

**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, 2015

or

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

For the transition period from _____ to _____

Commission file number: 001-34180

FLUIDIGM CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

77-0513190

(I.R.S. Employer Identification Number)

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

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

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

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

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

(Do not check if a smaller reporting company)

Smaller reporting company

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

As of July 31, 2015, there were 28,713,113 shares of the Registrant's common stock outstanding.

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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, 2015	December 31, 2014
	(Unaudited)	(Note 2)
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 23,745	\$ 33,713
Short-term investments	76,181	81,588
Accounts receivable (net of allowances of \$76 at June 30, 2015 and \$120 at December 31, 2014)	21,786	22,384
Inventories	18,817	15,991
Prepaid expenses and other current assets	2,851	2,221
Total current assets	143,380	155,897
Long-term investments	27,119	27,499
Property and equipment, net	14,102	13,889
Other non-current assets	3,820	3,966
Developed technology, net	96,600	102,200
Goodwill	104,108	104,108
Total assets	<u>\$ 389,129</u>	<u>\$ 407,559</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 5,964	\$ 5,919
Accrued compensation and related benefits	5,047	6,874
Other accrued liabilities	10,372	9,664
Deferred revenue, current portion	7,547	6,928
Total current liabilities	28,930	29,385
Convertible notes, net	195,569	195,455
Deferred tax liability	24,381	26,152
Deferred revenue, net of current portion	4,933	4,357
Other non-current liabilities	2,099	1,791
Total liabilities	255,912	257,140
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 10,000 shares authorized, no shares issued and outstanding at June 30, 2015 and December 31, 2014	—	—
Common stock, \$0.001 par value, 200,000 shares authorized at June 30, 2015 and December 31, 2014; 28,880 and 28,341 shares issued and outstanding as of June 30, 2015 and December 31, 2014, respectively	29	28
Additional paid-in capital	475,229	461,362
Accumulated other comprehensive loss	(697)	(794)
Accumulated deficit	(341,344)	(310,177)
Total stockholders' equity	133,217	150,419
Total liabilities and stockholders' equity	<u>\$ 389,129</u>	<u>\$ 407,559</u>

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,	
	2015	2014	2015	2014
Revenue:				
Product revenue	\$ 28,558	\$ 27,479	\$ 55,204	\$ 52,928
License revenue	60	74	143	186
Grant revenue	—	54	—	217
Total revenue	28,618	27,607	55,347	53,331
Costs and expenses:				
Cost of product revenue	11,965	9,955	22,611	18,659
Research and development	10,090	11,374	20,080	19,020
Selling, general and administrative	21,222	18,655	41,316	33,912
Acquisition-related expenses	—	—	—	10,696
Total costs and expenses	43,277	39,984	84,007	82,287
Loss from operations	(14,659)	(12,377)	(28,660)	(28,956)
Interest expense	(1,451)	(1,415)	(2,904)	(2,441)
Other (expense) income, net	608	(18)	(512)	30
Loss before income taxes	(15,502)	(13,810)	(32,076)	(31,367)
Benefit from income taxes	266	1,128	909	3,271
Net loss	\$ (15,236)	\$ (12,682)	\$ (31,167)	\$ (28,096)
Net loss per share, basic and diluted	\$ (0.53)	\$ (0.45)	\$ (1.09)	\$ (1.03)
Shares used in computing net loss per share, basic and diluted	28,803	27,960	28,636	27,389

See accompanying notes.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Net loss	\$ (15,236)	\$ (12,682)	\$ (31,167)	\$ (28,096)
Other comprehensive (loss) income, net of tax				
Unrealized gain on available-for-sale securities	20	(41)	75	(40)
Foreign currency translation adjustment	(117)	98	22	70
Other comprehensive income (loss), net of tax	(97)	57	97	30
Total comprehensive loss	<u>\$ (15,333)</u>	<u>\$ (12,625)</u>	<u>\$ (31,070)</u>	<u>\$ (28,066)</u>

See accompanying notes.

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

	Six Months Ended June 30,	
	2015	2014
Operating activities		
Net loss	\$ (31,167)	\$ (28,096)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,779	1,842
Stock-based compensation expense	8,706	9,256
Acquisition-related share-based awards acceleration expense	—	2,648
Amortization of developed technology	5,600	4,200
Non-cash charges for sale of inventory revalued at the date of acquisition	—	682
Other non-cash items	230	67
Changes in assets and liabilities:		
Accounts receivable, net	843	4,892
Inventories	(3,147)	(5,709)
Prepaid expenses and other current assets	(584)	6
Other non-current assets	(163)	(1,161)
Accounts payable	451	2,183
Deferred revenue	1,285	2,001
Other current liabilities	(999)	765
Other non-current liabilities	(1,463)	(3,811)
Net cash used in operating activities	(17,629)	(10,235)
Investing activities		
Acquisition, net of cash acquired	—	(113,190)
Purchases of investments	(33,731)	(86,793)
Proceeds from sales and maturities of investments	39,376	24,461
Purchase of intangible assets	(120)	—
Purchases of property and equipment	(2,310)	(4,563)
Net cash provided by (used in) investing activities	3,215	(180,085)
Financing activities		
Proceeds from issuance of convertible notes, net	—	195,212
Proceeds from exercise of stock options	5,128	3,457
Net cash provided by financing activities	5,128	198,669
Effect of foreign exchange rate fluctuations on cash and cash equivalents	(682)	71
Net (decrease) increase in cash and cash equivalents	(9,968)	8,420
Cash and cash equivalents at beginning of period	33,713	35,261
Cash and cash equivalents at end of period	\$ 23,745	\$ 43,681
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 create, manufacture, and market innovative technologies and life-science tools focused on the exploration and analysis of single cells, as well as the industrial application of genomics, based upon our core microfluidics and mass cytometry technologies. We sell instruments and consumables, including integrated fluidic circuits (IFCs), assays, and reagents, to academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology (Ag-Bio) companies.

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, 2014 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, 2015 are not necessarily indicative of the results to be expected for the year ending December 31, 2015 or for any other interim period or for any other future year. All intercompany accounts and transactions have been eliminated upon consolidation.

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, 2014 included in our Annual Report on Form 10-K filed with the SEC.

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.

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,	
	2015	2014	2015	2014
Stock options, restricted stock units and restricted stock awards	3,814	3,972	3,814	3,972
Convertible notes	3,598	3,598	3,598	3,598
Total	7,412	7,570	7,412	7,570

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

Accumulated Other Comprehensive Loss

The components of accumulated other comprehensive loss, net of tax, for the three and six months ended June 30, 2015 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, 2014	\$ (49)	\$ (745)	\$ (794)
Other comprehensive income	55	139	194
Balance at March 31, 2015	\$ 6	\$ (606)	\$ (600)
Other comprehensive (loss) income	20	(117)	(97)
Balance at June 30, 2015	\$ 26	\$ (723)	\$ (697)

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 (See Note 4).

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 value. If the fair value of our reporting unit exceeds its carrying value, goodwill is not considered impaired and no further analysis is required. If the carrying value of the reporting unit exceeds its fair value, 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 its 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 April 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2015-03, Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs. This guidance is intended to simplify the presentation of debt issuance costs. These amendments require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. It will be effective for our interim and annual financial statements beginning in the first quarter of 2016 and early adoption is permitted. We will apply the guidance in ASU 2015-03 in our financial statements commencing in the first quarter of 2016, which will result in a reclassification of approximately \$1.0 million from Other assets to Convertible notes, net.

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 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.

In February 2014, 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 \$113.2 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.) (DVS) (See Note 4). Interest expense related to the Notes was approximately \$1.5 million and \$2.9 million for the three and six months ended June 30, 2015. Interest expense related to the Notes was approximately \$1.4 million and \$2.4 million for the three and six months ended June 30, 2014. Approximately \$2.8 million of accrued interest under the Notes became due and was paid during the six months ended June 30, 2015.

4. Acquisition

On February 13, 2014 (Acquisition Date), we acquired DVS primarily to broaden our addressable single-cell biology market opportunity and complement our existing product offerings. DVS develops, manufactures, markets, and sells high-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.

The contractual price for the acquisition was \$207.5 million, subject to certain adjustments as specified in the merger agreement. The measurement period for the acquisition ended on February 12, 2015. 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 the unvested DVS restricted stock into 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 the 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 CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

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 as of the Acquisition Date, representing 50.3030% of the shares otherwise payable to the former stockholders of DVS, were deposited into escrow (Escrowed Shares). The Escrowed Shares comprised a portion of the merger consideration and were being 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. Under the terms of the merger agreement, fifty percent (50.0%) of the aggregate shares subject to the indemnification escrow were eligible for release on March 13, 2015 (Initial Release Date), and the balance of the shares would become eligible for release on August 13, 2015, provided that in each case shares will continue to be held in escrow in amounts that we may reasonably determine in good faith to be necessary to satisfy any claims for which we have delivered a notice of claim which has not been fully resolved between us and the representative of the former stockholders of DVS (Stockholder Representative). Prior to the Initial Release Date, we submitted escrow claim notices under the terms of the merger agreement. On April 9, 2015, the Stockholder Representative provided notices objecting to our claims. In July 2015, we entered into a settlement agreement with the Stockholder Representative regarding the claims (Settlement Agreement). Pursuant to the terms of the Settlement Agreement, the parties agreed to release approximately 80% of the Escrowed Shares to the former stockholders of DVS, and the remaining approximately 20% of the Escrowed Shares to Fluidigm, which were canceled and returned to the status of authorized and unissued shares. Additionally, the parties agreed to, among other things, release various claims and waive certain rights with respect to the merger agreement. The Escrowed Shares returned will be accounted for in the third quarter of fiscal 2015, as the transaction was entered into subsequent to the period ended June 30, 2015.

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	104,108
Other non-current assets	88
Total assets acquired	238,472
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	(31,942)
Deferred revenue, net of current portion	(1,629)
Net assets acquired	\$ 199,933

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

The following table provides details of intangible assets acquired in connection with the DVS acquisition as of June 30, 2015 (in thousands, except years):

	Gross	Accumulated Amortization	Net	Useful Life (years)
Developed technology	\$ 112,000	\$ (15,400)	\$ 96,600	10

We recognized \$2.8 million and \$5.6 million in intangible asset amortization expense during the three and six months ended June 30, 2015, respectively. 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 \$104.1 million of goodwill recognized as part of the transaction is attributable primarily to expected synergies and other benefits from the acquisition, including expansion of our addressable market from the single-cell genomics market to the larger single-cell biology market and the ability to leverage our larger global commercial sales organization and infrastructure to expand awareness of DVS's products and technology. Goodwill is not expected to be deductible for income tax purposes. There were no changes in goodwill between December 31, 2014 and June 30, 2015.

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. No such costs were incurred in fiscal year 2015 or in the three months ended June 30, 2014.

5. Balance Sheet Details

Inventories

Inventories consist of the following (in thousands):

	June 30, 2015	December 31, 2014
Raw materials	\$ 6,631	\$ 4,670
Work-in-process	3,054	3,524
Finished goods	9,132	7,797
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	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>

Property and Equipment, net

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

	June 30, 2015	December 31, 2014
Computer equipment and software	\$ 4,880	\$ 3,905
Laboratory and manufacturing equipment	20,107	17,592
Leasehold improvements	5,528	4,988
Office furniture and fixtures	1,103	1,804
	<hr/>	<hr/>
	<hr/>	<hr/>
Less accumulated depreciation and amortization	(18,328)	(16,360)
Construction-in-progress	812	1,960
Property and equipment, net	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
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FLUIDIGM CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS—(Continued)
(unaudited)

Intangible Assets

The total intangible assets, which includes developed technology as a result of the DVS acquisition and other intangible assets included in Other non-current assets, was \$98.1 million as of June 30, 2015. The estimated future amortization expense of intangible assets as of June 30, 2015 is as follows (in thousands):

	Amount
2015 (remainder of year)	\$ 5,749
2016	11,496
2017	11,481
2018	11,417
2019	11,325
Thereafter	46,654
	\$ 98,122

6. 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.

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, 2015				December 31, 2014			
	Level I	Level II	Level III	Total	Level I	Level II	Level III	Total
Assets								
Money market funds	\$ 10,729	\$ —	\$ —	\$ 10,729	\$ 10,220	\$ —	\$ —	\$ 10,220
U.S. government and agency securities	—	103,300	—	103,300	—	109,087	—	109,087
Total assets measured at fair value	\$ 10,729	\$ 103,300	\$ —	\$ 114,029	\$ 10,220	\$ 109,087	\$ —	\$ 119,307

There were no transfers in and out of Level I and Level II fair value measurement categories during the six months ended June 30, 2015 and 2014, and there were no changes in the valuation techniques used.

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

The following is a summary of investments at June 30, 2015 and December 31, 2014 (in thousands):

	June 30, 2015			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
	\$	\$	\$	\$
U.S. government and agency securities	\$ 103,272	\$ 32	\$ (4)	\$ 103,300
December 31, 2014				
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
U.S. government and agency securities	\$ 109,136	\$ 3	\$ (52)	\$ 109,087

The contractual maturity dates of \$76.3 million of our investments are within one year from June 30, 2015. The contractual maturity dates of our remaining securities are less than eighteen months from June 30, 2015.

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, 2015 and 2014. None of these investments have been in a continuous loss position for more 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 periods, and our intent and ability to hold such securities until the date of recovery of their respective market values or maturity.

The estimated fair value of the Notes is based on a market approach. The estimated fair value was approximately \$175.3 million (par value \$201.3 million) as of June 30, 2015 and represents a Level II valuation. When determining the estimated fair value of our long-term debt, we used a commonly accepted valuation methodology and market-based risk measurements that are indirectly observable, such as credit risk.

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

	June 30, 2015	December 31, 2014
Cash	\$ 13,016	\$ 23,493
Money market funds	10,729	10,220
Cash and cash equivalents	\$ 23,745	\$ 33,713

7. 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, \$0.2 million of which was unused by June 30, 2015 and 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 June 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 June 2014 Amendment also provided for an allowance of approximately \$0.2 million for tenant improvements, which was fully utilized by March 31, 2015, 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 \$2.2 million as of June 30, 2015.

On September 15, 2014, we entered into an additional amendment to the Lease (the September 2014 Amendment), which provided for an expansion of the premises covered under the Lease by approximately 9,000 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 September 2014 Amendment also provided for an allowance of approximately \$0.2 million for tenant improvements. The total future minimum lease payments for the additional space, which will be paid through April 2020, are approximately \$1.5 million as of June 30, 2015.

On October 14, 2013, Fluidigm Singapore Pte. Ltd., our wholly-owned subsidiary (Fluidigm Singapore), accepted an offer of tenancy (Singapore 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 Singapore Lease, Fluidigm Singapore took possession of the facility commencing on March 3, 2014 for a term of 99 months, and the Singapore Lease and rental obligations thereunder commenced on June 3, 2014. The Singapore Lease also provides Fluidigm Singapore with an option to renew the Singapore Lease for an additional 60 months at the then prevailing market rent, and on similar terms as the existing Singapore 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 Singapore Lease (the June 2014 Singapore Lease). We completed the consolidation of our Singapore manufacturing operations in the new space in July 2014 and the site qualification was completed in August 2014. The leases relating to our prior manufacturing facility in Singapore terminated on August 31, 2014. In April 2015, Fluidigm Singapore leased additional space of approximately 10,000 square feet in the same building on the same terms as

the Singapore Lease (the April 2015 Singapore Lease). In connection with the April 2015 Singapore Lease, Fluidigm Singapore terminated the June 2014 Singapore Lease as of June 30, 2015. The total future minimum lease payments which will be paid through June 2022, are approximately \$4.5 million as of June 30, 2015.

In connection with our acquisition of DVS (See Note 4), we acquired the operating leases for facilities in Sunnyvale, California and Markham, Ontario, Canada, which expire in July 2016 and January 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

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lease. We recognize rent expense on a straight-line basis over the non-cancelable lease term. The total future minimum lease payments for the operating leases in Sunnyvale, California and Markham, Ontario, Canada are approximately \$290,000 as of June 30, 2015.

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, 2015 and 2014, which is included in other accrued liabilities, is summarized below (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Beginning balance	\$ 1,064	\$ 1,111	\$ 1,178	\$ 344
Warranty accrual, net	(12)	(16)	(126)	751
Ending balance	<u>\$ 1,052</u>	<u>\$ 1,095</u>	<u>\$ 1,052</u>	<u>\$ 1,095</u>

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.

8. Stock-Based Compensation

During the three and six months ended June 30, 2015, we granted certain employees options to purchase 50,000 and 326,000 shares of common stock, respectively. The options granted during the three months ended June 30, 2015 had exercise prices ranging from \$23.64 to \$37.46 and a total grant date fair value of \$0.6 million. The options granted during the six months ended June 30, 2015 had exercise prices ranging from \$23.64 to \$44.20 and a total grant date fair value of \$6.1 million.

During the three and six months ended June 30, 2015, we granted certain employees 40,000 and 389,000 restricted stock units, respectively. The restricted stock units granted during the three months ended June 30, 2015 had fair market values ranging from \$23.64 to \$37.46 and a total grant date fair value of \$1.1 million. The restricted stock units granted during the six months ended June 30, 2015 had fair market values ranging from \$23.64 to \$44.20 and a total grant date fair value of \$15.4 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 \$4.6 million and \$5.9 million during the three months ended June 30, 2015 and 2014, respectively. We recognized stock-based compensation expense of \$8.7 million and \$9.3 million during the six months ended June 30, 2015 and 2014, respectively. As of June 30, 2015, we had \$15.8 million and \$22.3 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 2.5 years and 3.3 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, 2015, we had \$0.5 million of unrecognized stock-based compensation costs related to the assumed stock options, which are expected to be recognized over a remaining weighted average period of 1.4 years.

9. 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. We recorded a tax benefit of \$0.3 million and \$0.9 million for the three and six months ended June 30, 2015, respectively, which was primarily attributable to the amortization of our acquisition-related deferred tax liability, partially offset by tax provision and provision for uncertain tax liabilities related to our foreign operations. The tax benefit of \$1.1 million and \$3.3 million for the three and six months ended June 30, 2014, respectively, was primarily attributable to the release of the valuation allowance associated with our California deferred tax assets upon recording the foreign and California deferred tax liabilities arising from the DVS acquisition and the deferred tax liabilities arising from amortization of acquired intangible assets.

10. 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,	
	2015	2014	2015	2014

United States	\$ 14,219	\$ 14,200	\$ 27,930	\$ 25,438
Europe	9,013	7,532	15,928	13,914
Japan	935	358	2,809	4,712
Asia-Pacific	2,782	4,612	6,114	6,704
Other	1,609	777	2,423	2,160
Total	<u>\$ 28,558</u>	<u>\$ 27,479</u>	<u>\$ 55,204</u>	<u>\$ 52,928</u>

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, 2015 and 2014.

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, "Access Array," "Biomark," "C1," "Callisto," "CyTOF," "Delta Gene," "EP1," "Helios," "Juno," "Polaris," and "SNP Type," 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 create, manufacture, and market innovative technologies and life-science tools focused on the exploration and analysis of single cells, as well as the industrial application of genomics, based upon our core microfluidics and mass cytometry technologies. We sell instruments and consumables, including integrated fluidic circuits, or IFCs, assays, and reagents, to academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology, or Ag-Bio, companies.

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 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. We also manufacture IFCs for research and development, assays, and reagents at our facilities in South San Francisco, California.

