FLUIDIGM CORP
Form S-8
February 21, 2014
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As filed with the Securities and Exchange Commission on February 21, 2014

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-8/S-3

REGISTRATION STATEMENT

Under

The Securities Act of 1933

FLUIDIGM CORPORATION

(Exact name of Registrant as specified in its charter)

Delaware	**77-0513190**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

7000 Shoreline Court, Suite 100

South San Francisco, California 94080

(Address of principal executive offices, including zip code)

2011 Equity Incentive Plan of the Registrant

Stock options granted under DVS Sciences, Inc. s 2010 Equity Incentive Plan, as amended, assumed by the Registrant

DVS Sciences, Inc. Stock Restriction Agreements and Restricted Stock Purchase Agreements, assumed by the Registrant

(Full title of the plan)

Gajus V. Worthington

President and Chief Executive Officer

7000 Shoreline Court, Suite 100

South San Francisco, California 94080

(650) 266-6000

(Name, address and telephone number, including area code, of agent for service)

Copy to:

Robert F. Kornegay

Wilson Sonsini Goodrich & Rosati, P.C.

650 Page Mill Road

Palo Alto, California 94304

(650) 493-9300

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 x	Accelerated filer ¨
Non-accelerated filer ¨ (do not check if a smaller reporting company)	Smaller reporting company ¨

CALCULATION OF REGISTRATION FEE

Title of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, $0.001 per value per share, to be issued under DVS Sciences, Inc. s 2010 Equity Incentive Plan, as amended (the 2010 DVS Plan)	142,624(2)	$2.75(3)	$392,216.00	$50.52
Common Stock, $0.001 par value per share, to be issued under the Registrant s 2011 Equity Incentive Plan (the 2011 Registrant Plan)	1,000,000(4)	$42.56(5)	$42,560,000.00	$5,481.73
Common Stock, $0.001 par value, issued under a Restricted Stock Purchase Agreement of DVS Sciences, Inc.	7,387(6)	0.64(7)	$4,727.68	$0.61
Common Stock, $0.001 par value , issued under a Restricted Stock Purchase Agreement of DVS Sciences, Inc.	17,880(6)	0.77(8)	$13,767.60	$1.78
Common Stock, $0.001 par value, issued under Stock Restriction Agreements of DVS Sciences, Inc.	161,150(6)	0.22(9)	$35,453	$4.57
TOTALS	$1,329,041		$43,006,164.28	$5,539.21

(1) For the sole purpose of calculating the registration fee, the number of shares to be registered under this Registration Statement has been broken down into five subtotals.

(2)

Pursuant to the Agreement and Plan of Merger, dated as of January 28, 2014, by and among Fluidigm Corporation (the Registrant), DVS Sciences, Inc., (DVS, which immediately subsequent to the closing of the merger changed its name to Fluidigm Sciences Inc.), Dawid Merger Sub, Inc., a wholly-owned subsidiary of Fluidigm (Merger Sub), and Shareholder Representative Services LLC as stockholder representative (the Merger Agreement), the Registrant assumed certain outstanding options to purchase common stock of DVS under the 2010 DVS Plan and such options became exercisable to purchase shares of the Registrant s common stock, subject to appropriate adjustments to the number of shares and the exercise price of each such option. Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the Securities Act), this Registration Statement shall also cover any additional shares of the Registrant s common stock that become issuable under the 2010 DVS Plan by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration that increases the number of the Registrant s outstanding shares of common stock.

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(h) under the Securities Act, on the basis of the weighted average exercise price of options outstanding under the 2010 DVS Plan and assumed by the Registrant.

(4) Represents shares of the Registrant s common stock that were automatically added to the shares authorized for issuance under the 2011 Registrant Plan on January 1, 2014 pursuant to an evergreen provision contained in the 2011 Registrant Plan. Pursuant to such provision, on January 1st of each fiscal year beginning with the 2012 fiscal year, the number of shares available for issuance under the 2011 Registrant Plan is automatically increased in an amount equal to the least of (i) 1,000,000 shares of the Registrant s common stock, (ii) four percent (4%) of the number of shares of the Registrant s common stock outstanding on December 31st of the preceding fiscal year, or (iii) such number of shares of the Registrant s common stock determined by the Registrant s board of directors.

(5) Estimated in accordance with paragraphs (c) and (h) of Rule 457 of the Securities Act solely for the purpose of calculating the total registration fee. Such computation is based on the average of the high and low prices of the Registrant s common stock as reported on the NASDAQ Global Market on February 13, 2014.

(6) Pursuant to the Merger Agreement, the Registrant assumed certain outstanding restricted stock of DVS subject to appropriate adjustments to the number of shares and the exercise price of each such restricted stock.

(7) Computed in accordance with Rule 457(h) under the Securities Act. Such computation is based on $0.64 per share, the issuance price of such shares at the time of issuance, covering 7,387 restricted shares (both the issuance price and restricted shares are shown as converted pursuant to the terms of the Merger Agreement) under a certain Restricted Stock Purchase Agreement entered into by DVS and Pamela Delucci.

(8) Computed in accordance with Rule 457(h) under the Securities Act. Such computation is based on $0.77 per share, the issuance price of such shares at the time of issuance, covering 17,880 restricted shares (both the issuance price and restricted shares are shown as converted pursuant to the terms of the Merger Agreement) under a certain Restricted Stock Purchase Agreement entered into by DVS and Neil Kennedy.

(9) Computed in accordance with Rule 457(h) under the Securities Act. Such computation is based on $0.22 per share, the issuance price of such shares at the time of issuance, covering 161,150 restricted shares (both the issuance price and restricted shares are shown as converted pursuant to the terms of the Merger Agreement) under a certain Stock Restriction Agreements entered into by DVS and certain of its founders.

