

**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, 2014

or

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

For the transition period from to

Commission file number: 001-34180

FLUIDIGM CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

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

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

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

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

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

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>

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 25, 2014, there were 28,171,212 shares of the Registrant's common stock outstanding.

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, 2014	December 31, 2013
	(Unaudited)	(Note 2)
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 43,681	\$ 35,261
Short-term investments	51,063	49,083
Accounts receivable (net of allowances of \$36 at June 30, 2014 and December 31, 2013)	13,329	10,552
Inventories	16,357	8,148
Prepaid expenses and other current assets	3,004	1,540
Total current assets	127,434	104,584
Long-term investments	62,294	1,942
Property and equipment, net	11,568	6,818
Developed technology, net	107,800	—
Goodwill	104,245	—
Other non-current assets	4,405	3,571
Total assets	\$ 417,746	\$ 116,915
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 7,637	\$ 4,353
Accrued compensation and related benefits	5,506	5,485
Other accrued liabilities	8,296	5,392
Deferred revenue, current portion	5,867	2,721
Total current liabilities	27,306	17,951
Convertible notes, net	195,343	—
Deferred tax liability	27,904	—
Deferred revenue, net of current portion	4,227	1,899
Other non-current liabilities	1,140	651
Total liabilities	255,920	20,501
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 10,000 shares authorized, no shares issued and outstanding at June 30, 2014 and December 31, 2013	—	—
Common stock: \$0.001 par value, 200,000 shares authorized at June 30, 2014 and December 31, 2013; 28,159 and 25,811 shares issued and outstanding as of June 30, 2014 and December 31, 2013, respectively	28	26
Additional paid-in capital	447,941	354,465
Accumulated other comprehensive loss	(700)	(730)
Accumulated deficit	(285,443)	(257,347)
Total stockholders' equity	161,826	96,414
Total liabilities and stockholders' equity	\$ 417,746	\$ 116,915

See accompanying notes.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Revenue:				
Product revenue	\$ 27,479	\$ 17,267	\$ 52,928	\$ 31,522
License revenue	74	48	186	163
Grant revenue	54	165	217	330
Total revenue	27,607	17,480	53,331	32,015
Costs and expenses:				
Cost of product revenue	9,955	4,876	18,659	9,135
Research and development	11,374	4,997	19,020	9,194
Selling, general and administrative	18,655	11,597	33,912	22,743
Acquisition-related expenses	—	—	10,696	—
Total costs and expenses	39,984	21,470	82,287	41,072
Loss from operations	(12,377)	(3,990)	(28,956)	(9,057)
Interest expense	(1,415)	(2)	(2,441)	(12)
Gain from sale of investment in Verinata	—	—	—	1,777
Other (expense) income, net	(18)	(39)	30	(252)
Loss before income taxes	(13,810)	(4,031)	(31,367)	(7,544)
Benefit from (provision for) income taxes	1,128	(15)	3,271	(53)
Net loss	\$ (12,682)	\$ (4,046)	\$ (28,096)	\$ (7,597)
Net loss per share, basic and diluted	\$ (0.45)	\$ (0.16)	\$ (1.03)	\$ (0.30)
Shares used in computing net loss per share, basic and diluted	27,960	25,443	27,389	25,343

See accompanying notes.

FLUIDIGM CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In thousands)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Net loss	\$ (12,682)	\$ (4,046)	\$ (28,096)	\$ (7,597)
Other comprehensive income (loss), net of tax				
Unrealized net loss on available-for-sale securities	(41)	(19)	(40)	(14)
Foreign currency translation adjustment	98	(4)	70	(12)
Other comprehensive income (loss), net of tax	57	(23)	30	(26)
Total comprehensive loss	\$ (12,625)	\$ (4,069)	\$ (28,066)	\$ (7,623)

See accompanying notes.

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

	Six Months Ended June 30,	
	2014	2013
Operating activities		
Net loss	\$ (28,096)	\$ (7,597)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,842	1,193
Stock-based compensation expense	9,256	2,932
Acquisition-related share-based awards acceleration expense	2,648	—
Amortization of developed technology	4,200	—
Non-cash charges for sale of inventory revalued at the date of acquisition	682	—
Gain from sale of investment in Verinata	—	(1,777)
Other non-cash items	67	29
Changes in assets and liabilities:		
Accounts receivable, net	4,892	2,143
Inventories	(5,709)	(433)
Prepaid expenses and other current assets	6	(949)
Other non-current assets	(1,161)	(9)
Accounts payable	2,183	(116)
Deferred revenue	2,001	882
Other current liabilities	765	108
Other non-current liabilities	(3,811)	73
Net cash used in operating activities	(10,235)	(3,521)
Investing activities		
Acquisition, net of cash acquired	(113,190)	—
Purchases of investments	(86,793)	(40,620)
Proceeds from sales and maturities of investments	24,461	14,440
Proceeds from sale of investment in Verinata	—	3,117
Purchase of intangible assets	—	(1,148)
Purchases of property and equipment	(4,563)	(912)
Net cash used in investing activities	(180,085)	(25,123)
Financing activities		
Proceeds from issuance of convertible notes, net	195,212	—
Proceeds from exercise of stock options	3,457	2,420
Net cash provided by financing activities	198,669	2,420
Effect of foreign exchange rate fluctuations on cash and cash equivalents	71	(135)
Net increase (decrease) in cash and cash equivalents	8,420	(26,359)
Cash and cash equivalents at beginning of period	35,261	58,649
Cash and cash equivalents at end of period	\$ 43,681	\$ 32,290
Supplemental cash flow information:		
Issuance of common stock and options related to acquisition	\$ 78,196	\$ —

See accompanying notes.

FLUIDIGM CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Description of Business

Fluidigm Corporation (we, our, or us) was incorporated in the State of California in May 1999 to commercialize microfluidic technology initially developed at the California Institute of Technology. In July 2007, we were reincorporated in Delaware. Our headquarters are located in South San Francisco, California. We develop, manufacture, and market life science analytical and preparatory systems for growth markets such as single-cell biology and production genomics. We sell to leading academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology (Ag-Bio) companies worldwide. Our systems are based on proprietary microfluidics and multi-parameter mass cytometry technology, and are designed to significantly simplify experimental workflow, increase throughput, and reduce costs, while providing excellent data quality.

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, 2013 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, 2014 are not necessarily indicative of the results to be expected for the year ending December 31, 2014 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, allowances for doubtful accounts, and useful lives of long-lived assets. 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, 2013 included in our Annual Report on Form 10-K filed with the SEC.

Reclassifications

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

Net Loss per Share

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

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

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Stock options, restricted stock units, and unvested restricted stock	3,972	3,731	3,972	3,731
Convertible notes	3,598	—	3,598	—
Total	7,570	3,731	7,570	3,731

Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss for the six months ended June 30, 2014 are summarized as follows (in thousands):

	Net Unrealized Gain (Loss) on Marketable Securities	Foreign Currency Translation Adjustment	Accumulated Other Comprehensive Loss
Balance at December 31, 2013	\$ 12	\$ (742)	\$ (730)
Other comprehensive income (loss)	1	(28)	(27)
Amounts reclassified to interest income	—	—	—
Balance at March 31, 2014	\$ 13	\$ (770)	\$ (757)
Other comprehensive (loss) income	(33)	98	65
Amounts reclassified to interest income	(8)	—	(8)
Balance at June 30, 2014	\$ (28)	\$ (672)	\$ (700)

Investment, at cost

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

Business Combinations

Assets acquired and liabilities assumed as part of a business acquisition are generally recorded at their fair value at the date of acquisition. The excess of purchase price over the fair value of assets acquired and liabilities assumed is recorded as goodwill. Determining fair value of identifiable assets, particularly intangibles, and liabilities acquired also requires management to make estimates, which are based on all available information and in some cases assumptions with respect to the timing and amount of future revenues and expenses associated with an asset. Accounting for business acquisitions requires management to make judgments as to whether a purchase transaction is a multiple element contract, meaning that it includes other transaction components such as a settlement of a preexisting relationship. This judgment and determination affects the amount of consideration paid that is allocable to assets and liabilities acquired in the business purchase transaction.

Long-lived Assets, including Goodwill

Goodwill and intangible assets with indefinite lives are not subject to amortization, but are tested for impairment on an annual basis during the fourth quarter or whenever events or changes in circumstances indicate the carrying amount of these assets may not be recoverable. We first conduct an assessment of qualitative factors to determine whether it is more likely than not that the fair value of our reporting unit is less than its carrying amount. If we determine that it is more likely than not that the fair value of our reporting unit is less than its carrying amount, we then conduct a two-step test for impairment of goodwill. In the first step, we compare the fair value of our reporting unit to its carrying values. If the fair values of our reporting unit exceed the carrying value of the net assets, goodwill is not considered impaired and no further analysis is required. If the carrying values of the net assets exceed the fair values of the reporting unit, then the second step of the impairment test must be performed in

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

order to determine the implied fair value of the goodwill. If the carrying value of the goodwill exceeds the implied fair value, then an impairment loss equal to the difference would be recorded.

We evaluate our finite lived intangible assets for indicators of possible impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. If any indicator of impairment exists, we assess the recoverability of the affected intangible assets by determining whether the carrying value of the asset can be recovered through undiscounted future operating cash flows. If impairment is indicated, we estimate the asset's fair value using future discounted cash flows associated with the use of the asset, and adjust the carrying value of the asset accordingly.

Recent Accounting Pronouncements

In February 2013, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2013-02 Comprehensive Income (Topic 220): Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income. This guidance is intended to provide disclosure on items reclassified out of accumulated other comprehensive income (loss) either in the notes or parenthetically on the face of the income statement. There was no impact on our financial statements from adoption, other than the additional disclosures.

In May 2014, the FASB issued Accounting Standards Update No. 2014-09 Revenue from Contracts with Customers (Topic 606). This guidance is intended to improve and converge with international standards the financial reporting requirements for revenue from contracts with customers. It will be effective for our first quarter of 2017 and early adoption is not permitted. We are currently evaluating the impact of adoption of this new accounting pronouncement on our financial statements.

3. Convertible Notes

On February 4, 2014, we closed an underwritten public offering of \$201.3 million aggregate principal amount of our 2.75% Senior Convertible Notes due 2034 (Notes) pursuant to an underwriting agreement, dated January 29, 2014. The Notes will accrue interest at a rate of 2.75% per year, payable semi-annually in arrears on February 1 and August 1 of each year, commencing August 1, 2014. The Notes will mature on February 1, 2034, unless earlier converted, redeemed, or repurchased in accordance with the terms of the Notes. The initial conversion rate of the Notes is 17.8750 shares of our common stock, par value \$0.001 per share, per \$1,000 principal amount of Notes (which is equivalent to an initial conversion price of approximately \$55.94 per share). The conversion rate will be subject to adjustment upon the occurrence of certain specified events. Holders may surrender their Notes for conversion at any time prior to the stated maturity date. On or after February 6, 2018 and prior to February 6, 2021, we may redeem any or all of the Notes in cash if the closing price of our common stock exceeds 130% of the conversion price for a specified number of days, and on or after February 6, 2021, we may redeem any or all of the Notes in cash without any such condition. The redemption price of the Notes will equal 100% of the principal amount of the Notes plus accrued and unpaid interest. Holders may require us to repurchase all or a portion of their Notes on each of February 6, 2021, February 6, 2024, and February 6, 2029 at a repurchase price in cash equal to 100% of the principal amount of the Notes plus accrued and unpaid interest. If we undergo a fundamental change, as defined in the terms of the Notes, holders may require us to repurchase the Notes in whole or in part for cash at a repurchase price equal to 100% of the principal amount of the Notes plus accrued and unpaid interest.

We received \$195.2 million, net of underwriting discounts, from the issuance of the Notes and incurred approximately \$1.1 million in offering-related expenses. We used \$126.0 million of the net proceeds to fund the cash portion of the consideration payable by us in connection with our acquisition of DVS Sciences, Inc. (now Fluidigm Sciences Inc.) (See Note 4).

4. Acquisition

On February 13, 2014 (Acquisition Date), we acquired DVS Sciences, Inc. (DVS) primarily to broaden our addressable single-cell biology market opportunity and complement our existing product offerings. DVS develops, manufactures, markets, and sells multi-parameter single-cell protein analysis systems and related reagents and data analysis tools. DVS's principal market is the life sciences research market consisting of drug development companies, government research centers, and universities worldwide.

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

The contractual price for the acquisition was \$207.5 million, subject to certain adjustments as specified in the merger agreement. The aggregate purchase price was determined to be \$199.9 million, as detailed in the table below (in thousands):

	Estimated Fair Value
Cash	\$ 126,048
Issued 1,759,007 shares of Fluidigm common stock	76,805
Acquisition consideration paid at Acquisition Date	202,853
Accelerated stock compensation ⁽¹⁾	(6,690)
Estimated fair value of vested Fluidigm equivalent stock options ⁽²⁾	4,039
Working capital adjustment	(269)
Aggregate purchase price	\$ 199,933

- (1) As a part of the acquisition, we accelerated vesting of certain DVS stock options and shares of restricted stock, and incurred a \$6.7 million expense, based upon the per share consideration paid to holders of shares of DVS common stock as of February 13, 2014. This expense is accounted for as a separate transaction and reflected in the acquisition-related expenses line of the condensed consolidated statements of operations.
- (2) In conjunction with the acquisition, we assumed all outstanding DVS stock options and unvested shares of restricted stock and converted, as of the Acquisition Date, the unvested stock options outstanding under the DVS stock option plan into unvested stock options to purchase approximately 143,000 shares of Fluidigm common stock and approximately 186,000 shares of restricted Fluidigm common stock, retaining the original vesting schedules. The fair value of all converted share-based awards was \$14.6 million, of which \$4.0 million was attributed to the pre-combination service period and was included in the calculation of purchase price. The remaining fair value will be recognized over the awards' remaining vesting periods subsequent to the acquisition. The fair value of the Fluidigm equivalent share-based awards as of the Acquisition Date was estimated using the Black-Scholes valuation model.

Approximately 885,000 shares of Fluidigm common stock, with a fair value of \$38.6 million, representing 50.3030% of the shares otherwise payable to the former stockholders of DVS, was deposited into escrow. These shares comprise a portion of the merger consideration and will be held in escrow to secure indemnification obligations under the merger agreement, if any, for a period of 13 to 18 months following the Acquisition Date, subject to any then pending indemnification claims.

Prior to the closing of the acquisition, we closed an underwritten public offering of \$201.3 million aggregate principal amount of our Notes (See Note 3) to fund a portion of the cash consideration payable in connection with the acquisition. The results of DVS's operations have been included in the condensed consolidated financial statements for the period from February 13, 2014 to June 30, 2014.

As of June 30, 2014, the accounting for the acquisition is preliminary due to the ongoing analysis of the developed technology relating to intellectual property rights acquired in connection with the acquisition, associated royalty obligations pursuant to third-party license agreements, and certain tax liabilities. Upon completion of this analysis and during the measurement period, we may record adjustments to the estimated amounts recorded.

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

Net Assets Acquired

The transaction has been accounted for using the acquisition method of accounting which requires that assets acquired and liabilities assumed be recognized at their fair values as of the acquisition date. The following table summarizes the assets acquired and liabilities assumed as of the Acquisition Date (in thousands):

	Allocation of purchase price
Cash and cash equivalents	\$ 8,405
Accounts receivable, net	7,698
Inventories	3,489
Prepaid expenses and other current assets	1,482
Property and equipment, net	1,202
Developed technology	112,000
Goodwill	104,245
Other non-current assets	88
Total assets acquired	238,609
Accounts payable	(1,114)
Accrued compensation and related benefits	(761)
Other accrued liabilities	(1,204)
Deferred revenue, current portion	(1,844)
Tax payable	(45)
Deferred tax liability	(32,079)
Deferred revenue, net of current portion	(1,629)
Net assets acquired	\$ 199,933

The following table is a summary of the fair value estimate of the identifiable intangible asset (in thousands) and its useful life:

	Useful Life	Estimated Fair Value
Developed technology	10 years	\$ 112,000

The \$104.2 million of goodwill recognized as part of the transaction is attributable primarily to expected synergies and other benefits from the acquisition and is not expected to be deductible for income tax purposes.

Acquisition Costs

Acquisition-related expenses were \$10.7 million for the six months ended June 30, 2014 and primarily included accelerated vesting of certain DVS restricted stock and options, and consulting, legal, and investment banking fees. These costs are included within the acquisition-related expenses line of the condensed consolidated statements of operations.

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

Actual and Pro Forma Results

The unaudited financial information in the table below summarizes our results of operations combined with DVS's as though the companies were combined as of the beginning of each of the periods presented. The unaudited pro forma information does not necessarily reflect the actual results of operations had the acquisition been consummated at the beginning of the fiscal reporting periods indicated nor is it indicative of future operating results.

(in thousands)	Six Months Ended June 30	
	2014	2013
Pro forma total revenue	\$ 57,121	\$ 42,948
Pro forma net loss	\$ (30,515)	\$ (20,537)

5. Goodwill and Intangible Assets**Goodwill**

Upon the acquisition of DVS, we acquired \$104.2 million of goodwill. There were no changes in goodwill between the Acquisition Date and June 30, 2014.

Intangible Assets

The following table provides details of our intangible assets related to the DVS acquisition as of June 30, 2014 (in thousands, except years):

	Gross	Accumulated Amortization	Net	Useful Life (years)
Developed technology	\$ 112,000	\$ (4,200)	\$ 107,800	10

We recognized \$2.8 million and \$4.2 million in intangible asset amortization expense during the three and six months ended June 30, 2014, respectively. The estimated future amortization expense of intangible assets as of June 30, 2014 is as follows (in thousands):

	Amount
2014 (remainder of year)	\$ 5,600
2015	11,200
2016	11,200
2017	11,200
2018	11,200
Thereafter	57,400
	<u>\$ 107,800</u>

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

6. Balance Sheet Details**Inventories**

Inventories consist of the following (in thousands):

	June 30, 2014	December 31, 2013
Raw materials	\$ 4,922	\$ 2,650
Work-in-process	2,620	1,627
Finished goods	8,815	3,871
	<u>\$ 16,357</u>	<u>\$ 8,148</u>

Property and Equipment, net

Property and equipment, net consisted of the following (in thousands):

	June 30, 2014	December 31, 2013
Computer equipment and software	\$ 3,063	\$ 2,728
Laboratory and manufacturing equipment	15,103	13,972
Leasehold improvements	1,556	1,485
Office furniture and fixtures	1,284	822
	<u>21,006</u>	<u>19,007</u>
Less accumulated depreciation and amortization	(14,830)	(14,470)
Construction-in-progress	5,392	2,281
Property and equipment, net	<u>\$ 11,568</u>	<u>\$ 6,818</u>

7. Fair Value of Financial Instruments

As a basis for considering fair value, we follow a three-tier value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level I: observable inputs such as quoted prices in active markets;

Level II: inputs other than quoted prices in active markets that are observable either directly or indirectly; and

Level III: unobservable inputs in which there is little or no market data, which requires us to develop our own assumptions.

