sales of production genotyping chips, particularly the 96.96 Dynamic Array. Increased sales of gene expression and Access Array chips, and assays, also contributed to our overall consumables revenue growth. Chip sales growth was driven both by the increase in analytical chip pull-through and the increase in the installed base of instrument systems. Instrument revenue increased by $1.4 million, or 12%, due to increased sales of our analytical systems, primarily driven by increased unit sales of our BioMark HD system, which has a higher average selling price compared to our other systems. Increased service revenue and sales of aftermarket instruments also contributed to the growth in instrument revenue. The increase in analytical instrument revenue was offset by lower unit sales of Access Array systems, and to a much lesser extent lower average selling price of the BioMark HD system.

We expect 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.

License and Collaboration Revenue

License and collaboration revenue was $38,000 for the six months ended June 30, 2012 compared to $0.9 million for the six months ended June 30, 2011. In May 2010, we entered into a collaboration agreement with Novartis V&D, which provided us with milestone payments for the design and development of product prototypes. All of our performance obligations under this agreement were satisfied as of December 31, 2011, which resulted in the decrease in license and collaboration revenue in the six months ended June 30, 2012 compared to the same period in 2011.

Pursuant to the collaboration agreement, we granted an option to Novartis V&D to exclusively license our technology in specific areas of prenatal health and diagnostics. The collaboration agreement specifically provided that it would automatically terminate if the option was not exercised on or before April 30, 2012. The option expired unexercised on April 30, 2012 and the collaboration agreement terminated in accordance with its terms, effective May 1, 2012.

Grant Revenue

Grant revenue consists of a grant from CIRM and an incentive grant from the EDB. Our first CIRM grant was awarded in 2009 in the amount of $0.8 million to be earned over a two-year period. Our second 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 increased $102,000, or 45%, to $331,000 for the six months ended June 30, 2012 compared to $229,000 for the six months ended June 30, 2011. The increase is due to the revenue earned under the second CIRM grant. We did not have any revenue from the EDB grants in the six months ended June 30, 2012 as the grant agreement with the EDB was completed in May 2011. Based on correspondence with EDB, we believe we have satisfied our obligations applicable to our EDB grant revenue through June 30, 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):

	Six Months Ended June 30,	
	2012	2011
Cost of product revenue	$7,472	$5,878
Product margin	68%	68%

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

Cost of product revenue increased $1.6 million, or 27%, to $7.5 million for the six months ended June 30, 2012 from $5.9 million for the six months ended June 30, 2011 due to increased product sales. Cost of product revenue as a percentage of related revenue was consistent at 32% for the six months ended June 30, 2012 and June 30, 2011. This was due to higher product mix of higher margin consumables relative to instrument systems; lower chip manufacturing costs due to increased production and chip yield improvements; and lower chip replacement costs. This was offset by higher instrument costs due to lower unit production volume and freight costs.

Operating Expenses

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

	Six Months Ended June 30,	
	2012	2011
Research and development	$ 8,266	$ 6,642
Selling, general and administrative	18,824	15,285
Litigation settlement	—	3,000
Total operating expenses	$27,090	$24,927

Research and Development

Research and development expense consists primarily of personnel costs, independent contractor costs, prototype and material expenses and other allocated facilities and information technology expenses. We have made substantial investments in research and development since our inception.

Research and development expense was $8.3 million for the six months ended June 30, 2012, an increase of $1.6 million, or 24%, compared to $6.6 million for the six months ended June 30, 2011. The increase in research and development expense was primarily due to an increase in lab supplies and equipment costs of $0.8 million, and compensation costs and related expenses, including stock-based compensation, of $0.7 million, compared to the six months ended June 30, 2011. These increased costs were in support of 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 $3.5 million, or 23%, to $18.8 million for the six months ended June 30, 2012 compared to $15.3 million for the six months ended June 30, 2011. The increase as compared to the six months ended June 30, 2011 was primarily due to an increase in compensation costs and related expenses, including stock-based compensation, of $2.3 million, an increase in sales and marketing activities of $0.5 million, an increase in recruiting and consulting of $0.5 million, and an increase in other costs of $0.3 million. The increase in selling, general and administrative expenses was driven by costs related to being a public company, and expansion of our worldwide commercial capabilities 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 expanded global footprint and the overall growth in our business.