Our total revenue grew from \$71.2 million in 2013 to \$116.5 million in 2014 (including \$20.7 million in revenue from the sales of CyTOF 2 systems and related consumables following our acquisition of DVS Sciences, Inc., or DVS, in February 2014), and for the six months ended June 30, 2015, our total revenue was \$55.3 million. We have incurred significant net losses since our inception in 1999 and, as of June 30, 2015, our accumulated deficit was \$341.3 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.

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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 three and six months ended June 30, 2015 compared to those disclosed in our Annual Report on Form 10-K for the year ended December 31, 2014, as filed with the SEC on February 26, 2015.

Results of Operations

The following table presents our historical condensed consolidated statements of operations data for the three and six months ended June 30, 2015 and 2014, and as a percentage of total revenue for the respective periods (\$ in thousands):

	Three Months Ended				Six months ended			
	June 30,				June 30,			
	2015	2015	2014	2014	2015	2015	2014	2014
Revenue:								
Total revenue	\$ 28,618	100 %	\$ 27,607	100 %	\$ 55,347	100 %	\$ 53,331	100 %
Costs and expenses:								
Cost of product revenue	11,965	42	9,955	36	22,611	41	18,659	35
Research and development	10,090	35	11,374	41	20,080	36	19,020	36
Selling, general and administrative	21,222	74	18,655	68	41,316	76	33,912	64
Acquisition-related expenses	—	—	—	—	—	—	10,696	20
Total costs and expenses	43,277	151	39,984	145	84,007	153	82,287	155
Loss from operations	(14,659)	(51)	(12,377)	(45)	(28,660)	(53)	(28,956)	(55)
Interest expense	(1,451)	(5)	(1,415)	(5)	(2,904)	(5)	(2,441)	(4)
Other (expense) income, net	608	2	(18)	—	(512)	(1)	30	—
Loss before income taxes	(15,502)	(54)	(13,810)	(50)	(32,076)	(59)	(31,367)	(59)
Benefit from income taxes	266	1	1,128	4	909	2	3,271	6
Net loss	\$ (15,236)	(53)%	\$ (12,682)	(46)%	\$ (31,167)	(56)%	\$ (28,096)	(53)%

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,	
	2015	2014	2015	2014
Revenue:				
Instruments	\$ 17,437	\$ 15,370	\$ 33,257	\$ 30,477
Consumables	11,121	12,109	21,947	22,451
Product revenue	28,558	27,479	55,204	52,928
License revenue	60	74	143	186
Grant revenue	—	54	—	217
Total revenue	\$ 28,618	\$ 27,607	\$ 55,347	\$ 53,331

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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,				
	2015		2014			2015		2014		
United States	\$ 14,219	50%	\$ 14,200	52%		\$ 27,930	51%	\$ 25,438	48%	
Europe	9,013	31%	7,532	27%		15,928	29%	13,914	26%	
Japan	935	3%	358	1%		2,809	5%	4,712	9%	
Asia-Pacific	2,782	10%	4,612	17%		6,114	10%	6,704	13%	
Other	1,609	6%	777	4%		2,423	4%	2,160	4%	
Total	\$ 28,558	100%	\$ 27,479	100%		\$ 55,204	100%	\$ 52,928	100%	

Our customers include academic research institutions, clinical laboratories, and pharmaceutical, biotechnology, and Ag-Bio companies worldwide. Total revenue from our five largest customers comprised 18% and 15% of our total revenue in the three and six months ended June 30, 2015, respectively, and 21% and 17% in the three and six months ended June 30, 2014, respectively.

We currently expect revenues for the second half of 2015 to be lower, compared to the corresponding period of 2014.

Comparison of the Three Months Ended June 30, 2015 and June 30, 2014

Total Revenue

Total revenue increased by \$1.0 million, or 4%, to \$28.6 million for the three months ended June 30, 2015, compared to \$27.6 million for the three months ended June 30, 2014.

Product Revenue

Product revenue increased by \$1.1 million, or 4%, to \$28.6 million for the three months ended June 30, 2015, compared to \$27.5 million for the three months ended June 30, 2014.

Instrument revenue increased by \$2.1 million, or 13%, to \$17.4 million, primarily driven by higher unit sales of our CyTOF systems, which includes the recently introduced Helios system; contributions from new products, such as the Juno and the recently introduced Polaris systems; and increased service revenues. These revenue increases were partially offset by decreases in unit sales of Biomark HD, C1 and Access Array systems, as well as negative effects of foreign currency of \$1.3 million.

Consumables revenue decreased by \$1.0 million, or 8%, to \$11.1 million, primarily represented by decreases in sales of our analytical IFCs, and to a lesser extent, decreases in sales of our Access Array IFCs; antibodies; assays; and reagents. These decreases were partially offset by increases in sales of C1 IFCs. In addition, negative effects of foreign currency reduced consumables revenues by \$0.6 million. Annualized IFC pull-through for our genomics analytical systems was below our historical range of \$40,000 to \$50,000 per system based on lower production genomics customer purchases, and we currently expect genomics analytical IFC pull-through to be between \$25,000 and \$35,000 per system per year. IFC pull-through for our genomics preparatory systems was within our expected range of \$15,000 to \$25,000 per system per year, and consumables pull-through for our proteomics analytical systems was within the historical range of \$50,000 to \$70,000 per system per year. IFC pull-through is determined by dividing the applicable IFC revenue for a specific period by the number of genomics analytical or preparatory systems, as applicable, in our installed base at the beginning of the period. Similarly, consumables pull-through for proteomics analytical systems is determined by dividing the related consumables revenue for a specific period by the number of proteomics analytical systems in our installed base at the beginning of the period. The IFC and consumables pull-through amounts are annualized by multiplying the pull-through amounts by a ratio, the numerator of which equals 12 and the denominator of which equals the number of months in the specific period.

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

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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.

We did not receive any grant revenue for the three months ended June 30, 2015. Grant revenue was \$0.2 million for the three months ended June 30, 2014.

Cost of Product Revenue

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

	Three Months Ended June 30,	
	2015	2014
Cost of product revenue	\$ 11,965	\$ 9,955
Product margin	58%	64%

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 \$2.0 million, or 20%, to \$12.0 million for the three months ended June 30, 2015 from \$10.0 million for the three months ended June 30, 2014. Cost of product revenue for the three months ended June 30, 2015 and 2014 includes \$2.8 million of amortization of acquired intangible assets resulting from our acquisition of DVS. Overall cost of product revenue as a percentage of related revenue was 42% and 36%, including 9.8% and 10.1% related to these charges, for the three months ended June 30, 2015 and 2014, respectively. Product margins declined 6 percentage points during the three months ended June 30, 2015 compared to the corresponding period in 2014, primarily due to the impact of higher instrument manufacturing costs, driven by overall lower volume of production, and a change in sales mix. The margins were also impacted to a lesser extent by higher stock-based compensation expenses and higher warranty costs.

Operating Expenses

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

	Three Months Ended June 30,	
	2015	2014
Research and development	\$ 10,090	\$ 11,374
Selling, general and administrative	21,222	18,655
Total	<u>\$ 31,312</u>	<u>\$ 30,029</u>

Research and Development

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

Research and development expense decreased \$1.3 million, or 11%, to \$10.1 million for the three months ended June 30, 2015, compared to \$11.4 million for the three months ended June 30, 2014, mainly representing reduced stock-based compensation expenses of \$1.8 million primarily due to the full vesting of equity awards issued in connection with the DVS acquisition, which occurred prior to the second quarter of 2015 according to their vesting terms, and outside services costs of \$0.2 million, partially offset by increases in compensation costs of \$0.2 million due to higher headcount and project-related costs of \$0.3 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 for the three months ended June 30, 2015 increased \$2.6 million, or 14%, to \$21.2 million, compared to \$18.7 million for the three months ended June 30, 2014, primarily driven by increases in legal and other outside services costs of \$1.9 million, higher headcount and compensation-related costs of \$0.9 million, and increases in depreciation expenses of \$0.3 million, partly offset by a decrease in marketing services and tradeshow expenses of \$0.5 million and integration-related costs of \$0.2 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) income, net for each period presented (in thousands):

	Three Months Ended June 30,	
	2015	2014
Interest expense	\$ (1,451)	\$ (1,415)
Other (expense) income, net	608	(18)
Total	<u>\$ (843)</u>	<u>\$ (1,433)</u>

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 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.

Other income for the three months ended June 30, 2015 increased by \$0.6 million compared to the three months ended June 30, 2014 primarily due to \$0.6 million of income from revaluation of certain foreign currency denominated assets and liabilities due to strengthening of foreign currencies against the U.S. dollar during the second quarter of 2015, compared to the first quarter of 2015. There was no similar strengthening of foreign currencies in the second quarter of 2014.

Benefit from Income Taxes

We recorded a tax benefit of \$0.3 million for the three months ended June 30, 2015. The tax benefit was primarily attributable to the amortization of our acquisition-related deferred tax liability, partially offset by tax provision from our foreign operations and provision for uncertain tax liabilities related to our foreign operations. The tax benefit of \$1.1 million 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, 2015 and June 30, 2014**Total Revenue**

Total revenue increased by \$2.0 million, or 4%, to \$55.3 million for the six months ended June 30, 2015, compared to \$53.3 million for the six months ended June 30, 2014.

Product Revenue

Product revenue increased by \$2.3 million, or 4%, to \$55.2 million for the six months ended June 30, 2015, compared to \$52.9 million for the six months ended June 30, 2014.

Instrument revenue increased by \$2.8 million, or 9%, to \$33.3 million, primarily driven by higher unit sales of our CyTOF systems, which includes the recently introduced Helios system; contributions from our new preparatory systems products, such as the Juno and the recently introduced Polaris systems; and to a lesser extent, increases in sales of our EP1 systems. These revenue

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increases were partially offset by decreases in unit sales of Biomark HD and C1 systems, as well as negative effects of foreign currency of \$2.1million.

Consumables revenue decreased by \$0.5 million, or 2%, to \$21.9 million, represented by decreases in sales of our analytical IFCs, and to a lesser extent, decreases in sales of our assays. These decreases were partially offset by increases in sales of C1 IFCs; antibodies in line with increased sales of CyTOF systems; and reagents. In addition, negative impacts of foreign currency reduced consumables revenues by \$1.3 million. Annualized IFC pull-through for our genomics analytical systems was below our historical range of \$40,000 to \$50,000 per system due to lower production genomics customer purchases, and we currently expect genomics analytical IFC pull-through to be between \$25,000 and \$35,000 per system per year. IFC pull-through for our genomics preparatory systems was within our expected range of \$15,000 to \$25,000 per system per year, and consumables pull-through for our proteomics analytical systems was within the historical range of \$50,000 to \$70,000 per system per year.

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.

We did not receive any grant revenue for the six months ended June 30, 2015. Grant revenue was \$0.2 million for the six months ended June 30, 2014.

Cost of Product Revenue

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

	Six months ended June 30,	
	2015	2014
Cost of product revenue	\$ 22,611	\$ 18,659
Product margin	59%	65%

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 \$4.0 million, or 21%, to \$22.6 million for the six months ended June 30, 2015 from \$18.7 million for the six months ended June 30, 2014. Cost of product revenue for the six months ended June 30, 2015 includes \$5.6 million of amortization of acquired intangible assets resulting from our acquisition of DVS, an increase of \$1.4 million when compared to the comparable period in 2014, partially offset by charges from inventory step-up expensed during 2014 related to the acquisition of approximately \$0.7 million. Overall cost of product revenue as a percentage of related revenue was 41% and 35%, including 10.1 and 9.2 percentage points related to these charges, for the six months ended June 30, 2015 and 2014, respectively. Product margin declined 6 percentage points during the six months ended June 30, 2015 compared to the corresponding period in 2014 due to the impact of higher instrument manufacturing costs, driven by overall lower volume of production, and a change in sales mix. The margins were also impacted to a lesser extent by higher stock-based compensation expenses, higher warranty costs and increased royalty costs.

Operating Expenses

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

	Six months ended June 30,	
	2015	2014
Research and development	\$ 20,080	\$ 19,020
Selling, general and administrative	41,316	33,912
Total	\$ 61,396	\$ 52,932

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 \$1.1 million, or 6%, to \$20.1 million for the six months ended June 30, 2015, compared to \$19.0 million for the six months ended June 30, 2014, primarily due to increases in compensation costs of \$1.7 million due to higher headcount, project related costs of \$1.0 million and increased operating costs allocated of \$0.6 million, partially offset by reduced stock-based compensation expenses of \$1.9 million primarily due to the full vesting of equity awards issued in connection with the DVS acquisition, bonus expense of \$0.3 million, and outside services costs of \$0.3 million.

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 for the six months ended June 30, 2015 increased \$7.4 million, or 22%, to \$41.3 million, compared to \$33.9 million for the six months ended June 30, 2014, primarily driven by higher headcount and compensation-related costs, including stock-based compensation expenses, of \$3.6 million, increases in legal and other outside services costs of \$3.4 million, increases in facilities and related costs of \$0.7 million, and increases in depreciation and travel expenses of \$0.5 million each, partly offset by decrease due to integration-related costs of \$1.1 million incurred in the prior year and marketing services and tradeshows of \$0.5 million.

Acquisition-Related Expenses

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

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) income, net for each period presented (in thousands):

	Six months ended June 30,	
	2015	2014
Interest expense	\$ (2,904)	\$ (2,441)
Other (expense) income, net	(512)	30
Total	\$ (3,416)	\$ (2,411)

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 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 for the six months ended June 30, 2015 increased by \$0.5 million compared to the six months ended June 30, 2014 due to accrual of interest under the terms of the Notes for a full first half of 2015, as compared to a partial comparable period in 2014.

Other expense for the six months ended June 30, 2015 increased by \$0.5 million compared to the six months ended June 30, 2014 primarily due to \$0.7 million of losses from revaluation of certain foreign currency denominated assets and liabilities due to strengthening of the U.S. dollar during the first six months of 2015 compared to 2014.

Benefit from Income Taxes

We recorded a tax benefit of \$0.9 million for the six months ended June 30, 2015. The tax benefit was primarily attributable to the amortization of our acquisition-related deferred tax liability, partially offset by tax provision and provision for uncertain tax liabilities related to our foreign operations. The tax benefit of \$3.3 million for the six months ended June 30, 2014 was primarily attributable to the release of the valuation allowance associated with our California deferred tax assets upon recording the foreign and California deferred tax liabilities arising from the DVS acquisition and the deferred tax liabilities arising from amortization of acquired intangible assets.

Liquidity and Capital Resources

Sources of Liquidity

As of June 30, 2015, our principal sources of liquidity consisted of \$23.7 million of cash and cash equivalents and \$103.3 million of investments. As of June 30, 2015, our working capital excluding deferred revenue totaled \$122.0 million.

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

	Six Months Ended June 30,	
	2015	2014
Cash flow summary		
Net cash used in operating activities	\$ (17,629)	\$ (10,235)
Net cash provided by (used in) investing activities	3,215	(180,085)
Net cash provided by financing activities	5,128	198,669
Net (decrease) increase in cash and cash equivalents	(9,968)	8,420

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 \$17.6 million for the six months ended June 30, 2015, compared to \$10.2 million for the six months ended June 30, 2014, an increase of \$7.4 million. The cash used in operating activities in the first six months of 2015 resulted from a net loss of \$31.2 million, adjusted for \$17.3 million in non-cash charges and a \$3.8 million net increase in assets and liabilities. The significant non-cash charges included stock-based compensation expense, amortization of intangible assets, and depreciation and amortization. The net increase in other assets and liabilities was driven primarily by an increase in inventory positions, net decrease in other liabilities, and an increase in prepaid expenses and other assets, partially offset by a decrease in accounts receivable, an increase in deferred revenue, and an increase in accounts payable. Our net loss, adjusted for non-cash and non-operating items, and deferred revenue increased by \$5.9 million for the six months ended June 30, 2015 compared to the same period in 2014, which included \$10.7 million of acquisition-related charges. This was primarily due to increased operating expenses, including the impact of the acquired DVS operations in the entire six-month period ended June 30, 2015, as compared to a partial-period impact in the corresponding period in 2014.

Net Cash Provided by (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 provided by investing activities was \$3.2 million during the six months ended June 30, 2015. Net cash provided by investing activities primarily consisted of \$39.4 million of proceeds from sales and maturities of investments, partially offset by purchases of investments of \$33.7 million, capital expenditures of \$2.3 million and purchase of intangible assets of \$0.1 million primarily to support growth in our employee base worldwide and manufacturing operations.

Net Cash Provided by Financing Activities

Net cash provided by financing activities was \$5.1 million during the six months ended June 30, 2015 and consists of proceeds received in connection with the exercise of options for our common stock.

Capital Resources

At June 30, 2015, our working capital excluding deferred revenue was \$122.0 million, including cash, cash equivalents, and short-term investments of \$99.9 million. 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, 2015, 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, \$0.2 million of which was unused by June 30, 2015 and 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 June 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 June 2014 Amendment also provided for an allowance of approximately \$0.2 million for tenant improvements, which was fully utilized by March 31, 2015, 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 \$2.2 million as of June 30, 2015.

On September 15, 2014, we entered into an additional amendment to the Lease (the September 2014 Amendment), which provided for an expansion of the premises covered under the Lease by approximately 9,000 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 September 2014 Amendment also provided for an allowance of approximately \$0.2 million for tenant improvements. The total future minimum lease payments for the additional space, which will be paid through April 2020, are approximately \$1.5 million as of June 30, 2015.

On October 14, 2013, Fluidigm Singapore Pte. Ltd., our wholly-owned subsidiary (Fluidigm Singapore), accepted an offer of tenancy (Singapore 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 Singapore Lease, Fluidigm Singapore took possession of the facility commencing on March 3, 2014 for a term of 99 months, and the Singapore Lease and rental obligations thereunder commenced on June 3, 2014. The Singapore Lease also provides Fluidigm Singapore with an option to renew the Singapore Lease for an additional 60 months at the then prevailing market rent, and on similar terms as the existing Singapore 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 Singapore Lease (the June 2014 Singapore Lease). We completed the consolidation of our Singapore manufacturing operations in the new space in July 2014 and the site qualification was completed in August 2014. The leases relating to our prior manufacturing facility in Singapore terminated on August 31, 2014. In April 2015, Fluidigm Singapore leased additional space of approximately 10,000 square feet in the same building on the same terms as the Singapore Lease (the April 2015 Singapore Lease). In connection with the April 2015 Singapore Lease, Fluidigm Singapore terminated the June 2014 Singapore Lease as of June 30, 2015. The total future minimum lease payments which will be paid through June 2022, are approximately \$4.5 million as of June 30, 2015.

In connection with our acquisition of DVS (See Note 4), we acquired the operating leases for facilities in Sunnyvale, California and Markham, Ontario, Canada, which expire in July 2016 and January 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 operating leases in Sunnyvale, California and Markham, Ontario, Canada are approximately \$290,000 as of June 30, 2015.

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 and Canada where our manufacturing facilities are located. Our results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy. We have experienced and will continue to experience fluctuations in our net income or loss as a result of transaction gains or losses related to revaluing certain current asset and current liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. We experienced foreign currency losses of \$0.7 million for the six months ended June 30, 2015 primarily due to the strengthening of the U.S. dollar, whereas the impact of foreign currency fluctuations in the six months ended June 30, 2014 was not material. To date, we have not entered into any foreign currency hedging contracts although we may do so in the future. As our international operations grow, we will continue to reassess our approach to manage our risk relating to fluctuations in currency rates.