Our cash equivalents, which include money market funds, are classified as Level I because they are valued using quoted market prices. Our investments are generally classified as Level II because their value is based on valuations using significant inputs 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 in securities of the issuer or comparable issuers and yield curves.

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

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, 2014				December 31, 2013			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Assets								
Money market funds	\$ 17,387	\$ —	\$ —	\$ 17,387	\$ 17,547	\$ —	\$ —	\$ 17,547
U.S. government and agency securities	—	113,357	—	113,357	—	51,025	—	51,025
Total assets measured at fair value	<u>\$ 17,387</u>	<u>\$ 113,357</u>	<u>\$ —</u>	<u>\$ 130,744</u>	<u>\$ 17,547</u>	<u>\$ 51,025</u>	<u>\$ —</u>	<u>\$ 68,572</u>

There were no significant transfers in and out of Level 1 and Level 2 fair value measurement categories during the three and six months ended June 30, 2014 and 2013.

The following is a summary of investments at June 30, 2014 and December 31, 2013 (in thousands):

	June 30, 2014			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
U.S. government and agency securities	\$ 113,385	\$ 14	\$ (42)	\$ 113,357

	December 31, 2013			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
U.S. government and agency securities	\$ 51,012	\$ 17	\$ (4)	\$ 51,025

The contractual maturity dates of \$51.1 million of our investments are within one year from June 30, 2014. The contractual maturity dates of our remaining securities are less than eighteen months from June 30, 2014.

Based on an evaluation of securities that were in a loss position, we did not recognize any other-than-temporary impairment charges for the three and six months ended June 30, 2014 and 2013. All of these investments have been in a continuous loss position for less than 12 months. Our conclusion that these losses are not “other-than-temporary” is based on the high credit quality of the securities, their short remaining maturity and our intent and ability to hold such securities until the date of recovery of their respective market values or maturity.

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

	June 30, 2014	December 31, 2013
Cash	\$ 26,294	\$ 17,714
Money market funds	17,387	17,547
Cash and cash equivalents	<u>\$ 43,681</u>	<u>\$ 35,261</u>

At June 30, 2014, we had approximately \$0.1 million in restricted cash which is included in other non-current assets on the condensed consolidated balance sheets.

FLUIDIGM CORPORATION
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8. Line of Credit

A bank line of credit, as amended, provides us with the ability to borrow up to \$10.0 million, of which \$6.0 million is available on a non-formula basis, subject to certain covenants and other restrictions. The balance of \$4.0 million is available based on eligible receivables. The line of credit expires in December 2014 and is collateralized by our assets, excluding our intellectual property, and bears interest at a rate equal to the greater of (i) 3.75% or (ii) the prime rate plus 0.50% per year. On May 9, 2014, we entered into a modification agreement with the lender to amend and waive certain financial covenants under the financing agreement, effective as of March 31, 2014. On July 31, 2014, we entered into a modification agreement with the lender to amend and waive the financial covenant under the financing agreement regarding our effective tangible net worth amount, which cannot at any time exceed a deficit of more than \$100.0 million, effective as of June 30, 2014. Except to the extent specifically amended pursuant to the modification agreements, the financing agreement remains in full force and effect. As of June 30, 2014, there was no outstanding balance on the line of credit and we were in compliance with all applicable covenants under the financing agreement.

9. Commitments and Contingencies

Operating Leases

On April 9, 2013, we entered into an amendment (the 2013 Amendment) to the lease agreement dated September 14, 2010 (as amended, the Lease) relating to the lease of office and laboratory space at our corporate headquarters located in South San Francisco, California. The 2013 Amendment provided for an expansion of the premises covered under the Lease, effective April 1, 2014; an extension of the term of the Lease to April 30, 2020 with an option to renew for an additional five years; payment of base rent with rent escalation; and payment of certain operating expenses during the term of the Lease. The 2013 Amendment also provided for an allowance of approximately \$0.7 million for tenant improvements, which, to the extent not used by March 31, 2015, will be used to offset base rent obligations, and an additional allowance of approximately \$0.5 million for tenant improvements, which, if used, will be repaid in equal monthly payments with interest at a rate of 9% per annum over the remaining term of the Lease.

On June 4, 2014, we entered into an additional amendment to the Lease (the 2014 Amendment), which provided for an expansion of the premises covered under the Lease by approximately 13,000 square feet, effective October 1, 2014; payment of base rent with rent escalation; and payment of certain operating expenses during the term of the Lease. The 2014 Amendment also provided for an allowance of approximately \$0.2 million for tenant improvements, which, to the extent not used by March 31, 2015, will be used to offset base rent obligations, and an additional allowance of approximately \$0.1 million for tenant improvements, which, if used, will be repaid in equal monthly payments with interest at a rate of 9% per annum over the remaining term of the Lease. The total future minimum lease payments for the additional space, which will be paid through April 2020, are approximately \$2.5 million as of June 30, 2014.

On October 14, 2013, Fluidigm Singapore Pte. Ltd., our wholly-owned subsidiary (Fluidigm Singapore), accepted an offer of tenancy (Lease) from HSBC Institutional Trust Services (Singapore) Limited, as trustee of Ascendas Real Estate Investment Trust (Landlord), relating to the lease of a new facility located in Singapore. Pursuant to the terms of the Lease, Fluidigm Singapore took possession of the facility commencing on March 3, 2014 for a term of 99 months, and the Lease and rental obligations thereunder commenced on June 3, 2014. The Lease also provides Fluidigm Singapore with an option to renew the Lease for an additional 60 months at the then prevailing market rent, and on similar terms as the existing Lease. In June 2014, Fluidigm Singapore leased additional space of approximately 2,400 square feet in the same building as the new facility on the same terms as the Lease. We completed the consolidation of our Singapore manufacturing operations in the new space in July 2014. The leases relating to our prior manufacturing facility in Singapore will terminate on August 31, 2014. The total future minimum lease payments for the additional space, which will be paid through June 2022, are approximately \$330,000 as of June 30, 2014.

In connection with our acquisition of DVS (See Note 4), we assumed the operating leases for facilities in Sunnyvale, California and Markham, Ontario, Canada, which expire in January 2016 and July 2016, respectively. The Canada lease includes an option to renew the lease for an additional five years at the then prevailing market rent, and on similar terms as the existing lease. We recognize rent expense on a straight-line basis over the non-cancelable lease term. The total future minimum lease payments for the assumed operating leases in Sunnyvale, California and Markham, Ontario, Canada are approximately \$640,000 as of June 30, 2014.

Warranty

We accrue for estimated warranty obligations at the time of product shipment. Management periodically reviews the estimated fair value of its warranty liability and records adjustments based on the terms of warranties provided to customers, historical and anticipated warranty claim experience. Activity for our warranty accrual for the three and six months ended June 30, 2014 and 2013, which is included in other accrued liabilities, is summarized below (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	2013	2014	2013
Balance at beginning of period	\$ 1,111	\$ 252	\$ 344	\$ 257
Acquired warranty obligation from DVS	—	—	791	—
Warranty expense, net	(16)	36	(40)	31
Balance at end of period	\$ 1,095	\$ 288	\$ 1,095	\$ 288

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.

Pursuant to the terms of a patent cross license agreement with Applied Biosystems, LLC (a subsidiary of Life Technologies Corporation, or Life, and now part of Thermo Fisher Scientific), we were obligated to make a \$1.0 million payment to Life upon satisfaction of certain conditions. We do not believe that the conditions triggering the payment obligation have been met; however, on October 16, 2013, Life provided notice that the \$1.0 million payment was due and payable under the license agreement. We accrued a loss contingency of \$1.0 million on September 30, 2013 and on January 30, 2014, we paid Life the amount due while reserving our rights with respect to such matter. Among other reasons, we made the payment to avoid what would have been, in our view, an improper termination of our license to certain Life patent filings under the agreement, which could have subjected our relevant product lines to risks associated with patent infringement litigation.

10. Stock-Based Compensation

During the three and six months ended June 30, 2014, we granted certain employees options to purchase 72,000 and 403,000 shares of common stock, respectively. The options granted during the three months ended June 30, 2014 had exercise prices ranging from \$27.25 to \$37.56 and a total grant date fair value of \$1.1 million. The options granted during the six months ended June 30, 2014 had exercise prices ranging from \$27.25 to \$47.55 and a total grant date fair value of \$9.8 million.

During the three and six months ended June 30, 2014, we granted certain employees 38,000 and 323,000 restricted stock units, respectively. The restricted stock units granted during the three months ended June 30, 2014 had fair market values ranging from \$27.74 to \$37.56 and a total grant date fair value of \$1.2 million. The restricted stock units granted during the six months ended June 30, 2014 had fair market values ranging from \$27.74 to \$47.55 and a total grant date fair value of \$14.7 million. The fair value of restricted stock units is determined based on the value of the underlying common stock on the date of grant.

The expenses relating to these options and restricted stock units will be recognized over their respective four-year vesting periods.

We recognized stock-based compensation expense of \$5.9 million and \$1.7 million during the three months ended June 30, 2014 and 2013, respectively. We recognized stock-based compensation expense of \$9.3 million and \$2.9 million during the six months ended June 30, 2014 and 2013, respectively. As of June 30, 2014, we had \$23.0 million and \$18.4 million of unrecognized stock-based compensation costs related to stock options and restricted stock units, respectively, which are expected to be recognized over a weighted average period of 2.6 years and 2.9 years, respectively.

In conjunction with the DVS acquisition, we assumed all outstanding DVS stock options and unvested shares of restricted stock (See Note 4). As of June 30, 2014, we had \$1.8 million and \$4.7 million of unrecognized stock-based compensation costs related to the assumed stock options and restricted stock, respectively, which are expected to be recognized over a remaining weighted average period of 1.8 years and 0.6 years, respectively.

FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
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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. As a result of the intangible assets arising from the DVS acquisition (See Note 4), we recorded foreign and California deferred tax liabilities of approximately \$30.0 million and approximately \$2.0 million, respectively. The related valuation allowance associated with our California deferred tax assets was released and recorded as an income tax benefit in the quarter ended March 31, 2014. Additional tax benefit was recorded in the quarter ended June 30, 2014 attributable to the acquired entity's operating losses and its related deferred tax liabilities from the amortization of acquired intangible assets.

12. Information About Geographic Areas

We operate in one reporting segment, which is the development, manufacturing, and commercialization of life science analytical and preparatory systems consisting of instruments and consumables for academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and Ag-Bio companies in growth markets, such as single-cell biology and production genomics.

The following table presents our 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,	
	2014	2013	2014	2013
United States	\$ 14,200	\$ 10,148	\$ 25,438	\$ 17,067
Europe	7,532	4,436	13,914	7,937
Japan	358	386	4,712	1,885
Asia-Pacific	4,612	1,566	6,704	3,478
Other	777	731	2,160	1,155
Total	\$ 27,479	\$ 17,267	\$ 52,928	\$ 31,522

Our license and grant revenues are primarily generated in the United States. No individual customer represented more than 10% of our revenues for the three and six month periods ended June 30, 2014 and 2013.

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

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

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

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

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

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

Overview

We develop, manufacture, and market life science analytical and preparatory systems for growth markets such as single-cell biology and production genomics. We sell to leading academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology, or Ag-Bio, companies worldwide. Our systems are based on proprietary microfluidics and multi-parameter mass cytometry technology, and are designed to significantly simplify experimental workflow, increase throughput, and reduce costs, while providing excellent data quality. We have sold approximately 1,075 systems to customers in over 30 countries worldwide.

We have launched several product lines since 2006, including systems for gene expression analysis, genotyping, digital polymerase chain reaction, or digital PCR, single nucleotide polymorphism genotyping, or SNP genotyping, target enrichment, high-throughput gene expression analysis, targeted single-cell gene expression analysis, and single-cell sample preparation. In May 2011, we launched assay products for gene expression and genotyping, and primers for targeted next-generation DNA sequencing. Our genomics systems utilize one or more integrated fluidic circuits, or IFCs, designed for particular applications and include specialized instrumentation and software, as well as assays and other reagents for certain applications. Additionally, pursuant to our acquisition of DVS Sciences, Inc. (now Fluidigm Sciences Inc.), or DVS, on February 13, 2014, we now also develop, manufacture, market, and sell multi-parameter single-cell protein analysis systems and related reagents and data analysis tools.

We distribute our 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 and Canada. Our facility in Singapore manufactures our genomics analytical and preparatory instruments, several of which are assembled at facilities of our contract manufacturers in Singapore, with testing and calibration of the assembled products performed at our Singapore facility. All of our IFCs for commercial sale and some IFCs for our research and development purposes are also fabricated at our Singapore facility. Our proteomics analytical instruments are manufactured at our facility in Canada, and our assays and reagents for commercial sale and IFCs for our research and development purposes are manufactured at our facilities in South San Francisco and Sunnyvale, California.

Our total revenue grew from \$52.3 million in 2012 to \$71.2 million in 2013, and for the six months ended June 30, 2014, our total revenue was \$53.3 million. We have incurred significant net losses since our inception in 1999 and, as of June 30, 2014, our accumulated deficit was \$285.4 million.

Critical Accounting Policies, Significant Judgments and Estimates

Our condensed consolidated financial statements and the related notes included elsewhere in this Form 10-Q are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs, and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Changes in accounting estimates may occur from period to period. Accordingly, actual results could differ significantly from the estimates made by our management. We evaluate our estimates and assumptions on an ongoing basis. To the extent there are material differences between these estimates and actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected.

Except as otherwise disclosed, there have been no material changes in our critical accounting policies and estimates in the preparation of our condensed consolidated financial statements during the six months ended June 30, 2014 compared to those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2013, as filed with the SEC on March 12, 2014.

During the six months ended June 30, 2014, we have revised or added the following significant accounting policies:

Business Combinations

Assets acquired and liabilities assumed as part of a business acquisition are generally recorded at their fair value at the date of acquisition. The excess of purchase price over the fair value of assets acquired and liabilities assumed is recorded as goodwill. Determining fair value of identifiable assets, particularly intangibles, and liabilities acquired also requires management to make estimates, which are based on all available information and in some cases assumptions with respect to the timing and amount of future revenues and expenses associated with an asset. Accounting for business acquisitions requires management to make judgments as to whether a purchase transaction is a multiple element contract, meaning that it includes other transaction components such as a settlement of a preexisting relationship. This judgment and determination affects the amount of consideration paid that is allocable to assets and liabilities acquired in the business purchase transaction.

Long-lived Assets, including Goodwill

Goodwill and intangible assets with indefinite lives are not subject to amortization, but are tested for impairment on an annual basis during the fourth quarter or whenever events or changes in circumstances indicate the carrying amount of these assets may not be recoverable. We first conduct an assessment of qualitative factors to determine whether it is more likely than not that the fair value of our reporting unit is less than its carrying amount. If we determine that it is more likely than not that the fair value of our reporting unit is less than its carrying amount, we then conduct a two-step test for impairment of goodwill. In the first step, we compare the fair value of our reporting unit to its carrying values. If the fair values of our reporting unit exceed the carrying value of the net assets, goodwill is not considered impaired and no further analysis is required. If the carrying values of the net assets exceed the fair values of the reporting unit, then the second step of the impairment test must be performed in order to determine the implied fair value of the goodwill. If the carrying value of the goodwill exceeds the implied fair value, then an impairment loss equal to the difference would be recorded.

We evaluate our finite lived intangible assets for indicators of possible impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. If any indicator of impairment exists, we assess the recoverability of the affected intangible assets by determining whether the carrying value of the asset can be recovered through undiscounted future operating cash flows. If impairment is indicated, we estimate the asset's fair value using future discounted cash flows associated with the use of the asset, and adjust the carrying value of the asset accordingly.

Results of Operations

The following table presents our historical condensed consolidated statements of operations data for the three and six months ended June 30, 2014 and 2013, and as a percentage of total revenue for the respective period (\$ in thousands):

	Three Months Ended				Six Months Ended			
	June 30,				June 30,			
	2014	2014	2013	2013	2014	2014	2013	2013
Revenue:								
Total revenue	\$ 27,607	100 %	\$ 17,480	100 %	\$ 53,331	100 %	\$ 32,015	100 %
Costs and expenses:								
Cost of product revenue	9,955	36	4,876	28	18,659	35	9,135	29
Research and development	11,374	41	4,997	29	19,020	36	9,194	29
Selling, general and administrative	18,655	68	11,597	66	33,912	64	22,743	71
Acquisition-related expenses	—	—	—	—	10,696	20	—	—
Total costs and expenses	39,984	145	21,470	123	82,287	155	41,072	129
Loss from operations	(12,377)	(45)	(3,990)	(23)	(28,956)	(55)	(9,057)	(29)
Interest expense	(1,415)	(5)	(2)	—	(2,441)	(4)	(12)	—
Gain from sale of investment in Verinata	—	—	—	—	—	—	1,777	6
Other (expense) income, net	(18)	—	(39)	—	30	—	(252)	(1)
Loss before income taxes	(13,810)	(50)	(4,031)	(23)	(31,367)	(59)	(7,544)	(24)
Benefit from (provision for) income taxes	1,128	4	(15)	—	3,271	6	(53)	—
Net loss	\$ (12,682)	(46)%	\$ (4,046)	(23)%	\$ (28,096)	(53)%	\$ (7,597)	(24)%

Revenue

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

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

	Three Months Ended		Six Months Ended	
	June 30,		June 30,	
	2014	2013	2014	2013
Revenue:				
Instruments	\$ 15,370	\$ 10,165	\$ 30,477	\$ 18,070
Consumables	12,109	7,102	22,451	13,452
Product revenue	27,479	17,267	52,928	31,522
License revenue	74	48	186	163
Grant revenue	54	165	217	330
Total revenue	\$ 27,607	\$ 17,480	\$ 53,331	\$ 32,015

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,			
	2014		2013		2014		2013	
United States	\$ 14,200	52%	\$ 10,148	59%	\$ 25,438	48%	\$ 17,067	54%
Europe	7,532	27%	4,436	26%	13,914	26%	7,937	25%
Japan	358	1%	386	2%	4,712	9%	1,885	6%
Asia-Pacific	4,612	17%	1,566	9%	6,704	13%	3,478	11%
Other	777	3%	731	4%	2,160	4%	1,155	4%
Total	\$ 27,479	100%	\$ 17,267	100%	\$ 52,928	100%	\$ 31,522	100%

Our customers include academic research institutions, clinical laboratories, and pharmaceutical, biotechnology, and Ag-Bio companies worldwide. Total revenue from our five largest customers in each of the periods presented comprised 21% and 17% of our total revenue in the three and six months ended June 30, 2014, respectively, and 19% and 20% of our total revenue in the three and six months ended June 30, 2013, respectively.