Litigation Settlement

On June 30, 2011, we settled certain litigation and entered into a series of patent license agreements resulting in a net $3.0 million payment by us to Life. The payment was recognized as litigation settlement expense in our June 30, 2011 condensed consolidated statement of operations because the amount paid by us was principally attributable to resolving Life's litigation claims with respect to a specific expiring U.S. patent and its foreign counterparts.

Under the terms of the agreements, each party had the option, exercisable for thirty days from the date of the agreements, to limit or preclude certain patent litigation between the parties over a period of two to four years. These rights were subject to certain exceptions and required an additional payment by the party exercising the option at the time of exercise. In July 2011, we exercised our option and paid Life $2.0 million. As a result, subject to certain exceptions, Life may not initiate litigation under its patents existing as of June 30, 2011 against our customers for a period of two years and against us, with respect to our current products and equivalent future products, for a period of four years. The additional payment was recorded in other assets and is being amortized to selling, general and administrative expense over four years on a straight-line basis beginning in July 2011. The additional payment is being amortized to selling, general and administrative expense because it precludes Life from initiating litigation for a period of four years under its relevant patents for any alleged prior and future infringement by us, and because such preclusion relates to our equivalent future products. Life elected not to exercise its option.

We had no similar settlement in the six months ended June 30, 2012.

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

We receive interest income from our cash, cash equivalents and investments. Conversely, we incur, or have incurred, interest expense from our long-term debt, bank line of credit and convertible promissory notes, and the amortization of debt discounts related to these items. Until the closing of the initial public offering of our common stock, or IPO, in early 2011, we also recognized income or expense as a result of changes in the fair value of outstanding warrants to purchase shares of our convertible preferred stock. The following table presents these items for each period presented (in thousands):

	Six Months Ended June 30,	
	2012	2011
Interest expense	$(509)	$(2,272)
Loss from changes in the fair value of convertible preferred stock warrants, net	—	(1,483)
Gain from extinguishment of convertible preferred stock warrants	—	765
Other (expense) income, net	(52)	108

Interest expense decreased $1.8 million, or 78%, to $0.5 million for the six months ended June 30, 2012 compared to $2.3 million for the six months ended June 30, 2011. The decrease is primarily due to $1.2 million of non-cash interest expense in connection with a $5.0 million note and warrant agreement entered into in January 2011. We repaid all principal and interest outstanding under the note in February 2011 upon the closing of our IPO. There was no similar transaction or recognition of expense in the six months ended June 30, 2012. The decrease also resulted from a reduction in the principal amount of our long-term debt beginning in March 2011, when we began making principal and interest payments totaling $0.6 million per month. As required under our loan agreement, we made an additional principal payment of $2.3 million in March 2012. In June 2012, we elected to make another principal payment of $1.9 million using proceeds from our line of credit. We expect interest expense to decrease in 2012 compared to 2011 as we repay our outstanding debt.

Prior to our IPO, the convertible preferred stock warrant liability fair value increased resulting in a loss of $1.5 million for the six months ended June 30, 2011. We did not have any outstanding convertible preferred stock warrants during the six months ended June 30, 2012 as all convertible preferred stock warrants were converted into warrants to purchase common stock, expired unexercised, or were exercised for shares of our common stock upon the closing of our IPO in February 2011. Upon the closing of our IPO, liabilities related to the expired warrants were reversed, resulting in a gain of $0.8 million during the six months ended June 30, 2011. Liabilities related to the warrants that were converted into warrants to purchase common stock and warrants that were exercised in connection with our IPO were reclassified to additional paid-in-capital.

Deemed Dividend

In January 2011, we amended and restated our certificate of incorporation to decrease the conversion price of our Series E convertible preferred stock from $24.22 to $18.63 per share. As a result, we recognized a deemed dividend of $9.9 million, reflecting the fair value of the additional shares of common stock to be issued as a result of the change in conversion price of the Series E convertible preferred stock. The deemed dividend increased the net loss attributed to common stockholders in the calculation of basic and diluted net loss per share. There was no similar transaction or deemed dividend in the six months ended June 30, 2012.