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PROSPECTUS

186,417 Shares

FLUIDIGM CORPORATION

Common Stock

This Prospectus relates to 186,417 shares of common stock (the Shares) of Fluidigm Corporation (Fluidigm), which may be offered from time to time by certain stockholders of Fluidigm (the Selling Stockholders) for their own accounts. We will receive no part of the proceeds from sales made hereunder. The Shares were acquired by the Selling Stockholders pursuant to DVS Sciences, Inc. s (DVS) employee benefit plans, which Shares were assumed pursuant to the Agreement and Plan of Merger, dated as of January 28, 2014, by and among Fluidigm, DVS, Dawid Merger Sub, Inc., a wholly-owned subsidiary of Fluidigm, and Shareholder Representative Services LLC as stockholder representative. The Shares may be offered by the Selling Stockholders from time to time in one or more transactions at prevailing prices on the NASDAQ Global Market on the date of sale. See Plan of Distribution. The price at which any of the Shares may be sold, and the commissions, if any, paid in connection with any such sale, are unknown and may vary from transaction to transaction. The Selling Stockholders will bear all sales commissions and similar expenses. Any other expenses incurred by Fluidigm in connection with the registration and offering that are not borne by the Selling Stockholders will be borne by Fluidigm. None of the Shares have been registered prior to the filing of the Registration Statement on Form S-8/S-3 (herein, together with all amendments and exhibits, referred to as the Registration Statement) of which this Prospectus is a part.

Our common stock is listed on the NASDAQ Global Market under the symbol FLDM. On February 20, 2014, the last reported sale price on the NASDAQ Global Market was $47.75 per share. There is currently no market for the other securities we may offer.

This offering involves material risks. See Risk Factors on page 2 for a discussion of factors that should be considered by prospective investors of the shares offered by this Prospectus.

The Securities and Exchange Commission (the Commission) may take the view that, under certain circumstances, the Selling Stockholders and any broker-dealers or agents that participate with the Selling Stockholders in the distribution of the Shares may be deemed to be underwriters within the meaning of the Securities Act of 1933, as amended (the Securities Act). Commissions, discounts or concessions received by any such broker-dealer or agent may be deemed to be underwriting commissions under the Securities Act. See Plan of Distribution.

THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this Prospectus is February 21, 2014

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PROSPECTUS

You should rely only on the information contained or incorporated by reference in this Prospectus and in any accompanying Prospectus supplement. We have not authorized anyone to provide you with information different from that contained in this Prospectus. The Shares offered under this Prospectus are offered only in jurisdictions where offers and sales are permitted. The information contained in this Prospectus is accurate only as of the date of this Prospectus, regardless of the time of delivery of this Prospectus or of any sale of the Shares.

IN THIS PROSPECTUS, THE COMPANY, FLUIDIGM, WE, US, AND OUR REFER TO FLUIDIGM CORPORATION.

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THE COMPANY

Fluidigm Corporation

We develop, manufacture, and market microfluidic systems to leading academic institutions, clinical laboratories, and pharmaceutical, biotechnology, and agricultural biotechnology, or Ag-Bio, companies in growth markets, such as single-cell genomics, applied genotyping, and sample preparation for targeted resequencing. Our proprietary microfluidic systems consist of instruments and consumables, including integrated fluidic circuits, or IFCs, assays, and reagents. We actively market four microfluidic systems, including 18 different commercial IFCs for nucleic acid analysis, and three families of assay chemistries. Our systems are designed to significantly simplify experimental workflow, increase throughput, and reduce costs, while providing excellent data quality. In addition, our proprietary technology enables genetic analysis that in many instances was previously impractical. As of December 31, 2013, we had sold approximately 920 systems to customers in over 30 countries worldwide.

Our principal executive offices are located at 7000 Shoreline Court, Suite 100, South San Francisco, California 94080. Our telephone number is (650) 266-6000. We maintain an Internet website at www.fluidigm.com. We have not incorporated the information on our website by reference into this prospectus, and you should not consider it to be a part of this prospectus.

FORWARD-LOOKING STATEMENTS

This prospectus includes and incorporates by reference 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. 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 simil negatives of those terms. Although we believe that we have a reasonable basis for each forward-looking statement contained and incorporated by reference included in this prospectus, we caution you that these statements are based on our projections of the future that are subject to known and unknown risks and uncertainties and other factors that may cause our actual results, level of activity, performance or achievements expressed or implied by these forward-looking statements, to differ. The sections in this prospectus entitled Risk Factors, and in Item 1A Risk Factors of our most recent report on Form 10-K or Form 10-Q which is incorporated by reference in this prospectus, as well as other disclosures included in this prospectus or the supplement hereto, discuss some of the factors that could contribute to these differences.

Other unknown or unpredictable factors also could harm our results. Consequently, actual results or developments anticipated by us may not be realized or, even if substantially realized, may not have the expected consequences to, or effects on, us. Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements. Except as required by law, we undertake no obligation to update or revise publicly any of the forward-looking statements after the date of this prospectus.

This prospectus and the documents incorporated by reference in this prospectus contain market data that we obtained from industry sources. These sources do not guarantee the accuracy or completeness of the information. Although we believe that the industry sources are reliable, we have not independently verified the information. The market data

include projections that are based on a number of other projections. While we believe these assumptions to be reasonable and sound as of the date of this prospectus, actual results may differ from the projections.

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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 prospectus. 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

On February 13, 2014, we completed the acquisition of DVS Sciences, Inc., or DVS (which immediately subsequent to the acquisition changed its name to Fluidigm Sciences Inc.), which develops, manufactures, markets, and sells multi-parameter single-cell protein analysis systems. The risk factors set forth under Risks Related to Fluidigm s Business and Strategy relate principally to our legacy business of manufacturing, marketing, and selling microfluidic systems for single-cell genomics, applied genotyping, and sample preparation for targeted resequencing. For the separate risks relating to the business of DVS, please refer to the section of these risk factors captioned Risks Related to Our Recent Acquisition of DVS on page 14.