Comparison of the Three Months Ended June 30, 2014 and June 30, 2013

Total Revenue

Total revenue increased by \$10.1 million, or 58%, to \$27.6 million for the three months ended June 30, 2014, compared to \$17.5 million for the three months ended June 30, 2013.

Product Revenue

Product revenue increased by \$10.2 million, or 59%, to \$27.5 million for the three months ended June 30, 2014, compared to \$17.3 million for the three months ended June 30, 2013.

Instrument revenue increased by \$5.2 million, or 51%, primarily driven by the impact of unit sales of our CyTOF 2 system which we commenced selling upon the acquisition of DVS, increased net unit sales of our preparatory systems, which include our C₁ Single-Cell Auto Prep System, and to a lesser extent, increases in unit sales of our EP1 System. Higher sales of service offerings, including service related to CyTOF 2 systems also contributed to the increase in instrument revenue. The revenue increase was partially offset by lower unit sales of our BioMark HD and Access Array Systems. Instrument revenue growth, excluding revenue attributable to the recently acquired operations of DVS, was 20% for the three months ended June 30, 2014 compared to the comparable period in 2013.

Consumables revenue increased by \$5.0 million, or 71%, primarily due to growth in overall IFC unit volume, driven mainly by increased sales to production genomics customers. Annualized IFC pull-through for our genomics analytical systems was within our historical range of \$40,000 to \$50,000 per system and slightly above our expected range of \$15,000 to \$25,000 per system for our genomics preparatory systems. Annualized IFC pull-through for our proteomics analytical systems was slightly above the historical range of \$50,000 to \$70,000 per system. To a lesser extent, sales from our recently acquired antibody consumables, and higher sales of our assays and reagents also contributed to the overall increase in consumables revenue. Consumables revenue growth, excluding revenue attributable to the recently acquired operations of DVS, was 51% for the three months ended June 30, 2014 compared to the comparable period in 2013.

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

Grant Revenue

Grant revenue consists of a grant from California Institute for Regenerative Medicine, or CIRM. Our CIRM grant was awarded in 2011 in the amount of \$1.9 million to be earned over a three-year period which ended in April 2014. The CIRM grant revenue is recognized as the related research and development services are performed and costs associated with the grants are recognized as research and development expense during the period incurred.

Grant revenue was \$54,000 and \$165,000 for the three months ended June 30, 2014 and 2013, respectively.

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,	
	2014	2013
Cost of product revenue	\$ 9,955	\$ 4,876
Product margin	64%	72%

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

Cost of product revenue increased by \$5.1 million, or 104%, to \$10.0 million for the three months ended June 30, 2014 from \$4.9 million for the three months ended June 30, 2013. Overall cost of product revenue as a percentage of related revenue was 36% and 28% for the three months ended June 30, 2014 and 2013, respectively.

The increase in cost of product revenue during the quarter ended June 30, 2014 was primarily driven by amortization of developed technology of approximately \$2.8 million. Excluding this charge, non-GAAP product margin would be approximately 74%, and approximately 2 percentage points higher than the comparable period in the prior year. The unfavorable impact of this charge was partially offset by improved instrument margins mainly due to a higher sales mix of C₁ Single-Cell Auto Prep Systems, which have a higher margin compared to other instruments; lower IFC costs resulting from higher production volumes related to higher sales volumes; and favorable sales volumes and average unit sales prices for our assays and reagents. In addition, there was an overall shift in the sales mix from instruments to consumables which have relatively higher margins.

Operating Expenses

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

	Three Months Ended June 30,	
	2014	2013
Research and development	\$ 11,374	\$ 4,997
Selling, general and administrative	18,655	11,597
Total operating expenses	\$ 30,029	\$ 16,594

Research and Development

Research and development expense consists primarily of personnel and independent contractor costs, prototype and material expenses, and other allocated facilities and information technology expenses. We have made substantial investments in research and development since our inception. Our research and development efforts have focused primarily on enhancing our technologies and supporting development and commercialization of new and existing products and services.

Research and development expense increased \$6.4 million, or 128%, to \$11.4 million for the three months ended June 30, 2014, compared to \$5.0 million for the three months ended June 30, 2013. The increase was mainly due to higher headcount and other compensation-related costs of \$4.5 million, an increase in lab supplies and equipment costs of \$1.1 million, and an increase in outside services of \$0.4 million. We incurred these costs to support our development and commercialization of new and existing products and services. The total research and development costs attributable to the recently acquired operations of DVS were approximately \$4.1 million for the quarter.

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 \$7.1 million, or 61%, to \$18.7 million for the three months ended June 30, 2014, compared to \$11.6 million for the three months ended June 30, 2013. The increase was mainly due to increased headcount and other compensation-related costs of \$3.8 million, integration expense of approximately \$1.1 million, an increase in legal and accounting fees of \$1.0 million, and an increase in sales and marketing activities of \$0.8 million. The increase was primarily driven by expansion of our worldwide commercial capabilities, and to a lesser extent, general and administrative expense to support our growth. The total selling, general and administrative costs attributable to the recently acquired operations of DVS were approximately \$2.5 million.

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

Interest Expense and Other Income and Expense, Net

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

	Three Months Ended June 30,	
	2014	2013
Interest expense	\$ (1,415)	\$ (2)
Other expense, net	(18)	(39)

On February 4, 2014, we closed an underwritten public offering of \$201.3 million aggregate principal amount of our 2.75% Senior Convertible Notes due 2034, or the Notes. The Notes will accrue interest at a rate of 2.75% per year, payable semi-annually in arrears on February 1 and August 1 of each year, commencing August 1, 2014. The Notes will mature on February 1, 2034, unless earlier converted, redeemed, or repurchased in accordance with the terms of the Notes.

Interest expense increased by \$1.4 million for the three months ended June 30, 2014 compared to the three months ended June 30, 2013. The increase is due to accrued interest on the Notes and amortization of underwriting commission and other debt related costs.

Other expense, net decreased by \$21,000 for the three months ended June 30, 2014 compared to the three months ended June 30, 2013. The decrease in loss in the three months ended June 30, 2014 compared to the comparable period in 2013 was due primarily to higher interest income from the investment of remaining proceeds from the issuance of the Notes.

Benefit from Income Taxes

We recorded a tax benefit of \$1.1 million, or an effective tax benefit of 8.2%, for the three months ended June 30, 2014. The tax benefit for the three months ended June 30, 2014 was primarily attributable to amortization of our acquisition-related deferred tax liability and income tax benefit from our foreign operations.

Comparison of the Six Months Ended June 30, 2014 and June 30, 2013**Total Revenue**

Total revenue increased by \$21.3 million, or 67%, to \$53.3 million for the six months ended June 30, 2014, compared to \$32.0 million for the six months ended June 30, 2013.

Product Revenue

Product revenue increased by \$21.4 million, or 68%, to \$52.9 million for the six months ended June 30, 2014, compared to \$31.5 million for the six months ended June 30, 2013.

Instrument revenue increased by \$12.4 million, or 69%, primarily driven by increased net unit sales of our preparatory systems, which include our C₁ Single-Cell Auto Prep System, the impact of unit sales of our CyTOF 2 system which we commenced selling upon the acquisition of DVS, and to a lesser extent, increases in unit sales of our BioMark HD System. Higher sales of service offerings, including service related to CyTOF 2 systems, also contributed to the increase in instrument revenue. The revenue increase was partially offset by lower unit sales of our Access Array System and lower accessory sales. Instrument revenue growth, excluding revenue attributable to the recently acquired operations of DVS, was 38% for the six months ended June 30, 2014 compared to the comparable period in 2013.

Consumables revenue increased by \$9.0 million, or 67%, primarily due to growth in overall IFC unit volume, driven mainly by increased sales to production genomics customers. Annualized IFC pull-through for our genomics analytical systems was within our historical range of \$40,000 to \$50,000 per system and slightly above our expected range of \$15,000 to \$25,000 per system for our genomics preparatory systems. Annualized IFC pull-through for our proteomics analytical systems was slightly above the historical range of \$50,000 to \$70,000 per system. To a lesser extent, sales from our recently acquired antibody consumables, and higher sales of our assays and reagents also contributed to the overall increase in consumables revenue. Consumables revenue growth, excluding revenue attributable to the recently acquired operations of DVS, was 53% for the six months ended June 30, 2014 compared to the comparable period in 2013.

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

Grant Revenue

Grant revenue consists of a grant from CIRM. Our CIRM grant was awarded in 2011 in the amount of \$1.9 million to be earned over a three-year period which ended in April 2014. The CIRM grant revenue is recognized as the related research and development services are performed and costs associated with the grants are recognized as research and development expense during the period incurred.

Grant revenue was \$0.2 million and \$0.3 million for the six months ended June 30, 2014 and 2013, respectively.

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,	
	2014	2013
Cost of product revenue	\$ 18,659	\$ 9,135
Product margin	65%	71%

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

Cost of product revenue increased by \$9.5 million, or 104%, to \$18.7 million for the six months ended June 30, 2014. Overall cost of product revenue as a percentage of related revenue was 35% and 29% for the six months ended June 30, 2014 and 2013, respectively.

Non-cash charges attributable to the recently acquired operations of DVS increased the cost of product revenue by approximately \$5.2 million and as a percentage of related revenue by approximately 10 percentage points. These charges included amortization of developed technology, depreciation and amortization, step-up in the basis of acquired inventory, and stock-based compensation expense.

The unfavorable impact of these charges was partially offset by lower IFC costs resulting from higher production volumes related to higher sales volumes; inventory build-up in preparation for the transition of our Singapore manufacturing operations to a new site; and to a lesser extent, favorable average unit sales prices. Assays and reagent margins also improved mainly due to higher sales volumes. In addition, instrument margins improved mainly due to a higher mix of C₁ Single-Cell Auto Prep Systems, which have a higher margin compared to other instruments, favorable average unit sales prices for instruments, and favorable freight costs.

Operating Expenses

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

	Six Months Ended June 30,	
	2014	2013
Research and development	\$ 19,020	\$ 9,194
Selling, general and administrative	33,912	22,743
Acquisition-related expenses	10,696	—
Total operating expenses	<u>\$ 63,628</u>	<u>\$ 31,937</u>

Research and Development

Research and development expense consists primarily of personnel and independent contractor costs, prototype and material expenses, and other allocated facilities and information technology expenses. We have made substantial investments in research and development since our inception. Our research and development efforts have focused primarily on enhancing our technologies and supporting development and commercialization of new and existing products and services.

Research and development expense increased \$9.8 million, or 107%, to \$19.0 million for the six months ended June 30, 2014, compared to \$9.2 million for the six months ended June 30, 2013. The increase was mainly due to higher headcount and other compensation-related costs of \$6.9 million, an increase in lab supplies and equipment costs of \$1.6 million, an increase in facility expenses of \$0.7 million, and an increase in outside services of \$0.6 million. We incurred these costs to support our development and commercialization of new and existing products and services. The total research and development costs attributable to the recently acquired operations of DVS were approximately \$6.1 million.

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 \$11.2 million, or 49%, to \$33.9 million for the six months ended June 30, 2014, compared to \$22.7 million for the six months ended June 30, 2013. The increase was mainly due to higher headcount and other compensation-related costs of \$6.3 million, an increase in legal and accounting fees of \$1.7 million, integration expense of approximately \$1.1 million, and an increase in sales and marketing activities of \$0.9 million. The increase was primarily driven by expansion of our worldwide commercial capabilities, and to a lesser extent, general and administrative expense to support our growth. The total selling, general and administrative costs attributable to the recently acquired operations of DVS were approximately \$4.0 million.

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

Acquisition-Related Expenses

Acquisition-related expenses were \$10.7 million for the six months ended June 30, 2014 and primarily included accelerated vesting of certain DVS restricted stock and options and consulting, legal, and investment banking fees.

Interest Expense and Other Income and Expense, Net

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

	Six Months Ended June 30,	
	2014	2013
Interest expense	\$ (2,441)	\$ (12)
Gain from sales of investment in Verinata	—	1,777
Other income (expense), net	30	(252)

On February 4, 2014, we closed an underwritten public offering of \$201.3 million aggregate principal amount of our 2.75% Senior Convertible Notes due 2034, or the Notes. The Notes will accrue interest at a rate of 2.75% per year, payable semi-annually in arrears on February 1 and August 1 of each year, commencing August 1, 2014. The Notes will mature on February 1, 2034, unless earlier converted, redeemed, or repurchased in accordance with the terms of the Notes.

Interest expense increased by \$2.4 million for the six months ended June 30, 2014 compared to the six months ended June 30, 2013. The increase is due to accrued interest on the Notes and amortization of underwriting commission and other debt related costs.

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

Other income, net increased by \$0.3 million for the six months ended June 30, 2014 compared to other expense, net of \$0.3 million for the six months ended June 30, 2013. In 2013, the loss was due primarily to an unfavorable rate change in the Japanese Yen against the U.S. dollar, which did not recur in the current period.

Benefit from Income Taxes

We recorded a tax benefit of \$3.3 million, or an effective tax benefit rate of 10.4%, for the six months ended June 30, 2014. Of the \$3.3 million tax benefit, \$2.0 million related to the valuation allowance released in the quarter ended March 31, 2014 and \$1.3 million primarily consisted of net income tax benefit from foreign operations and deferred tax liabilities from the amortization of acquired intangible assets.

Liquidity and Capital Resources**Sources of Liquidity**

As of June 30, 2014, our principal sources of liquidity consisted of \$43.7 million of cash and cash equivalents and \$113.4 million of investments. As of June 30, 2014, our working capital excluding deferred revenue totaled \$106.0 million.

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

	Six Months Ended June 30,	
	2014	2013
<i>Cash flow summary</i>		
Net cash used in operating activities	\$ (10,235)	(3,521)
Net cash used in investing activities	(180,085)	(25,123)
Net cash provided by financing activities	198,669	2,420
Net increase (decrease) in cash and cash equivalents	8,420	(26,359)

Net Cash Used in Operating Activities

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

Net cash used in operating activities was \$10.2 million for the six months ended June 30, 2014, compared to \$3.5 million for the six months ended June 30, 2013, an increase of \$6.7 million. The cash used in operations in the first six months of 2014 resulted from a net loss of \$28.1 million, adjusted for \$18.7 million in non-cash charges and a \$0.8 million net change in assets and liabilities. The significant non-cash charges included stock-based compensation expense, amortization of intangible assets, depreciation and amortization, and acquisition-related share-based awards acceleration expense. The net change in assets and liabilities was driven primarily by higher inventory and long-term assets and lower long-term liabilities, partially offset by a decrease in accounts receivable and an increase in accounts payable and deferred revenue. Our net loss, adjusted for non-cash and non-operating items, for the six months ended June 30, 2014 increased by \$8.1 million, compared to the same period in 2013 primarily due to acquisition-related expenses of \$6.5 million paid in cash.

Net Cash Used In Investing Activities

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

Net cash used in investing activities was \$180.1 million during the six months ended June 30, 2014. Net cash used in investing activities primarily consisted of \$113.2 million related to the acquisition of DVS, net of acquired cash of \$8.4 million, and excluding \$4.1 million attributed to the acceleration of DVS share-based awards and classified as cash used in operating activities; purchases of investments of \$86.8 million; and capital expenditures of \$4.6 million primarily to support growth in our manufacturing operations; partially offset by proceeds from sales and maturities of investments of \$24.5 million.

Net cash used in investing activities was \$25.1 million during the six months ended June 30, 2013. Net cash used in investing activities primarily consisted of purchases of investments of \$40.6 million, purchase of intangible assets from Helicos Biosciences Corporation of \$950,000 and related transaction costs of \$200,000, and purchases of capital equipment of \$0.9 million to support growth in our commercial and manufacturing operations, partially offset by proceeds from sales and maturities of investments of \$14.4 million and proceeds from the sale of our investment in Verinata of \$3.1 million.

Net Cash Provided by Financing Activities

Net cash provided by financing activities was \$198.7 million during the six months ended June 30, 2014 and consists of net proceeds of \$195.2 million from the issuance of senior convertible notes and proceeds received in connection with the exercise of options for our common stock of \$3.5 million.

Net cash provided by financing activities was \$2.4 million during the six months ended June 30, 2013 from proceeds received in connection with the exercise of options for our common stock.

Capital Resources

At June 30, 2014, our working capital excluding deferred revenue was \$106.0 million, including cash, cash equivalents, and short-term investments of \$94.7 million. On February 4, 2014, we closed an underwritten public offering of approximately \$201.3 million aggregate principal amount of our 2.75% Senior Convertible Notes due 2034, or the Notes. We received cash proceeds of \$195.2 million, net of underwriting discounts. Debt issuance costs were approximately \$1.1 million. We used \$126.0 million of the net proceeds to fund the cash portion of the consideration payable by us in connection with our acquisition of DVS.