Interest Rate Sensitivity

We had cash and cash equivalents of \$23.7 million at June 30, 2015. These amounts were held primarily in cash on deposit with banks and cash equivalents. We had \$103.3 million in investments at June 30, 2015 held primarily in U.S. government and agency securities. The contractual maturity dates of \$76.3 million of our U.S. government and agency securities are within one year from June 30, 2015. The contractual maturity dates of our remaining U.S. government and agency securities are less than eighteen months from June 30, 2015. 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, 2015. 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, 2015, 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, 2015 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitations on the Effectiveness of Controls

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

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

We are not currently engaged in any material legal proceedings.

Item 1A. Risk Factors.

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

Risks Related to Fluidigm's Business and Strategy

Market opportunities may not develop as quickly as we expect, limiting our ability to successfully sell our products, or our product development and strategic plans may change and our entry into certain 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. 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 markets may depend to a large extent on our ability to successfully 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 these markets.

Our financial results and revenue growth rates have varied significantly from quarter-to-quarter and year-to-year due to a number of factors, and a significant variance in our operating results or rates of growth, if any, could lead to substantial volatility in our stock price.

Our revenue, results of operations, and revenue growth rates have varied in the past and may continue to vary significantly from quarter-to-quarter or year-to-year. For example, in 2011, 2012, and 2014, we experienced higher sales in the fourth quarter than in the first quarter of the next fiscal year. Although this was not the case in the fourth quarter of 2013 compared to the first quarter of 2014, this historical trend resumed in 2015, and we expect it to continue. Additionally, for the quarters ended March 31, 2015 and June 30, 2015, we experienced year-over-year revenue growth rates that were substantially lower than revenue growth rates experienced in other periods since our initial public offering, and we currently expect revenues for the second half of 2015 to be lower, compared to the corresponding period of 2014. We may experience substantial variability in our product mix from period-to-period as revenue from sales of our instruments relative to sales of our consumables may fluctuate or deviate significantly from expectations. Variability in our quarterly or annual results of operations, mix of product revenue, or rates of revenue growth, if any, may lead to volatility in our stock price as research analysts and investors respond to these 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, market, sell, 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 materials or components used in our products, which in certain cases are purchased through sole and single source suppliers; 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 financial results and actual results of operations could be significantly impacted. Other unknown or unpredictable factors also could harm our results.

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The foregoing factors, as well as other factors, could materially and adversely affect our quarterly and annual results of operations and rates of revenue growth, if any. We have experienced significant revenue growth in the past but we may not achieve similar growth rates in future periods. We currently expect revenues for the second half of 2015 to be lower, compared to the corresponding period of 2014. You should not rely on our operating results for any prior quarterly or annual period as an indication of our future operating performance. If we are unable to maintain adequate revenue growth, our operating results could suffer and our stock price could decline. 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 shortfall relative to our anticipated revenue could magnify the adverse impact of such shortfalls on our results of operations. We expect that our sales will continue to fluctuate on an annual and 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 \$31.2 million, \$52.8 million, and \$16.5 million during the six months ended June 30, 2015 and years 2014 and 2013, respectively. As of June 30, 2015, we had an accumulated deficit of \$341.3 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 believe that our continued investment in research and development, sales, and marketing is essential to our long-term competitive position and future growth, and we expect these expenses will increase in future periods. We also expect that our selling, general, and administrative expenses will continue to increase due to the additional operational costs associated with the growth of our business. Until we are able to generate additional revenue to support our level of operating expenses, we will continue to incur operating and net losses and negative cash flow from operations. 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.

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

As of June 30, 2015, we had approximately \$202.2 million of intangible assets, net of amortization, and goodwill. 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 and release new products or product enhancements would have a substantial adverse effect on our business and results of operations.

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If one or more of our manufacturing facilities become unavailable or inoperable, we will be unable to continue manufacturing our instruments, IFCs, assays, and/or reagents 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 and reagents for commercial sale at our facility in South San Francisco. 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, assays, and reagents 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. 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, 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.

Additionally, 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.

Furthermore, 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.

If our manufacturing activities are adversely impacted, 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.

We are dependent on single and sole 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 and sole 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 a single or sole source supplier of any of the following components and/or materials would require significant time and effort to locate and qualify an alternative source of supply, if at all:

- 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.

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- Specialized pneumatic and electronic components for our C1, Callisto, Juno, and Polaris systems are available from a limited number of sources.
- The electron multiplier detector included in the CyTOF and Helios systems and certain metal isotopes used with the CyTOF and Helios systems are purchased from sole source suppliers.
- The nickel sampler cone used with the CyTOF and Helios systems is purchased from single source suppliers and is available from a limited number of sources.
- The raw materials for our Delta Gene and SNP Type assays and Access Array target-specific primers are available from a limited number of sources.

Our reliance on single and sole 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 require 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.

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Any failure to expand our existing customer base or launch new applications would adversely affect our ability to increase our revenue.

The life science research and 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 expression 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., Agena Bioscience, Inc., Agilent Technologies, Inc., Becton, Dickinson and Company, Bio-Rad Laboratories, Inc., Cellular Research, Inc., Danaher Corporation, Illumina, Inc., Life Technologies Corporation (now part of Thermo Fisher Scientific Inc.), 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, 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.

Being regulated as a medical device manufacturer by the U.S. Food and Drug Administration, or FDA, and foreign regulatory authorities, and seeking approval and/or clearance for our products, will take significant time and expense and may not result in FDA clearance or approval for the intended uses we believe are commercially attractive. If our products are successfully approved and/or cleared, we will be subject to ongoing and extensive regulatory requirements, which would increase our costs and divert resources away from other projects. If we fail to comply with these requirements, our business and financial condition could be adversely impacted.

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, or RUO, and cannot be used for diagnostic tests or as medical devices as currently marketed. Before we can begin to label and market our products for use as, or in the performance of, clinical diagnostics in the United States, thereby subjecting them to FDA regulation as medical devices, we would be required to obtain premarket 510(k) clearance or pre-market approval from the FDA, unless an exception applies.

We recently announced our plan to register with the FDA as a medical device manufacturer and list some of our products with the FDA pursuant to an FDA Class I listing for general purpose laboratory equipment within the next 12 months. While this regulatory classification is exempt from certain FDA requirements, such as the need to submit a premarket notification commonly known as a 510(k), and most of the requirements of the FDA's Quality System Regulations, or QSRs, we will be subject to ongoing FDA "general controls," which include compliance with FDA regulations for labeling, inspections by the FDA, complaint evaluation, corrections and removals reporting, promotional restrictions, reporting adverse events or malfunctions for our products, and general prohibitions against misbranding and adulteration.

In addition, we plan to submit 510(k) premarket notifications to the FDA to obtain FDA clearance of certain of our products on a selected basis. Although we plan to submit 510(k)s, it is possible that the FDA will take the position that a more burdensome premarket application, such as a premarket approval application or a de novo application is required for some of our products. If such applications are required, greater time and investment would be required to obtain FDA approval. Even if the FDA agrees

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that a 510(k) is appropriate, FDA clearance can be expensive and time consuming. It generally takes a significant amount of time to prepare a 510(k), including conducting appropriate testing on our products, and several months to years for the FDA to review a submission. Notwithstanding the effort and expense, FDA clearance or approval may be denied for some or all of our products. Even if we were to obtain regulatory approval or clearance, it may not be for the uses we believe are important or commercially attractive.

If we receive regulatory clearance or approval for our products, we will be subject to ongoing FDA obligations and continued regulatory oversight and review, including the general controls listed above and the FDA's QSRs for our manufacturing operations. In addition, we may be required to obtain a new 510(k) clearance before we can introduce subsequent modifications or improvements to our products. We may also be subject to additional FDA post-marketing obligations, any or all of which would increase our costs and divert resources away from other projects. If we are not able to maintain regulatory compliance with applicable laws, we may be prohibited from marketing our products for use as, or in the performance of, clinical diagnostics and/or may be subject to enforcement actions, including warning letters and adverse publicity, fines, injunctions, and civil penalties; recall or seizure of products; operating restrictions; and criminal prosecution.

We intend to seek similar regulatory clearance or approval for our products in countries outside of the United States. Sales of our products outside the United States will be subject to foreign regulatory requirements, which vary greatly from country to country. As a result, the time required to obtain clearances or approvals outside the United States may differ from that required to obtain FDA clearance or approval and we may not be able to obtain foreign regulatory approvals on a timely basis or at all. Clearance or approval by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval by regulatory authorities in other countries or by the FDA. In addition, the FDA regulates exports of medical devices. Failure to comply with these regulatory requirements or obtain required approvals could impair our ability to commercialize our products for diagnostic use outside of the United States.

Our products could become subject to regulation as medical devices by the FDA or other regulatory agencies, before we have obtained regulatory clearance or approval to market our products for diagnostic purposes, which would adversely impact our ability to market and sell our products and harm our business.

As products that are currently labeled, promoted and intended for RUO, our products are not currently subject to regulation as medical devices by the FDA or comparable agencies of other countries. However, the FDA or comparable agencies of other countries could disagree with our conclusion that our products are currently intended for research use only or deem our current marketing and promotional efforts as being inconsistent with research use only 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, on October 3, 2014, the FDA issued two draft guidance documents that set forth the FDA's proposed risk-based framework for regulating LDTs, which are designed, manufactured, and used within a single laboratory. The draft guidance documents provide the anticipated details 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. The FDA held a public workshop and accepted comments on the two draft guidance documents and is currently assessing next steps for implementing the framework for regulating LDTs. At the same time, various legislative proposals have been floated that would take differing approaches to the regulation of LDTs. It is also possible that companies or associations will attempt to bring litigation against the FDA arguing that the FDA lacks legal authority over LDTs. We cannot predict how these various efforts will be resolved, how FDA will regulate LDTs in the future, or how that regulatory system will impact our business.

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, used for clinical diagnostic purposes. 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 modifies its approach to our products labeled and intended for RUO, or otherwise determines our products or related applications should be subject to additional regulation as in vitro diagnostic devices based upon our customers' use of our products for clinical diagnostic or therapeutic purposes, before we have obtained regulatory clearance or approval to market our products for diagnostic purposes, our ability to market and sell our products could be impeded and our business, prospects, results of operations and financial condition may be adversely affected. In addition, if the FDA determines that our products labeled for

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RUO 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 and/or other enforcement action.

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, regulate 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 subject to WEEE requirements and may become subject to RoHS 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.

Additionally, as a result of our acquisition of DVS Sciences Inc. (now Fluidigm Sciences Inc.), 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 these key employees depart, 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.

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, 2015 and years 2014 and 2013, approximately 49%, 52%, and 46%, respectively, of our product revenue was generated from sales to customers located outside of the United States. We believe that a significant percentage of our future revenue will come from international sources as we expand our international operations and develop opportunities in other countries. Engaging in international business inherently involves a number of difficulties and risks, including:

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- required compliance with existing and changing foreign regulatory requirements and laws that are or may be applicable to our business in the future, such as the WEEE and RoHS 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 or the Canadian dollar, it would become more costly in U.S. dollars for us to manufacture our products in Singapore and/or in Canada. Additionally, our expenses are generally denominated in the currencies of the countries in which our operations are located, which is primarily in the United States, with a portion of expenses incurred in Singapore and Canada where a significant portion of our manufacturing operations are located. Our results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates. The volatility of exchange rates depends on many factors that we cannot forecast with reliable accuracy. We have experienced and will continue to experience fluctuations in our net income or loss as a result of transaction gains or losses related to revaluing certain current asset and current liability balances that are denominated in currencies other than the functional currency of the entities in which they are recorded. For example, we experienced foreign currency losses of \$0.7 million, \$1.1 million, and \$0.5 million for the six months ended June 30, 2015 and years ended December 31, 2014 and 2013, respectively. Fluctuations in currency exchange rates could have an adverse impact on our financial results in the future.

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.

We are subject to risks related to taxation in multiple jurisdictions and if taxing authorities disagree with our interpretations of existing tax laws or regulations, our effective income tax rate could be adversely affected and we could have additional tax liability.

We are subject to income taxes in both the United States and certain foreign jurisdictions. Significant judgments based on interpretations of existing tax laws or regulations are required in determining the provision for income taxes. For example, we have made certain interpretations of existing tax laws or regulations based upon the operations of our business internationally and we have implemented intercompany agreements based upon these interpretations and related transfer pricing analyses. If the U.S. Internal Revenue Service or other taxing authorities disagree with the positions, our effective income tax rate could be adversely affected and we could have additional tax liability, including interest and penalties. We recently completed a review of our European corporate structure and tax positions and, based upon our existing business operations, we plan to restructure our European intercompany transactions, which is likely to increase our income tax liability. From time to time, we may review our

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corporate structure and tax positions in other international jurisdictions and such review may result in additional changes to how we structure our international business operations, which may adversely impact our effective income tax rate. Our effective income tax rate could also be adversely affected by changes in the mix of earnings in tax jurisdictions with different statutory tax rates, changes in the valuation of deferred tax assets and liabilities, changes in existing tax laws or tax rates, changes in the level of non-deductible expenses (including share-based compensation), changes in our future levels of research and development spending, mergers and acquisitions, or the result of examinations by various tax authorities. Payment of additional amounts upon final adjudication of any disputes could have a material impact on our results of operations and financial position.

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 lease for our manufacturing facility in Singapore expires in June 2022. In the event that we need to add to our existing manufacturing space in Singapore or move our manufacturing facility to a new location in Singapore, such a move will involve significant expense and efforts in connection with the establishment of new clean rooms and the recommissioning of key manufacturing equipment. Additionally, the lease for our facility in Canada expires in January 2016. We are currently evaluating alternative facilities for our Canada operations. 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. A move of any of our manufacturing facilities may delay or otherwise adversely affect our manufacturing activities and business.

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;

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- 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, CyTOF, EP1, and Helios 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, CyTOF, EP1, and Helios 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 Diagnostics Corporation, 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.

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 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

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successful, our technologies and products may not gain market acceptance, which would materially and adversely impact our business operations.

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

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our testing may reveal deficiencies in our internal control over financial reporting that are deemed to be material weaknesses.

Our compliance with Section 404 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 Select 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. If we do not effectively implement the ERP system as planned or if the system does not operate as intended, 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;

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- 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 product 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 Inc. 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.

We license certain intellectual property rights covering our mass cytometry 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 our mass cytometry products.

The intellectual property rights covering our mass cytometry 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 Inc., or Fluidigm Canada, an Ontario corporation and wholly-owned subsidiary of Fluidigm Sciences, 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, we are party to additional in-license agreements with parties such as Stanford University that relate to significant intellectual property rights, and our 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. 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 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 our 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 our 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 continue to disagree with PerkinElmer's position concerning the impact of the acquisition on the license agreement and are currently in negotiations with PerkinElmer in an attempt to resolve this matter. In addition, we are evaluating alternative strategies and potential actions relating to our interests in the licensed intellectual property.

In the case of a dispute over these or other terms of the applicable license agreements, 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 could result, among other risks, in substantial management distraction; 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 our products; customer requests for indemnification by Fluidigm; and, in the event of an adverse determination, our inability to operate our business as currently operated. 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.

We are subject to certain obligations and restrictions relating to technologies developed in cooperation with Canadian government agencies.

Some of our 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 our intellectual property, including confidential information, and may reduce its competitive advantage in commercializing intellectual property developed through these projects. In certain projects, we have 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 our choice of business and manufacturing locations, business partners and corporate structure and may, in certain circumstances, restrict our 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 our 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 we may be required to grant a license to our 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, we 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 our business, operations and financial condition.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our employees' former employers 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, we have 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 our 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, 2015, we had 28,880,054 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 64% 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.

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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, 2015, our current executive officers, directors, stockholders holding at least 5% of our outstanding stock, and their respective affiliates, collectively beneficially owned or controlled approximately 65% 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

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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 this report, 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 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 with 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 5. Other Information

Effective as of August 6, 2015, Robert C. Jones has been appointed to serve as our Chief Technology Officer, Genomics. There are no changes to Mr. Jones's compensation arrangements in connection with his new role. In addition, Marc Unger has been appointed to serve as our Senior Vice President of Research and Development and Single-Cell Biology Marketing.

Item 6. Exhibits.

Exhibit Number	Description	Incorporated by Reference From Form	Incorporated by Reference From Exhibit Number	Date Filed
10.1	Offer of Tenancy for Lease of Additional Space at Singapore Facility between Fluidigm Singapore Pte. Ltd. and HSBC Institutional Trust Services (Singapore) Limited, as trustee of Ascendas Real Estate Investment Trust dated April 2, 2015.	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.

FLUIDIGM CORPORATION

Dated: August 7, 2015

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

Dated: August 7, 2015

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

EXHIBIT LIST

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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.

Lease Reference No: TP2-5008-009-00025

06 March 2015

Fluidigm Singapore Pte. Ltd.
Blk 5008 Ang Mo Kio Ave 5
#08-08 Techplace II
Singapore 569874

**Attention: Ms Grace Yow
Managing Director & Exec Vice President**

Dear Sirs,

LEASE OF #07-05,#07-06,#07-07,#07-08,#07-09,#07-10, BLK 5008 ANG MO KIO AVE 5 TECHPLACE II SINGAPORE 569874

On behalf of HSBC Institutional Trust Services (Singapore) Limited as trustee of Ascendas Real Estate Investment Trust ("the Landlord"), we are pleased to submit to you the Offer of Lease (in Duplicate) for your acceptance.

1. Please appoint an authorised signatory of Fluidigm Singapore Pte. Ltd. to:

- a) initial every page including any amended clauses including the floor plan;
- b) complete, sign and fill in name and designation of the authorised signatory, and place your company stamp on the Declaration Form attached to this Offer Letter as Attachment 4;
- c) sign and fill in name and designation of the authorised signatory, and place your company stamp on the Acceptance of Offer. Please leave the date blank.
- d) please sign and fill in name and designation, and your company stamp on the last page of Tenant's Guide Acknowledgement Form.

Important Note: The above must be carried out by your company's authorised signatory. If the authorise signatory is not a director of the Company, please let us have a Letter of Authority (original copy) duly signed by a director of the company authorising the signatory to sign the Offer of Lease (in duplicate). A specimen copy of the Letter of Authorisation is attached for your perusal.

Ascendas Services Pte Ltd
Co Reg No: 199600003W
61 Science Park Road, #04-01 The Galen, Singapore Science Park II, Singapore 117525
Tel +65 6774 1033 Fax +65 6778 4761 Email ascendas@ascendas.com

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2. Please return the following documents to us at the below address by **20 March 2015**:

Ascendas Services Pte Ltd
61 Science Park Road
#04-01 The Galen
Singapore 117525
Attn: Adrian Tan, Lease Operations

- a) both copies of the Offer of Lease (in duplicate);
- b) direct debit authorisation (DDA) form / increase in giro limit letter (if applicable);
- c) a cashier's order/cheque drawn in favour of "HTSG A/C ASCENDAS REIT" for the total amount set out in the Statement of Accounts attached to this Offer Letter as Attachment 3; and
- d) a cashier's order/cheque drawn in favour of "Infinitus Law Corporation" for the Stamp Duty amount set out in the Statement of Accounts attached to this Offer Letter as Attachment 3;

Please contact Sia Chin Chin at DID Tel No. +6565088831 if you have any query.