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

The application of our technologies to single-cell genomics, digital polymerase chain reaction, or digital PCR, and sample preparation for next-generation DNA sequencing are emerging market opportunities. We believe these opportunities will take several years to develop or mature and we cannot be certain that these market opportunities will develop as we expect. For example, we launched our C_1 Single-Cell Auto Prep System in June 2012, which applies our technology to, among other things, improve single-cell analytic workflow for single-cell genomics. The future growth of the single-cell genomics market and the success of our new system depend on many factors beyond our control, including recognition and acceptance by the scientific community, and the growth, prevalence, and costs of competing methods of genetic analysis. If the market for single-cell genomics, digital PCR, and sample preparation for next-generation DNA sequencing do not develop as we expect, our business may be adversely affected. Additionally, our success in these emerging markets may depend to a large extent on our ability to successfully market and sell products using our technologies. If we are not able to successfully market and sell our products, or to achieve the revenue or margins we expect, our operating results may be harmed and we may not recover our product development and marketing expenditures. In addition, our product development and strategic plans may change, which could delay or impede our entry into emerging markets.

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

Our quarterly revenue and results of operations have varied in the past and may continue to vary significantly from quarter-to-quarter. For example, in 2010, 2011, and 2012, we experienced higher sales in the fourth quarter than in the first quarter of the next fiscal year. In addition, revenue from sales of our instruments relative to sales of our consumables may fluctuate or deviate significantly from expectations. The variability in our quarterly results of operations, including revenue from sales of our instruments relative to our consumables, may lead to volatility in our stock price as research analysts and investors respond to these quarterly fluctuations. These fluctuations are due to numerous factors that are difficult to forecast, including: fluctuations in demand for our products; changes in customer budget cycles and capital spending; seasonal variations in customer operations; tendencies among some customers to

defer purchase decisions to the end of the quarter; the large unit value of our systems; changes in our pricing and sales policies or the pricing and sales policies of our competitors; our ability to design, manufacture and deliver products to our customers in a timely and cost-effective manner; quality control or yield problems in our manufacturing operations; our ability to timely obtain adequate quantities of the components used in our products; new product introductions and enhancements by us and our competitors; unanticipated increases in costs or expenses; our complex, variable and, at times, lengthy sales cycle; global economic conditions; and fluctuations in foreign currency exchange rates. Additionally, we have certain customers who have historically placed large orders in multiple quarters during a calendar year. A significant reduction in orders from one or more of these customers could adversely affect our revenue and operating results, and if these customers defer or cancel purchases or otherwise alter their purchasing patterns, our quarter-to-quarter financial results could be significantly impacted.

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The foregoing factors, as well as other factors, could materially and adversely affect our quarterly and annual results of operations. In addition, a significant amount of our operating expenses are relatively fixed due to our manufacturing, research and development, and sales and general administrative efforts. Any failure to adjust spending quickly enough to compensate for a revenue shortfall could magnify the adverse impact of such revenue shortfall on our results of operations. We expect that our sales will continue to fluctuate on a quarterly basis and that our financial results for some periods may be below those projected by securities analysts, which could significantly decrease the price of our common stock.

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

We have a limited operating history and have incurred significant losses in each fiscal year since our inception, including net losses of $11.9 million, $19.0 million, $22.5 million, and $16.9 million during the nine months ended September 30, 2013 and the years 2012, 2011, and 2010, respectively. As of September 30, 2013, we had an accumulated deficit of $252.7 million. These losses have resulted principally from costs incurred in our research and development programs, and from our manufacturing costs and selling, general, and administrative expenses. We may continue to incur substantial operating and net losses and negative cash flow from operations. We expect that our selling, general, and administrative expenses will continue to increase due to the additional operational and reporting costs associated with being a public company. We anticipate that our business will generate operating losses until we successfully implement our commercial development strategy and generate significant additional revenue to support our level of operating expenses. Because of the numerous risks and uncertainties associated with our commercialization efforts and future product development, we are unable to predict when we will become profitable, and we may never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase our profitability.

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

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

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

We manufacture all of our instruments and IFCs for commercial sale at our facility in Singapore and our assays for commercial sale at our headquarters in South San Francisco, California. No other manufacturing facilities are

currently available to us, particularly facilities of the size and scope required by our Singapore operations. Our facilities and the equipment we use to manufacture our instruments, IFCs, and assays would be costly to replace and could require substantial lead time to repair or replace. Our facilities may be harmed or rendered inoperable by natural or man-made disasters, which may render it difficult or impossible for us to manufacture our products for some period of time. If any of our facilities become unavailable to us, we cannot provide assurances that we will be able to secure a new manufacturing facility on acceptable terms, if at all. The inability to manufacture our products, combined with our limited inventory of manufactured supplies, may result in the loss of customers or harm our reputation, and we may be

unable to reestablish relationships with those customers in the future. Although we possess insurance for damage to our property and the disruption of our business, this insurance may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, or at all.

The current leases for our manufacturing facility in Singapore expire at various times through August 2016 and our current lease for office and laboratory space at our headquarters in South San Francisco expires in April 2020. On October 14, 2013, Fluidigm Singapore Pte Ltd., or Fluidigm Singapore, our wholly-owned subsidiary, accepted an offer of tenancy relating to the lease of a new manufacturing facility in Singapore, which expires on June 1, 2022. We expect to consolidate our manufacturing operations in the new space in the third quarter of 2014. Such a move will involve significant expense in connection with the establishment of new clean rooms, the movement and installation of key manufacturing equipment, and qualification of the new facility, and we cannot assure you that such a move would not delay or otherwise adversely affect our manufacturing activities. If our manufacturing capabilities are impaired by our move, we may not be able to manufacture and ship our products in a timely manner, which would adversely impact our business.

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

We may encounter unforeseen situations in the manufacturing and assembly of our products that would result in delays or shortfalls in our production. For example, we expect to consolidate our manufacturing operations in a new facility in the third quarter of 2014. Such a move will involve significant expense, and we cannot assure you that such a move would not delay or otherwise adversely affect our manufacturing activities. In addition, our production processes and assembly methods may have to change to accommodate any significant future expansion of our manufacturing capacity, which may increase our manufacturing costs, delay production of our products, reduce our product margin, and adversely impact our business. If our manufacturing activities are adversely impacted by our move, or if we are otherwise unable to keep up with demand for our products by successfully manufacturing, assembling, testing, and shipping our products in a timely manner, our revenue could be impaired, market acceptance for our products could be adversely affected and our customers might instead purchase our competitors

products.

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

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

We are dependent on single source suppliers for some of the components and materials used in our products, and the loss of any of these suppliers could harm our business.