We have a bank line of credit agreement that is collateralized by our assets, excluding intellectual property, and provides us the ability to draw up to \$10.0 million, of which \$6.0 million is available on a non-formula basis, subject to certain covenants and other restrictions. The balance of \$4.0 million is available based on eligible receivables. At June 30, 2014, we had no borrowing outstanding under the bank line of credit.

We are estimating capital expenditures to be higher in 2014 primarily for leasehold improvements at our new Singapore manufacturing facility.

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

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

Off-Balance Sheet Arrangements

As of June 30, 2014, we did not have any off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K promulgated under the Exchange Act.

Contractual Obligations and Commitments

On April 9, 2013, we entered into an amendment (the 2013 Amendment) to the lease agreement dated September 14, 2010 (as amended, the Lease) relating to the lease of office and laboratory space at our corporate headquarters located in South San Francisco, California. The 2013 Amendment provided for an expansion of the premises covered under the Lease, effective April 1, 2014; an extension of the term of the Lease to April 30, 2020 with an option to renew for an additional five years; payment of base rent with rent escalation; and payment of certain operating expenses during the term of the Lease. The 2013 Amendment also provided for an allowance of approximately \$0.7 million for tenant improvements, which, to the extent not used by March 31, 2015, will be used to offset base rent obligations, and an additional allowance of approximately \$0.5 million for tenant improvements, which, if used, will be repaid in equal monthly payments with interest at a rate of 9% per annum over the remaining term of the Lease.

On June 4, 2014, we entered into an additional amendment to the Lease (the 2014 Amendment), which provided for an expansion of the premises covered under the Lease by approximately 13,000 square feet, effective October 1, 2014; payment of base rent with rent escalation; and payment of certain operating expenses during the term of the Lease. The 2014 Amendment also provided for an allowance of approximately \$0.2 million for tenant improvements, which, to the extent not used by March 31, 2015, will be used to offset base rent obligations, and an additional allowance of approximately \$0.1 million for tenant improvements, which, if used, will be repaid in equal monthly payments with interest at a rate of 9% per annum over the remaining term of the Lease. The total future minimum lease payments for the additional space, which will be paid through April 2020, are approximately \$2.5 million as of June 30, 2014.

On October 14, 2013, Fluidigm Singapore Pte. Ltd., our wholly-owned subsidiary (Fluidigm Singapore), accepted an offer of tenancy (Lease) from HSBC Institutional Trust Services (Singapore) Limited, as trustee of Ascendas Real Estate Investment Trust (Landlord), relating to the lease of a new facility located in Singapore. Pursuant to the terms of the Lease, Fluidigm Singapore took possession of the facility commencing on March 3, 2014 for a term of 99 months, and the Lease and rental obligations thereunder commenced on June 3, 2014. The Lease also provides Fluidigm Singapore with an option to renew the Lease for an additional 60 months at the then prevailing market rent, and on similar terms as the existing Lease. In June 2014, Fluidigm Singapore leased additional space of approximately 2,400 square feet in the same building as the new facility on the same terms as the Lease. We completed the consolidation of our Singapore manufacturing operations in the new space in July 2014. The leases relating to our prior manufacturing facility in Singapore will terminate on August 31, 2014. The total future minimum lease payments for the additional space, which will be paid through June 2022, are approximately \$330,000 as of June 30, 2014.

In connection with our acquisition of DVS (See Note 4), we assumed the operating leases for facilities in Sunnyvale, California and Markham, Ontario, Canada, which expire in January 2016 and July 2016, respectively. The Canada lease includes an option to renew the lease for an additional five years at the then prevailing market rent, and on similar terms as the existing lease. We recognize rent expense on a straight-line basis over the non-cancelable lease term. The total future minimum lease payments for the assumed operating leases in Sunnyvale, California and Markham, Ontario, Canada are approximately \$640,000 as of June 30, 2014.

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, 2014 would not have been material. To date, we have not entered into any foreign currency hedging contracts although we may do so in the future.

Interest Rate Sensitivity

We had cash and cash equivalents of \$43.7 million at June 30, 2014. These amounts were held primarily in cash on deposit with banks and cash equivalents. We had \$113.4 million in investments at June 30, 2014 held primarily in U.S. government and agency securities. The contractual maturity dates of \$51.1 million of our U.S. government and agency securities are within one year from June 30, 2014. The contractual maturity dates of our remaining U.S. government and agency securities are less than eighteen months from June 30, 2014. Cash and cash equivalents and investments are held for working capital purposes. Due to the short-term nature of these investments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. Declines in interest rates, however, will reduce future investment income. If overall interest rates had decreased by 10% during the periods presented, our interest income would not have been materially affected.

Fair Value of Financial Instruments

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

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2014. 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, 2014, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the three months ended June 30, 2014 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. However, during the quarter ended March 31, 2014, we completed our acquisition of DVS Sciences Inc. (now Fluidigm Sciences Inc.), or DVS, which is now our wholly-owned subsidiary and a "significant subsidiary" as defined by Rule 1-02 of Regulation S-X promulgated by the Securities and Exchange Commission. We are in the process of integrating DVS's operations with our

operations, including integration of financial reporting processes and procedures and internal controls over financing reporting. In the course of integrating DVS's financial reporting processes and procedures with ours, we may implement changes to financial reporting processes and procedures and internal controls over financing reporting and will disclose any such changes if material as required by the rules of the SEC.

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.

On February 13, 2014, we completed the acquisition of DVS Sciences, Inc., or DVS (now Fluidigm Sciences Inc., or Fluidigm Sciences), which develops, manufactures, markets, and sells multi-parameter single-cell protein analysis systems. For purposes of the risk factors below, Fluidigm Sciences refers to Fluidigm Sciences and its wholly-owned Canadian subsidiary, Fluidigm Canada Inc., or Fluidigm Canada (formerly DVS Sciences Inc.).

Risks Related to Fluidigm's Business and Strategy

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

The application of our technologies to single-cell biology (across genomics and proteomics) and production genomics applications are emerging market opportunities. We believe these opportunities will take several years to develop or mature and we cannot be certain that these market opportunities will develop as we expect. For example, we launched our C₁ Single-Cell Auto Prep System in June 2012, which applies our technology to, among other things, improve single-cell analytic workflow for single-cell genomics. The future growth of the single-cell biology market and the success of our products 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 and protein analysis. If the market for single-cell biology and production genomics do not develop as we expect, our business may be adversely affected. Additionally, our success in these emerging markets may depend to a large extent on our ability to successfully market and sell products using our technologies. If we are not able to successfully market and sell our products, or to achieve the revenue or margins we expect, our operating results may be harmed and we may not recover our product development and marketing expenditures. In addition, our product development and strategic plans may change, which could delay or impede our entry into emerging markets.

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

Our quarterly revenue and results of operations have varied in the past and may continue to vary significantly from quarter-to-quarter. For example, in 2011 and 2012, we experienced higher sales in the fourth quarter than in the first quarter of the next fiscal year. In addition, revenue from sales of our instruments relative to sales of our consumables may fluctuate or deviate significantly from expectations. The variability in our quarterly results of operations, including revenue from sales of our instruments relative to our consumables, may lead to volatility in our stock price as research analysts and investors respond to these quarterly fluctuations. These fluctuations are due to numerous factors that are difficult to forecast, including: fluctuations in demand for our products; changes in customer budget cycles and capital spending; seasonal variations in customer operations; tendencies among some customers to defer purchase decisions to the end of the quarter; the large unit value of our systems; changes in our pricing and sales policies or the pricing and sales policies of our competitors; our ability to design, manufacture and deliver products to our customers in a timely and cost-effective manner; quality control or yield problems in our manufacturing operations; our ability to timely obtain adequate quantities of the components used in our products; new product introductions and enhancements by us and our competitors; unanticipated increases in costs or expenses; our complex, variable and, at times, lengthy sales cycle; global economic conditions; and fluctuations in foreign currency exchange rates. Additionally, we have certain customers who have historically placed large orders in multiple quarters during a calendar year. A significant reduction in orders from one or more of these customers could adversely affect our revenue and operating results, and if these customers defer or cancel purchases or otherwise alter their purchasing patterns, our quarter-to-quarter financial results could be significantly impacted.

The foregoing factors, as well as other factors, could materially and adversely affect our quarterly and annual results of operations. In addition, a significant amount of our operating expenses are relatively fixed due to our manufacturing, research and development, and sales and general administrative efforts. Any failure to adjust spending quickly enough to compensate for a revenue shortfall could magnify the adverse impact of such revenue shortfall on our results of operations. We expect that our sales

will continue to fluctuate on a quarterly basis and that our financial results for some periods may be below those projected by securities analysts, which could significantly decrease the price of our common stock.

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

We have a limited operating history and have incurred significant losses in each fiscal year since our inception, including net losses of \$28.1 million, \$16.5 million, \$19.0 million, and \$22.5 million during the six months ended June 30, 2014 and years 2013, 2012, and 2011, respectively. As of June 30, 2014, we had an accumulated deficit of \$285.4 million. These losses have resulted principally from costs incurred in our research and development programs, and from our manufacturing costs and selling, general, and administrative expenses. We may continue to incur substantial operating and net losses and negative cash flow from operations. We expect that our selling, general, and administrative expenses will continue to increase due to the additional operational and reporting costs associated with being a public company. We anticipate that our business will generate operating losses until we successfully implement our commercial development strategy and generate significant additional revenue to support our level of operating expenses. Because of the numerous risks and uncertainties associated with our commercialization efforts and future product development, we are unable to predict when we will become profitable, and we may never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase our profitability.

Actual results relating to Fluidigm Sciences (formerly DVS Sciences, Inc.) may differ from any guidance issued by us concerning future revenue and revenue growth of Fluidigm Sciences or the anticipated impact of the acquisition on the operating results of the combined company, and these differences could be material.

We cannot provide assurances with respect to the future revenues or revenue growth rates we may realize as a result of our acquisition of DVS and sales of its CyTOF mass spectrometer and associated consumables for the proteomics market. Fluidigm Sciences' revenues increased substantially through fiscal 2013, but we recently reduced our revenue expectations for 2014 and do not expect revenue from sales of Fluidigm Sciences' proteomics products to grow, if at all, at the same rates experienced in recent periods. We currently expect 2014 revenues from sales of our proteomics products to be less than DVS's 2013 revenues for such products. In addition, although its revenues have grown on an annual basis in recent years, Fluidigm Sciences has experienced substantial quarter-to-quarter variations in levels of demand and revenue growth for its instruments and consumables, and we expect that these variances may continue in the future. Additional risks and uncertainties that could cause actual results from our proteomics product line to differ materially from currently anticipated results include, but are not limited to, risks relating to our ability to successfully integrate Fluidigm Sciences; our ability to commercialize Fluidigm Sciences products; market acceptance of Fluidigm Sciences products; our ability to successfully launch new products and applications in Fluidigm Sciences' target markets; competition; our sales, marketing and distribution capabilities; our planned sales, marketing, and research and development activities; reduction in research and development spending or changes in budget priorities by customers; interruptions or delays in the supply of components or materials for, or manufacturing of, Fluidigm Sciences' products, which in certain cases are purchased through sole and single source suppliers; seasonal variations in customer operations; unanticipated increases in costs or expenses; risks associated with international operations; and the other risks identified in this report. Other unknown or unpredictable factors also could harm our results. Consequently, actual results or developments from our proteomics product line that are currently anticipated by us may not be realized or, even if substantially realized, may not have the expected consequences to, or effects on, us. Any failure to meet any proteomics guidance that we have provided or may provide in the future could have a material adverse effect on the trading price or volume of our stock.

We have made certain assumptions relating to our recent acquisition which may prove to be materially inaccurate.

We have made certain assumptions relating to the acquisition of DVS, which assumptions may be inaccurate, including as the result of the failure to realize the expected benefits of the acquisition, failure to realize expected revenue growth rates, higher than expected operating, transaction and integration costs, as well as general economic and business conditions that adversely affect the combined company following the acquisition. These assumptions relate to numerous matters, including:

- projections of Fluidigm Sciences' revenue growth, if any, and future revenues;
- the amount of goodwill and intangibles that will result from the acquisition;
- certain other purchase accounting adjustments that we expect may be recorded in our financial statements in connection with the acquisition;
- our ability to maintain, develop and deepen relationships with customers of Fluidigm Sciences; and
- other financial and strategic risks of the acquisition.

The carrying value of long-lived and intangible assets may become impaired and result in an impairment charge.

As of June 30, 2014, we had approximately \$212.0 million of net intangible assets, net of amortization, and goodwill, all of which relates to the acquisition. In addition, if in the future we acquire additional complementary businesses or technologies, a substantial portion of the value of such assets may be recorded as intangible assets or goodwill. The carrying amounts of

intangible assets and goodwill are affected whenever events or changes in circumstances indicate that the carrying amount of any asset may not be recoverable. Such events or changes might include a significant decline in market share, a significant decline in revenues, a significant increase in losses or decrease in profits, rapid changes in technology, failure to achieve the benefits of capacity increases and utilization, significant litigation arising out of an acquisition or other matters. Adverse events or changes in circumstances may affect the estimated undiscounted future operating cash flows expected to be derived from intangible assets and goodwill. If at any time we determine that an impairment has occurred, we will be required to reflect the impaired value as a charge, resulting in a reduction in earnings in the quarter such impairment is identified and a corresponding reduction in our net asset value. The potential recognition of impairment in the carrying value, if any, could have a material and adverse effect on our financial condition and results of operations.

If our research and product development efforts do not result in commercially viable products within anticipated timelines, if at all, our business and results of operations will be adversely affected.

Our business is dependent on the improvement of our existing products, our development of new products to serve existing markets, and our development of new products to create new markets and applications that were previously not practical with existing systems. We intend to devote significant personnel and financial resources to research and development activities designed to advance the capabilities of our technology. We have developed design rules for the implementation of our technology that are frequently revised to reflect new insights we have gained about the technology. In addition, we have discovered that biological or chemical reactions sometimes behave differently when implemented on our systems rather than in a standard laboratory environment. Furthermore, many such reactions take place within the confines of single cells, which have also demonstrated unexpected behavior when grown and manipulated within microfluidic environments. As a result, research and development efforts may be required to transfer certain reactions and cell handling techniques to our systems. In the past, product development projects have been significantly delayed when we encountered unanticipated difficulties in implementing a process on our systems. We may have similar delays in the future, and we may not obtain any benefits from our research and development activities. Any delay or failure by us to develop new products or enhance existing products would have a substantial adverse effect on our business and results of operations.

If one or more of our manufacturing facilities become unavailable or inoperable, we will be unable to continue manufacturing our instruments, IFCs, and/or assays and, as a result, our business will be harmed until we are able to secure a new facility.

We manufacture all of our genomics analytical and preparatory instruments and integrated fluidic circuits, or IFCs, for commercial sale at our facility in Singapore, our proteomics analytical instruments for commercial sale at our facility in Canada, and our assays for commercial sale at our facilities in South San Francisco and Sunnyvale, California. No other manufacturing facilities are currently available to us, particularly facilities of the size and scope required by our Singapore and Canada operations. Our facilities and the equipment we use to manufacture our instruments, IFCs, and assays would be costly to replace and could require substantial lead time to repair or replace. Our facilities may be harmed or rendered inoperable by natural or man-made disasters, which may render it difficult or impossible for us to manufacture our products for some period of time. If any of our facilities become unavailable to us, we cannot provide assurances that we will be able to secure a new manufacturing facility on acceptable terms, if at all. 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 will terminate on August 31, 2014. On October 14, 2013, Fluidigm Singapore Pte. Ltd., or Fluidigm Singapore, our wholly-owned subsidiary, accepted an offer of tenancy relating to the lease of a new manufacturing facility in Singapore, which expires on June 1, 2022. We completed the consolidation of our manufacturing operations in the new space in July 2014, and expect to complete the site qualification in August 2014. Such a move involved significant efforts in connection with the establishment of new clean rooms and the recommissioning of key manufacturing equipment. A delay in the site qualification process could adversely affect our manufacturing activities. If our manufacturing capabilities are impaired, we may not be able to manufacture and ship our products in a timely manner, which would adversely impact our business.

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. For example, we completed the consolidation of our manufacturing operations in the new space in July 2014, and expect to complete the site qualification in August 2014. A delay in the site qualification process could adversely affect our manufacturing activities. 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 our manufacturing activities are adversely impacted by our move, or if we are otherwise unable to keep up with demand for our products by successfully manufacturing, assembling, testing, 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 IFCs for commercial sale are manufactured at our facility in Singapore. Production of the elastomeric block that is at the core of our IFCs is a complex process requiring advanced clean rooms, sophisticated equipment, and strict adherence to procedures. Any contamination of the clean room, equipment malfunction, or failure to strictly follow procedures can significantly reduce our yield in one or more batches. We have in the past experienced variations in yields due to such factors. A drop in yield can increase our cost to manufacture our IFCs or, in more severe cases, require us to halt the manufacture of our IFCs until the problem is resolved. Identifying and resolving the cause of a drop in yield can require substantial time and resources.

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

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. Additionally, several of our instruments are assembled at the facilities of contract manufacturers in Singapore. We do not have long term contracts with our suppliers of these components and materials or our assembly service providers. The loss of the single source suppliers of any of the following components and/or materials would require significant time and effort to locate and qualify an alternative source of supply:

- The IFCs used in our microfluidic systems are fabricated using a specialized polymer, and other specialized materials, that are 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.
- Specialized pneumatic and electronic components for our C₁ Single-Cell Auto Prep System are available from a limited number of sources.
- The electron multiplier included in the CyTOF system, and the nickel sampler cone and certain metal isotopes used with the CyTOF system, are purchased from single source suppliers and are available from a limited number of sources.
- The raw materials for our DELTAgene and SNPtype assays and Access Array Target-Specific primers are available from a limited number of sources.

Our reliance on single source suppliers and assembly service providers also subjects us to other risks that could harm our business, including the following:

- we may be subject to increased component or assembly costs;
- we may not be able to obtain adequate supply or services in a timely manner or on commercially reasonable terms;
- our suppliers or service providers may make errors in manufacturing or assembly of components that could negatively affect the efficacy of our products or cause delays in shipment of our products; and
- our suppliers or service providers may encounter capacity constraints or financial hardships unrelated to our demand for components or services, 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, or assembly service providers. Any interruption or delay in the supply of components or materials or assembly of our instruments, or our inability to obtain components, materials, or assembly services 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.