Yours sincerely
For and on behalf of
HSBC Institutional Trust Services (Singapore) Limited
as trustee of Ascendas Real Estate Investment Trust

/s/ Adrian TAN
Name: Adrian TAN
Senior Executive
Lease Operations

Enc

Lease Reference No: TP2-5008-009-00025

Date: 06 March 2015

STRICTLY CONFIDENTIAL

Fluidigm Singapore Pte. Ltd.
Blk 5008 Ang Mo Kio Ave 5
#08-08 Techplace II
Singapore 569874

**Attention: Ms Grace Yow
Managing Director & Exec Vice President**

Dear Sirs,

LEASE OF #07-05,#07-06,#07-07,#07-08,#07-09,#07-10, BLK 5008 ANG MO KIO AVE 5 TECHPLACE II SINGAPORE 569874

1 TERMS OF OFFER

On behalf of **HSBC Institutional Trust Services (Singapore) Limited As Trustee of Ascendas Real Estate Investment Trust ('Landlord')**, we are pleased to offer you, **Fluidigm Singapore Pte. Ltd.** ('Tenant'), a lease of the premises ('**Premises**') (described below in paragraph 1.1) which forms part of the building ('**Building**') located at Blk 5008 Ang Mo Kio Ave 5 Techplace II Singapore 569874, subject to the Standard Terms, Covenants and Conditions attached in Appendix 1 ('Covenants') and the following terms, covenants and conditions (where the definitions set out in the Covenants have been adopted):

1.1 PREMISES

(a) Unit No(s) : Blk 5008 #07-05

Blk 5008 #07-06
Blk 5008 #07-07
Blk 5008 #07-08
Blk 5008 #07-09
Blk 5008 #07-10

(b) Demarcation : (for purpose of identification only) edged in red in the attached plan(s) marked as Attachment 1.

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1.2 FLOOR AREA

Unit No(s)	Floor Area (sm) (where temporary occupation permit ('TOP') for the Building has not yet been issued, the Floor Area is subject to final survey)
Blk 5008 #07-05	236.00
Blk 5008 #07-06	179.00
Blk 5008 #07-07	168.00
Blk 5008 #07-08	129.00
Blk 5008 #07-09	130.00
Blk 5008 #07-10	106.00
Total	948.00

(a) Where the TOP for the Building has not yet been issued, the Floor Area as indicated herein is subject to a final survey to be performed by a surveyor appointed by the Landlord, if such survey is required by the Landlord. The Floor Area as determined from the results of such survey shall be final and binding upon the Tenant.

(b) Where the Floor Area is adjusted following such survey, all references to the Floor Area in the Lease shall refer to such Floor Area as determined by the Landlord and there shall be an adjustment of the Gross Rent (with effect from the Commencement Date), the Renovation Deposit and the Security Deposit, all calculated with reference to the revised Floor Area.

1.3 PERMITTED USE

- (a) Permitted Use : R&D and manufacturing of fluidic chips and microfluidic system for the business of the Tenant and not for any other purpose.
- (b) Business Licence / Approval : The Tenant is responsible for obtaining and keeping in force all necessary approvals required by law for the operation of its business in the Premises, at its own cost and expense.

1.4 LEASE TERM

Term : 80 months and 1 day commencing on: where the TOP has already been issued: 01 October 2015 (the '**Commencement Date**').

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1.5 POSSESSION OF PREMISES

Possession Date where the TOP has already been issued: 01 June 2015

1.6 RENT AND OTHER PAYMENTS (EXCLUSIVE OF GST)

(a) The Monthly Net Rent and Monthly Service Charge shall be as follows:-

Unit	Monthly Net Rent Rate (psm)	Monthly Service Charge Rate (psm)	Monthly Gross Rent Rate (psm)	Monthly Net Rent	Monthly Service Charge	Monthly Gross Rent	Applicable Period
Blk 5008 #07-05/10	\$14.06	\$2.62	\$16.68	\$13,328.88	\$2,483.76	\$15,812.64	01 Oct 2015 to 01 Jun 2016
Blk 5008 #07-05/10	\$14.60	\$2.62	\$17.22	\$13,840.80	\$2,483.76	\$16,324.56	02 Jun 2016 to 01 Jun 2017
Blk 5008 #07-05/10	\$15.14	\$2.62	\$17.76	\$14,352.72	\$2,483.76	\$16,836.48	02 Jun 2017 to 01 Jun 2018
Blk 5008 #07-05/10	\$15.14	\$2.62	\$17.76	\$14,352.72	\$2,483.76	\$16,836.48	02 Jun 2018 to 01 Jun 2019
Blk 5008 #07-05/10	\$16.22	\$2.62	\$18.84	\$15,376.56	\$2,483.76	\$17,860.32	02 Jun 2019 to 01 Jun 2020
Blk 5008 #07-05/10	\$16.76	\$2.62	\$19.38	\$15,888.48	\$2,483.76	\$18,372.24	02 Jun 2020 to 01 Jun 2021
Blk 5008 #07-05/10	\$17.29	\$2.62	\$19.91	\$16,390.92	\$2,483.76	\$18,874.68	02 Jun 2021 to 01 Jun 2022

(b) The charges shown above are exclusive of goods and services tax ('GST') and other taxes payable by the Tenant under the Covenants.

(c) The Service Charge shown above is subject to increase as provided in Clause 5.1.2 of the Covenants.

(d) Unless otherwise provided in this letter ('Offer Letter') or in any side/amendment/variation letters ('Side Letters'), the Tenant must pay the Monthly Gross Rent monthly in advance, on the first day of each month of the Term. The pro-rated Monthly Gross Rent for any part of a month must be paid in advance on the first day of that month, which will be apportioned on a daily basis (based on the actual number of days in that month).

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(e) Upon acceptance of this offer, the Tenant must pay to the Landlord in advance one (1) full month's Gross Rent (including GST) for the period of one (1) month from the Commencement Date.

(f) In addition to the Monthly Gross Rent, the Landlord is also entitled to impose charges for the use of any part of the Common Property (defined in the Covenants) at a rate to be determined by the Landlord based on the area of any part of the Common Property used by the Tenant ('Ancillary Site'). The Landlord may require the Tenant to sign a separate side letter or enter into a licence or tenancy agreement or such other documents and on such terms and conditions as the Landlord may require in respect of the Ancillary Site.

1.7 RENT FREE PERIOD

(a) A rent free period (the '**Rent Free Period**') will be granted to the Tenant as follows:

Unit	Start Date	End Date	Duration
Blk 5008 #07-05/10	01 June 2015	30 September 2015	4.0 months

(b) The Tenant will not be required to pay Gross Rent for the Rent Free Period.

(c) The Landlord has agreed to grant the Rent Free Period to the Tenant on the basis that the Tenant will complete the entire Term. If the Term is prematurely terminated by the Tenant for any reason whatsoever or if the Lease is determined by the Landlord under Clause 8.1 of the Covenants, then in addition to and without prejudice to any other rights or remedies of the Landlord, the Tenant shall compensate and pay to the Landlord on demand the Gross Rent for the entire Rent Free Period.

1.8 SECURITY DEPOSIT

Security Deposit : 7.00 months' Gross Rent

Security Deposit Amount : \$121,424.80

Time for Payment of : Upon the Tenant's acceptance of this offer.

Security Deposit Amount

Mode of Payment : Cash

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1.9 TENANT'S WORKS

The Tenant must obtain the prior written consent of the Landlord for the Tenant's Works in respect of the Premises which may be required by the Tenant for the use and enjoyment of the Premises and comply with all other stipulations set out in Clause 4.1 of the Covenants and the Tenants' Guide.

1.10 RENOVATION DEPOSIT

Renovation Deposit : Based on the rate of \$10.00 per square metre of the Floor Area of the Premises and subject to a minimum of \$2,000.00, the Renovation Deposit of \$9,480.00 for the proposed Fitting Out Works must be placed with the Landlord on acceptance of this offer.

1.11 CAR PARK LOTS

(a) Number of allocated car park lots : 5 car park lot(s) will be allocated to the Tenant at prevailing rates.

(b) Allocation of car park lots is subject to the following:-

- (i) Tenant's compliance with relevant government regulations (where applicable);
- (ii) Landlord's prevailing policies; and
- (iii) Availability.

The Landlord reserves the right to revise the allotment from time to time or cancel the allotment at any time.

1.12 REQUISITE APPROVALS & SUBLET FEE

(a) This offer of the lease of the Premises and acceptance is subject to:

- (iv) the Tenant obtaining approval from the relevant authorities (including, but not limited to Jurong Town Corporation ("JTC") or Housing Development Board ("HDB") for the use of the Premises for the Tenant's operations (to be obtained by the Tenant in accordance with paragraph 1.3 above); and
 - (v) where required, the approval from the Head Landlord for the lease of the Premises to the Tenant
- (collectively the '**Requisite Approvals**').

(b) The Tenant shall furnish any information and/or documents forthwith to the Landlord upon the Landlord's request to assist the Landlord to obtain the approval from the Head Landlord for the lease of the Premises to the Tenant.

The Tenant shall pay all fees charged or chargeable by the Head Landlord in respect of approval for the subletting of the Premises by the Landlord to the Tenant for the Term (including any subletting fees). The Tenant shall reimburse the Landlord for any fees paid by the Landlord to the Head Landlord in advance and on the Tenant's behalf.

(c)(Clause 1.12(c) is not applicable for this lease) In the event where the Tenant has failed or delayed in submitting the relevant information/ documents (including but not limited to documents referred to under Appendix II) to the Landlord for the purposes of obtaining the relevant authorities' approval(s) (including but not limited to JTC or HDB), it is agreed that the Tenant shall be liable to pay for any penalty fee(s), and any other charges imposed by the relevant authorities arising from the non-compliance of the subletting policy. For the avoidance of doubt, the Tenant shall furnish the documents referred to under Appendix II to the Landlord at least 14 working days prior to the commencement date and/or possession date whichever is earlier.

(d)In the event that the aforesaid approval/s is/are not obtained, it is hereby agreed between the parties hereto that the Landlord shall give written notice to the Tenant of such fact, and the Landlord shall, within one (1) month of the Tenant's receipt of the Landlord notice, refund to the Tenant all deposits paid hereunder by the Tenant without interest (subject however to appropriate deductions for any breach or damage done to the Premises and/or the Building by the Tenant). The Landlord shall also refund back to the Tenant the legal fees and/or stamp duties paid by the Tenant provided always that the same have not been expended for legal work rendered or for payment of stamp duty. The Tenant shall, however, be liable for payment of all rent, service charge, air-con charges, utilities and other charges payable hereunder for the period of time that the Tenant had occupied the Premises until and including the day that the Premises is handed back to the Landlord in the state and condition satisfactory to the Landlord. Prior to the handing over of the Premises back to the Landlord, the Tenant shall, at its own costs and expense, reinstate the Premises back to its original bare state and condition. Thereafter, this Agreement shall be null and void and neither party shall have any claims against the other in respect of any damages, compensation, costs, expenses, losses or otherwise arising out of or in connection therewith, save as provided in this Clause.

(e)The approved business activities shall not be changed without prior approval from the relevant authorities.

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1.13 FLOOR LOADING

The Tenant shall not be permitted to place or allow to be placed any load on the floor slab in excess of :

<u>Storey</u>	<u>Floor Loading.(kN per square metre)</u>
1	12.5
4 to 8	7.5
Canteen	5

1.14 COSTS & EXPENSES OF LEASE

Any costs and expenses incurred by the Landlord to draw up this Offer Letter and the Covenants and as a result of any negotiation to amend this Offer Letter or the Covenants shall be borne by the Tenant on a full indemnity basis and paid on demand including but not limited to legal fees, stamp duties payable on this Offer Letter and payable as a result of an increase in Gross Floor Area pursuant to paragraph 1.2(a) above and the Landlord's administrative charges.

1.15 SPECIAL CONDITIONS

In addition to the terms, covenants and conditions contained in this Offer Letter and the Covenants, the parties must comply with and be bound by the terms, covenants and conditions on their respective parts set out in Attachment 2 ("Special Conditions"). In the event of any inconsistency between the terms, covenants and conditions set out in the Special Conditions and those contained in this Offer Letter, the terms, covenants and conditions set out in the Special Conditions shall prevail.

1.16 INTERPRETATION

- Unless the context otherwise requires, all definitions, terms and references used in this Offer Letter will have the same meanings given to them in the Covenants.
- The Appendix and Attachments to this Offer Letter shall be binding on the parties and be construed as an integral part of this offer.

2 ACCEPTANCE

2.1 In order to accept this offer, please let the Landlord have the items listed below (each an '**Acceptance Item**' and together, the '**Acceptance Items**'.):-

- Both copies of this Offer Letter with the Acceptance portion duly signed by the Tenant's authorized signatory;

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- A cashier's order/cheque drawn in favour of "HTSG A/C ASCENDAS REIT" for the total amount set out in the Statement of Accounts attached to this Offer Letter as Attachment 3;

- a cashier's order/cheque drawn in favour of "Infinitus Law Corporation" for the Stamp Duty amount set out in the Statement of Accounts attached to this Offer Letter as Attachment 3;

2.2 For the avoidance of doubt, the Landlord hereby confirms that this offer will only be deemed to have been accepted by the Tenant on the date of receipt by the Landlord of all the Acceptance Items or where they are given separately, the date of receipt of the last Acceptance Item.

2.3 Payments made prior to the receipt of the last Acceptance Item may be cleared by the Landlord upon receipt. However, if the remaining Acceptance Items are not received by the Landlord within 10 working days from the date of this Offer Letter (the '**Acceptance Period**'), (or such other date as the Landlord may agree), the offer herein shall, unless the Landlord otherwise agrees, lapse and there shall be no contract between the Tenant and the Landlord in respect of the lease of the Premises. All payments received by the Landlord from the Tenant pursuant to this letter shall be forfeited without affecting any other rights or remedies of the Landlord and the Tenant shall have no claim of whatever nature against the Landlord.

3 DECLARATION FORM

- 3.1 The Tenant shall furnish to the Landlord the completed and executed Declaration Form attached as Attachment 4 by 20 March 2015. If the Tenant fails to furnish the said Declaration Form by the specified date mentioned above (or such other date or dates as the Landlord may agree), the Landlord may terminate the lease by giving to the Tenant not less than one (1) month's notice in writing.
- 3.2 Upon the expiry of such notice, the Term and the lease shall absolutely cease and determine and if the Tenant has already taken possession of the Premises, the Tenant shall deliver vacant possession of the Premises to the Landlord in accordance with the Covenants without compensation from or any claim whatsoever against the Landlord but without prejudice to any right of action of the Landlord against the Tenant in respect of any antecedent breach of the terms, covenants and conditions on the part of the Tenant contained in the Covenants, this Offer Letter and Side Letter(s), if any. Upon such termination, the Landlord shall forfeit and retain all monies paid by the Tenant under the provisions of the Offer Letter and/or the Covenants, including but not limited to, the amounts set out in the Statement of Accounts attached to this Offer Letter as Attachment 3 for its own benefit without affecting any other remedy of the Landlord, at law or in equity.

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4 LEASE

- 4.1 The lease of the Premises to the Tenant is subject to the specific terms, covenants and conditions set out in:-
- (a)This Offer Letter;
 - (b)The Covenants (attached hereto as Appendix I); and
 - (c)The Side Letter(s), if any.
- 4.2 The date of the lease of the Premises shall be the date that the Tenant is deemed to have accepted this Offer Letter in accordance with paragraph 2 above.
- 4.3 All terms, covenants and conditions contained in the Covenants will apply to the lease and the Landlord and the Tenant shall observe, perform and be bound by the terms, covenants and conditions on their respective parts contained in the Covenants as though such terms, covenants and conditions had been incorporated in this Offer Letter.
- 4.4 In the event of any inconsistency between the provisions of this Offer Letter, the Covenants and/or the Side Letter(s), if any, priority shall be given in the following order in order to resolve the inconsistency:-
- (d)the Side Letter(s), if any;
 - (e)this Offer Letter; and
 - (f)the Covenants.

5 EXPIRY OF OFFER

This offer will lapse if the Acceptance Items are not furnished before the Acceptance Period (refer to paragraph 2.3 above), unless an extension of time has been requested and agreed to by the Landlord in writing.

6 AGENCY

This offer is made to the Tenant by us as agents on behalf of HSBC Institutional Trust Services (Singapore) Limited As Trustee of Ascendas Real Estate Investment Trust.

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7 CONTACT DETAILS

Please contact Sia Chin Chin at DID Tel No. 65088831 and Mobile No. 98283723 if you have any queries.

Yours sincerely,
For and on behalf of
HSBC Institutional Trust Services (Singapore) Limited
As Trustee of Ascendas Real Estate Investment Trust

/s/ Adrian TAN /s/ Karen TEE
Name: Adrian TAN Name: Karen TEE
Senior Executive Head
Lease Operations Lease Operations

Date: 06 March 2015 Date: 06 March 2015

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To: Sia Chin Chin

As agent of HSBC Institutional Trust Services (Singapore) Limited As Trustee of Ascendas Real Estate Investment Trust

ACCEPTANCE OF OFFER OF LEASE OF #07-05,#07-06,#07-07,#07-08,#07-09,#07-10, BLK 5008 ANG MO KIO AVE 5 TECHPLACE II SINGAPORE 569874

I/We, **Fluidigm Singapore Pte. Ltd.** (the 'Tenant') hereby unconditionally accept your offer of the lease on the above stated terms, covenants and conditions.

I/We acknowledge receipt of the Covenants (Appendix I), the Tenant's Guide (published as at 02 May 2012), plans, payment schedules, forms and such other documents as may form part of this Offer Letter.

I/We enclose the following:-

- (a) A cashier's order/cheque drawn in favour of "HTSG A/C ASCENDAS REIT" for the total amount set out in the Statement of Accounts attached to this Offer Letter as Attachment 3.
- (b) a cashier's order/cheque drawn in favour of "Infinitus Law Corporation" for the Stamp Duty amount set out in the Statement of Accounts attached to this Offer Letter as Attachment 3.