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

The IFCs used in our microfluidic systems are fabricated using a specialized polymer, and other specialized materials, that are available from a limited number of sources. In the past, we have encountered quality issues that have reduced our manufacturing yield or required the use of additional manufacturing processes.

The reader for our BioMark System requires specialized custom camera lenses, fiber light guides, and other components that are available from a limited number of sources.

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- Specialized pneumatic and electronic components for our C_1 Single-Cell Auto Prep System are available from a limited number of sources.

- The raw materials for our DELTAgene and SNPtype assays and Access Array Target-Specific primers are available from a limited number of sources.

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

- we may be subject to increased component or assembly costs;

- we may not be able to obtain adequate supply or services in a timely manner or on commercially reasonable terms;

- our suppliers or service providers may make errors in manufacturing or assembly of components that could negatively affect the efficacy of our products or cause delays in shipment of our products; and

- our suppliers or service providers may encounter capacity constraints or financial hardships unrelated to our demand for components or services, which could inhibit their ability to fulfill our orders and meet our requirements.

We have in the past experienced quality control and supply problems with some of our suppliers, such as manufacturing errors, and may again experience problems in the future. We may not be able to quickly establish additional or replacement suppliers, particularly for our single source components, or assembly service providers. Any interruption or delay in the supply of components or materials or assembly of our instruments, or our inability to obtain components, materials, or assembly services from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers and cause them to cancel orders or switch to competitive products.

If our products fail to achieve and sustain sufficient market acceptance, our revenue will be adversely affected.

Our success depends, in part, on our ability to develop and market products that are recognized and accepted as reliable, enabling and cost-effective. Most of our potential customers already use expensive research systems in their laboratories and may be reluctant to replace those systems. Market acceptance of our systems will depend on many factors, including our ability to convince potential customers that our systems are an attractive alternative to existing technologies. Compared to some competing technologies, our microfluidic technology is relatively new, and most potential customers have limited knowledge of, or experience with, our products. Prior to adopting our microfluidic systems, some potential customers may need to devote time and effort to testing and validating our systems. Any failure of our systems to meet these customer benchmarks could result in customers choosing to retain their existing systems or to purchase systems other than ours.

In addition, it is important that our systems be perceived as accurate and reliable by the scientific and medical research community as a whole. Historically, a significant part of our sales and marketing efforts has been directed at convincing industry leaders of the advantages of our systems and encouraging such leaders to publish or present the

results of their evaluation of our system. If we are unable to continue to induce leading researchers to use our systems, or if such researchers are unable to achieve and publish or present significant experimental results using our systems, acceptance and adoption of our systems will be slowed and our ability to increase our revenue would be adversely affected.

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

Our customer base is primarily composed of academic institutions, clinical laboratories that use our technology to develop tests, and pharmaceutical, biotechnology, and agricultural biotechnology, or Ag-Bio, companies that perform analyses for research and commercial purposes. Our success will depend, in part, upon our ability to increase our market share among these customers, attract additional customers outside of these markets, and market new applications to existing and new customers as we develop such applications. Attracting new customers and introducing new applications requires substantial time and expense. For example, it may be difficult to identify, engage and market to customers who are unfamiliar with the current applications of our systems. Any failure to expand our existing customer base or launch new applications would adversely affect our ability to increase our revenue.

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

The markets for our products are characterized by rapidly changing technology, evolving industry standards, changes in customer needs, emerging competition, new product introductions, and strong price competition. We compete with both established and development stage life science research companies that design, manufacture, and market instruments and consumables for gene expression analysis, targeted single-cell gene expression analysis, genotyping, PCR, digital PCR, other nucleic acid detection, and additional applications using well established laboratory techniques, as well as newer technologies such as bead encoded arrays, microfluidics, nanotechnology, high-throughput DNA sequencing, microdroplets, and photolithographic arrays. Most of our current competitors have significantly greater name recognition, greater financial and human resources, broader product lines and product packages, larger sales forces, larger existing installed bases, larger intellectual property portfolios, and greater experience and scale in research and development, manufacturing, and marketing than we do. For example, companies such as Affymetrix, Inc., Agilent Technologies, Inc., Bio-Rad Laboratories, Inc., Illumina, Inc., Life Technologies Corporation (now part of Thermo Fisher Scientific), LGC Limited, Luminex Corporation, PerkinElmer, Inc. (through its acquisition of Caliper Life Sciences, Inc.), RainDance Technologies, Inc., Roche Applied Science (a division of Roche Diagnostics Corporation), Sequenom, Inc., Thermo Fisher Scientific Inc., and WaferGen Bio-systems, Inc. have products that compete in certain segments of the market in which we sell our products.

Competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards, or customer requirements. In light of these advantages, even if our technology is more effective than the product or service offerings of our competitors, current or potential customers might accept competitive products and services in lieu of purchasing our technology. We anticipate that we will face increased competition in the future as existing companies and competitors develop new or improved products and as new companies enter the market with new technologies. Increased competition is likely to result in pricing pressures, which could reduce our profit margins and increase our sales and marketing expenses. In addition, mergers, consolidations, or other strategic transactions between two or more of our competitors, or between our competitor and one of our key customers, could change the competitive landscape and weaken our competitive position, adversely affecting our business.

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

We expect that our revenue in the foreseeable future will be derived primarily from sales of our microfluidic systems and integrated fluidic circuits, or IFCs, to academic institutions, clinical laboratories 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 the federal government budget sequestration, the availability of resources to make purchases, the spending priorities among various types of equipment, policies regarding spending during recessionary periods, and changes in the political climate. In addition, academic, governmental, and other research institutions that fund research and development activities may be subject to stringent budgetary constraints that could result in spending reductions, reduced allocations, or budget cutbacks, which could jeopardize the ability of these customers to purchase our products. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by these customers. For example, reductions in capital and operating expenditures by these customers may result in lower than expected sales of our microfluidic systems and IFCs. These reductions and delays may result from factors that are not within our control, such as:

changes in economic conditions;

natural disasters;

changes in government programs that provide funding to research institutions and companies;

changes in the regulatory environment affecting life science and Ag-Bio companies engaged in research and commercial activities;

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differences in budget cycles across various geographies and industries;

market-driven pressures on companies to consolidate operations and reduce costs;

mergers and acquisitions in the life science and Ag-Bio industries; and

other factors affecting research and development spending.