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 technology is relatively new, and most potential customers have limited knowledge of, or experience with, our products. Prior to adopting our systems, some potential customers may need to devote time and effort to testing and validating our systems. Any failure of our systems to meet these customer benchmarks could result in customers choosing to retain their existing systems or to purchase systems other than ours.

In addition, it is important that our systems be perceived as accurate and reliable by the scientific and medical research community as a whole. Historically, a significant part of our sales and marketing efforts has been directed at convincing industry leaders of the advantages of our systems and encouraging such leaders to publish or present the results of their evaluation of our system. If we are unable to continue to induce leading researchers to use our systems, or if such researchers are unable to achieve and publish or present significant experimental results using our systems, acceptance and adoption of our systems will be slowed and our ability to increase our revenue would be adversely affected.

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

Our customer base is primarily composed of academic institutions, clinical laboratories that use our technology to develop tests, 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.

Our business relationships, including customer relationships, may be subject to disruption due to uncertainty associated with our recent acquisition.

Parties with which we or Fluidigm Sciences do business may experience uncertainty associated with the recent acquisition, including with respect to current or future business relationships with us, Fluidigm Sciences, or the combined business. These business relationships may be subject to disruption as customers and others may attempt to negotiate changes in existing business relationships or consider entering into business relationships with parties other than us, Fluidigm Sciences, or the combined business, including our competitors. These disruptions could have a material adverse effect on the businesses, operating results, and financial condition of the combined business.

The life science research and applied markets are highly competitive and subject to rapid technological change, and we may not be able to successfully compete.

The markets for our products are characterized by rapidly changing technology, evolving industry standards, changes in customer needs, emerging competition, new product introductions, and strong price competition. We compete with both established and development stage life science research companies that design, manufacture, and market instruments and consumables for gene expression analysis, single-cell targeted gene expression or protein analysis, single nucleotide polymorphism genotyping, or SNP genotyping, polymerase chain reaction, or PCR, digital PCR, other nucleic acid detection, flow cytometry, cell imaging, 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., Becton, Dickinson and Company, Bio-Rad Laboratories, Inc., Danaher Corporation, Illumina, Inc., Life Technologies Corporation (now part of Thermo Fisher Scientific), LGC Limited, Luminex Corporation, Millipore Corporation, NanoString Technologies, Inc., PerkinElmer, Inc. (through its acquisition of Caliper Life Sciences, Inc.), RainDance Technologies, Inc., Roche Diagnostics Corporation, Sequenom, Inc., Sony Corporation, Thermo Fisher Scientific Inc., and WaferGen Bio-systems, Inc. have products that compete in certain segments of the market in which we sell our products.

Competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards, or customer requirements. In light of these advantages, even if our technology is more effective than the product or service offerings of our competitors, current or potential customers might accept competitive products and services in lieu of purchasing our technology. We anticipate that we will face increased competition in the future as existing companies and

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

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

- changes in economic conditions;
- natural disasters;
- changes in government programs that provide funding to research institutions and companies;
- changes in the regulatory environment affecting life science and Ag-Bio companies engaged in research and commercial activities;
- 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 systems to keep pace with rapidly changing technology and customer requirements, which could have a material adverse effect on our business, revenue, financial condition, and operating results.

Our success depends on our ability to develop new products and applications for our technology in existing and new markets, while improving the performance and cost-effectiveness of our systems. New technologies, techniques, or products could emerge that might offer better combinations of price and performance than our current or future product lines and systems. Existing markets for our products, including single-cell biology and production genomics, 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.

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, promoted 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, promoted and intended for research use only, or RUO, they are not subject to regulation as medical devices by the FDA. Products labeled and intended for research use only are not currently subject to regulation as medical devices by comparable agencies of other countries. However, the FDA could disagree with our conclusion that our products are for research use only or deem our current marketing and promotional efforts as being inconsistent with research use only products. In addition, if we change the labeling or promotion of our products in the future to include indications for human diagnostic applications or medical uses, including treatment of diseases or medical conditions, or we have knowledge that our customers are using our products for clinical diagnostic or therapeutic 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, promote or advertise our products for use in performing clinical diagnostics, we would first need to obtain FDA pre-market clearance or approval (depending on any product's specific intended use and any such modified labeling claims), unless otherwise exempt from clearance or approval requirements. Obtaining FDA clearance or approval can be expensive and uncertain, and generally takes several months to years to obtain, and may require detailed and comprehensive scientific and clinical data. Notwithstanding the expense, these efforts may never result in FDA clearance or approval. Even if we were to obtain regulatory approval or clearance, it may not be for the uses we believe are important or commercially attractive.

Further, the FDA may expand its regulatory oversight of 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 laboratories offering LDTs. However, the FDA could modify its enforcement discretion for some or all LDTs. On July 31, 2014, the FDA notified Congress (as required by the Food and Drug Administration Safety and Innovation Act of 2012) of its intent to publish a proposed risk-based framework for LDTs, which are designed, manufactured, and used within a single laboratory. The notice to Congress provides the anticipated details of the draft guidance through which the FDA would propose to establish an LDT oversight framework, including premarket review for higher-risk LDTs, such as those that have the same intended use as FDA-approved or cleared companion diagnostics currently on the market. Such guidance, if and when finalized, may significantly impact the sales of our products and how customers use our products, and may require us to change our business model in order to maintain compliance with these laws. We cannot predict the ultimate timing or form of any FDA guidance or regulation on LDTs.

Additionally, on November 25, 2013, the FDA issued Final Guidance "Distribution of In Vitro Diagnostic Products Labeled for Research Use Only." The guidance emphasizes that the FDA will review the totality of the circumstances when it comes to evaluating whether equipment and testing components are properly labeled as RUO. The final 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, and other regulatory 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 or links to articles 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 and intended for research use only, it could reduce our revenue or increase our costs and adversely affect our business, prospects, results of operations or financial condition. In addition, if the FDA determined that our products labeled for research use only were intended, based on a review of the totality of circumstances, for use in clinical investigation or diagnosis, those products could be considered misbranded or adulterated under the Federal Food, Drug, and Cosmetic Act and subject to recall or other enforcement action.

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 QSR requirements. For clinical diagnostic products that are regulated as medical devices, the FDA enforces the QSR through pre-approved inspections and periodic unannounced inspections of registered manufacturing facilities. If we are subject to QSR requirements, the failure to comply with those requirements or take satisfactory corrective action in response to an adverse QSR inspection could result in enforcement actions, including a public warning letter or an untitled letter, a delay in approving or clearing, or a refusal to approve or clear, our products, 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.

Compliance or the failure to comply with current and future regulations, such as environmental regulations enacted in the European Union, could cause us significant expense and adversely impact our business.

We are subject to many federal, state, local, and foreign regulations relating to various aspects of our business operations. Governmental entities at all levels are continuously enacting new regulations, and it is difficult to identify all applicable regulations and anticipate how such regulations will be implemented and enforced. We continue to evaluate the necessary steps for compliance with applicable regulations. To comply with applicable regulations, we have and will continue to incur significant expense and allocate valuable internal resources to manage compliance-related issues. In addition, such regulations could restrict our ability to expand or equip our facilities, or could require us to acquire costly equipment or to incur other significant expenses to comply with the regulations. For example, the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive, or RoHS, and the Waste Electrical and Electronic Equipment Directive, or WEEE, enacted in the European Union, regulates the use of certain hazardous substances in, and require the collection, reuse and recycling of waste from, products we manufacture. Certain of our products sold in these countries are or will become subject to RoHS and WEEE requirements. These and similar regulations that have been or are in the process of being enacted in other countries may require us to redesign our products, use different types of materials in certain components, or source alternative components to ensure compliance with applicable standards, and may reduce the availability of parts and components used in our products by negatively impacting our suppliers' ability to source parts and components in a timely and cost-effective manner. Any such redesigns, required use of alternative materials, or limited availability of parts and components used in our products may detrimentally impact the performance of our products, add greater testing lead times for product introductions, reduce our product margins, or limit the markets for our products, and if we fail to comply with any present and future regulations, we could be subject to future fines, penalties, and restrictions, such as the suspension of manufacturing of our products or a prohibition on the sale of products we manufacture. Any of the foregoing could adversely affect our business, financial condition, or results of operations.

If we are unable to recruit and retain key executives, scientists and technical support personnel, we may be unable to achieve our goals. We may have difficulty attracting, motivating and retaining executives and other key employees in light of our recent acquisition.

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.

Uncertainty about the effect of the recent acquisition on our employees may have an adverse effect on us and, consequently, the combined business resulting from the acquisition. This uncertainty may impair our ability to attract, retain and motivate key personnel in the months after the merger for the combined entity. Employee retention may be particularly challenging as employees may experience uncertainty about their future roles with the combined business. Additionally, as a result of the acquisition, key Fluidigm Sciences employees became entitled to receive a portion of the acquisition consideration, the payment of which could provide sufficient financial incentive for certain officers and employees to no longer pursue employment with the combined business. In particular, we have identified several key Fluidigm Sciences employees, including key scientific and technical employees, who have been important to the development of Fluidigm Sciences' products and technologies, and we have implemented employment compensation arrangements in connection with the acquisition to ensure these individuals' continued employment with us. We cannot provide assurances that these arrangements will sufficiently incentivize these key employees to remain with us. If key employees depart because of issues relating to the uncertainty and difficulty of integration, financial incentives or a desire not to remain employees of the combined business, we may incur significant costs in identifying, hiring and retaining replacements for departing employees, which could substantially reduce or delay our ability to realize the anticipated benefits of the acquisition.

Any failure to successfully integrate Fluidigm Sciences' business and operations or fully realize potential synergies from the acquisition in the expected time frame would adversely affect our business, operating results, and financial condition.

We do not have a history of acquiring other companies, and the success of our recent acquisition will depend, in part, on our ability to successfully integrate the acquired business and operations and fully realize the anticipated benefits and potential synergies from the combined business. If we are unable to achieve these objectives, the anticipated benefits and potential synergies from the acquisition may not be realized fully or at all, or may take longer to realize than expected. Any failure to timely realize these anticipated benefits would have a material adverse effect on our business, operating results, and financial condition.

We completed our acquisition of DVS in February 2014 and the integration process is underway. In connection with the integration process, we could experience the loss of key employees, loss of key customers, decreases in revenues and increases in operating costs, as well as the disruption of our ongoing businesses, any or all of which could limit our ability to achieve the anticipated benefits and potential synergies from the acquisition and have a material adverse effect on our business, operating results, and financial condition.

We will incur significant acquisition-related integration costs in connection with the acquisition.

We have developed and are executing on a plan to integrate the operations of Fluidigm Sciences with our business. In connection with the integration, we anticipate that we will incur certain non-recurring charges; however, we cannot identify the timing, nature and amount of all such charges as of the date of this report. These integration costs will be charged as an expense in the period incurred and could materially affect our results of operations in the period in which such charges are recorded. Although we believe that the elimination of duplicative costs, as well as the realization of other efficiencies related to the integration of the business, will offset incremental acquisition-related costs over time, this net benefit may not be achieved in the near term, or at all.

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

In addition to our recent acquisition, we may make additional 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. Our acquisition of DVS was our first acquisition of another company. 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 in recent years experienced volatility and disruptions, including diminished liquidity and credit availability, increased concerns about inflation and deflation, and the downgrade of U.S. debt and exposure risks on other sovereign debts, decreased consumer confidence, lower economic growth, volatile energy costs, increased unemployment rates, and uncertainty about economic stability. Volatility and disruption of financial markets could limit our customers' ability to obtain adequate financing or credit to purchase and pay for our products in a timely manner or to maintain operations, which could result in a decrease in sales volume that could harm our results of operations. General concerns about the fundamental soundness of domestic and international economies may also cause our customers to reduce their purchases. Changes in governmental banking, monetary, and fiscal policies to address liquidity and increase credit availability may not be effective.

Significant government investment and allocation of resources to assist the economic recovery of sectors which do not include our customers may reduce the resources available for government grants and related funding for life science, Ag-Bio, and clinical research and development. Continuation or further deterioration of these financial and macroeconomic conditions could significantly harm our sales, profitability and results of operations.

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

During the six months ended June 30, 2014 and years 2013, 2012, and 2011, approximately 52%, 48%, 47%, and 47%, 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 international operations and develop opportunities in other countries. Engaging in international business inherently involves a number of difficulties and risks, including:

- required compliance with existing and changing foreign regulatory requirements and laws, such as the RoHs and WEEE directives, which regulate the use of certain hazardous substances in, and require the collection, reuse and recycling of waste from, products we manufacture;
- 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, Canada, and California, are sufficient to meet our short-term manufacturing needs. The current leases for our facilities in Singapore will terminate on August 31, 2014. On October 14, 2013, Fluidigm Singapore accepted an offer of tenancy relating to the lease of a new manufacturing facility in Singapore, which expires on June 1, 2022. We completed the consolidation of our manufacturing operations in the new space in July 2014, and expect to complete the site qualification in August 2014. Such a move involved significant efforts in connection with the establishment of

new clean rooms and the recommissioning of key manufacturing equipment. A delay in the site qualification process could adversely affect our manufacturing activities. If our ability to utilize the new facility for manufacturing operations is delayed, we may not be able to meet demand for our microfluidic systems, which could adversely impact our business. We cannot provide assurances that we will be able to secure a lease on a different manufacturing facility on acceptable terms and on a timely basis, if at all, to meet our future manufacturing needs.

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 systems utilize novel and complex technology 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 systems, these risks may increase. We generally provide warranties that our systems will meet performance expectations and will be free from defects. We also provide warranties relating to other parts of our systems. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating margins.

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

If our products contain defects, we may experience:

- a failure to achieve market acceptance or expansion of our product sales;
- loss of customer orders and delay in order fulfillment;
- 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, our BioMark and CyTOF systems 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, our BioMark and CyTOF systems in particular, must be used in conjunction with one or more reagents designed to produce or facilitate the particular biological or chemical reaction desired by the user. Many of these reagents are highly specialized and available to the user only from a single supplier or a limited number of suppliers. Although we sell reagents for use with certain of our products, our customers may purchase these reagents directly from third-party suppliers, and we have no control over the supply of those materials. In addition, our products are designed to work with these reagents as they are currently formulated. We have no control over the formulation of reagents sold by third-party suppliers, and the performance of our products might be adversely affected if the formulation of these reagents is changed. If one or more of these reagents were

to become unavailable or were reformulated, our ability to market and sell our products could be materially and adversely affected.

In addition, the use of a reagent for a particular process may be covered by one or more patents relating to the reagent itself, the use of the reagent for the particular process, the performance of that process, or the equipment required to perform the process. Typically, reagent suppliers, who are either the patent holders or their authorized licensees, sell the reagents along with a license or covenant not to sue with respect to such patents. The license accompanying the sale of a reagent often purports to restrict the purposes for which the reagent may be used. If a patent holder or authorized licensee were to assert against us or our customers that the license or covenant relating to a reagent precluded its use with our systems, our ability to sell and market our products could be materially and adversely affected. For example, our BioMark System involves real-time quantitative PCR, or qPCR. Leading suppliers of reagents for real-time qPCR reactions include Life Technologies Corporation (now part of Thermo Fisher Scientific) 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. 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. Additionally, on February 13, 2014 we completed our acquisition of DVS, which is now our wholly-owned subsidiary and a "significant subsidiary" as defined by Rule 1-02 of Regulation S-X promulgated by the Securities and Exchange Commission. DVS was a private company and was not required to maintain internal controls over financial reporting to the same degree as public companies subject to the Sarbanes-Oxley Act. We are in the process of integrating DVS's operations with ours, including integration of financial reporting processes and procedures and internal controls over financing reporting. In the course of integration, we may identify internal control deficiencies or material weaknesses that require remediation.

Our compliance with Section 404 requires 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 continue to evaluate our need for additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. Moreover, if we do not comply with the requirements of Section 404, 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, we are in the process of integrating DVS's operations with our operations, including transitioning of DVS's business and financial processes to our ERP system. If we do not effectively implement the ERP system as planned, if the system does not operate as intended, or if we fail to properly integrate DVS's business and financial processes into our ERP system, our business, results of operations, and internal controls over financial reporting may be adversely affected.

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.

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 one or more ownership changes, our ability to utilize NOLs could be limited by Section 382 of the Internal Revenue Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Internal Revenue Code.

Risks Related to Intellectual Property

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

Our commercial success depends in part on our ability to protect our intellectual property and proprietary technologies. We rely on patent protection, where appropriate and available, as well as a combination of copyright, trade secret, and trademark laws, and nondisclosure, confidentiality, and other contractual restrictions to protect our proprietary technology. However, these legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. We apply for patents covering our products and technologies and uses thereof, as we deem appropriate. However, we may fail to apply for patents on important products and technologies in a timely fashion or at all. Our pending U.S. and foreign patent applications may not issue as patents or may not issue in a form that will be sufficient to protect our proprietary technology and gain or keep our competitive advantage. Any patents we have obtained or do obtain may be subject to re-examination, reissue, opposition, or other administrative proceeding, or may be challenged in litigation, and such challenges could result in a determination that the patent is invalid or unenforceable. In addition, competitors may be able to design alternative methods or devices that avoid infringement of our patents. Both the patent application process and the process of managing patent disputes can be time consuming and expensive.

Furthermore, the laws of some foreign countries may not protect our intellectual property rights to the same extent as do the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business. Changes in either the patent laws or in interpretations of patent laws in the United States or other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. For example:

- We might not have been the first to make the inventions covered by each of our pending patent applications;
- We might not have been the first to file patent applications for these inventions;
- The patents of others may have an adverse effect on our business; and
- Others may independently develop similar or alternative products and technologies or duplicate any of our products and technologies.

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

We may be involved in lawsuits to protect or enforce our patents and proprietary rights, to determine the scope, coverage and validity of others' proprietary rights, or to defend against third party claims of intellectual property infringement, any of which could be time-intensive and costly and may adversely impact our business or stock price.