[April 2, 2015] /s/ Yow Mai Chan
Date Name of authorized signatory: Yow Mai Chan

Designation: Managing Director
Tenant's Rubber Stamp: [stamp inserted]

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APPENDIX I

See enclosed Standard Terms, Covenants and Conditions

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APPENDIX II

This appendix is not applicable for this Lease

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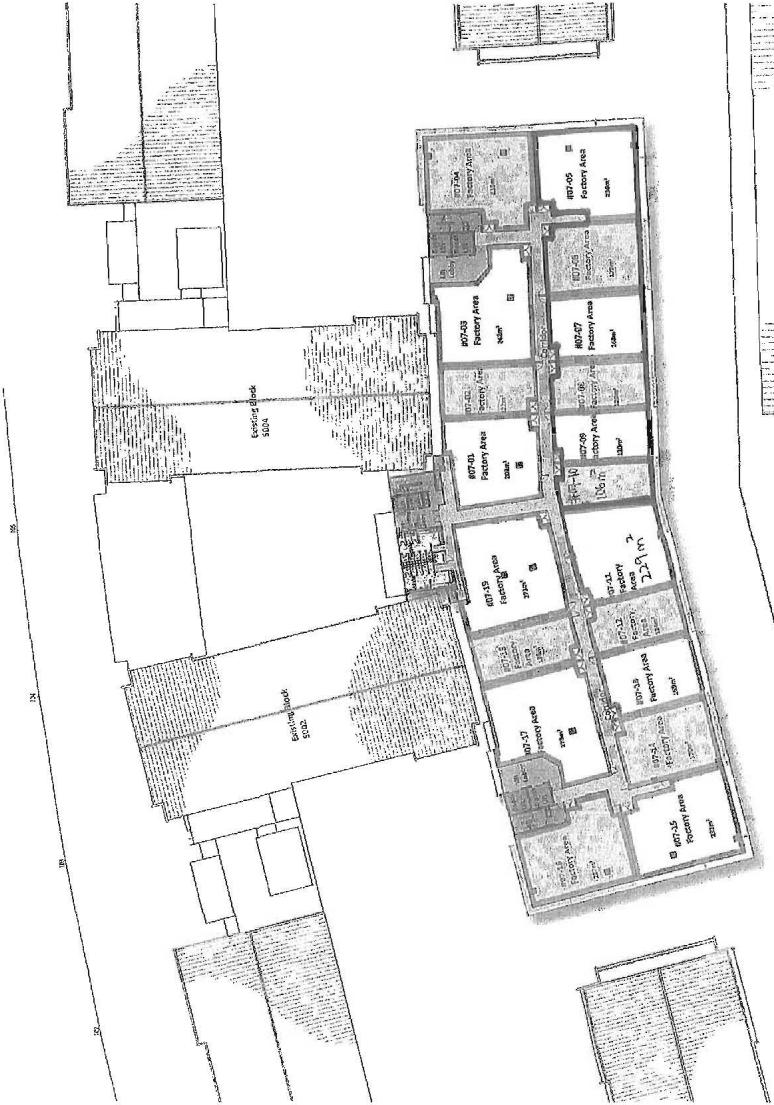
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ATTACHMENT 1**PLAN OF THE PREMISES**

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BLOCK 5008
7TH STOREY PLAN



Note : Units #01-10 & #07-11 effective 1 June '15

APPROVED 03 MAR 2015

TECHPLACE 2 – ANG MO KIO AVE 5

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[Small text block]

All plans are subject to amendments as directed and/or approved by the building authorities.

All areas are approximate measurements only and subject to final survey. The property is subject to inspection by the relevant authorities to comply with the current code of practice.

ATTACHMENT 2

SPECIAL CONDITIONS

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SPECIAL CONDITIONS

In addition to the provisions set out in the Offer Letter, the parties shall comply with and be bound by the followings terms, covenants and conditions:-

1 **OPTION TO RENEW**

- (a) The Landlord shall grant to the Tenant a further lease of the whole Premises for sixty (60) months ("Renewal Term"), commencing on the day after the expiry date of the Term, at the Tenant's cost and expense Provided That:
- (i) the Tenant gives the Landlord notice of not less than six (6) months before the expiry date of the Term, that it requires a further lease of the Premises; and
 - (ii) the Tenant is not in breach of any of the obligations on its part contained in the Lease.
- (b) The further lease for the Renewal Term must be in respect of the whole of the Premises (and not part of it) and the rent for the Renewal Term shall be pegged to the then prevailing market rent, and on similar terms as this existing Lease. The Landlord shall revert with its proposal for the revised rent within one (1) month from the date of the Tenant's notice of renewal.
- (c) Within two (2) weeks of receipt of the Landlord's proposal for the revised rent or such longer period as may be mutually agreed, the Tenant must inform the Landlord, in writing, whether the revised rent is acceptable.
- (d) If the revised rent or the other terms are not acceptable to the Tenant or if the Tenant fails to give a written acceptance to the Landlord in time, then the Tenant will be treated as if it is no longer interested in a further lease and the Landlord will be free to end all negotiations with the Tenant for the further lease.
- (e) If the Landlord's proposal for the revised rent and other terms has been accepted by the Tenant in time, the Tenant must sign the new lease document in respect of the Renewal Term within two (2) weeks of receipt.
- (f) If after the new lease document for the Renewal Term has been signed but the Tenant is in default of the provisions of the Lease before the commencement of the Renewal Term, the Landlord is entitled to terminate the lease for the Renewal Term by giving notice to the Tenant. Upon receipt of the notice, the lease for the Renewal Term will be terminated without affecting the rights of the Landlord against the Tenant in respect of the default (including, without limitation, compensation for loss of rent for the Renewal Term).

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2 STAGGERED RENTAL

The Landlord has agreed to the staggered rent arrangement set out in this Offer Letter at the Tenant's request subject to the condition that the Tenant will perform all terms, covenants and conditions in accordance with the provisions of the Lease including fulfilling all payment obligations. If the Tenant fails to do so, the Landlord shall, without prejudice to its other rights and remedies, be entitled to adjust the rent payment schedule by issuing a written notice ('**Adjustment Notice**') to the Tenant requiring the Tenant to pay Gross Rent based on the net rent rate of \$15.68 per square metre per month ('**Original Rent Rate**') with effect from the Commencement Date. After the issuance of the Adjustment Notice, the Tenant shall pay Gross Rent based on the Original Rent Rate on the Payment Dates. The additional Gross Rent payable for the period of the Term prior to the issuance of the Adjustment Notice shall be paid within seven (7) days from the date of the Adjustment Notice. If the Lease is determined for any reason prior to the expiry of the Term, the Tenant shall, without prejudice to the Landlord's other rights and remedies, pay to the Landlord a lump sum representing the difference between the Gross Rent based on the Original Rent Rate for the entire Term and the Gross Rent already paid.

3 INSTALLATION OF AIR-CONDITIONING UNITS

The Tenant shall, at its own costs and expense, install and maintain its own air-conditioning unit(s) at the Premises. In this respect, the Tenant shall ensure that all air-conditioning and mechanical ventilation installed at the Premises shall comply with the GreenMark Requirements as imposed or to be imposed by the relevant Authorities from time to time throughout the Term.

4 RENOVATIONS ALTERATIONS AND INSTALLATIONS

Further to the provisions of Clause 3 above, and without prejudice to the generality of the provisions herein contained, the Tenant shall adhere to all GreenMark Requirements in respect of all renovations, alterations and installations (including but not limited to light fittings, etc) to be carried out at the Premises, notwithstanding such renovations, alterations and installations being approved by the Landlord and/or other relevant Authorities.

5 HANOVER CONDITION OF PREMISES ON POSSESSION DATE

The Tenant hereby acknowledges that it shall take possession of the Premises in the following handover condition:-

- (a)the Premises shall not have subdivision walls, common corridors, common trunking systems or cable trays;
- (b)the Premises shall have cement sand screed finish for flooring; and the Tenant shall have no objection whatsoever to the same.
- (c)the Premises shall have walls, columns and pipes duly painted by the Landlord

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and the Tenant shall have no objection whatsoever to the same.

6 INSTALLATION OF SIGNAGE

The Landlord shall allow the Tenant to install its company's signage ("Signage") at the standing pylon at the entrance of the Park PROVIDED ALWAYS THAT the Tenant shall:-

- (a) seek the Landlord's consent in respect of the dimensions of the Signage, and the Landlord shall be entitled to impose terms and conditions in respect of the same, to which the Tenant shall comply with; and
- (b) at its sole costs and expense, seek approval/s from the relevant Authorities for the display of the Signage, and comply with all terms and conditions and to pay all charges (if any) imposed or to be imposed by the relevant Authorities in respect of the same; and
- (c) pay all monthly license fees and other charges imposed by the Landlord in respect of the display of the Signage; and
- (d) sign all documents required by the Landlord and/or the Authorities for the Signage and shall pay all fees, legal or otherwise, arising out of or in connection therewith, as well as all stamp fees payable thereon, if any; and
- (e) be solely responsible for the maintenance and upkeep of the Signage and the Landlord shall not, in any manner whatsoever, be liable to the Tenant or responsible for any damage, loss, defacement etc. of the Signage.

7 ANNUAL POWER SHUT-DOWN

In addition to Clause 7 of the Covenants, the Tenant acknowledges and agrees that the Landlord:

- (a) may, upon giving to the Tenant one (1) month's written notice, perform annual servicing maintenance and repairs to the mechanical and electrical and other services amenities and facilities in the Building resulting in a shutdown of the electricity supply to the Premises and/or the Building; and
- (b) will not provide any generators or any form of back-up supply of electricity to the Tenant and is not liable to the Tenant for any loss or damage (including indirect, consequential and special losses) which the Tenant may suffer as a result of the shut-down mentioned in sub-clause (a) above

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8 RIGHT TO PREMATURELY TERMINATE LEASE

The Landlord is agreeable to allow the Tenant to prematurely terminate the lease of the whole of the Premises at any time during the Term ("the Pre-Termination") PROVIDED ALWAYS THAT:-

- (a) an in-coming tenant acceptable to the Landlord ("Incoming Tenant") has been sourced by the Tenant to either takeover the existing lease of the Premises from the Tenant, or to take up a fresh lease of the Premises with the Landlord. In this respect, the Incoming Tenant shall accept the Landlord's then prevailing terms and conditions for the fresh lease of the Premises, and the Tenant shall have no objection to the same whatsoever;
- (b) all costs and expenses arising out of or in connection with the Pre-Termination as well as the Incoming Tenant either taking over the Lease of the Premises or to take on a fresh lease with the Landlord, whether imposed by the Landlord and/or the Authorities, shall be solely borne by the Tenant, including but not limited to marketing costs, administrative costs and the like (including all GST payable thereon);
- (c) the Tenant shall enter into all documentation required by the Landlord arising out of or in connection with the Pre-termination, and to bear all costs in connection thereto (legal or otherwise) including all GST payable thereon, as well as all stamp duties imposed thereon (if any);
- (d) the Tenant shall comply with all terms and conditions to be imposed by the Landlord and/or the Authorities in respect of the Pre-termination, and
- (e) in the event that gross rent payable by the Incoming Tenant is lower than the Gross Rent reflected in Clause 1.6 hereof, the Tenant shall pay to the Landlord the rental differential from and including the date the lease of the Premises is pre-terminated by the Tenant until and including the expiry date of the Term. Such sum shall be payable to the Landlord in one lumpsum and shall be payable by the Tenant upon the Landlord's demand.

9 Clause 1.2(b) of the Offer Letter shall be amended as follows:-

- "(b) Where the Floor Area is adjusted following such survey, all references to the Floor Area in the Lease shall refer to such Floor Area as determined by the surveyor appointed by the Landlord and there shall be an adjustment of the Gross Rent (with effect from the Commencement Date), the Renovation Deposit and the Security Deposit, all calculated with reference to the revised Floor Area. Provided always that the revised Floor Area used to calculate the adjustment to the Gross Rent, the Renovation Deposit and the Security Deposit shall not be more than 3% of the original Floor Area as reflected in this Clause 1.2 above."

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The following variations shall be made to the Standard Terms, Covenants And Conditions under Appendix I hereof:-

10 Clause 4.2.5 shall be amended as follows:-

"4.2.5 The Renovation Deposit, subject to any deductions made by the Landlord as above, shall be repaid to the Tenant following completion of all of the following:-

- (a) proper completion of the Tenant's Works (in compliance with the provisions of the Lease and the Tenants' Guide);
- (b) making good damage (if any) to the Premises, the Building and the Park; and
- (c) full compliance with Landlord's requirements to the Landlord's reasonable satisfaction."

11 Clause 5.1.2 shall be amended as follows:-

"5.1.2 The Landlord shall be entitled at any time and from time to time to increase the Service Charge by notice if there is any increase in the Total Outgoings and the following shall apply:-

- (a)the Tenant shall pay such increased Service Charge during the Term;
- (b)upon such increase in Total Outgoings, the Landlord shall issue a notice (the '**Increase Notice**') to the Tenant stating the amount of the increase in the Service Charge on a per square metre basis and the effective date of such increase;
- (c)the Increase Notice shall be accepted by the Tenant as conclusive and binding of the matters so stated (save for manifest error);
- (d)the increase in Service Charge shall be chargeable and payable by the Tenant with effect from the date specified in the Increase Notice; and
- (e)if there is any additional Service Charge payable from a date prior to the issuance of the Increase Notice, the aggregate amount of such additional Service Charge shall be payable by the Tenant forthwith upon the issuance of the Increase Notice unless there is/are documentation error(s), in which case the payment will be delayed until the error(s) is/are corrected by the Landlord.

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12 Clause 5.5.2 shall be amended as follows:-

"5.5.2 Where the Landlord arranges for the supply of electricity to the Premises (whether by way of en bloc energy purchase or otherwise), the Tenant must pay to the Landlord:

- (a) Electricity Charges in respect of the electricity supplied to the Premises, to the Landlord on a monthly basis. The Electricity Charges will be calculated by the Landlord at such rate as the Landlord may stipulate and notified to the Tenant by a statement from the Landlord in writing. In the absence of manifest error, the statement is conclusive as to the amount stated and the Tenant must make payment within seven (7) days from the date of the Landlord's statement;
- (b) all charges relating to the supply of electricity to the Premises including but not limited to connection charges and administrative charges within seven (7) days of the Landlord's notice to the Tenant of such charges unless there is/are documentation error(s), in which case the payment will be delayed until the error(s) is/are corrected by the Landlord; and
- (c) the Electricity Supply Deposit. The Landlord will inform the Tenant of the amount of the Electricity Supply Deposit from time to time during the Term. The Electricity Supply Deposit will be retained by the Landlord for the Term and may be used (whether in whole or part) in or towards indemnifying the Landlord against any breach by the Tenant of its obligations under Clauses 5.5.2(a) and 5.5.2(b) above. If the Electricity Supply Deposit is for any reason less than the amount required by the Landlord, the Tenant must pay the Landlord the amount of the deficit within 7 days of the Landlord's written request. The Landlord will refund the Electricity Supply Deposit (subject to the Landlord's rights under this paragraph) to the Tenant, free of interest, together with the Security Deposit Amount."

13 Clause 5.9 shall be amended as follows:-

"5.9 Repair

The Tenant must:

5.9.1 keep the Premises in a clean, tidy and sanitary condition;

5.9.2 keep the Premises, including all fixtures and fittings in it (whether belonging to the Landlord or the Tenant), all mechanical and electrical equipment in and serving the Premises and the Conducting Media in and serving the Premises and reasonably accessible to the Tenant in good and tenantable repair and condition (except for fair wear and tear); and

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5.9.3 immediately make good, to the reasonable satisfaction of the Landlord, any damage caused to the Premises (including the Landlord's fixtures and fittings in it) or any other part of the Building or the Park by the Tenant."

14 Clause 5.10.2 shall be amended as follows:-

"5.10.2 If any breach, defects, disrepair, removal of fixtures or unauthorised alterations, additions or installations are found on inspection for which the Tenant is liable, then, on notice from the Landlord, the Tenant must carry out the necessary works with due diligence within the time period specified in the Landlord's notice, to the reasonable satisfaction of the Landlord."

15 Clause 5.11.2 shall be amended as follows:-

"5.11.2 The Landlord need not pay any compensation for any nuisance, annoyance, inconvenience, damage or loss caused to the Tenant. Nonetheless, the Landlord will endeavour to cause as little disturbance as is reasonably possible in the circumstances. Provided always that the Landlord (or other person so entering) shall take steps to minimize the disruption to the Tenant's business operations, and exercise such right in a reasonable manner and make good any damage caused to the Premises without unreasonable delay."

16 Clause 5.18 shall be amended as follows:-

"5.18 Confidentiality of Information

Without prejudice to any other rights or remedies the Landlord is entitled to, the Tenant will not disclose to any third party any information in respect of or arising from or in connection with the terms, conditions and provisions of the lease of the Premises whether contained in the Lease or in previous or subsequent correspondence or otherwise, unless such disclosure is required by Law or with the prior consent of the Landlord or to the extent that such information has become public knowledge not due to the Tenant's breach of this undertaking."

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ATTACHMENT 3**STATEMENT OF ACCOUNTS**

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STATEMENT OF ACCOUNTS

	AMOUNT	GST (7%)
NET RENT: \$14.06 per square metre per month on 948.00 square metres for a period of 8 months and 1 day beginning from 01 October 2015	\$13,328.88	\$933.02
SERVICE CHARGE: \$2.62 per square metre per month on 948.00 square metres for a period of 8 months and 1 day beginning from 01 October 2015	\$2,483.76	\$173.86
GROSS RENT: \$16.68 per square metre per month on 948.00 square metres for a period of 8 months and 1 day beginning from 01 October 2015	\$15,812.64	\$1,106.88
ADMINISTRATIVE FEES	\$500.00	\$35.00
RENOVATION DEPOSIT	\$9,480.00	
SUB-TOTAL	\$25,792.64	\$1,141.88
GST PAYABLE	\$1,141.88	
TOTAL AMOUNT (INCLUSIVE OF GST) [payable to "HTSG NC ASCENDAS REIT"]	\$26,934.52	
CASH DEPOSIT [payable to "HTSG NC ASCENDAS REIT"]	**\$121,424.80	
STAMP DUTY [payable to "Infinitus Law Corporation]	\$3,330.00	

The TOTAL AMOUNT payable includes the 1st month advance gross rent beginning 01 October 2015. GIRO payment will be effective from the following month.

** The Landlord is agreeable to defer the collection of Security Deposit to 01 May 2015.

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ATTACHMENT 4**DECLARATION FORM**

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DECLARATION FORM

This form may take 15 minutes to complete. Some of the information is pre-filled for your convenience. If the information is inaccurate, you can delete and fill in correctly. Please submit this completed form together with your acceptance.

1 PARTICULARS

Name of Company/Firm (as in ACRA) : Fluidigm Singapore Pte. Ltd.

Company's Mailing Address: Blk 5008 Ang Mo Kio Ave 5
#08-08 Techplace II
Singapore 569874

Telephone: 63201600 Facsimile Number: 63201607

Website: www.fluidigm.com

Company Registration No: 200311994M

Company's Country of Origin: USA

Company's Principle Activity: manufacturing and R & D

Note: If you are a foreign firm or a company in formation, please provide a local contact address and telephone number, where possible.

2 USAGE/ ACTIVITIES FOR PREMISES:

R&D and manufacturing of fluidic chips and microfluidic system

2.1 URA's 60:40 requirements

Do your activities in the leased premises comply with Urban Redevelopment Authority's (URA)
60:40 requirements (set out below) for space utilization"

YES o NO

Industrial

URA's 60:40 requirements: The tenant must ensure that at least 60% of the floor area is used for industrial activities i.e. manufacturing, assembly, research & development, ancillary stores and ancillary warehouse with only the other 40% of the floor area may be used as ancillary offices, showrooms, neutral areas and communal facilities.

2.2 APPLICATION ON THE USE OF PREMISES TO CENTRAL BUILDING PLAN UNIT OF NEA

Please note that you will need to submit your application online at <http://ias.nea.gov.sg>. You are to submit and apply the same usage reflected in paragraph 2 of this declaration form. Upon successful submission, you are required to let us have a copy of the acknowledgement that the application has been accepted. Upon receiving the NEA clearance letter, please let us have a copy of the letter for the use of the Premises for the Tenant's operations (in accordance with paragraph 1.3 of the Offer Letter).

*You can refer to the link to assist you in the application of NEA approval - http://ias.nea.gov.sg/IAS_use_r_guide

2.3 APPLICATION FOR PORTABLE WATER/NON PORTABLE WATER

Please note that you are required to apply for portable water/non portable water if your water consumption is more than 500 cubic metres per month.