Any decrease in our customers budgets or expenditures, or in the size, scope, or frequency of capital or operating expenditures, could materially and adversely affect our operations or financial condition.

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

Our success depends on our ability to develop new products and applications for our technology in existing and new markets, while improving the performance and cost-effectiveness of our systems. New technologies, techniques, or products could emerge that might offer better combinations of price and performance than our current or future product lines and systems. Existing markets for our products, including single-cell genomics, gene expression analysis, genotyping, and digital PCR, as well as potential markets for our products such as high-throughput DNA sequencing and molecular diagnostics applications, are characterized by rapid technological change and innovation. It is critical to our success for us to anticipate changes in technology and customer requirements and to successfully introduce new, enhanced, and competitive technology to meet our customers and prospective customers needs on a timely and cost-effective basis. Developing and implementing new technologies will require us to incur substantial development costs and we may not have adequate resources available to be able to successfully introduce new applications of, or enhancements to, our systems. We cannot guarantee that we will be able to maintain technological advantages over emerging technologies in the future. While we typically plan improvements to our systems, we may not be able to successfully implement these improvements. If we fail to keep pace with emerging technologies, demand for our systems will not grow and may decline, and our business, revenue, financial condition, and operating results could suffer materially. In addition, if we introduce enhanced systems but fail to manage product transitions effectively, customers may delay or forgo purchases of our systems and our operating results may be adversely affected by product obsolescence and excess inventory. Even if we successfully implement some or all of these planned improvements, we cannot guarantee that our current and potential customers will find our enhanced systems to be an attractive alternative to existing technologies, including our current products.

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

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

diagnostic or therapeutic purposes, our products or related applications could be subject to additional regulation as in vitro diagnostic devices, such as under the FDA s pre- and post-market regulations for medical devices. For example, if we wish to label, promote or advertise our products for use in performing clinical diagnostics, we would first need to obtain FDA pre-market clearance or approval (depending on any product s specific intended use and any such modified labeling claims), unless otherwise exempt from clearance or approval requirements. Obtaining FDA clearance or approval can be expensive and uncertain, and generally takes several months to years to obtain, and may require detailed and comprehensive scientific and clinical data. Notwithstanding the expense, these efforts may never result in FDA clearance or approval. Even if we were to obtain regulatory approval or clearance, it may not be for the uses we believe are important or commercially attractive.

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Further, the FDA may expand its regulatory oversight of our products or the products of our customers, which could impose restrictions on our ability to market and sell our products. For example, our customers may elect to use our research use only labeled products in their own laboratory developed tests, or LDTs, for clinical diagnostic use. The FDA has historically exercised enforcement discretion in not enforcing the medical device regulations against laboratory offering LDTs. However, the FDA could assert jurisdiction over some or all LDTs, which may impact our customers uses of our products. A significant change in the way that the FDA regulates our products or any LDTs that our customers develop may require us to change our business model in order to maintain compliance with these laws. The FDA held a meeting in July 2010, during which it indicated that it intends to reconsider its policy of enforcement discretion and to begin drafting a new oversight framework for LDTs. Recent comments by FDA Commissioner Margaret Hamburg in June 2013 indicate that the FDA is working on a new risk-based framework to regulate LDTs. We cannot predict the ultimate timing or form of any FDA guidance or regulation on LTDs.

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, or other requirements if the circumstances surrounding the distribution of the product indicate that the manufacturer knows its product is, or intends for its product to be, offered for clinical diagnostic uses. These circumstances may include written or verbal marketing claims or links to articles regarding a product s performance in clinical applications and a manufacturer s provision of technical support for clinical applications. If the FDA imposes significant changes to the regulation of LDTs, or modifies its approach to our products labeled for research use only, it could reduce our revenue or increase our costs and adversely affect our business, prospects, results of operations or financial condition. In addition, if the FDA determined that our products labeled for research use only were intended for use in clinical investigation or diagnosis, those products could be considered misbranded or adulterated under the Federal Food, Drug, and Cosmetic Act.

We may be required to proactively achieve compliance with certain FDA regulations and to conform our manufacturing operations to the FDA s good manufacturing practice regulations for medical devices, known as the Quality System Regulation, or QSR, as part of our contracts with customers or as part of our collaborations with third parties. In addition, we may voluntarily seek to conform our manufacturing operations to QSR requirements. For clinical diagnostic products that are regulated as medical devices, the FDA enforces the QSR through pre-approved inspections and periodic unannounced inspections of registered manufacturing facilities. If we are subject to QSR requirements, the failure to comply with those requirements or take satisfactory corrective action in response to an adverse QSR inspection could result in enforcement actions, including a public warning letter or an untitled letter, a delay in approving or clearing, or a refusal to approve or clear, our products, a shutdown of manufacturing operations, a product recall, civil or criminal penalties or other sanctions, which could in turn cause our sales and business to suffer.

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

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

qualified employees could materially harm our ability to develop and commercialize our technology.

The loss of the services of any member of our senior management or our scientific or technical support staff might significantly delay or prevent the development of our products or achievement of other business objectives by diverting management s attention to transition matters and identification of suitable replacements, if any, and could have a material adverse effect on our business. In addition, our research and product development efforts could be delayed or curtailed if we are unable to attract, train and retain highly skilled employees, particularly, senior scientists and engineers. We do not maintain fixed term employment contracts or significant key man life insurance with any of our employees.

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

In addition to our recent acquisition of DVS, 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 nine months ended September 30, 2013 and the years 2012, 2011, and 2010, approximately 45%, 47%, 47%, and 45%, respectively, of our product revenue was generated from sales to customers located outside of the United States. We believe that a significant percentage of our future revenue will come from international sources as we expand our overseas operations and develop opportunities in other international areas. Engaging in international business inherently involves a number of difficulties and risks, including:

required compliance with existing and changing foreign regulatory requirements and laws;

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required compliance with anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act and U.K. Bribery Act, data privacy requirements, labor laws, and anti-competition regulations;

export or import restrictions;

laws and business practices favoring local companies;

longer payment cycles and difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;

unstable economic, political, and regulatory conditions;

potentially adverse tax consequences, tariffs, customs charges, bureaucratic requirements, and other trade barriers;

difficulties and costs of staffing and managing foreign operations; and

difficulties protecting or procuring intellectual property rights.