Litigation may be necessary for us to enforce our patent and proprietary rights, determine the scope, coverage, and validity of others' proprietary rights, and/or defend against third party claims of intellectual property infringement against us as well as against our suppliers, distributors, customers, and other entities with whom we do business. 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 or financial position. 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. For example, some of our products provide for the testing and analysis of genetic material, and patent rights relating to genetic materials remain a developing area of patent law. A recent U.S. Supreme Court decision held, among other things, that claims to isolated genomic DNA occurring in nature are not patent eligible, while claims relating to synthetic DNA may be patent eligible. We expect the ruling will result in additional litigation in our industry. In addition, 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., a wholly-owned subsidiary of Life Technologies Corporation (now part of Thermo Fisher Scientific and collectively referred to as Life), 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 license

agreements with Life which, among other matters, granted us a non-exclusive license to the '934 patent and its foreign counterparts.

Our customers have been sued for various claims of intellectual property infringement in the past, and we expect that our customers will be involved in additional litigation in the future. In particular, our customers may become subject to lawsuits claiming that their use of our products infringes third-party patent rights, and we could become subject to claims that we contributed to or induced our customer's infringement. In addition, our agreements with some of our suppliers, distributors, customers, and other entities with whom we do business may require us to defend or indemnify these parties to the extent they become involved in infringement claims against us, including the claims described above. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify any of these third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, operating results, or financial condition.

We depend on certain technologies that are licensed to us. We do not control these technologies and any loss of our rights to them could prevent us from selling our products, which would have an adverse effect on our business.

We rely on licenses in order to be able to use various proprietary technologies that are material to our business, including our core IFC, multi-layer soft lithography, and mass cytometry technologies. In some cases, we do not control the prosecution, maintenance, or filing of the patents to which we hold licenses, or the enforcement of these patents against third parties.

Our rights to use the technology we license are subject to the negotiation and continuation of those licenses. Certain of our licenses contain provisions that allow the licensor to terminate the license upon specific conditions. Our rights under the licenses are subject to our continued compliance with the terms of the license, including the payment of royalties due under the license. Because of the complexity of our products and the patents we have licensed, determining the scope of the license and related royalty obligation can be difficult and can lead to disputes between us and the licensor. An unfavorable resolution of such a dispute could lead to an increase in the royalties payable pursuant to the license. If a licensor believed we were not paying the royalties due under the license or were otherwise not in compliance with the terms of the license, the licensor might attempt to revoke the license. If such an attempt were successful and the license is terminated, we might be barred from marketing, producing, and selling some or all of our products, which would have an adverse effect on our business. For example, pursuant to the terms of a license agreement entered into with Life in June 2011, we were obligated to make a \$1.0 million payment to Life upon satisfaction of certain conditions. On October 16, 2013, Life provided notice that the \$1.0 million payment was due and payable under the license agreement. We believe that at least one of the conditions of the milestone payment remains unmet; however, we paid Life the amount due while reserving our rights with respect to such matter to, among other reasons, avoid what would have been, in our view, an improper termination of our license to certain Life patent filings under the agreement, which could have subjected our relevant product lines to risks associated with patent infringement litigation.

Fluidigm Sciences licenses core intellectual property rights covering its products under agreements with several third parties. Termination of or disputes relating to any of these license agreements would have a material adverse effect on our business, operating results, and financial condition and could result in our inability to sell Fluidigm Sciences' mass cytometry products and otherwise to realize the benefits associated with the acquisition.

The intellectual property rights covering Fluidigm Sciences' products depend in substantial part on license agreements with third parties, in particular MDS, Inc., or MDS, and also with other third parties such as Nodality, Inc., or Nodality. The licensed intellectual property rights of MDS as well as MDS's rights and obligations under the license agreement between Fluidigm Canada and MDS were subsequently assigned to and are now held by PerkinElmer Health Sciences, Inc., or PerkinElmer. Under the PerkinElmer license agreement, Fluidigm Canada received an exclusive, royalty bearing, worldwide license to certain patents that are now owned by PerkinElmer in the field of ICP-based mass cytometry, including the analysis of elemental tagged materials in connection therewith, and a non-exclusive license for reagents outside the field of ICP-based mass cytometry. Fluidigm Canada was also party to an interim license agreement, now expired, under which Nodality granted Fluidigm Canada a worldwide, non-exclusive, research use only, royalty bearing license to certain cytometric reagents, instruments, and other products. Fluidigm Canada and Nodality are currently in negotiations with respect to reinstating the license agreement and we cannot provide assurances that we will be able to reinstate or secure a new license agreement on acceptable terms, if at all. In addition, Fluidigm Sciences is party to additional in-license agreements with parties such as Stanford University that relate to significant intellectual property rights, and Fluidigm Sciences' business and product development plans anticipate and will substantially depend on future in-license agreements with additional third parties, some of which are currently in the early discussion phase.

In-licensed intellectual property rights that are fundamental to the business being operated present numerous risks relating to ownership and enforcement of intellectual property rights. For example, under the PerkinElmer license, Fluidigm Canada is not granted any right, and we do not have any right to bring enforcement actions with respect to the patents licensed from PerkinElmer, which could materially impair our ability to preclude competitors and other third parties from activities that we

consider to infringe on our exclusively licensed rights. In other cases such as with Nodality, all or a portion of the license rights granted may be limited for research use only, and in the event we attempt to expand into diagnostic applications, we would be required to negotiate additional rights, which may not be available to us on commercially reasonable terms, if at all.

In addition, Fluidigm Sciences' licensors may generally terminate the applicable license agreement for uncured material breaches or if Fluidigm Sciences becomes insolvent, makes an assignment for the benefit of creditors, or has a petition in bankruptcy filed against it. In the case of Nodality, the existing license has expired and our acquisition of Fluidigm Sciences could adversely affect Fluidigm Sciences' ability to negotiate a definitive license on commercially acceptable terms. Termination of material license agreements for any reason, including as a result of failure to obtain a required consent to assignment or as a result of an inability to negotiate a new or extended license where required, would result in a material loss of rights by us and Fluidigm Sciences and would be expected to have a material adverse effect on our business, operating results, and financial condition. In particular, any such termination could prevent us from manufacturing and selling Fluidigm Sciences' products unless we can negotiate new license terms or develop or acquire alternative intellectual property rights that cover or enable similar functionality. While we do not believe that any existing material in-license agreements require the consent of the licensor in order for us to rely on these licenses, the question is not free from doubt, and one or more of Fluidigm Sciences' licensors could contend that the failure to obtain their consent constituted a breach or default under the applicable license agreement or require the negotiation of a new license. In particular, in May 2014, we received a written notice of PerkinElmer's position that the license agreement between Fluidigm Canada and PerkinElmer requires, as a result of the acquisition, that PerkinElmer consent to negotiate a commercially reasonable license to Fluidigm. We expect negotiations with PerkinElmer to ensue.

In the case of a dispute over these or other terms of the applicable license agreements with any of Fluidigm Sciences' licensors, including with respect to the license with PerkinElmer, we cannot provide assurances that we will be able to negotiate a new or amended license on commercially reasonable terms, if at all. Our potential dispute with PerkinElmer as well as any other disputes between us and one of Fluidigm Sciences' existing licensors concerning the terms or conditions of the applicable license agreement, including with respect to its continued application following the acquisition, could result, among other risks, in substantial management distraction at a time when our management needs to focus on the integration of Fluidigm and Fluidigm Sciences; increased expenses associated with litigation or efforts to resolve disputes; substantial customer uncertainty concerning the direction of our proteomics product line; potential infringement claims against us and/or our customers, which could include efforts by a licensor to enjoin sales of Fluidigm Sciences products; customer requests for indemnification by Fluidigm; and, in the event of an adverse determination, our inability to operate the business of Fluidigm Sciences as currently operated or at all. Any of these factors would be expected to have a material adverse effect on our business, operating results, and financial condition and could result in a substantial decline in our stock price.

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

We are subject to certain U.S. government regulations because we have licensed technologies that were developed with U.S. government grants. In accordance with these regulations, these licenses provide that products embodying the technologies are subject to domestic manufacturing requirements. If this domestic manufacturing requirement is not met, the government agency that funded the relevant grant is entitled to exercise specified rights, referred to as "march-in rights," which if exercised would allow the government agency to require the licensors or us to grant a non-exclusive, partially exclusive, or exclusive license in any field of use to a third party designated by such agency. All of our microfluidic systems revenue is dependent upon the availability of our IFCs, which incorporate technology developed with U.S. government grants. All of our instruments, including microfluidic systems, and IFCs for commercial sale are manufactured at our facility in Singapore. The federal regulations allow the funding government agency to grant, at the request of the licensors of such technology, a waiver of the domestic manufacturing requirement. Waivers may be requested prior to any government notification. We have assisted the licensors of these technologies with the analysis of the domestic manufacturing requirement, and, in December 2008, the sole licensor subject to the requirement applied for a waiver of the domestic manufacturing requirement with respect to the relevant patents licensed to us by this licensor. 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 licensor requested a continued waiver of the domestic manufacturing requirement with respect to the relevant patents, but the government agency has not yet taken any action in response to this request. If the government agency does not grant the requested waiver or the government fails to grant additional waivers of such requirement that may be sought in the future, then the U.S. government could exercise its march-in rights with respect to the relevant patents licensed to us. In addition, the license agreement under which the relevant patents are licensed to us contains provisions that obligate us to comply with this domestic manufacturing requirement. We are not currently manufacturing instruments and IFCs in the United States that incorporate the relevant licensed technology. If our lack of compliance with this provision constituted a material breach of the license agreement, the license of the relevant patents could be terminated or we could be compelled to relocate our manufacturing of microfluidic systems and IFCs to the United States to avoid or cure a material breach of the license agreement. Any of the exercise of march-in rights, the termination of our license of the relevant patents or the relocation of our manufacturing of microfluidic systems and IFCs to the United States could materially adversely affect our business, operations and financial condition.

Fluidigm Sciences is subject to certain obligations and restrictions relating to technologies developed in cooperation with Canadian government agencies.

Some of Fluidigm Sciences' Canadian research and development is funded in part through government grants and by government agencies. The intellectual property developed through these projects is subject to rights and restrictions in favor of government agencies and Canadians generally. In most cases the government agency retains the right to use intellectual property developed through the project for non-commercial purposes and to publish the results of research conducted in connection with the project. This may increase the risk of public disclosure of information relating to Fluidigm Sciences' intellectual property, including confidential information, and may reduce its competitive advantage in commercializing intellectual property developed through these projects. In certain projects Fluidigm Sciences has also agreed to use commercially reasonable efforts to commercialize intellectual property in Canada, or more specifically in the province of Ontario, for the economic benefit of Canada and the province of Ontario. These restrictions will limit its choice of business and manufacturing locations, business partners and corporate structure and may, in certain circumstances, restrict its ability to achieve maximum profitability and cost efficiency from the intellectual property generated by these projects. In one instance, a dispute with the applicable government funded entity may require mediation, which could lead to unanticipated delays in our commercialization efforts to that project. One of Fluidigm Sciences' Canadian government funded projects is also subject to certain limited "march-in" rights in favor of the government of the Province of Ontario, under which Fluidigm Sciences may be required to grant a license to its intellectual property, including background intellectual property developed outside the scope of the project, to a responsible applicant on reasonable terms in circumstances where the government determines that such a license is necessary in order to alleviate emergency or extraordinary health or safety needs or for public use. In addition, Fluidigm Sciences must provide reasonable assistance to the government in obtaining similar licenses from third parties required in connection with the use of its intellectual property. Instances in which the government of the Province of Ontario has exercised similar "march-in" rights are rare; however, the exercise of such rights could materially adversely affect Fluidigm Sciences' 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 or other institutions or third parties with whom such employees may have been previously affiliated.

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, Fluidigm Sciences has in the past received notices from third parties alleging potential disclosures of confidential information. We may become subject to claims that our employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers or other third parties or institutions with whom Fluidigm Sciences employees may have been previously affiliated. 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, 2014, we had 28,158,833 shares of common stock outstanding, and stockholders holding at least 5% of our stock, individually or with affiliated persons or entities, collectively beneficially owned or controlled approximately 45% of such shares. Sales of large numbers of shares by any of our large stockholders could adversely affect our trading price, particularly given our relatively small historic trading volumes. If stockholders holding shares of our common stock sell, indicate an intention to sell, or if it is perceived that they will sell, substantial amounts of their common stock in the public market, the trading price of our common stock could decline. Moreover, if there is no active trading market or if the volume of trading is limited, holders of our common stock may have difficulty selling their shares.

In addition, the trading price of our common stock may be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include:

- actual or anticipated quarterly variation in our results of operations or the results of our competitors;

- announcements or communications by us or our competitors relating to, among other things, new commercial products, technological advances, significant contracts, commercial relationships, capital commitments, acquisitions or sales of businesses, and/or misperceptions in or speculation by the market regarding such announcements or communications;
- issuance of new or changed securities analysts' reports or recommendations for our stock;
- developments or disputes concerning our intellectual property or other proprietary rights;
- commencement of, or our involvement in, litigation;
- market conditions in the life science, Ag-Bio, and clinical research sectors;
- failure to complete significant sales;
- manufacturing disruptions that could occur if we were unable to successfully expand our production in our current or an alternative facility;
- any future sales of our common stock or other securities in connection with raising additional capital or otherwise;
- any major change to the composition of our board of directors or management; and
- general economic conditions and slow or negative growth of our markets.

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/or 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, 2014, our current executive officers, directors, stockholders holding at least 5% of our outstanding stock, and their respective affiliates, collectively beneficially owned or controlled approximately 45% 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.

Risks Related to Our Outstanding 2.75% Senior Convertible Notes due 2034

Our outstanding 2.75% senior convertible notes due 2034 are effectively subordinated to our secured debt and any liabilities of our subsidiaries.

Our outstanding 2.75% senior convertible notes due 2034, which we refer to as our "notes", rank:

- senior in right of payment to any of our indebtedness that is expressly subordinated in right of payment to the notes;
- equal in right of payment to all of our liabilities that are not so subordinated;
- effectively junior in right of payment to any of our secured indebtedness to the extent of the value of the assets securing such indebtedness; and
- structurally junior to all indebtedness and other liabilities (including trade payables) of our subsidiaries.

In February 2014, we completed our offering of notes with an aggregate outstanding principal amount of \$201.3 million. In the event of our bankruptcy, liquidation, reorganization, or other winding up, our assets that secure debt ranking senior in right of payment to the notes will be available to pay obligations on the notes only after the secured debt has been repaid in full from these assets, and the assets of our subsidiaries will be available to pay obligations on the notes only after all claims senior to the notes have been repaid in full. There may not be sufficient assets remaining to pay amounts due on any or all of the notes then outstanding. The indenture governing the notes does not prohibit us from incurring additional senior debt or secured debt, nor does it prohibit our subsidiaries from incurring additional liabilities.

The notes are our obligations only and some of our operations are conducted through, and a portion of our consolidated assets are held by, our subsidiaries.

The notes are our obligations exclusively and are not guaranteed by any of our operating subsidiaries. A portion of our consolidated assets is held by our subsidiaries. Accordingly, our ability to service our debt, including the notes, depends in part on the results of operations of our subsidiaries and upon the ability of such subsidiaries to provide us with cash, whether in the form of dividends, loans or otherwise, to pay amounts due on our obligations, including the notes. Our subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to make payments on the notes or to make any funds available for that purpose. In addition, dividends, loans or other distributions to us from such subsidiaries may be subject to contractual and other restrictions and are subject to other business and tax considerations.

Recent and future regulatory actions and other events may adversely affect the trading price and liquidity of the notes.

We expect that many investors in, and potential purchasers of, the notes will employ, or seek to employ, a convertible arbitrage strategy with respect to the notes. Investors would typically implement such a strategy by selling short the common stock underlying the notes and dynamically adjusting their short position while continuing to hold the notes. Investors may also implement this type of strategy by entering into swaps on our common stock in lieu of or in addition to short selling the common stock. As a result, any specific rules regulating equity swaps or short selling of securities or other governmental action that interferes with the ability of market participants to effect short sales or equity swaps with respect to our common stock could adversely affect the ability of investors in, or potential purchasers of, the notes to conduct the convertible arbitrage strategy that we believe they will employ, or seek to employ, with respect to the notes. This could, in turn, adversely affect the trading price and liquidity of the notes.

The SEC and other regulatory and self-regulatory authorities have implemented various rules and taken certain actions, and may in the future adopt additional rules and take other actions, that may impact those engaging in short selling activity involving equity securities (including our common stock). Such rules and actions include Rule 201 of SEC Regulation SHO, the adoption by the Financial Industry Regulatory Authority, Inc. and the national securities exchanges of a “Limit Up-Limit Down” program, the imposition of market-wide circuit breakers that halt trading of securities for certain periods following specific market declines, and the implementation of certain regulatory reforms required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. Although the direction and magnitude of the effect that Regulation SHO, FINRA, securities exchange rule changes and implementation of the Dodd-Frank Act may have on the trading price and the liquidity of the notes will depend on a variety of factors, many of which cannot be determined at the date of the prospectus, past regulatory actions (such as certain emergency orders issued by the SEC in 2008 prohibiting short sales of stock of certain financial services companies) have had a significant impact on the trading prices and liquidity of convertible debt instruments. Any governmental or regulatory action that restricts the ability of investors in, or potential purchasers of, the notes to effect short sales of our common stock, borrow our common stock or enter into swaps on our common stock or increases the costs of implementing an arbitrage strategy could adversely affect the trading price and the liquidity of the notes.

Volatility in the market price and trading volume of our common stock could adversely impact the trading price of the notes.

The stock market in recent years has experienced significant price and volume fluctuations that have often been unrelated to the operating performance of companies. The market price of our common stock could fluctuate significantly for many reasons, including in response to the risks described in this report, or for reasons unrelated to our operations, such as reports by industry analysts, investor perceptions or negative announcements by our customers, competitors or suppliers regarding their own performance, as well as industry conditions and general financial, economic and political instability. The market price of our common stock could also decline as a result of sales of a large number of shares of our common stock in the market, particularly sales by our directors, executive officers, employees, and significant stockholders, and the perception that these sales could occur may also depress the market price of our common stock. A decrease in the market price of our common stock would likely adversely impact the trading price of the notes. The market price of our common stock could also be affected by possible sales of our common stock by investors who view the notes as a more attractive means of equity participation in us and by hedging or arbitrage trading activity that we expect to develop involving our common stock. This trading activity could, in turn, affect the trading price of the notes.