DECLARATION

On behalf of the above mentioned Company/Firm, I declare that all the information and particulars provided in this form are true, correct and complete, and that the activities to be conducted in the stated premises shall not be changed without the prior approval of the owner of the premises.

Yow Mai Chan / Director /s/ Yow Mai Chan
Name/ Designation Signature

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[stamp inserted] —
Company Stamp Date

HANDING OVER

Please provide details of the person whom we can liaise with on handing over of the premises.

Name/ Designation : Bernard Lee/Facilities Manager

Contact No/ Email : 91011976/ Bernard.Lee@fluidigm.com

E-BILLING (Mandatory)

Please provide details of the person (e.g. Finance Manager) who will be accessing the billing invoices through our Ascendas Tenant Services Portal.

Name: Fiona Yip

Designation: Accountant

Email: Fiona.Yip@fluidigm.com

Contact Number: 66926683

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ascendas.com



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APPENDIX I

See enclosed Standard Terms, Covenants and Conditions

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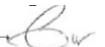


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APPENDIX I

STRICTLY CONFIDENTIAL

**STANDARD TERMS, COVENANTS
AND CONDITIONS**

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STANDARD TERMS, COVENANTS AND CONDITIONS

1. INTERPRETATION

1.1 **Definitions**

In these Covenants, the Offer Letter and the Side Letter(s), where the context so allows:

- 1.1.1 '**Acceptance**' means the acceptance of the offer for lease of the Premises set out in the Offer Letter issued by the Tenant in accordance with the provisions of the Offer Letter.
- 1.1.2 '**Air Conditioning Charges**' means the air conditioning charges, if any, referred to in the Offer Letter or the Side Letter(s), if any.
- 1.1.3 '**Authorities**' means all relevant governmental and statutory bodies and authorities.
- 1.1.4 '**Building**' means the land and the buildings of which the Premises form part, the location and name of which are specified in the Offer Letter, and refers to each and every part of the Building and includes car parks, service, loading and any other areas the use and enjoyment of which is appurtenant to the Building whether or not within the structure of the Building.
- 1.1.5 '**Car Park Charges**' means the charges for the use of the car park lots as notified by the Landlord to the Tenant from time to time.
- 1.1.6 '**Chilled Water Charges**' means the charges for the provision of chilled water to the Premises, referred to in the Offer Letter or such other amount as may be specified by the Landlord from time to time.
- 1.1.7 '**Chilled Water Deposit**' means the chilled water deposit amount specified in the Offer Letter or such other amount as may be specified by the Landlord from time to time.
- 1.1.8 '**Chilled Water Rate**' means the rate of the Chilled Water Charges as specified in the Offer Letter or such other rate as the Landlord may specify from time to time.
- 1.1.9 '**Commencement Date**' means the date of commencement of the Term specified in the Offer Letter or the Side Letter(s), if any.
- 1.1.10 '**Common Property**' means the parts of the Building (whether or not within the structure of the Building) to be used in common with the Tenant, other tenants and occupiers of the Building, the Landlord and those properly authorised and permitted to do so and which would reasonably be treated as common parts of the Building for common use or benefit if the Building had been subdivided and registered under the Land Titles (Strata) Act, Chapter 158, but excludes any such parts as may be within the Premises.
- 1.1.11 '**Conducting Media**' means any drains, sewers, conduits, flues, risers, gutters, gullies, channels, ducts, shafts, watercourses, pipes, cables, wires and mains now or in the future in upon or under the Building.
- 1.1.12 '**Covenants**' means these Standard Terms, Covenants and Conditions and includes any documents supplemental to it.
- 1.1.13 '**Electricity Charges**' means the charges for the supply of electricity to the Premises, as specified by the Landlord from time to time.
- 1.1.14 '**Electricity Supply Deposit**' means the electricity supply deposit amount specified in the Offer Letter or the Side Letter(s) (if any) or such other amount as may be specified by the Landlord from time to time.
- 1.1.15 '**Fire Safety Approval**' means the approval (in the form of fire safety certificates or notices of approval) issued by the Commissioner, Singapore Civil Defence Force under the Fire Safety Act, Chapter 109A or other Authority.

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- 1.1.16 **'Fitting Out Works'** means such fitting out or other works as the Tenant may require to carry out in connection with the use and enjoyment of the Premises immediately upon taking over possession of the Premises.
- 1.1.17 **'Floor Area'** means the floor area of the Premises specified in the Offer Letter.
- 1.1.18 **'Force Majeure'** means any circumstances beyond the reasonable control of the Landlord which directly or indirectly prevents or impedes the due performance of the Landlord's obligations under the Lease, including but without limitation to an act of God, flooding, national emergency, war, insurgency, civil commotion or riots.
- 1.1.19 **'Gross Rent'** means the aggregate of the Net Rent and Service Charge.
- 1.1.20 **'Head Landlord'** means the holder of a reversion whether immediate or not to the lease under which the Landlord holds its interest in the Building.
- 1.1.21 **'Head Lease'** means the lease under which the Landlord holds its interest in the Building and also includes any leasehold reversion whether immediate or not to such lease.
- 1.1.22 **'Infectious Disease'** means infectious diseases defined pursuant to the Infectious Diseases Act, Chapter 137.
- 1.1.23 **'Interest'** means interest at the rate of ten percent (10%) per annum, calculated on a daily basis and on the basis of the actual number of days in the year (both before and after judgement) or such higher rate as may be determined from time to time by the Landlord.
- 1.1.24 **'Landlord'** means the landlord specified in the Offer Letter and includes its successors and assigns and all persons from time to time entitled to the immediate reversion to the Lease.
- 1.1.25 **'Law'** includes any present or future requirement of statute (including subsidiary legislation), common law and equity.
- 1.1.26 **'Lease'** means the agreement for the lease of the Premises between the Landlord and the Tenant constituted by the Offer Letter, incorporating these Covenants, the Acceptance and the Side Letter(s) (if any) and includes any documents supplemental to the Lease.
- 1.1.27 **'month'** means calendar month.
- 1.1.28 **'Monthly Gross Rent'** means the Monthly Net Rent and the Monthly Service Charge.
- 1.1.29 **'Monthly Net Rent'** means the Net Rent for each month of the Term calculated at the monthly Net Rental Rate on the Floor Area.
- 1.1.30 **'Monthly Service Charge'** means the monthly Service Charge calculated at the Service Charge Rate on the Floor Area.
- 1.1.31 **'Net Rent'** means the net rent (exclusive of Service Charge and other sums) payable by the Tenant to the Landlord in accordance with the Offer Letter, Clause 5.1 and the Side Letter(s), if any.
- 1.1.32 **'Net Rental Rate'** means the rate or rates of Net Rent for any month of the Term, as specified in the Offer Letter or the Side Letter(s), if any.
- 1.1.33 **'Offer Letter'** means the offer letter issued to the Tenant by or on behalf of the Landlord to which these Covenants are attached, in respect of the lease of the Premises and includes these Covenants and all amendments of the Offer Letter and supplements thereto.
- 1.1.34 **'Original Condition'** means the original state and condition of the Premises as indicated in the plans and drawings furnished or to be furnished by the Landlord to the Tenant when possession of the Premises are handed to the Tenant by the Landlord.

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- 1.1.35 **'Payment Date'** means the first day of a month or such other day that the Landlord may from time to time specify for payment of the Monthly Net Rent.
- 1.1.36 **'Park'** means a science, business or industrial park within which the Building is located.
- 1.1.37 **'permitted occupier'** means any person on the Premises for any period expressly or by implication with the Tenant's authority.
- 1.1.38 **'Permitted Use'** means the permitted usage specified in the Offer Letter or the Side Letter(s), if any, or such other use as may be approved by the Landlord and the Authorities.
- 1.1.39 **'Possession Date'** means the anticipated date of possession of the Premises specified by the Landlord in the Offer Letter or such other date as the Landlord may specify. Where no Possession Date is specified by the Landlord in the Offer Letter, the Commencement Date shall, for the purposes of the Lease, be deemed to be the Possession Date.
- 1.1.40 **'Premises'** means the premises in the Building agreed to be leased to the Tenant as specified in the Offer Letter and refers to each and every part of the Premises and improvements and additions made to, and fixtures, fittings and appurtenances in, the Premises, but excludes the structural parts, loadbearing framework, roof, foundations, joists, the Conducting Media within but not exclusively serving the Premises, and any of the Landlord's machinery and plant within but not exclusively serving the Premises, the exterior faces of exterior walls and the external faces of boundary walls.
- 1.1.41 **'Renovation Deposit'** means the renovation deposit (if any) referred to in the Offer Letter or the Side Letter(s), if any.
- 1.1.42 **'Rent Free Period'** means the rent free period (if any) referred to in the Offer Letter.
- 1.1.43 **'Security Deposit Amount'** means the security deposit amount specified in the Offer Letter or the Side Letter(s), if any.
- 1.1.44 **'Service Charge'** means the service charge payable by the Tenant to the Landlord in accordance with the Offer Letter and Clause 5.1 and the Side Letter(s), if any.
- 1.1.45 **'Service Charge Rate'** means the monthly rate of the Service Charge.
- 1.1.46 **'Side Letter(s)'** means the side/amendment/variation letter(s), if any, made between the Landlord and the Tenant before, on or after the date of the Acceptance, to supplement, amend or vary the Offer Letter or the Lease.
- 1.1.47 **'Taxes'** means any goods and services tax, imposition, duty and levy, which may be imposed before, on or after the commencement of the Term, by the Authorities.
- 1.1.48 **'Tenant'** means the tenant specified in the Offer Letter and includes its successors and permitted assigns in whom the Lease may for the time being be vested.
- 1.1.49 **'Tenants' Guide'** means the information and guidelines, including but not limited to renovation guidelines and rules relating to the safety, conduct, operation, maintenance and management of the Building, prepared by the Landlord or its consultants and which may be varied or amended by the Landlord.
- 1.1.50 **'Tenant's Works'** means Fitting Out Works and such other renovation, alterations, additions or other works as the Tenant may require to carry out including but not limited to interior layout, interior design, internal fittings, wiring, plumbing and renovation works which the Tenant may require in connection with the use and enjoyment of the Premises.
- 1.1.51 **'Term'** means the term of the Lease specified in the Offer Letter or the Side Letter(s), if any.
- 1.1.52 **'Total Outgoings'** includes the total sum of all outgoings, costs and expenses assessed or

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assessable, charged or chargeable, paid or payable or otherwise incurred in respect of the Building and the fixtures, furniture and fittings therein, and in the control, management, maintenance and replacement of the Building and the fixtures, furniture and fittings therein (including without limitation, capital expenditure and depreciation).

1.1.53 '**Utilities**' means electricity, water, sewerage, telecommunications and where applicable, gas.

1.2

General

The following rules of interpretation apply to the Lease unless the context requires otherwise:

1.2.1 Words in the Lease importing the singular meaning, shall where the context so allows, include the plural meaning and vice versa.

1.2.2 Words in the Lease importing any one gender include both other genders and may be used interchangeably, and words denoting natural persons where the context so allows include corporations and vice versa.

1.2.3 The Schedules, Attachments, Appendices and Annexures to the Lease or any part of it shall be taken, read and construed as parts of the Lease and the provisions thereof shall have the same force and effect as if expressly set out in the body of the Lease.

1.2.4 Unless stated otherwise, one word or provision does not limit the effect of another.

1.2.5 Reference to the whole includes every part.

1.2.6 Every obligation by the Tenant is taken to include an obligation by the Tenant to ensure that each of its employees, agents, independent contractors, permitted occupiers and others under its control comply with that obligation.

1.2.7 In any case where the Tenant is placed under a restriction by reason of the covenants and conditions contained in the Lease, the restriction shall be deemed to include the obligation on the Tenant not to permit or allow the infringement of the restriction by any person claiming rights to use, enjoy or visit the Premises through, under or in trust for the Tenant.

1.2.8 If under the Lease or the Tenants' Guide, the Tenant requires the consent or approval of the Landlord for any action, the Tenant must obtain it in writing before starting to take that action.

1.2.9 If under the Lease or the Tenants' Guide, the consent or approval of the Landlord is required, the consent and approval of the Landlord may be given or withheld by the Landlord in its absolute discretion (unless the Lease provides otherwise) and upon such terms as the Landlord thinks is appropriate.

1.2.10 Any provision in the Lease referring to the consent or approval of the Landlord shall be construed as also requiring the consent or approval of the Head Landlord (if required under the Head Lease) and any Authority, if required under Law, but nothing in the Lease shall be construed as implying that any obligation is imposed upon the Head Landlord or the Authority not to unreasonably refuse any such consent or approval.

1.2.11 A right given to the Landlord to have access to the Premises extends to any persons authorised by the Landlord and the Head Landlord, and includes the right to bring workmen and appliances onto the Premises.

1.2.12 References in the Lease to any statutes or statutory instruments include and refer to any statute or statutory instrument amending, consolidating or replacing them respectively from time to time in force, and references to a statute include regulations made pursuant to them.

1.2.13 Headings are for convenience only and are not to be taken into account in the construction or interpretation of any covenant, condition or proviso to which they refer.

1.2.14 Unless the context otherwise requires, references:

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- (a) to numbered paragraphs, clauses and Attachments in the Offer Letter are references to the relevant paragraphs, clauses and Attachments in the Offer Letter;
- (b) to numbered paragraphs, clauses and Schedules in these Covenants are references to the relevant paragraph or clause in or Schedule to these Covenants; and
- (c) in any Schedule, Attachment, Appendix or Annexure to a numbered paragraph are references to the relevant paragraph in that Schedule, Attachment, Appendix or Annexure.

1.2.15 References to 'liability' include, where the context allows, claims, demands, proceedings, damages, losses, costs and expenses.

2. LETTING

2.1 Letting

Upon receipt of the Acceptance by the Landlord pursuant to the requirements in the Offer Letter and in consideration of the Gross Rent reserved by and other covenants on the part of the Tenant in the Lease, the Landlord agrees to lease the Premises to the Tenant, and the Tenant agrees to take a lease of the Premises for the Term:

- (a) together with the rights set out in Clause 2.2; and
- (b) except and reserved to the Landlord the rights set out in Clause 2.3.

2.2 Rights

2.2.1 The Premises are leased with the benefit of the following rights:

- (a) the right to use the Common Property to pass to and from the Premises only to the extent that it is necessary; and
- (b) the right to use the designated toilet and bathroom facilities, if any, in the Common Property.

2.2.2 The rights mentioned in Clause 2.2.1 may also be exercised by:

- (a) any persons authorised by the Tenant but only for proper purposes connected with the use or enjoyment of the Premises; and
- (b) the Landlord, the Head Landlord, persons authorised by the Landlord and other persons entitled to do so.

2.3 Exceptions

2.3.1 The lease of the Premises to the Tenant is subject to the following rights of the Landlord:

- (a) the right to free and uninterrupted passage and running of Utilities, air-conditioning and other services through the Conducting Media in the Premises;
- (b) the Landlord's rights under the Lease including but not limited to the right to enter the Premises pursuant to the Lease;
- (c) the right of light, air, support, shelter and all other easements and rights belonging to or enjoyed by other parts of the Building;
- (d) the right to erect scaffolding for renovating, retrofitting, refurbishing, altering, repairing, cleaning and/or painting the Building even if the scaffolding temporarily restricts access to or the use and enjoyment of the Premises; and

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- (e) the right to build upon, alter, rebuild, develop or use the land adjoining the Building and in the Park even if this affects the light and air coming to the Premises or causes nuisance, damage, annoyance or inconvenience to the Tenant or occupier of the Premises by reason of noise, dust, vibration or otherwise provided this does not materially affect the Tenant's ability to use the Premises.

3. POSSESSION

3.1 The Tenant shall take possession of the Premises on the Possession Date in accordance with the terms of the Lease. Any delay in the Tenant taking possession of the Premises shall not be a ground for postponing the commencement of the Rent Free Period (if any) and/or the Term.

3.2 If the Landlord allows the Tenant to take possession of the Premises before the Commencement Date, the Tenant acknowledges that until the Commencement Date, the Tenant shall be in possession of the Premises as a licensee. Notwithstanding this, the Tenant shall still be bound by the terms, covenants and conditions set forth in the Lease insofar as they are applicable prior to the Commencement Date. If any of the events set forth in Clause 8.1.1 (a) to (d) below shall occur before the Commencement Date, the Landlord in addition to and without prejudice to any other rights and remedies, shall be entitled, by giving notice to the Tenant to that effect, to terminate its agreement to grant a lease of the Premises to the Tenant on the terms, covenants and conditions set out in the Lease. Upon such termination:-

3.2.1 the Tenant's interest in and the rights to the Premises shall cease and determine;

3.2.2 (if the Tenant shall have taken possession of the Premises) the Tenant shall at its own cost and expense carry out the Reinstatement Works (as defined in Clause 5.12.2. below) and reinstate and restore the Premises to its Original Condition;

3.2.3 the Landlord is entitled to forfeit and retain all monies paid by the Tenant under the Lease for its own benefit without affecting any other rights and remedies of the Landlord; and

3.2.4 the Tenant shall pay to the Landlord compensation and damages for the loss of Gross Rent (which would have been payable by the Tenant had the Term been completed), suffered by the Landlord consequential upon such termination and the Landlord will retain all rights and remedies against the Tenant for any antecedent breach, non-observance or non-performance by the Tenant of its obligations under the Lease.

4. TENANT'S WORKS

4.1 Tenant's Works

4.1.1 The Tenant shall not carry out the Tenant's Works without the prior approval of the Landlord.

4.1.2 Subject to Clause 4.1.1, the Tenant shall carry out, at the Tenant's own costs and expense, the Tenant's Works and shall comply with and observe the guidelines, terms and conditions set out in the Tenants' Guide and any other specific requirements of the Landlord.

4.1.3 The Tenant must obtain and keep in force all necessary approvals from the Authorities for the purpose of carrying out the proposed Tenant's Works, including without limitation and if applicable, the Fire Safety Approval.

4.1.4 The Tenant must obtain and provide the Landlord with the certification of the Tenant's Works from an appropriate architect, engineer or consultant at the Tenant's own cost and expense by a deadline stipulated by the Landlord.

4.1.5 Unless otherwise provided in the Offer Letter, there will not be suspension of payment of Gross Rent or any other amounts payable by the Tenant during the Tenant's Works.