Liquidity and Capital Resources

Sources of Liquidity

As of June 30, 2012, we had $9.9 million of cash and cash equivalents and $29.0 million of investments. As of June 30, 2012, our working capital totaled $40.9 million. Our IPO closed in February 2011, which resulted in proceeds to us of approximately $77.0 million, net of underwriting discounts, commissions and offering expenses. Following the closing of our IPO, we paid the balance on our bank line of credit of $3.1 million, which is collateralized by our accounts receivable and provides us the ability to borrow up to $7.0 million, subject to certain covenants and other restrictions, and paid $5.0 million to satisfy all outstanding principal and interest on the notes we issued in January 2011. At June 30, 2012, we had an outstanding obligation of $1.9 million under the line of credit. As of June 30, 2012, we were in compliance with our covenants under the line of credit agreement.

As of June 30, 2012, the outstanding balance under our loan agreement was $2.8 million, all of which is classified as current on our condensed consolidated balance sheet. In March 2011, we began making principal and interest payments totaling $0.6 million per month and, as required under our loan agreement, we made an additional principal payment of $2.3 million in March 2012. In June 2012, we elected to make another principal payment of $1.9 million using proceeds from our line of credit. The loan agreement has a maturity date of February 2013 and bears interest of 13.5% per annum. As of June 30, 2012, we were in compliance with our loan covenants.

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

	Six Months Ended June 30,	
	2012	2011
Cash flow summary		
Net cash used in operating activities	$ (10,643)	$ (12,908)
Net cash provided by (used in) investing activities	11,156	(54,957)
Net cash (used in) provided by financing activities	(4,172)	72,232
Net (decrease) increase in cash and cash equivalents	(3,699)	4,406

Net Cash Used in Operating Activities

We derive cash flows from operations primarily from cash collected from the sale of our products, collaboration and license agreements and grants from certain government entities. Our cash flows from operating activities are also significantly influenced by our use of cash for operating expenses to support the growth of our business. We have historically experienced negative cash flows from operating activities as we have expanded our business and built our infrastructure domestically and internationally, and this may continue in the future.

Net cash used in operating activities was $10.6 million during the six months ended June 30, 2012. Net cash used in operating activities primarily consisted of our net loss of $11.3 million, changes in our operating assets and liabilities in the amount of $2.1 million, offset by non-cash expense items, such as stock-based compensation, of $2.0 million, depreciation and amortization of our property and equipment of $0.7 million, and amortization of debt discounts and issuance costs and loss on disposal of property and equipment of $0.1 million.

Net cash used in operating activities was $12.9 million during the six months ended June 30, 2011. Net cash used in operating activities primarily consisted of our net loss of $14.5 million, changes in our operating assets and liabilities in the amount of $2.2 million, and non-cash expense items, such as stock-based compensation, of $1.3 million, depreciation and amortization of our property and equipment of $0.5 million, loss from changes in the fair value of convertible stock warrants of $1.5 million, gain from extinguishment of convertible preferred stock warrants of $0.8 million, write off of debt discounts upon note repayment of $1.2 million and amortization of debt discount and issuance costs of $0.1 million.

Net Cash Provided by (Used in) Investing Activities

Historically, our primary investing activities have consisted of capital expenditures for laboratory, manufacturing and computer equipment and software to support our expanding infrastructure and work force, and purchases, sales and maturities of our investments. 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 incur costs for capital expenditures for demonstration units and loaner equipment to support our sales and service efforts.

Net cash provided by investing activities was $11.2 million during the six months ended June 30, 2012. Net cash provided by investing activities primarily consisted of proceeds from sales and maturities of investment of $34.8 million, partially offset by purchases of investments of $22.4 million and purchases of capital equipment of $1.2 million to support growth in our commercial and manufacturing operations.

Net cash used in investing activities was $55.0 million during the six months ended June 30, 2011. Net cash used in investing activities primarily related to investment of a portion of the net proceeds from our IPO in investment securities of $54.2 million and for purchases of capital equipment to support our infrastructure and manufacturing operations of $0.7 million.

Net Cash (Used in) Provided by Financing Activities

Prior to our IPO in February 2011, we funded our operations principally through issuances of convertible preferred stock, long-term debt and other borrowings.

Net cash used in financing activities was $4.2 million during the six months ended June 30, 2012 primarily from repayment of principal on our long-term debt of $7.4 million partially offset by proceeds from our line of credit of $1.9 million and proceeds from the exercise of options to purchase our common stock of $1.3 million.