We may still incur substantially more debt or take other actions which would intensify the risks discussed above.

We currently have a financing arrangement pursuant to which we may incur up to \$10 million of revolver borrowings and our subsidiaries may be able to incur substantial additional debt, subject to the restrictions contained in such arrangement or our future debt instruments, some of which may be secured debt. We are not restricted under the terms of the indenture governing the notes from incurring additional debt, securing existing or future debt, recapitalizing our debt or taking a number of other actions that are not limited by the terms of the indenture governing the notes that could have the effect of diminishing our ability to make payments on the notes when due. Any failure by us or any of our significant subsidiaries to make any payment at maturity of indebtedness for borrowed money in excess of \$15 million or the acceleration of any such indebtedness in excess of \$15 million would, subject to the terms of the indenture governing the notes, constitute a default under the indenture. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the notes when required.

We may not have the ability to raise the funds necessary to repurchase the notes upon specified dates or upon a fundamental change, and our future debt may contain limitations on our ability to repurchase the notes.

Holders of the notes have the right to require us to repurchase all or a portion of their notes on certain dates or upon the occurrence of a fundamental change at a repurchase price equal to 100% of the principal amount of the notes to be repurchased,

plus accrued and unpaid interest, if any. We may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of notes surrendered therefor.

In addition, our ability to repurchase the notes may be limited by law, regulatory authority or agreements governing our future indebtedness. Our failure to repurchase notes at a time when the repurchase is required by the indenture would constitute a default under the indenture. A default under the indenture or the fundamental change itself could also lead to a default under agreements governing our future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness and repurchase the notes when required.

Holders of notes are not entitled to any rights with respect to our common stock, but they are subject to all changes made with respect to them to the extent our conversion obligation includes shares of our common stock.

Holders of notes are not entitled to any rights with respect to our common stock (including, without limitation, voting rights and rights to receive any dividends or other distributions on our common stock) prior to the conversion date with respect to any notes they surrender for conversion, but they are subject to all changes affecting our common stock. For example, if an amendment is proposed to our certificate of incorporation or bylaws requiring stockholder approval and the record date for determining the stockholders of record entitled to vote on the amendment occurs prior to the conversion date with respect to any notes surrendered for conversion, then the holder surrendering such notes will not be entitled to vote on the amendment, although such holder will nevertheless be subject to any changes affecting our common stock.

We have made only limited covenants in the indenture governing the notes, and these limited covenants may not protect a noteholder's investment.

The indenture governing the notes does not:

- require us to maintain any financial ratios or specific levels of net worth, revenues, income, cash flows or liquidity and, accordingly, does not protect holders of the notes in the event that we experience adverse changes in our financial condition or results of operations;
- limit our subsidiaries' ability to guarantee or incur indebtedness that would rank structurally senior to the notes;
- limit our ability to incur additional indebtedness, including secured indebtedness;
- restrict our subsidiaries' ability to issue securities that would be senior to our equity interests in our subsidiaries and therefore would be structurally senior to the notes;
- restrict our ability to repurchase our securities;
- restrict our ability to pledge our assets or those of our subsidiaries; or
- restrict our ability to make investments or pay dividends or make other payments in respect of our common stock or our other indebtedness.

Furthermore, the indenture governing the notes contains only limited protections in the event of a change of control. We could engage in many types of transactions, such as acquisitions, refinancings or certain recapitalizations, that could substantially affect our capital structure and the value of the notes and our common stock but may not constitute a "fundamental change" that permits holders to require us to repurchase their notes or a "make-whole fundamental change" that permits holders to convert their notes at an increased conversion rate. For these reasons, the limited covenants in the indenture governing the notes may not protect a noteholder's investment in the notes.

The increase in the conversion rate for notes converted in connection with a make-whole fundamental change or provisional redemption may not adequately compensate noteholders for any lost value of the notes as a result of such transaction or redemption.

If a make-whole fundamental change occurs prior to February 6, 2021 or upon our issuance of a notice of provisional redemption, under certain circumstances, we will increase the conversion rate by a number of additional shares of our common stock for notes converted in connection such events. The increase in the conversion rate for notes converted in connection with such events may not adequately compensate noteholders for any lost value of the notes as a result of such transaction or redemption. In addition, if the price of our common stock in the transaction is greater than \$180.00 per share or less than \$39.96 per share (in each case, subject to adjustment), no additional shares will be added to the conversion rate. Moreover, in no event will the conversion rate per \$1,000 principal amount of notes as a result of this adjustment exceed 25.0250 shares of common stock, subject to adjustment.

Our obligation to increase the conversion rate for notes converted in connection with such events could be considered a penalty, in which case the enforceability thereof would be subject to general principles of reasonableness and equitable remedies.

The conversion rate of the notes may not be adjusted for all dilutive events.

The conversion rate of the notes is subject to adjustment for certain events, including, but not limited to, the issuance of certain stock dividends on our common stock, the issuance of certain rights or warrants, subdivisions, combinations, distributions of capital stock, indebtedness, or assets, cash dividends and certain issuer tender or exchange offers. However, the conversion rate will not be adjusted for other events, such as a third-party tender or exchange offer or an issuance of common stock for cash, that may adversely affect the trading price of the notes or our common stock. An event that adversely affects the value of the notes may occur, and that event may not result in an adjustment to the conversion rate.

Some significant restructuring transactions may not constitute a fundamental change, in which case we would not be obligated to offer to repurchase the notes.

Upon the occurrence of a fundamental change, a holder of notes has the right to require us to repurchase the notes. However, the fundamental change provisions will not afford protection to holders of notes in the event of other transactions that could adversely affect the notes. For example, transactions such as leveraged recapitalizations, refinancings, restructurings, or acquisitions initiated by us may not constitute a fundamental change requiring us to repurchase the notes. In the event of any such transaction, the holders would not have the right to require us to repurchase the notes, even though each of these transactions could increase the amount of our indebtedness, or otherwise adversely affect our capital structure or any credit ratings, thereby adversely affecting the holders of notes.

In addition, absent the occurrence of a fundamental change or a make-whole fundamental change as described under changes in the composition of our board of directors will not provide holders with the right to require us to repurchase the notes or to an increase in the conversion rate upon conversion.

We cannot assure noteholders that an active trading market will develop or be maintained for the notes.

We do not intend to apply to list our outstanding convertible notes on any securities exchange or to arrange for quotation on any automated dealer quotation system. In addition, the liquidity of the trading market in the notes and the market price quoted for the notes may be adversely affected by changes in the overall market for this type of security and by changes in our financial performance or prospects or in the prospects for companies in our industry generally. As a result, we cannot assure noteholders that an active trading market will develop or be maintained for the notes. If an active trading market does not develop or is not maintained, the market price and liquidity of the notes may be adversely affected. In that case, noteholders may not be able to sell the notes at a particular time or at a favorable price.

Any adverse rating of the notes may cause their trading price to fall.

We do not intend to seek a rating on the notes. However, if a rating service were to rate the notes and if such rating service were to lower its rating on the notes below the rating initially assigned to the notes or otherwise announces its intention to put the notes on credit watch, the trading price of the notes could decline.

Holders of notes may be subject to tax if we make or fail to make certain adjustments to the conversion rate of the notes even though they do not receive a corresponding cash distribution.

The conversion rate of the notes is subject to adjustment in certain circumstances, including the payment of cash dividends. If the conversion rate is adjusted as a result of a distribution that is taxable to our common stockholders, such as a cash dividend, a noteholder may be deemed to have received a dividend subject to U.S. federal income tax without the receipt of any cash. In addition, a failure to adjust (or to adjust adequately) the conversion rate after an event that increases a noteholder's proportionate interest in us could be treated as a deemed taxable dividend to you. If a make-whole fundamental change occurs prior to February 6, 2021 or we provide notice of a provisional redemption, under some circumstances, we will increase the conversion rate for notes converted in connection with the make-whole fundamental change or provisional redemption. Such increase may also be treated as a distribution subject to U.S. federal income tax as a dividend. For a non-U.S. holder, any deemed dividend would be subject to U.S. federal withholding tax at a 30% rate, or such lower rate as may be specified by an applicable treaty, which may be set off against subsequent payments on the notes.

Any conversions of the notes will dilute the ownership interest of our existing stockholders, including holders who had previously converted their notes.

Any conversion of some or all of the notes will dilute the ownership interests of our existing stockholders. Any sales in the public market of our common stock issuable upon such conversion could adversely affect prevailing market prices of our common stock. In addition, the existence of the notes may encourage short selling by market participants because the conversion of the notes could depress the price of our common stock.

Item 6. Exhibits.

Exhibit Number	Description	Incorporated by Reference From Form	Incorporated by Reference From Exhibit Number	Date Filed
10.1	Business Financing Modification Agreement dated May 9, 2014, by and between Bridge Bank, National Association and Fluidigm Corporation	10-Q	10.5	5/12/2014
10.2	Business Financing Modification Agreement dated July 31, 2014, by and between Bridge Bank, National Association and Fluidigm Corporation	Filed herewith		
10.3	Fourth Amendment to Lease Agreement between ARE-San Francisco No. 17, LLC and the registrant, dated June 4, 2014	Filed herewith		
31.1	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 of President and Chief Executive Officer	Filed herewith		
31.2	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 of Chief Financial Officer	Filed herewith		
32.1(1)	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 of President and Chief Executive Officer	Furnished herewith		
32.2(1)	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 of Chief Financial Officer	Furnished herewith		
101.INS	XBRL Instance Document	Filed herewith		
101.SCH	XBRL Taxonomy Extension Schema Document	Filed herewith		
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith		
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Filed herewith		
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith		
101.DEF	XBRL Taxonomy Extension Definition Document	Filed 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.			

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.

Dated: August 4, 2014

FLUIDIGM CORPORATION

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

Dated: August 4, 2014

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

EXHIBIT LIST

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101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith		
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Filed herewith		
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith		
101.DEF	XBRL Taxonomy Extension Definition Document	Filed 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.

BUSINESS FINANCING MODIFICATION AND WAIVER AGREEMENT

This Business Financing Modification and Waiver Agreement is entered into as of July 31, 2014, by and between Fluidigm Corporation, a Delaware corporation (the "Borrower"), and Bridge Bank, National Association ("Lender"), and is effective as of June 30, 2014.

1. DESCRIPTION OF EXISTING DOCUMENTS: Borrower and Lender are parties to a Business Financing Agreement, dated December 16, 2010, as amended on February 8, 2011, March 31, 2011, December 21, 2012, January 29, 2014, and May 9, 2014 (as may be further amended from time to time, the "Business Financing Agreement"). Capitalized terms used without definition herein shall have the meanings assigned to them in the Business Financing Agreement.

Hereinafter, all indebtedness owing by Borrower to Lender shall be referred to as the "Indebtedness" and the Business Financing Agreement and any and all other documents executed by Borrower in favor of Lender shall be referred to as the "Existing Documents."

2. DESCRIPTION OF CHANGE IN TERMS.

A. Modifications to Business Financing Agreement:

(1) In order to account for new assets acquired by Borrower through Borrower's acquisition of DVS Sciences, Inc., a Delaware corporation, Section 4.14(b) is hereby amended restated to read as follows:

(b)Effective Tangible Net Worth not at any time exceeding a deficit of more than \$100,000,000 with compliance determined on a quarterly basis.

3. WAIVER. Lender hereby waives the Tangible Net Worth covenant set forth in Section 4.14(b) of the Business Financing Agreement for the fiscal quarter ended June 30, 2014; provided, however, that nothing herein, nor any communications among Borrower and Lender shall be deemed a waiver with respect to any other provision of the Business Financing Agreement, or any Default or Events of Default or any failure of Borrower to comply with any other provision of the Agreement or any other Existing Document, and in no event shall this waiver be deemed to be a waiver of enforcement of any of the rights or remedies of Lender under the Business Financing Agreement or any other Existing Document, at law, in equity, or otherwise, with respect to any Default or Event of Default now existing or hereafter arising. Except as expressly provided herein, Lender hereby reserves and preserves all of their rights and remedies against Borrower under the Business Financing Agreement and the other Existing Documents, at law, in equity, or otherwise.

4. CONSISTENT CHANGES. The Existing Documents are each hereby amended wherever necessary to reflect the changes described above.

5. NO DEFENSES OF BORROWER/GENERAL RELEASE. Borrower agrees that, as of this date, it has no defenses against the obligations to pay any amounts under the Indebtedness. Borrower ("Releasing Party") acknowledges that Lender would not enter into this Business Financing Modification and Waiver Agreement without Releasing Party's assurance that it has no claims against Lender or any of Lender's officers, directors, employees or agents. Except for the obligations arising hereafter under this Business Financing Modification and Waiver Agreement, each Releasing Party

releases Lender, and each of Lender's and entity's officers, directors and employees from any known or unknown claims that Releasing Party now has against Lender of any nature, including any claims that Releasing Party, its successors, counsel, and advisors may in the future discover they would have now if they had known facts not now known to them, whether founded in contract, in tort or pursuant to any other theory of liability, including but not limited to any claims arising out of or related to the Agreement or the transactions contemplated thereby. Releasing Party waives the provisions of California Civil Code section 1542, which states:

A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER, MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

The provisions, waivers and releases set forth in this section are binding upon each Releasing Party and its shareholders, agents, employees, assigns and successors in interest. The provisions, waivers and releases of this section shall inure to the benefit of Lender and its agents, employees, officers, directors, assigns and successors in interest. The provisions of this section shall survive payment in full of the Obligations, full performance of all the terms of this Business Financing Modification and Waiver Agreement and the Business Financing Agreement, and/or Lender's actions to exercise any remedy available under the Business Financing Agreement or otherwise.

6. CONTINUING VALIDITY. Borrower understands and agrees that in modifying the Existing Documents, Lender is relying upon Borrower's representations, warranties, and agreements, as set forth therein. Except as expressly modified pursuant to this Business Financing Modification and Waiver Agreement, the terms of the Existing Documents remain unchanged and in full force and effect. Lender's agreement to modifications to the Existing Documents pursuant to this Business Financing Modification and Waiver Agreement in no way shall obligate Lender to make any future modifications to the Existing Documents or the Indebtedness. Nothing in this Business Financing Modification and Waiver Agreement shall constitute a satisfaction of the Indebtedness. It is the intention of Lender and Borrower to retain as liable parties all makers and endorsers of Existing Documents, unless the party is expressly released by Lender in writing. No maker, endorser, or guarantor will be released by virtue of this Business Financing Modification and Waiver Agreement. The terms of this paragraph apply not only to this Business Financing Modification and Waiver Agreement, but also to any subsequent modification agreements relating to the Business Financing Agreement.

~~ signatures follow ~~

IN WITNESS WHEREOF, Borrower and Lender have executed this Agreement on the day and year above written.

BORROWER:
FLUIDIGM CORPORATION

LENDER:
BRIDGE BANK, NATIONAL ASSOCIATION

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

By: /s/ Christopher Hill
Name: Christopher Hill
Its: Senior Vice President

FOURTH AMENDMENT TO LEASE

THIS FOURTH AMENDMENT TO LEASE (this "**Fourth Amendment**") is made as of June 4, 2014, by and between **ARE-SAN FRANCISCO NO. 17, LLC**, a Delaware limited liability company ("**Landlord**"), and **FLUIDIGM CORPORATION**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant are now parties to that certain Lease Agreement dated as of September 14, 2010, as amended by that certain First Amendment to Lease dated as of September 22, 2010, as further amended by that certain letter agreement dated August 2, 2012, as further amended by that certain Second Amendment to Lease dated as of April 9, 2013 ("**Second Amendment**"), and as further amended by that certain Third Amendment to Lease dated as of June 25, 2013 ("**Third Amendment**") (as amended, the "**Lease**"). Pursuant to the Lease, Tenant leases certain premises consisting of approximately 48,405 rentable square feet ("**Existing Premises**") in a building located at 7000 Shoreline Court, South San Francisco, California. The Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. Landlord and Tenant desire, subject to the terms and conditions set forth below, to amend the Lease to, among other things, expand the size of the Existing Premises by adding (i) approximately 12,928 rentable square feet of space on the third floor of the Building, and (ii) approximately 460 rentable square feet of space on the ground floor of the Building, all as set forth on **Exhibit A** attached to this Fourth Amendment (collectively, the "**Second Expansion Premises**").

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

1. **Second Expansion Premises.** In addition to the Existing Premises, commencing on the Second Expansion Premises Commencement Date (as defined below), Landlord leases to Tenant, and Tenant leases from Landlord, the Second Expansion Premises.
2. **Delivery.** Landlord shall deliver ("**Delivery**" or "**Deliver**") the Second Expansion Premises to Tenant for Tenant's Work on the date that is 1 business day after the mutual execution and delivery of this Fourth Amendment by the parties. The "**Second Expansion Premises Commencement Date**" shall be the date that Landlord Delivers the Premises to Tenant. The "**Second Expansion Premises Rent Commencement Date**" shall be October 1, 2014. As used herein, the term "**Tenant's Work**" shall have the meaning set forth for such term in the Second Expansion Premises Work Letter attached to this Fourth Amendment as **Exhibit B**. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Second Expansion Premises Commencement Date and the Second Expansion Premises Rent Commencement Date in substantially the form of the "Acknowledgement of Commencement Date" attached to the Second Amendment as **Exhibit B**; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder.

For the period of 60 consecutive days after the Second Expansion Premises Commencement Date, Landlord shall, at its sole cost and expense (which shall not constitute an Operating Expense), be responsible for any repairs that are required to be made to the Building Systems serving the Second Expansion Premises, unless Tenant or any Tenant Party was responsible for the cause of such repair, in which case Tenant shall pay the cost.