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

In addition, a majority of our product sales are currently denominated in U.S. dollars and fluctuations in the value of the U.S. dollar relative to foreign currencies could decrease demand for our products and adversely impact our financial performance. For example, if the value of the U.S. dollar increases relative to foreign currencies, our products could become more costly to the international consumer and therefore less competitive in international markets, or if the value of the U.S. dollar decreases relative to the Singapore dollar, it would become more costly in U.S. dollars for us to manufacture our products in Singapore.

We rely on shipping providers to deliver products to our customers globally. Labor, tariff or World Trade Organization-related disputes, piracy, physical damage to shipping facilities or equipment caused by severe weather or terrorist incidents, congestion at shipping facilities, inadequate equipment to load, dock, and offload our products, energy-related tie-ups, or other factors could disrupt or delay shipping or off-loading of our products domestically and internationally. Such disruptions or delays may have an adverse effect on our financial condition and results of operations.

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

The rapid growth of our business has placed a significant strain on our managerial, operational, and financial resources and systems. To execute our anticipated growth successfully, we must continue to attract and retain qualified personnel and manage and train them effectively. We must also upgrade our internal business processes and capabilities to create the scalability that a growing business demands.

We believe our facilities located in Singapore and South San Francisco, California, are sufficient to meet our short-term manufacturing needs. The current leases for our facilities in Singapore expire at various times through August 2016 and our current lease for office and laboratory space at our headquarters in South San Francisco expires in April 2020. In order to meet long-term demand for our microfluidic systems, we believe that we will need to add to our existing manufacturing space in Singapore or move all of our manufacturing facilities to a new location in Singapore in 2014. On October 14, 2013, Fluidigm Singapore accepted an offer of tenancy relating to the lease of a new manufacturing facility in Singapore, which expires on June 1, 2022. We expect to consolidate our manufacturing operations in the new space in the third quarter of 2014. Such a move will involve significant expense in connection with the establishment of new clean rooms, the movement and installation of key manufacturing equipment, and qualification of our new facility, and we cannot assure you that such a move would not delay or otherwise adversely affect our manufacturing activities. If our ability to utilize the new facility for manufacturing operations is delayed, we may not be able to meet long-term demand

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for our microfluidic systems, which could adversely impact our business. We cannot provide assurances that we will be able to secure a lease on a different manufacturing facility on acceptable terms and on a timely basis, if at all, to meet our future manufacturing needs.

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

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

Our microfluidic systems utilize novel and complex technology applied on a nanoliter scale and such systems may develop or contain undetected defects or errors. We cannot assure you that material performance problems, defects, or errors will not arise, and as we increase the density and integration of our microfluidic systems, these risks may increase. We generally provide warranties that our microfluidic systems will meet performance expectations and will be free from defects. We also provide warranties relating to other parts of our microfluidic systems. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating margins.

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

If our products contain defects, we may experience:

- a failure to achieve market acceptance or expansion of our product sales;
- loss of customer orders and delay in order fulfillment;
- damage to our brand reputation;
- increased cost of our warranty program due to product repair or replacement;
- product recalls or replacements;
- inability to attract new customers;

diversion of resources from our manufacturing and research and development departments into our service department; and

legal claims against us, including product liability claims, which could be costly and time consuming to defend and result in substantial damages.

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

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

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To use our products, and our BioMark System in particular, customers typically need to purchase specialized reagents. Any interruption in the availability of these reagents for use in our products could limit our ability to market our products.

Our products, and our BioMark System in particular, must be used in conjunction with one or more reagents designed to produce or facilitate the particular biological or chemical reaction desired by the user. Many of these reagents are highly specialized and available to the user only from a single supplier or a limited number of suppliers. Although we sell reagents for use with certain of our products, our customers may purchase these reagents directly from third-party suppliers, and we have no control over the supply of those materials. In addition, our products are designed to work with these reagents as they are currently formulated. We have no control over the formulation of reagents sold by third-party suppliers, and the performance of our products might be adversely affected if the formulation of these reagents is changed. If one or more of these reagents were to become unavailable or were reformulated, our ability to market and sell our products could be materially and adversely affected.

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

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

We have limited experience in marketing, selling, and distributing our products. Our BioMark and EP1 Systems for genomic analysis were introduced for commercial sale in 2006 and 2008, respectively; our Access Array System for sample preparation was introduced for commercial sale in 2009; our BioMark HD System for genomic analysis was introduced for commercial sale in 2011; we began producing and selling assays for use with our IFCs in May 2011; and we launched our C_1 Single-Cell Auto Prep System for single cell sample preparation in June 2012. We may not be able to market, sell, and distribute our products effectively enough to support our planned growth. We sell our products primarily through our own sales force and through distributors in certain territories. Our future sales will depend in large part on our ability to develop and substantially expand our direct sales force and to increase the scope of our marketing efforts. Our products are technically complex and used for highly specialized applications. As a result, we believe it is necessary to develop a direct sales force that includes people with specific scientific backgrounds and expertise, and a marketing group with technical sophistication. Competition for such employees is intense. We may not be able to attract and retain personnel or be able to build an efficient and effective sales and marketing force, which could negatively impact sales of our products and reduce our revenue and profitability.

In addition, we may continue to enlist one or more sales representatives and distributors to assist with sales, distribution, and customer support globally or in certain regions of the world. If we do seek to enter into such arrangements, we may not be successful in attracting desirable sales representatives and distributors, or we may not be able to enter into such arrangements on favorable terms. If our sales and marketing efforts, or those of any third-party sales representatives and distributors, are not successful, our technologies and products may not gain market acceptance, which would materially and adversely impact our business operations.

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

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

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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.

Additionally, if we do not effectively implement the ERP system as planned or if the system does not operate as intended, it could adversely affect the effectiveness of our internal controls over financial reporting.