We generated $72.2 million of cash from financing activities during the six months ended June 30, 2011 primarily from our IPO proceeds of approximately $77.0 million, net of underwriting discounts, commissions and offering expenses, and $5.0 million from subordinated secured promissory notes with existing stockholders, partially offset by the pay off of our line of credit balance of $3.1 million, repayment of the outstanding principal and interest on the subordinated secured promissory notes of $5.0 million, and repayment of long-term debt of $1.8 million.

Capital Resources

At June 30, 2012, our working capital was $40.9 million, including cash and cash equivalents and investments of $38.9 million. We have a bank line of credit agreement that is collateralized by our accounts receivable and provides us the ability to draw up to $7.0 million, subject to certain covenants and restrictions. At June 30, 2012, we had an outstanding obligation of $1.9 million under the line of credit. In March 2012, we made a principal payment of $2.3 million on our long-term debt as required under our loan agreement. We made an additional principal payment of $1.9 million in June 2012. During the six months ended June 30, 2012, our payments for capital expenditures were $1.2 million. We are estimating capital expenditures to be higher in 2012 compared to 2011 primarily for research and development equipment to continue our improvements in manufacturing productivity, sales demonstration and loaner equipment to support the growth in our global customer base and a new enterprise resource planning system.

We believe our existing cash and 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 of defending, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights, the cost and timing of regulatory clearances or approvals, if any, the cost and timing of establishing additional sales, marketing and distribution capabilities, the cost and timing of establishing additional technical support capabilities, 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 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.

Off-Balance Sheet Arrangements

As of June 30, 2012, 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

There have been no material changes, outside the ordinary course of business, in our outstanding contractual obligations from those disclosed within “Management’s Discussion and Analysis of Financial Condition and Results of Operations” as contained in our Annual Report on Form 10-K filed with the SEC on March 26, 2012.

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 June 30, 2012 would not be 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 $9.9 million at June 30, 2012. These amounts were held primarily in cash on deposit with banks and money market funds, which are short-term. We had $29.0 million in investments at June 30, 2012 held primarily in U.S. government agency securities. The contractual maturity dates of $28.0 million of our investments are within one year. The contractual maturity dates of our remaining investments are is 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 be materially affected.

As of June 30, 2012, the outstanding principal amount of our long-term debt outstanding was $2.8 million and we had an outstanding obligation of $1.9 million under our bank line of credit. The interest rates on our long-term debt are fixed. If overall interest rates had increased by 10% during the periods presented, our interest expense would not be 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 June 30, 2012. 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 June 30, 2012, 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

During the first quarter of 2012, we began implementation and use of a new Enterprise Resource Planning, or ERP, system for financial reporting and logistics. As a result, our financial and operating transactions utilize the functionality provided by the new ERP system. This new system is not in response to any identified deficiency or weakness in our internal control over financial reporting. The system implementation was designed, in part, to enhance the overall system of internal control over financial reporting through further automation of various business processes. We continued implementation of the ERP system for manufacturing operations through the second quarter of 2012.

There were no other changes in our internal control over financial reporting that occurred during the three months ended June 30, 2012 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.

We are not currently engaged in any material legal proceedings.

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

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 $11.3 million, $22.5 million, $16.9 million and $19.1 million during the six months ended June 30, 2012 and the years 2011, 2010 and 2009, respectively. As of June 30, 2012, we had an accumulated deficit of $233.1 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 the timeline anticipated, 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.

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 analysis, molecular diagnostics, 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 C_1 Single-Cell AutoPrep system in June 2012, which applies our technology to, among other things, improve single-cell analytic workflow for single-cell analysis. The future growth of the single-cell analysis 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 analysis, molecular diagnostics, 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 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. For example, our collaboration agreement with Novartis Vaccines & Diagnostics, Inc., under which we would have applied our technologies in digital PCR to develop potential in-vitro diagnostics applications for the molecular diagnostics market, terminated pursuant to its terms, effective May 1, 2012. With the termination of the collaboration agreement, intellectual property rights in non-invasive prenatal diagnostics and digital PCR, which had been exclusively optioned under the agreement, now revert back to us. Although we can now fully pursue all market opportunities with customers interested in researching and developing products in all fields, including prenatal health and non-invasive prenatal diagnostics, we are evaluating our business plans and strategies, and our entry into the diagnostics market may be delayed, if it occurs at all.