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- 4.1.6 The Tenant shall, if required by the Landlord, place with the Landlord a deposit equivalent to such additional amount as the Landlord may deem sufficient as security for the proper execution of the Reinstatement Works (as defined in Clause 5.12.2 below) and reinstatement of the Premises to its Original Condition. Such additional deposit shall be returned to the Tenant in accordance with Clause 5.7.5 of the Covenants.
- 4.2 **Renovation Deposit**
- 4.2.1 The Tenant shall furnish to the Landlord a Renovation Deposit by the following timelines:
- (a) where the proposed Tenant's Works comprise Fitting Out Works, before the Tenant takes possession of the Premises and if specified in the Offer Letter, on acceptance of the Offer Letter; and/or
 - (b) where the proposed Tenant's Works do not comprise Fitting Out Works, upon the Landlord's demand for a Renovation Deposit.
- 4.2.2 The Tenant shall deposit with the Landlord the Renovation Deposit as security for:-
- (a) completion of the Tenant's Works;
 - (b) the Tenant making good to the satisfaction of the Landlord all damage to the Premises, the Building and the Park resulting from the Tenant's Works; and
 - (c) the Tenant's due compliance of the provisions of the Lease (including but not limited to Clause 4.1 of the Covenants), the Tenants' Guide and all Authorities' conditions.
- 4.2.3 If the Tenant fails to complete, make good or comply as set out in Clause 4.2.2, above, the Landlord may effect the necessary works, and apply the Renovation Deposit to meet the costs and expenses incurred by the Landlord. If the Renovation Deposit shall be insufficient, the Tenant shall pay to the Landlord on demand the balance of the costs and expenses incurred with Interest from the date of expenditure until the date they are paid by the Tenant to the Landlord, such costs, expenses and Interest to be recoverable as if they were rent in arrears.
- 4.2.4 The Landlord may forfeit the Renovation Deposit if the Tenant fails to furnish to the Landlord all relevant plans and the Fire Safety Approval within 2 months from the Possession Date.
- 4.2.5 The Renovation Deposit, subject to any deductions made by the Landlord as above, shall be repaid to the Tenant following completion of all of the following:-
- (a) proper completion of the Tenant's Works (in compliance with the provisions of the Lease and the Tenants' Guide);
 - (b) making good damage (if any) to the Premises, the Building and the Park; and
 - (c) full compliance with Landlord's requirements to the Landlord's satisfaction.

5. TENANT'S COVENANTS AND OBLIGATIONS

The Tenant covenants with the Landlord that during the Term:

5.1 **Gross Rent and other payments**

5.1.1 The Tenant shall pay to the Landlord:-

- (a) Net Rent calculated at the Net Rental Rate on the Floor Area, by monthly payments of the Monthly Net Rent in advance, on each Payment Date of the Term;
- (b) subject to Clause 5.1.2, Service Charge, by way of additional rent, calculated at the Service Charge Rate on the Floor Area, by monthly payments of the Monthly Service Charge in advance, on each Payment Date of the Term;

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- (c) where specified in the Offer Letter or Side Letter(s), if any, Chilled Water Charges, calculated at the Chilled Water Rate, by way of additional rent, in the manner specified in the Offer Letter or the Side Letter(s), if any;
- (d) where specified in the Offer Letter or Side Letter(s), if any, Air Conditioning Charges, by way of additional rent, calculated at the rates and payable in the manner specified in the Offer Letter or the Side Letter(s), if any;
- (e) Electricity Charges, by way of additional rent, in the manner specified in Clause 5.5.2(a); and
- (f) Car Park Charges, by way of additional rent, in the manner notified by the Landlord to the Tenant from time to time.

5.1.2

The Landlord shall be entitled at any time and from time to time to increase the Service Charge by notice if there is any increase in the Total Outgoings and the following shall apply:-

- (a) the Tenant shall pay such increased Service Charge during the Term;
- (b) upon such increase in Total Outgoings, the Landlord shall issue a notice (the '**Increase Notice**') to the Tenant stating the amount of the increase in the Service Charge on a per square metre basis and the effective date of such increase;
- (c) the Increase Notice shall be accepted by the Tenant as conclusive and binding of the matters so stated (save for manifest error);
- (d) the increase in Service Charge shall be chargeable and payable by the Tenant with effect from the date specified in the Increase Notice; and
- (e) if there is any additional Service Charge payable from a date prior to the issuance of the Increase Notice, the aggregate amount of such additional Service Charge shall be payable by the Tenant forthwith upon the issuance of the Increase Notice.

5.1.3

The Tenant shall pay Gross Rent, Chilled Water Charges, Air Conditioning Charges, Electricity Charges and Car Park Charges which are payable by way of standing order (GIRO) to an account designated by the Landlord or in such other manner as prescribed by the Landlord.

5.1.4

The provisions of this Clause 5.1 shall continue to apply notwithstanding the expiry or earlier determination of the Lease but only in respect of the Term.

5.2

Interest

If the Tenant does not pay the Gross Rent or any other sums owing to the Landlord under the Lease by the due date (whether or not formally demanded), the Tenant must pay the Interest on that sum from the date the sum is due until the date that the sum is paid. Such Interest will be recoverable from the Tenant as if it is rent in arrears. Nothing in this Clause 5.2 entitles the Tenant to withhold or delay any payment or affects or derogates from the rights of the Landlord in relation to non-payment including without limitation, the right of re-entry under the Lease.

5.3

In addition to the Gross Rent and other sums payable under the Lease, the Tenant must pay the Landlord immediately on demand Taxes payable by the Landlord in respect of any sum payable under the Lease and/or the occupation and lease of the Premises. Taxes payable hereunder are recoverable as if they are rent.

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5.4

Utilities

The Tenant must pay to the relevant supplier all charges in respect of the Utilities (save for the Electricity Charges and the Air Conditioning Charges payable to the Landlord pursuant to the Lease) supplied to the Premises by each respective supplier.

5.5

Electricity Supply

5.5.1

Unless otherwise notified by the Landlord, the Tenant shall make arrangements with a supplier or retailer, as the case may be, for the supply of electricity to the Premises in which case, the Tenant shall comply with the following:

- (a) Tenant shall obtain the prior approval of the Landlord of the supplier or retailer; and
- (b) Tenant shall pay all charges for the supply of electricity to the Premises (including but not limited to any connection charges) directly to the supplier or retailer.

5.5.2

Where the Landlord arranges for the supply of electricity to the Premises (whether by way of en bloc energy purchase or otherwise), the Tenant must pay to the Landlord:

- (a) Electricity Charges in respect of the electricity supplied to the Premises, to the Landlord on a monthly basis. The Electricity Charges will be calculated by the Landlord at such rate as the Landlord may stipulate and notified to the Tenant by a statement from the Landlord in writing. In the absence of manifest error, the statement is conclusive as to the amount stated and the Tenant must make payment within seven (7) days from the date of the Landlord's statement;
- (b) all charges relating to the supply of electricity to the Premises including but not limited to connection charges and administrative charges within seven (7) days of the Landlord's notice to the Tenant of such charges; and
- (c) the Electricity Supply Deposit. The Landlord will inform the Tenant of the amount of the Electricity Supply Deposit from time to time during the Term. The Electricity Supply Deposit will be retained by the Landlord for the Term and may be used (whether in whole or part) in or towards indemnifying the Landlord against any breach by the Tenant of its obligations under Clauses 5.5.2(a) and 5.5.2(b) above. If the Electricity Supply Deposit is for any reason less than the amount required by the Landlord, the Tenant must pay the Landlord the amount of the deficit within 7 days of the Landlord's written request. The Landlord will refund the Electricity Supply Deposit (subject to the Landlord's rights under this paragraph) to the Tenant, free of interest, together with the Security Deposit Amount.

5.5.3

Where the Landlord has effected or intends, at any time or from time to time during the Term, to effect an en bloc energy purchase for the Building or the Park, the Tenant will be deemed to have granted its consent to such purchase on the date of the Acceptance. The Tenant must, if required by the Landlord, sign an authorization containing such provisions as prescribed by the Landlord, to confirm such consent.

5.5.4

Without prejudice to the generality of the foregoing, the Tenant must not without the prior consent of the Landlord agree to purchase energy from any party other than the Landlord or open a power supply account with SP Services Pte Ltd or any other electricity or power retailer.

5.6

Meters

5.6.1

The Tenant is required to engage a qualified contractor to install and test the electricity, water and air conditioner meters (**'Meters'**) relating to the Premises at the Tenant's own cost and expense (including without limitation, the costs and expenses arising from the submissions to, endorsements by and attendance of the Landlord's licensed electrical worker). Prior approval of the Landlord, and where required, the relevant Authorities for such installation and testing must be obtained.

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- 5.6.2 The Tenant shall be responsible for the maintenance, repair and replacement of the Meters at the Tenant's costs and expense during the Rent Free Period (if any) and the Term and the Tenant must not tamper with, or do anything which may affect the accuracy of, the Meters.
- 5.6.3 All connection and turning on fees whether payable to the Landlord or the Authority or any other person, shall be borne by the Tenant.
- 5.7 Security Deposit Amount**
- 5.7.1 The Tenant must pay to and maintain with the Landlord the Security Deposit Amount:-
- (a) as security for compliance by the Tenant of all the provisions in the Lease;
 - (b) to secure and indemnify the Landlord against:
 - (i) any loss or damage resulting from any default by the Tenant under the Lease;
 - (ii) any claim by the Landlord at any time against the Tenant in relation to any matter arising out of or in connection with the Premises; and
 - (iii) without prejudice to the generality of the preceding sub-Clauses, any amount owing by the Tenant to the Landlord during any holdover period or subsequent lease of the Premises between the Landlord and the Tenant.
- 5.7.2 If any default by the Tenant under the Lease occurs, the Landlord is entitled (but not obliged) to apply the whole or part of the Security Deposit Amount in or towards:-
- (a) making good any loss or damage sustained by the Landlord as a result of any of the above in any manner as may be required by the Landlord; and
 - (b) repayment of any expense incurred by the Landlord in making good the loss and damage, in any manner as may be prescribed by the Landlord.
- 5.7.3 The Tenant must pay to the Landlord an amount equal to the amount applied by the Landlord under Clause 5.7.2, as replacement of the whole or part of the Security Deposit Amount applied, within seven (7) days of demand.
- 5.7.4 If from time to time during the Term, the Gross Rent is increased in accordance with the Lease, the Security Deposit Amount shall likewise be increased and the difference shall be paid by the Tenant upon the Landlord's notice requiring payment.
- 5.7.5 The Landlord must repay to the Tenant the Security Deposit Amount, without interest and after proper deductions by the Landlord after the end of the Term if the Tenant has paid all sums owing and performed all other obligations under the Lease to the satisfaction of the Landlord.
- 5.7.6 The Tenant must not set-off any part of the Security Deposit Amount against any Gross Rent or other sums owing to the Landlord.
- 5.8 Insurance**
- 5.8.1 The Tenant shall at the Tenant's own cost and expense from the Possession Date or the commencement of the Term, whichever is earlier, till the expiry of the Term and during any period of holding over, take out and keep in force the following insurance policies (hereinafter called the "**Insurance Policies**"):
- (a) an insurance policy in the name of the Tenant:
 - (i) against all risks of physical loss or damage (including risks of fire) in respect of the Tenant's property, goods and stock-in-trade (if any) in the Premises including all the Tenant's plate and tempered glass, glass frontage and plant and machinery in the Premises (if any);

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- (ii) up to the full replacement value of the Tenant's property, goods and stock-in-trade in the Premises; and
- (iii) which includes a provision for waiver of subrogation against the Landlord.
- (b) a public liability insurance policy in the name of the Tenant with the Landlord named therein as an additional insured party:
- (I) against claims for personal injury, death or property damage or loss arising out of all operations of the Tenant, its servants, agents, invitees, licensees and independent contractors in or from the Premises or assumed under this lease, which shall be extended to include any of the insured parties' legal liability for loss of or damage to the Premises (including all fixtures and fittings therein) and all the Landlord's property;
- (ii) in an amount not less than the sum of Singapore Dollars Three Million (S\$3,000,000.00) or such higher amount as may from time to time be required by the Landlord; and
- (iii) which includes a cross-liability clause.

5.8.2 The Tenant shall take out the Insurance Policies with a reputable insurance company approved by the Landlord.

5.8.3 The Tenant shall forthwith at the request of the Landlord furnish to the Landlord copies of the Insurance Policies and the receipt for the last premium payable in respect of such policies.

5.8.4 The Tenant shall not do nor suffer to be done anything whereby any of the Insurance Policies may be rendered void or voidable.

5.9 Repair

The Tenant must:

5.9.1 keep the Premises in a clean, tidy and sanitary condition;

5.9.2 keep the Premises, including all fixtures and fittings in it (whether belonging to the Landlord or the Tenant), all mechanical and electrical equipment in and serving the Premises and the Conducting Media in and serving the Premises and reasonably accessible to the Tenant in good and tenantable repair and condition (except for fair wear and tear); and

5.9.3 immediately make good, to the satisfaction of the Landlord, any damage caused to the Premises (including the Landlord's fixtures and fittings in it) or any other part of the Building or the Park by the Tenant.

5.10 Landlord's Right of Inspection and Repair

5.10.1 The Tenant must allow the Landlord to enter the Premises at all reasonable times to:

- (a) establish if the provisions of the Lease have been observed;
- (b) inspect the condition of the Premises;
- (c) take a schedule of fixtures; and / or
- (d) determine the source of any interference or disturbance to other tenants and occupants.

5.10.2 If any breach, defects, disrepair, removal of fixtures or unauthorised alterations, additions or installations are found on inspection for which the Tenant is liable, then, on notice from the Landlord, the Tenant must carry out the necessary works with due diligence within the time period specified in the Landlord's notice, to the satisfaction of the Landlord.

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5.10.3 If the Tenant does not complete the necessary works in time, the Landlord may enter the Premises to do the necessary works pursuant to Clause 8.8 below. In connection with such works and if required by the Landlord, the Tenant shall:-

- (a) remove its own installations, machinery or any article so as to facilitate the Landlord's execution of things, repairs and works and if the Tenant fails to do so, the Landlord may effect such removal at the Tenant's costs and expense; and
- (b) cease activities to such extent and during such hours as the Landlord may specify by notice to the Tenant in order to carry out such works (including without limitation, investigations relating thereto).

5.11 Landlord's Right of Entry for Repairs

5.11.1 The Tenant must allow the Landlord to enter the Premises at all reasonable times after giving to the Tenant prior notice (except in an emergency):

- (a) to carry out any works relating to the Conducting Media and to install additional Conducting Media;
- (b) to carry out any works which the Landlord considers necessary or desirable to any part of the Building or the Park (including the services and facilities in it);
- (c) to exercise any right granted to or to comply with any obligation of the Landlord under the Lease or the Head Lease or any obligation owed to any third party having legal rights over the Premises, the Building or the Park;
- (d) to alter, repair or maintain the Premises, the Building or the Park (including cleaning the exterior windows of the Building);
- (e) to develop the remainder of the Building or the Park, including the right to build onto any boundary wall of the Premises; or
- (f) to construct, alter, maintain, repair or fix anything or additional thing serving such property and running through or on the Premises and the Landlord shall also have the right to grant access to any of the Authorities to carry out any works at the Premises including but not limited to any surrounding areas if so required by the Authorities.

5.11.2 The Landlord need not pay any compensation for any nuisance, annoyance, inconvenience, damage or loss caused to the Tenant. Nonetheless, the Landlord will endeavour to cause as little disturbance as is reasonably possible in the circumstances.

5.11.3 If required by the Landlord, the Tenant shall:-

- (a) remove its own installations, machinery or any article so as to facilitate the Landlord's execution of things, repairs and works and if the Tenant fails to do so, the Landlord may effect such removal at the Tenant's cost and expense; and
- (b) cease activities to such extent and during such hours as the Landlord may specify by notice to the Tenant for any work (including without limitation, investigations relating thereto) to be executed by the Landlord.

5.12 Vacating the Premises

5.12.1 At the expiry or sooner determination of the Term, the Tenant must:-

- (a) have complied with all its obligations specified in Clause 5.12.2; and
- (b) vacate the Premises and yield up the Premises to the Landlord together with all keys of the Premises and the keys of all mailboxes for the Premises.

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- 5.12.2 Prior to vacating the Premises, the Tenant must at its cost carry out the reinstatement works to restore the Premises to its Original Condition (except fair wear and tear) as set out in the Tenants' Guide and in accordance with the Landlord's additional reinstatement requirements ('Reinstatement Works').
- 5.12.3 If the Tenant took over fixtures, fittings and/or furniture of any previous occupant, the Reinstatement Works shall include the removal all such fixtures, fittings and furniture.
- 5.12.4 If the Tenant fails to comply with any of its obligations set out above, the Landlord may carry out the Reinstatement Works (or such part thereof as may remain uncompleted) at the Tenant's cost and expense.
- 5.12.5 If the Landlord carries out such Reinstatement Works:-
- (a) the Landlord must complete the works within a reasonable period; and
 - (b) the Tenant must pay the Landlord immediately on demand:
- (i) all the Landlord's costs together with Interest from the date of expenditure to the date they are paid by the Tenant to the Landlord (such expenses and Interest to be recoverable as if they were rent in arrears);
 - (ii) a sum (the '**Additional Sum**') equivalent to the Gross Rent calculated based on the period (the '**Reinstatement Period**') taken by the Landlord to complete the works.
- 5.12.6 If the Landlord is agreeable that the Reinstatement Works be delayed with the intent of procuring a replacement tenant to take over the Tenant's fixtures and fittings, the Landlord shall be entitled to require the Tenant to pay a further sum to be determined by the Landlord by reference to the costs and expenses that would be required to complete such Reinstatement Works (the '**Further Sum**'). If such replacement tenant agrees to take over the Tenant's fixtures and fittings, the Tenant shall be deemed to have consented to the transfer of its title in the fixtures and fittings to the replacement tenant and upon:-
- (a) the Tenant issuing a written confirmation to that effect; and
 - (b) the replacement tenant undertaking in writing to take over the Tenant's fixtures and fittings and agreeing in writing to reinstate the Premises,
- the Further Sum shall be refunded to the Tenant. If paragraph (a) and/or paragraph (b) above is/are not fulfilled within three (3) months (or such other period as the Landlord may stipulate) from the date of the expiry or sooner determination of the Term, then the Landlord shall be entitled to retain the entire Further Sum and remove, dispose or deal with the Tenant's fixtures and fittings as the Landlord deems fit and all proceeds from the disposal (if any) shall be retained by the Landlord.
- 5.12.7 A statement from the Landlord of the costs incurred, the Additional Sum and the Further Sum is conclusive and binding on the Tenant (save for manifest error).
- 5.13 Permitted Use**
- 5.13.1 Subject to Clause 5.13.3 below, the Tenant shall not use the Premises for any purpose except for the Permitted Use for the business of the Tenant.
- 5.13.2 The Tenant shall obtain and keep in force all necessary approvals required by law for the operation of its business in the Premises, at its own cost, and expense and must ensure that the terms and conditions of such approvals are strictly complied with.
- 5.13.3 The Tenant must ensure that not more than 40% of the Floor Area is used for purposes ancillary to the Permitted Use, as approved by (a) the Urban Redevelopment Authority or other Authority and (b) the Landlord.

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5.14

Not to Void Insurance

The Tenant shall not do anything which may make any of the Landlord's insurance policies invalid or capable of cancellation or which may increase the premium on such policies. If the Tenant is in default of this Clause, the Tenant shall make good any damage suffered by the Landlord and to pay the increased premium and all costs and expenses incurred by the Landlord with respect to the renewal of such policy, without affecting any other rights or remedies of the Landlord.

5.15

Viewing
Within six (6) months before the end of the Term, the Tenant shall allow all persons authorised by the Landlord or its agents to view the Premises at all reasonable times with prior notice in connection with any reletting.

5.15.2

At any time during the Rent Free Period (if any) and the Term, the Tenant shall allow all persons authorised by the Landlord or its agents to view the Premises at all reasonable times with prior notice in connection with any sale of the Building.

5.16

Compliance with the Law

5.16.1

The Tenant must comply, at its cost, with the Law and all requirements of the Authorities in force during the Term relating to:

- (a) the Premises or the use or occupation of the Premises;
- (b) anything in or done in the Premises by the Tenant; and
- (c) the observance or performance of the Tenant's obligations under the Lease,

and immediately inform the Landlord in writing of any notice or order from any Authority received in relation to any of the above or of any defect in the Premises which may give rise to a liability or duty on the Landlord.