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

We believe that our existing cash and cash equivalents will be sufficient to meet our anticipated cash requirements for at least the next 18 months. However, we may need to raise substantial additional capital for various purposes, including:

expanding the commercialization of our products;

funding our operations;

furthering our research and development; and

acquiring other businesses or assets and licensing technologies.

Our future funding requirements will depend on many factors, including:

market acceptance of our products;

the cost of our research and development activities;

the cost of filing and prosecuting patent applications;

the cost of defending, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights;

the cost and timing of regulatory clearances or approvals, if any;

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 other than with respect to the DVS acquisition.

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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 Our Recent Acquisition of DVS

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

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

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

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

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

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

The intellectual property rights covering DVS s 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. We understand that the licensed intellectual property rights of MDS as well as MDS s rights and obligations under the license agreement between DVS Sciences Inc., an Ontario corporation and wholly owned subsidiary of DVS (DVS Canada, which immediately subsequent to the acquisition of its parent company changed its name to Fluidigm Canada Inc.), and MDS were subsequently assigned to and are now held by PerkinElmer Health Sciences, Inc., or PerkinElmer. Under the PerkinElmer license agreement, DVS Canada received an exclusive, royalty bearing, worldwide license to certain patents that are now owned by PerkinElmer in the field of ICP-based flow cytometry, including the analysis of elemental tagged materials in connection therewith, and a non-exclusive license for reagents outside the field of ICP-based flow cytometry. DVS was also party to an interim license agreement, now expired, under which Nodality granted DVS a worldwide, non-exclusive, research use only, royalty bearing license to certain cytometric reagents, instruments, and other products. DVS and Nodality are currently in negotiations with respect to a license agreement that would have a term ending when the last licensed patent expires. In addition, DVS is party to additional in-license agreements with parties such as Stanford University that relate to significant intellectual property rights, and DVS s 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, DVS 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, DVS s licensors, including licensors of DVS Canada, may generally terminate the applicable license agreement for uncured material breaches or if DVS becomes insolvent, makes an assignment for the benefit of creditors, or has a petition in bankruptcy filed against it. In the case of Nodality, the existing license recently has expired and our acquisition of DVS acquisition could adversely affect DVS s ability to negotiate a definitive license on the currently anticipated terms. Termination of material license agreements for any reason, including as a result of failure to obtain a required consent to assignment or as a result of an inability to negotiate a new or extended license where required, would

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

We cannot provide assurances that existing provisional application filings by DVS will result in issued patents or that any issued patents filed by DVS or its licensors will protect DVS s technology.

DVS has sought patent protection in the United States and internationally for certain aspects of its technology through licensed intellectual property and owned intellectual property. A significant portion of DVS s owned patent portfolio is in the form of provisional application filings that would need to be converted to non-provisional U.S. patent applications or international patent applications. We cannot be sure that patents will be granted with respect to any of DVS s owned or licensed pending patent applications or with respect to any patent applications filed by DVS or its licensors in the future, nor can we be sure that any of DVS s existing owned or licensed patents or any patents that may be granted to DVS or its licensors in the future will protect such technology. For aspects of DVS s technology for which patent protection may not be available, it has relied on protection through trade secrets, know-how, or continuing technological innovation.

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

Some of DVS s 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 DVS s intellectual property, including confidential information, and may reduce its competitive advantage in commercializing intellectual property developed through these projects. In certain projects DVS has also agreed to use commercially reasonable efforts to commercialize intellectual property in Canada, or more specifically in the province of Ontario, for the economic benefit of Canada and the province of Ontario. These restrictions will limit its choice of business and manufacturing locations, business partners and corporate structure and may, in certain circumstances, restrict its ability to achieve maximum profitability and cost efficiency from the intellectual property generated by

these projects. In one instance, a dispute with the applicable government funded entity may require mediation, which could lead to unanticipated delays in our commercialization efforts to that project. One of DVS s 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 DVS may be required to grant a license to its intellectual property, including background intellectual property developed outside the scope of the project, to a responsible applicant on reasonable terms in circumstances where the government determines that such a license is necessary in order to alleviate emergency or extraordinary health or safety needs or for public use. In addition, DVS 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 DVS s business, operations and financial condition.

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We have made certain assumptions relating to the DVS acquisition which may prove to be materially inaccurate.

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

- projections of DVS s revenue growth rates and future revenues;
- our expected capital structure after the DVS acquisition;
- the amount of goodwill and intangibles that will result from the DVS acquisition;
- certain other purchase accounting adjustments that we expect will be recorded in our financial statements in connection with the DVS acquisition;
- acquisition costs, including restructuring charges and transaction costs;
- our ability to maintain, develop and deepen relationships with customers of DVS; and
- other financial and strategic risks of the DVS acquisition.

We and DVS may have difficulty attracting, motivating and retaining executives and other key employees in light of the acquisition.

Uncertainty about the effect of the acquisition on our and DVS s employees may have an adverse effect on us or DVS and, consequently, the combined business resulting from the acquisition. This uncertainty may impair our and DVS s ability to attract, retain and motivate key personnel in the months after the merger for the combined entity. Employee retention may be particularly challenging as our and DVS s employees may experience uncertainty about their future roles with the combined business. Additionally, as a result of the acquisition, key 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 employees, including key scientific and technical employees, who have been important to the development of DVS s 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 Fluidigm or DVS after the acquisition. If key employees depart because of issues relating to the uncertainty and difficulty of integration, financial incentives or a desire not to become employees of the combined business, we may incur significant costs in identifying, hiring and retaining replacements for departing employees, which could substantially reduce or delay our ability to realize the anticipated benefits of the acquisition.

Our and DVS s business relationships, including customer relationships, may be subject to disruption due to uncertainty associated with the acquisition.

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

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DVS or its employees may be subject to damages resulting from claims that it or its employees wrongfully used or disclosed alleged trade secrets of former employers of DVS employees or other institutions or third parties with whom DVS employees may have been previously affiliated.