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, diagnostic 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 and Ag-Bio companies that design, manufacture and market instruments and consumables for gene expression analysis, single-cell 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, NanoString Technologies, Inc., PerkinElmer, Inc. (through its acquisition of Caliper Life Sciences, Inc.), RainDance Technologies, Inc., Roche Applied Science (a division of Roche Diagnostics Corporation), Sequenom, Inc. and WaferGen Bio-systems, Inc. have products that compete in certain segments of the market in which we sell our products. In addition, a number of other companies and academic groups are in the process of developing novel technologies for life science markets.

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, any of which 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 chips to academic institutions, diagnostic 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 the resources available to make purchases, the spending priorities among various types of equipment, policies regarding spending during recessionary periods and changes in the political climate. In addition, academic, governmental and other research institutions that fund research and development activities may be subject to stringent budgetary constraints that could result in spending reductions, reduced allocations or budget cutbacks, which could jeopardize the ability of these customers to purchase our 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 chips. 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;
- 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 gene expression analysis, genotyping, digital PCR and single-cell analysis, 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, chips 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 chips 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, chips 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 October 2014 and our current lease for our facilities in South San Francisco expires in April 2015. 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.

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 chips used in our microfluidic systems are fabricated using a specialized polymer that is available from a limited number of sources. In the past, we have encountered quality issues that have reduced our manufacturing yield or required the use of additional manufacturing processes.
- 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.
- The raw materials for our DELTAgene and SNPtype assays and Access Array Target-Specific primers.

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

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

Our 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 2009, 2010 and 2011, 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. 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.

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 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, 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 approval or clearance. Even if we were to obtain regulatory approval or clearance, it may not be for the uses we believe are important or commercially attractive.

Further, 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 the 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.

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;
- 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.

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 molecular diagnostics research and development. Continuation or further deterioration of these financial and macroeconomic conditions could significantly harm our sales, profitability and results of operations.

We 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 June 30, 2012 and the years 2011, 2010 and 2009, approximately 49%, 47%, 45% and 46%, 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;
- 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 October 2014 and our current lease for our facilities in South San Francisco expires in April 2015. 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, chips 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;
- 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, which represented 34% of our product revenue in the three months ended June 30, 2012 and 36% of our product revenue in 2011, 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 chips in May 2011, and we launched our C_1 Single-Cell AutoPrep system 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 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 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. Because we may not be able to utilize a material portion of the NOLs reflected on our balance sheet, we have fully reserved against the value of our NOLs on our balance sheet.

Risks Related to Intellectual Property

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

Our commercial success 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 amd 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 integrated fluidic circuit 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 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 chips, which incorporate technology developed with U.S. government grants. All of our instruments, including microfluidic systems, and chips 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 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 June 30, 2012, we had 20,632,596 shares of common stock outstanding, and stockholders holding at least 5% of our stock, individually or with affiliated entities, collectively beneficially owned or controlled approximately 42.2% 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 molecular diagnostics sectors;
- failure to complete significant sales;
- manufacturing disruptions that could occur if we were unable to successfully expand our production in our current or an alternative facility;
- any future sales of our common stock or other securities 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.

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 June 30, 2012, our current executive officers, directors, stockholders holding at least 5% of our outstanding stock, and their respective affiliates, collectively beneficially owned or controlled approximately 44.2% 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.

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 June 30, 2012, the net proceeds from our IPO have been applied as follows: $5.0 million for the repayment of promissory notes issued in January 2011, $3.1 million for the repayment of our bank line of credit, $20.6 million for research and development expenses, $10.2 million for general corporate purposes including selling, general and administrative expenses and litigation settlement expense, and $2.9 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.

Exhibit Number	Description	Incorporated by Reference From Form	Incorporated by Reference From Exhibit Number	Date Filed
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		

(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: August 13, 2012

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

Dated: August 13, 2012

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

EXHIBIT LIST

Exhibit Number	Description	Incorporated by Reference From Form	Incorporated by Reference From Exhibit Number	Date Filed
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		

(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.

Exhibit 31.1

**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: August 13, 2012

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

Exhibit 31.2

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: August 13, 2012

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

Exhibit 32.1

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 June 30, 2012 (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: August 13, 2012

Exhibit 32.2

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, 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 June 30, 2012 (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: August 13, 2012