5.16.2

Without prejudice to Clause 5.16.1, the Tenant shall not allow the Premises to be used as a place in which any person is employed in contravention of Section 57(1)(e) of the Immigration Act (Chapter 133), Section 5 of the Employment of Foreign Manpower Act (Chapter 91A) and any other Law in force at the moment.

5.17

Acceptance of Existing State and Condition

The Tenant agrees to accept, and not raise any objection to, the existing state and condition of the Premises as at the Possession Date including the structural, mechanical and electrical specifications of the Premises.

5.18

Confidentiality of Information

Without prejudice to any other rights or remedies the Landlord is entitled to, the Tenant will not disclose to any third party any information in respect of or arising from or in connection with the terms, conditions and provisions of the lease of the Premises whether contained in the Lease or in previous or subsequent correspondence or otherwise, unless such disclosure is required by Law or with the prior consent of the Landlord.

5.19

Indemnity by Tenant

The Tenant shall indemnify the Landlord against all claims, demands, actions, proceedings, judgements, damages, losses, costs and expenses of any nature which the Landlord may suffer or incur for death, injury, loss and/or damage caused, directly or indirectly by:

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- 5.19.1 any occurrences in the Premises or the use or occupation of the Premises by the Tenant or by any of the Tenant's employees, independent contractors, agents or any permitted occupier;
- 5.19.2 the Tenant or its employees, independent contractors, agents or any permitted occupier of the Premises, the Building or any property in them (including without limitation, those caused directly or indirectly by the use or misuse, waste or abuse of the Utilities or faulty fittings or fixtures) or the condition of any part of the interior of the Premises; and
- 5.19.3 any default by the Tenant in complying with the provisions of the Lease.
- 5.20 Assignment and Subletting**
- 5.20.1 The Tenant shall not assign, sublet, mortgage or charge the Lease or the Premises.
- 5.20.2 The Tenant shall not licence, part with or share possession or occupation of the Premises or grant third parties any rights over the Premises.
- 5.20.3 Where the Tenant is a company, any change in the management control or majority shareholders of the Tenant made without the prior consent of the Landlord will be treated as an assignment of the Lease.
- 5.20.4 For the purpose of this Clause, "majority shareholder" means a person who:
- (a) controls the composition of the board of directors of the Tenant; or
 - (b) controls more than 50% of the issued share capital of the Tenant; or
 - (c) controls more than 50% of the voting power of the Tenant.
- 5.20.5 Subject to Clause 5.20.1, if the Tenant is a sole-proprietor or comprises of partners carrying on business under a business name registered under the Business Registration Act, the Tenant shall not effect any change in the constitution or membership of the sole-proprietorship or partnership without the Landlord's prior consent.
- 5.20.6 In the event the Landlord grants its consent, the Landlord shall be entitled at its absolute discretion to impose such terms and conditions and charge such fees as the Landlord shall see fit and Section 17 of the Conveyancing and Law of Property Act (Chapter 61) shall not apply.
- 5.21 No Lodgment of Caveat, Registration of Lease and Subdivision**
- 5.21.1 The Tenant shall not lodge a caveat in respect of the Lease nor register the Lease at the Singapore Land Registry, whether before or during the Term. The Tenant undertakes to immediately withdraw any caveats lodged in default of this Clause.
- 5.21.2 The Tenant must not require the Landlord to subdivide the Building or do any act which could result in the Landlord being required to subdivide the Building.
- 5.21.3 The Landlord and the Tenant hereby agree and acknowledge that the Lease does not operate as a lease capable of registration under the provisions of the Land Titles Act (Cap. 157) or any other Law.
- 5.22 Prevention of Infectious Diseases**
- 5.22.1 The Tenant shall take all steps and measures, at the Tenant's cost and expense, to prevent any outbreak, spread or any transmission whatsoever of any Infectious Disease (including, but not limited to, thoroughly fumigating and disinfecting the Premises to the satisfaction of the Authorities) and to, without prejudice to Clause 5.16, to promptly comply, at the Tenant's cost and expense, with the Law and all guidelines, rules and requirements of the Authorities relating to the prevention of any outbreak and/or spread of Infectious Diseases.

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5.22.2 The Tenant shall forthwith give notice to the Landlord and the Authorities if the Tenant is aware or suspects that any person is suffering, has died from, is a carrier or a contact of, or is at risk of infection from an Infectious Disease and provide such required information or particulars.

5.23 **Head Lease**

5.23.1 The Tenant shall comply with and be bound by the conditions (if any) imposed by the Head Landlord in granting its consent to the lease of the Premises to the Tenant.

5.23.2 The Tenant shall comply with, perform, observe and be bound by the obligations contained or referred to in the Head Lease insofar as they relate to the Premises. The Tenant shall also comply with, perform, observe and be bound by the obligations of any additional or supplemental documents made or to be made from time to time between the Landlord and the Head Landlord pursuant to the Head Lease in relation to the Building and/or the Park.

5.24 **Change of Name**

The Tenant shall give prior notice to the Landlord of any intended change in its name and pay to the Landlord a fee for every change of its name.

5.25 **Additional Property Tax**

5.25.1 The Tenant must pay to the Landlord immediately on demand, any additional property tax ('**Additional Property Tax**'). The Additional Property Tax shall be the property tax payable for or apportioned as attributable to the Premises (in respect of each month of the Rent Free Period (if any) and the Term) arising from an increase in the annual value of or attributable to the Premises or an increase in the rate of property tax of or attributable to the Premises over and above the annual value and the rate of property tax prevailing on the Commencement Date. If the Tenant fails to comply with this Clause 5.25, the Additional Property Tax together with Interest accruing from the date of the Landlord's demand until the date of payment will be recoverable from the Tenant as if it were rent in arrears.

5.25.2 The liability of the Tenant to pay the Additional Property Tax will not be affected by the expiry or sooner determination of the Term.

5.25.3 Objection to or appeals in respect of any assessment of annual value or imposition of property tax on the Premises may only be made by the Landlord at its sole discretion.

6. LANDLORD'S OBLIGATIONS

The Landlord covenants with the Tenant as follows:

6.1 **Quiet Enjoyment**

If the Tenant pays the Gross Rent and other sums due under the Lease and complies with the Tenant's obligations in the Lease, the Tenant may occupy and use the Premises throughout the Term without any interruption by the Landlord, except as provided in the Lease.

6.2 **Property Tax**

Save for the Additional Property Tax, the Landlord must pay the property tax levied on the Building by the Authority and which is apportioned as attributable to the Premises.

6.3 **Management of the Building**

Subject to the provisions of Clauses 7.1, the Landlord must:

6.3.1 keep the exterior of the Building, the Common Property, the mechanical and electrical services and other services, amenities and facilities in the Building provided by the Landlord for common use or benefit, in good repair and in the case of mechanical and electrical services, in working order and condition (fair wear and tear excepted);

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- 6.3.2 provide lift services during the hours specified by the Landlord, electricity for the lighting of the Common Property within the Building and water for the toilet and bathroom facilities, if any, in the Common Property in the Building;
- 6.3.3 keep the Common Property sufficiently cleaned and lit; and
- 6.3.4 insure the Building (excluding fixtures and fittings installed by the Tenant) against damage by fire and such other risks which the Landlord decides are necessary.

7. LANDLORD NOT LIABLE

7.1 No Claim by Tenant

Notwithstanding anything contained in the Lease, the Landlord is not liable to the Tenant or its employees, independent contractors, agents or permitted occupiers or any other persons and the Tenant must not claim against the Landlord for any death, injury, loss or damage (including indirect, consequential and special losses) which the Tenant or its employees, independent contractors, agents or permitted occupiers or any other persons may suffer (whether sustained at or originating at the Premises or the Building or the Common Property or the Park) in respect of any of the following (whether caused by negligence or other causes):

- 7.1.1 any interruption in any of the services mentioned in Clause 6.3 due to necessary repair, maintenance, damage or destruction of any installations or equipment or mechanical, electrical, electronic, microprocessor, software or other defect, malfunction or breakdown; or
- 7.1.2 any act, omission, negligence or misconduct of (a) any employee of the Landlord or any person acting under such employee in respect of the Premises or the Building; (b) the employee, agent or independent contractor of the Landlord in performing any duty relating to the services mentioned in Clause 6.3; or (c) any contractor nominated or approved by the Landlord under the Lease, and such contractor appointed by the Tenant will not be treated as an employee or agent of the Landlord or (d) any other person in the Building; or
- 7.1.3 leakage or defect in the piping, wiring and sprinkler system or defect (inherent or otherwise) in the structure of the Building; or
- 7.1.4 the use of the car parks in the Building; or
- 7.1.5 the violation of the Tenants' Guide by any of the other tenants, invitees, licensees or other occupiers in the Building including their employees, independent contractors, agents, visitors, invitees or licensees; or
- 7.1.6 any failure or delay by the Landlord in the taking or implementing of any measures or the insufficiency of any such measures taken by the Landlord, to prevent any outbreak or spread whatsoever of any Infectious Disease in the Building; or
- 7.1.7 any terrorist act regardless of any other cause or event contributing concurrently or in any other consequence to the loss (including, but not limited to, any action taken in controlling, preventing, suppressing or in any way relating to any terrorist act); or
- 7.1.8 any Force Majeure; or
- 7.1.9 any failure or inability or defect in the supply or character of electricity, water (including chilled water) or where applicable, gas, supplied to the Premises by any service provider supplying the Building with electricity, water (including chilled water) or where applicable, gas; or
- 7.1.10 for accidents happening or injuries sustained or for loss of or damage to property in the Premises, the Building or the Park.

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8. OTHER TERMS

8.1 **Re-entry**

8.1.1 The Tenant will be in default under the Lease if, during the Term:

- (a) the Tenant fails to pay the Gross Rent or any other sum payable under the Lease within seven (7) days after the due date (whether or not formally demanded); or
- (b) the Tenant fails to comply with its obligations under the Lease (other than payment of Gross Rent and any other sum payable under the Lease) and (where the breach is capable of remedy) fails to make good the default within fourteen (14) days (or any other period stipulated by the Landlord) of the Landlord's notice ; or
- (c) any distress or execution is levied on the Tenant's property and is not discharged within seven (7) days; or
- (d) an event of insolvency occurs or is likely to occur in relation to the Tenant.

8.1.2

In any of the above events, the Landlord may re-enter and take possession of the Premises (or any part of it) at any time (even if any previous right of re-entry has been waived) and to repossess the Premises and the Term and the Lease shall absolutely cease and determine.

8.1.3

The exercise of the Landlord of its right of re-entry will not affect any rights of the Landlord against the Tenant (including rights in respect of the default under which the re-entry is made).

8.1.4

The Tenant must indemnify the Landlord from and against all cost, loss, damages and expenses (including, without limitation, Gross Rent for the Rent Free Period and loss of Gross Rent which would have been payable by the Tenant if the Term had been completed and all costs and expenses incurred for re-letting or attempted re-letting of the Premises), suffered by the Landlord as a result of the Landlord exercising its right of re-entry. This indemnity will not affect the other rights and remedies of the Landlord against the Tenant.

8.2

Government Acquisition

If the Building or any part of it is acquired by any Authority or a notice, order or gazette notification is issued in respect of the intended or actual acquisition of the Building or any part of it by any Authority, the Landlord may terminate the Lease, without compensation, by giving notice to the Tenant. Upon receipt of the notice, the Lease will end without affecting the rights of the Landlord against the Tenant for any previous default by the Tenant of the Lease

8.3

Removal of property after the end of Lease

8.3.1 If the Gross Rent or any other sums payable under the Lease shall be unpaid, the Tenant shall, upon the Landlord's notice, leave any property of the Tenant specified by the Landlord in the Premises.

8.3.2

If any property of the Tenant remains on the Premises after the Tenant has vacated the Premises after the expiry or sooner determination of the Term whether under Clause 8.3.1 or for any other reason whatsoever, the Landlord shall be entitled, and shall be deemed to be authorized, to remove, store, deal with, sell and dispose of the property in any manner which the Landlord thinks is appropriate. All costs and expenses incurred by the Landlord together with Interest from the date of expenditure until the date they are paid by the Tenant to the Landlord shall be recoverable from the Tenant as if they were rent in arrears. The Landlord shall be entitled to apply the proceeds of sale (if any) against such costs, expenses and Interest and any other amounts owing by the Tenant to the Landlord. The Landlord shall return the balance, if any, to the Tenant.

8.3.3

The Tenant must indemnify the Landlord against any liability incurred by the Landlord to any third party whose property is dealt with or disposed of by the Landlord in the mistaken belief (which will be presumed unless the contrary is proved) that such property belonged to the Tenant.

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8.4

Notices

8.4.1 A notice given or required to be given under the Lease must be in writing.

8.4.2 A notice to the Tenant is only valid if given by hand or sent by registered post to the Premises.

8.4.3 A notice to the Landlord is only valid if sent by registered post to the registered office for the time being of the Landlord or any other address notified by the Landlord to the Tenant.

8.4.4 Any notice will be treated as served:

(a) (for notice given by hand) immediately on the day upon which it is sent; and

(b) (for notice by registered post) twenty-four (24) hours after posting and in proving it, it will be adequate to show that the envelope containing the notice was addressed, stamped and posted.

8.5

Service of Process

Any process, by writ, summons or otherwise, shall be sufficiently served if effected on:

8.5.1 the Landlord by registered post to its business address;

8.5.2 the Tenant by registered post to or by leaving or affixing it at the business address or the Premises notwithstanding that it is returned by the post office undelivered; or

8.5.3 the solicitor for the Landlord or the Tenant in the manner provided in this Clause.

Prohibition against Offsetting

The Tenant must pay to the Landlord promptly as and when due, without demand, deduction, set-off, or counterclaim, all sums due and payable by the Tenant to the Landlord under the Lease. The Tenant must not exercise any right or claim to withhold Gross Rent or any other sum payable under the Lease or any right or claim to legal or equitable set-off.

Costs and Expenses

The Tenant agrees to pay the Landlord (on a full indemnity basis), immediately on demand, all the Landlord's costs and expenses (including without limitation, legal fees) incurred:-

8.7.1 for drawing up, negotiating and completing Side Letter(s), if any;

8.7.2 for considering a request for any consent or approval by the Landlord (including fees imposed by the Landlord's consultants for advising the Landlord); and

8.7.3 as a result of a default by the Tenant of the Lease.

Remedial Measures.

If the Tenant fails to observe or perform any obligations on its part in the Lease, the Landlord may (but shall not be under any obligation to) without prejudice to any of its other rights or remedies, carry out or cause to be carried out such remedial measures as the Landlord thinks necessary. All costs and expenses incurred by the Landlord together with Interest from the date of expenditure until the date they are paid by the Tenant to the Landlord shall be recoverable from the Tenant as if they were rent in arrears PROVIDED ALWAYS THAT the Landlord shall not be liable to the Tenant for any loss, damage or inconvenience directly or indirectly caused thereby.

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8.9

No Waiver

8.9.1 The Landlord's consent or waiver to any default by the Tenant of its obligations in the Lease is only effective if it is in writing. Mere knowledge or consent by conduct (expressed or implied) of the Landlord of such default by the Tenant will not be implied or treated as a waiver.

8.9.2

Such consent or waiver by the Landlord must not be taken as a consent or waiver to another default by the Tenant of the same obligation or a default of another obligation in the Lease.

8.9.3

The Landlord will not be treated as waiving its right to proceed against the Tenant in respect of any default by the Tenant of its obligations in the Lease, if the Landlord accepts the Gross Rent or any other sum payable by the Tenant under the Lease.

8.10

Representations

8.10.1 The Lease forms the entire agreement between the Landlord and the Tenant relating to the lease of the Premises.

8.10.2 The Landlord is not bound by any representations or promises with respect to the Building, the Premises or the Park if they are not stated in the Lease whether written or oral, express or implied by common law, statute or custom or otherwise.

8.10.3 The Tenant confirms that it has not agreed to or executed the Acceptance or any Side Letter(s) relying on any representation made by the Landlord or on its behalf which is not stated in the Lease.

8.10.4 The Landlord and the Tenant each represents, warrants and undertakes that it has full power and authority to enter into and perform the Lease and the Lease is valid and binding on its part.

Tenants' Guide

8.11.1 The Tenant must comply with the Tenants' Guide and ensure that its employees, agents, independent contractors and permitted occupiers comply with the Tenants' Guide.

8.11.2 The Landlord may make and vary the Tenants' Guide at any time.

8.11.3 The provisions of the Lease will prevail where there is inconsistency between such provisions and the Tenants' Guide.

Landlord may Assign

The Landlord is entitled to transfer (whether by an assignment or novation) its rights and obligations in the Lease. Upon such transfer, the Tenant:-

- (a) is treated to have consented to such transfer and must accept the transferee as its new landlord;
- (b) must release the Landlord from all its obligations under the Lease, including without limitation, the Landlord's obligation to refund the Security Deposit Amount and other sums that the Landlord is obliged to refund under the Lease;
- (c) must become a party to and sign the assignment or novation agreement in respect of the Lease with the Landlord and its transferee, if required by the Landlord. Such agreement will be prepared by the Landlord or its transferee at its own cost; and
- (d) if requested by the Landlord, where the Security Deposit Amount is furnished by way of a bank guarantee, procure a replacement bank guarantee to be issued in favour of the transferee.

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Unenforceability and Severance

The illegality, invalidity or unenforceability of any provision in the Lease under the law of any jurisdiction will not affect the legality, validity and enforceability of that provision under the law of any other jurisdiction or the legality, validity or enforceability of any of the other provisions in the Lease.

8.14

Governing Law and Submission to Jurisdiction

8.14.1

The Offer Letter and the Lease are governed by Singapore law.

8.14.2

The parties agree to submit to the jurisdiction of the courts of the Republic of Singapore.

8.14.3

Where the Tenant is a company that is neither incorporated nor registered in Singapore:-

- (a) the Tenant undertakes to deliver to the Landlord a copy of the letter issued by the process agent to the Landlord, consenting to irrevocably act as the Tenant's process agent, within seven (7) days of appointment, in a form approved by the Landlord;
- (b) the service of process on the Tenant is treated as completed upon leaving the documents at the last known address of the process agent; and
- (c) Clause 8.14.3 will not affect the right of the Landlord to serve process in any other manner permitted by Law.

8.15

Contracts (Rights of Third Parties) Act Cap 53B

Without prejudice to Clause 8.12, nothing in the Lease shall confer on any person who is not party to the Lease a right to enforce any terms of the Lease and the provisions of the Contracts (Rights of Third Parties) Act, Cap 53B, which might otherwise be interpreted to confer such rights to such persons shall not apply and are expressly excluded from applying to the Lease and no consent of any third party is required for any variation (including any release or compromise of any liability) or termination of the Lease.

8.16

Limitation of Liability

Notwithstanding any contrary provision in the Lease, it is hereby agreed and acknowledged that the Landlord is entering into this Lease in its capacity as Trustee of A-REIT and not in its personal capacity. As such, any liability of or indemnity given or to be given by the Landlord shall be limited to the assets of A-REIT over which the Landlord has recourse and shall not extend to any personal assets of the Landlord or any assets held by the Landlord as Trustee for any trust other than A-REIT.

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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 7, 2015

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 7, 2015

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, 2015 (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 7, 2015

**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, 2015 (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 7, 2015