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Commencing on the Second Expansion Premises Commencement Date and continuing during the Term, Tenant shall have the right to use the furniture belonging to Landlord located within the Second Expansion Premises on the Second Expansion Premises Commencement Date ("**Landlord's Furniture**"). Tenant shall have no right to remove any of Landlord's Furniture from the Second Expansion Premises without Landlord's prior written consent and Landlord's Furniture shall be returned to Landlord at the expiration or earlier termination of the Term in substantially the same condition as received by Tenant, except for ordinary wear and tear and casualty. Notwithstanding the foregoing, if, at any time during the Term, Tenant does not want to use certain items of Landlord's Furniture, Tenant shall notify Landlord in writing of such item(s) ("**Furniture Removal Notice**") and Landlord shall cause such item(s) of Landlord's Furniture identified in the Furniture Removal Notice to be removed from the Premises. The cost of the removal of such item(s) of Landlord's Furniture shall be the responsibility of Landlord only if Tenant delivers a Furniture Removal Notice to Landlord within 30 days after the Second Expansion Premises Commencement Date. Thereafter, the cost of the removal of such item(s) of Landlord's Furniture shall be the responsibility of Tenant.

Except as set forth in the Lease or this Fourth Amendment: (i) Tenant shall accept the Second Expansion Premises and Landlord's Furniture in their condition as of the Second Expansion Premises Commencement Date, subject to all applicable Legal Requirements; (ii) Landlord shall have no obligation for any defects in the Second Expansion Premises or Landlord's Furniture; and (iii) Tenant's taking possession of the Second Expansion Premises and Landlord's Furniture shall be conclusive evidence that Tenant accepts the Second Expansion Premises and Landlord's Furniture, and that the Second Expansion Premises and Landlord's Furniture were in good condition at the time possession was taken.

Tenant agrees and acknowledges that, except as otherwise expressly set forth in this Fourth Amendment or in the Lease, neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Second Expansion Premises or Landlord's Furniture, and/or the suitability of the Second Expansion Premises or Landlord's Furniture for the conduct of Tenant's business, and Tenant waives any implied warranty that the Second Expansion Premises or Landlord's Furniture are suitable for the Permitted Use.

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

"**Premises:** That portion of the Project, containing approximately 61,793 rentable square feet ("**RSF**"), consisting of (i) approximately 29,228 rentable square feet (the "**Original Premises**"), (ii) approximately 19,177 rentable square feet ("**Expansion Premises**"), and (iii) approximately 13,388 rentable square feet ("**Second Expansion Premises**"), all as determined by Landlord, as shown on **Exhibit A.**"

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

4. **Base Rent.**

a. **Existing Premises.** Tenant shall continue to pay Base Rent for the Existing Premises as provided for in the Lease through April 30, 2020.

b. **Second Expansion Premises.** Commencing on the Second Expansion Premises Rent Commencement Date, Base Rent for the Second Expansion Premises shall be payable as follows (i) for the period commencing on the Second Expansion Premises Rent Commencement Date through December 31, 2014, Base Rent for the Second Expansion Premises shall be equal to \$1.50 per rentable square foot of the Second Expansion Premises, and (ii) for the period commencing on January 1, 2015 through April 30, 2016, Base Rent for the Second Expansion Premises shall be equal to \$2.70 per rentable square foot of the Second Expansion Premises per month.



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Base Rent payable with respect to the Second Expansion Premises shall be increased, commencing on May 1, 2016, on each Adjustment Date (as defined in the Second Amendment) during the Base Term by multiplying the Base Rent payable with respect to the Second Expansion Premises immediately before such Expansion Premises Adjustment Date by 3% and adding the resulting amount to the Base Rent payable with respect to the Second Expansion Premises immediately before such Expansion Premises Adjustment Date.

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

5. **Tenant's Share of Operating Expenses.** Tenant shall continue to pay Operating Expenses as provided for in the Lease through the OPEX Adjustment Date (as defined below). Commencing on the earlier of the (i) date that Tenant commences business operations in all of the Second Expansion Premises, or (ii) the Second Expansion Premises Rent Commencement Date (either, the "**OPEX Adjustment Date**"), Tenant's Share of Operating Expenses payable by Tenant under the Lease shall be increased by 9.82%, and commencing on May 1, 2015, the total Tenant's Share of Operating Expenses which shall be payable by Tenant under the Lease shall be equal to 45.31%. Notwithstanding anything to the contrary contained herein, if Tenant commences business operations in a portion (but not all) of the Second Expansion Premises prior to the Second Expansion Premises Rent Commencement Date, Tenant shall be required to pay Operating Expenses on a pro rata basis with respect to the actual rentable square footage of the Second Expansion Premises in which Tenant is conducting business operations, as determined by DGA.

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

6. **Base Term.** The Base Term of the Lease with respect to the Second Expansion Premises shall expire on April 30, 2020, concurrently with the expiration of the Base Term of the Lease with respect to the Existing Premises.
7. **Removal of Tenant Improvements.** Tenant shall not be required to remove any of the Tenant Improvements existing in the Existing Premises as of the date of this Fourth Amendment or any Tenant Improvements constructed in the Premises pursuant to the Second Expansion Premises Work Letter at the expiration or



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earlier termination of the Term nor shall Tenant have the right to remove any such Tenant Improvements at any time.

8. **Extension Right.** For the avoidance of doubt, Tenant's Extension Right pursuant to Section 39 of the Lease (as amended by the Second Amendment) shall apply to both the Existing Premises and the Second Expansion Premises and, if exercised by Tenant pursuant to the terms of Section 39, must be exercised with respect to the entire Premises.
9. **Right of First Refusal.** Notwithstanding anything to the contrary contained in the Lease, (i) the ROFR Expiration Date (as defined in the Third Amendment) is hereby extended from April 1, 2015, through April 1, 2016, and (ii) the definition of "ROFR Space" in Section 1(a) of the Third Amendment is hereby deleted in its entirety and replaced with the following: "that certain space consisting of approximately 8,903 rentable square feet on the first floor of the Building as shown on **Exhibit C** attached hereto, which is not occupied by a tenant or which is occupied by an existing tenant whose lease is expiring within 9 months or less and such tenant does not wish to renew (whether or not such tenant has a right to renew) its occupancy of such space."
10. **Environmental.** Notwithstanding anything to the contrary contained in Section 28 or Section 30 of the original Lease, Tenant shall not be responsible for or have any liability to Landlord, and the indemnification and hold harmless obligation set forth in Section 30(a) of the original Lease shall not apply to Hazardous Materials in the Second Expansion Premises, which Hazardous Materials Tenant proves to Landlord's reasonable satisfaction (i) existed prior to the Second Expansion Premises Commencement Date, (ii) originated from any separately demised tenant space within the Project other than the Premises, (iii) were not brought upon, kept, used, stored, handled, treated, generated in, or released or disposed of from, the Project by Tenant or any Tenant Party, or (iv) migrated from outside the Second Expansion Premises into the Second Expansion Premises, unless in each case, to the extent the presence of such Hazardous Materials (x) is the result of a breach by Tenant of any of its obligations under the Lease, or (y) was caused, contributed to or exacerbated by Tenant or any Tenant Party.
11. **Disclosure.** For purposes of Section 1938 of the California Civil Code, as of the date of this First Amendment, Tenant acknowledges having been advised by Landlord that the Project has not been inspected by a certified access specialist.
12. **Brokers.** Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "Broker"), other than Cresa Palo Alto and Jones Lang LaSalle, in connection with the transaction reflected in this Fourth Amendment. Landlord and Tenant each hereby agrees to indemnify and hold the other harmless from and against any claims by any Broker, other than the brokers named in this Fourth Amendment, claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.
13. **Miscellaneous.**
 - a. This Fourth Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Fourth Amendment may be amended only by an agreement in writing, signed by the parties hereto.
 - b. This Fourth Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective successors and assigns.
 - c. This Fourth Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature



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(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this Fourth Amendment attached thereto.

d. Except as amended and/or modified by this Fourth Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this Fourth Amendment. In the event of any conflict between the provisions of this Fourth Amendment and the provisions of the Lease, the provisions of this Fourth Amendment shall prevail. Whether or not specifically amended by this Fourth Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Fourth Amendment.

[Signatures are on the next page]



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

LANDLORD:

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

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

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

By: /s/ Eric S. Johnson

Eric S. Johnson

Its: Vice President, Real Estate Legal Affairs

TENANT:

FLUIDIGM CORPORATION,
a Delaware corporation

By: /s/ Vikram Jog

Vikram Jog

Its: Chief Financial Officer



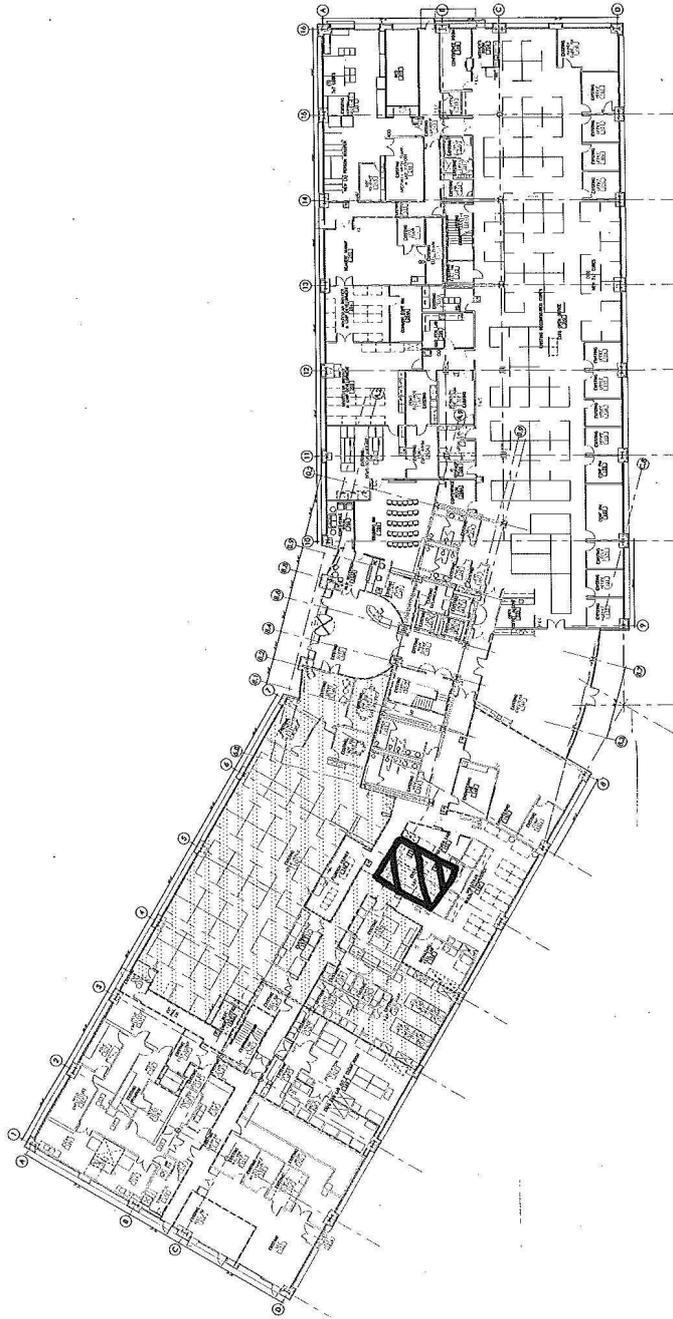
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EXHIBIT A

Second Expansion Premises



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LEASE PROPOSED LAYOUT



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EXHIBIT B

Second Expansion Premises Work Letter

THIS SECOND EXPANSION PREMISES WORK LETTER (this "**Second Expansion Premises Work Letter**") is incorporated into that certain Lease Agreement dated as of September 14, 2010, as amended by that certain First Amendment to Lease dated as of September 22, 2010, as further amended by that certain letter agreement dated August 2, 2012, as further amended by that certain Second Amendment to Lease dated as of April 9, 2013, as further amended by that certain Third Amendment to Lease dated as of June 25, 2013 and as further amended by that certain Fourth Amendment to Lease of even date herewith (as amended, the "**Lease**"), by and between **ARE-SAN FRANCISCO NO. 17, LLC**, a Delaware limited liability company ("**Landlord**"), and **FLUIDIGM CORPORATION**, a Delaware corporation ("**Tenant**"). Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

1. **General Requirements.**

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

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

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

2. **Tenant Improvements.**

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

(b) **Tenant's Space Plans.** Tenant shall be responsible for the delivery to Landlord of schematic drawings and outline specifications (the "**TI Design Drawings**") detailing Tenant's requirements for the Tenant Improvements. Not more than 10 days thereafter, Landlord shall deliver to Tenant the written objections, questions or comments of Landlord and the TI Architect with regard to the TI Design Drawings. Tenant shall cause the TI Design Drawings to be revised to address such written comments and shall resubmit said drawings to Landlord for approval within 10 days thereafter. Such process shall continue until Landlord has approved the TI Design Drawings.



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

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

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

3. **Performance of the Tenant Improvements.**

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

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



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

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

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

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

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

5. **Costs.**

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

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

1. a "**Tenant Improvement Allowance**" in the maximum amount of \$17.50 per rentable square foot in the Second Expansion Premises, which is included in the Base Rent set forth in the Lease; and



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2. an "**Additional Tenant Improvement Allowance**" in the maximum amount of \$10.00 per rentable square foot in the Second Expansion Premises, which shall, to the extent used, result in Second Expansion Premises TI Rent as set forth in Section 4(c) of the Fourth Amendment.

The TI Allowance shall be disbursed in accordance with this Second Expansion Premises Work Letter. Tenant shall have no right to the use or benefit (except as provided below with respect to the Tenant Improvement Allowance) of any portion of the TI Allowance not required for the construction of (i) the Tenant Improvements described in the TI Construction Drawings approved pursuant to Section 2(d) or (ii) any Changes pursuant to Section 4. Except as provided in the immediately following sentence, Tenant shall have no right to any portion of the TI Allowance that is not disbursed before the last day of the month that is 12 months after the Second Expansion Premises Commencement Date ("**Allowance Expiration Date**"). A portion of the Tenant Improvement Allowance remaining unused as of the Allowance Expiration Date, up to \$7.50 per rentable square foot of the Second Expansion Premises, shall be applied to Base Rent coming due following the Allowance Expiration Date pursuant to a schedule reasonably acceptable to Landlord and Tenant until such unused portion of the Tenant Improvement Allowance (up to \$7.50 per rentable square foot of the Second Expansion Premises) has been exhausted.

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

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

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



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6. **Miscellaneous.**

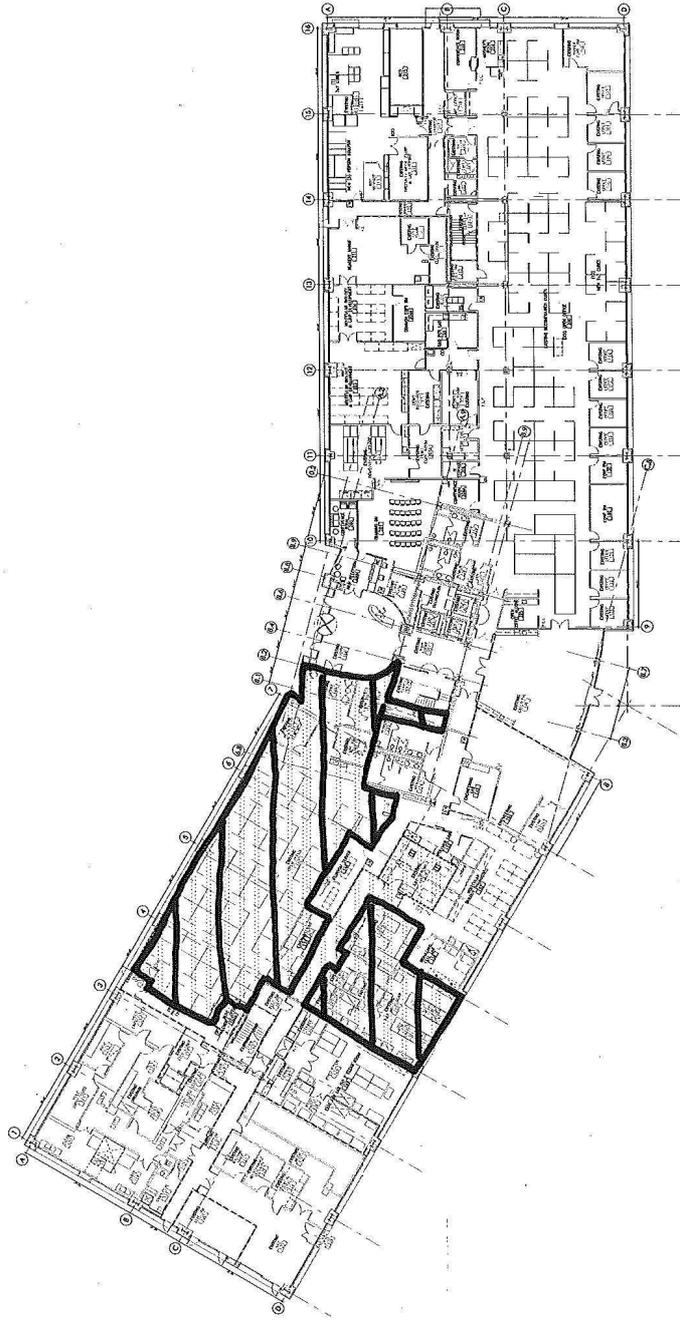
- (a) **Consents.** Whenever consent or approval of either party is required under this Second Expansion Premises Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, except as may be expressly set forth herein to the contrary.
- (b) **Modification.** No modification, waiver or amendment of this Second Expansion Premises Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.
- (c) **Tenant Improvements.** The construction by Tenant of the Tenant Improvements shall be governed by this Second Expansion Premises Work Letter and the provisions of Section 12 of the Lease shall not apply thereto.



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EXHIBIT C

ROFR Space



DATE: 09/01/2010
DRAWN BY: [illegible]
CHECKED BY: [illegible]
SCALE: 1/8" = 1'-0"

LEASE PROPOSED LAYOUT
Fluor
7000 SHERWOOD COURT, SOUTH SAN FRANCISCO, CA 94080
SEPTEMBER 1ST, 2010

ALEXANDRIA



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**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.

Dated: August 4, 2014

By: /s/ Gajus V. Worthington

Gajus V. Worthington

President and Chief Executive Officer

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

I, Vikram Jog, certify that:

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

Dated: August 4, 2014

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

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

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

(i) the Quarterly Report of the Company on Form 10-Q for the quarter ended June 30, 2014 (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 4, 2014

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

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

(i) the Quarterly Report of the Company on Form 10-Q for the quarter ended June 30, 2014 (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 4, 2014