Many of DVS s employees, including its founders, were previously employed at universities or other life science companies, including current or potential competitors of DVS or Fluidigm. Although no litigation against DVS is currently pending, DVS has in the past received notices from third parties alleging potential disclosures of confidential information. As a result, we could become subject to claims that DVS employees inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers or other third parties or institutions with whom DVS 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 intellectual property rights of DVS. A loss of key work product of DVS personnel could hamper or prevent our ability to commercialize certain potential products, which could severely harm DVS s business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

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

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

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

As of September 30, 2013, after giving pro forma effect to the DVS acquisition, we would have had approximately $235 million of intangible assets and goodwill on a pro forma combined basis, all of which relates to the acquisition of DVS. 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.

The pro forma financial statements incorporated by reference in this prospectus are presented for illustrative purposes only and may not be an indication of our financial condition or results of operations following the DVS acquisition.

The pro forma financial statements incorporated by reference in this prospectus are presented for illustrative purposes only, are based on various adjustments and assumptions, many of which are preliminary, and may not be an indication of our financial condition or results of operations following the DVS acquisition. Our actual financial condition and results of operations following the DVS acquisition may not be consistent with, or evident from, these pro forma financial statements. In addition, the assumptions used in preparing the pro forma financial information may not prove to be accurate, and other factors may affect our financial condition or results of operations following the DVS acquisition.

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Risks Related to Intellectual Property

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

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

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

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

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

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

Litigation may be necessary for us to enforce our patent and proprietary rights, determine the scope, coverage, and validity of others proprietary rights, and/or defend against third party claims of intellectual property infringement against us as well as against our suppliers, distributors, customers, and other entities with whom we do business. Litigation could result in substantial legal fees and could adversely affect the scope of our patent protection. The outcome of any litigation or other proceeding is inherently uncertain and might not be favorable to us, and we might not be able to obtain licenses to technology that we require. Even if such licenses are obtainable, they may not be available at a reasonable cost. We could therefore incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins or financial position. Further, we could encounter delays in product introductions, or interruptions in product sales, as we develop alternative methods or products.

As we move into new markets and applications for our products, incumbent participants in such markets may assert their patents and other proprietary rights against us as a means of impeding our entry into such markets or as a means to extract substantial license and royalty payments from us. Our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. Numerous significant intellectual property issues have been litigated, and will likely continue to be litigated, between existing and new participants in our existing and targeted markets. For example, some of our products provide for the testing and analysis of genetic material, and patent rights relating to genetic materials remain a developing area of patent law. A recent U.S. Supreme Court decision held, among other things, that claims to isolated genomic DNA occurring in nature are not patent eligible, while claims relating to synthetic DNA may be patent eligible. We expect the ruling will result in additional litigation in our industry. In

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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 (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 and multi-layer soft lithography technologies. In some cases, we do not control the prosecution, maintenance, or filing of the patents to which we hold licenses, or the enforcement of these patents against third parties.

Our rights to use the technology we license are subject to the negotiation and continuation of those licenses. Certain of our licenses contain provisions that allow the licensor to terminate the license upon specific conditions. Our rights under the licenses are subject to our continued compliance with the terms of the license, including the payment of royalties due under the license. Because of the complexity of our products and the patents we have licensed, determining the scope of the license and related royalty obligation can be difficult and can lead to disputes between us and the licensor. An unfavorable resolution of such a dispute could lead to an increase in the royalties payable pursuant to the license. If a licensor believed we were not paying the royalties due under the license or were otherwise not in compliance with the terms of the license, the licensor might attempt to revoke the license. If such an attempt were successful and the license is terminated, we might be barred from marketing, producing, and selling some or all of our products, which would have an adverse effect on our business. For example, pursuant to the terms of a license agreement entered into with Life in June 2011, we are 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 is 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 be, in our view, an improper termination of our license to certain Life patent filings under the agreement, which could subject our relevant product lines to risks associated with patent infringement litigation.

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

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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 may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our employees former employers.

Many of our employees were previously employed at universities or other life science or Ag-Bio companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights. A loss of key research personnel work product could hamper or prevent our ability to commercialize certain potential products, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to Our Common Stock

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

Our stock is currently traded on NASDAQ Global Select Market, but we can provide no assurance that we will be able to maintain an active trading market on NASDAQ Global Select Market 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 December 31, 2013, we had 25,810,890 shares of common stock outstanding, and stockholders holding at least 5% of our stock, individually or with affiliated persons or entities, collectively beneficially owned or controlled approximately 45% of such shares. Sales of large numbers of shares by any of our large stockholders could adversely affect our trading price, particularly given our relatively small historic trading volumes. If stockholders holding shares of our common stock sell, indicate an intention to sell, or if it is perceived that they will sell, substantial amounts of their common stock in the public market, the trading price of our common stock could decline. Moreover, if there is no active trading market or if the volume of trading is limited, holders of our common stock may have difficulty selling their shares.

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

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

announcements or communications by us or our competitors relating to, among other things, new commercial products, technological advances, significant contracts, commercial relationships, capital commitments, acquisitions or sales of businesses, and/or misperceptions in or speculation by the market regarding such announcements or communications;

issuance of new or changed securities analysts reports or recommendations for our stock;

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developments or disputes concerning our intellectual property or other proprietary rights;

commencement of, or our involvement in, litigation;

market conditions in the life science, Ag-Bio, and clinical research sectors;

failure to complete significant sales;

manufacturing disruptions that could occur if we were unable to successfully expand our production in our current or an alternative facility;

any future sales of our common stock or other securities in connection with raising additional capital or otherwise;

any major change to the composition of our board of directors or management; and

general economic conditions and slow or negative growth of our markets.

The stock market in general, and market prices for the securities of technology-based companies like ours in particular, have from time to time experienced volatility that often has been unrelated to the operating performance of the underlying companies. These broad market and industry fluctuations may adversely affect the market price of our common stock regardless of our operating performance. In several recent situations where the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders were to bring a lawsuit against us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management and harm our operating results.

If securities or industry analysts publish unfavorable research about our business or cease to cover our business, our stock price and/or trading volume could decline.

The trading market for our common stock may rely, in part, on the research and reports that equity research analysts publish about us and our business. We do not have any control of the analysts or the content and opinions included in their reports. The price of our stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

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

As of December 31, 2013, our current executive officers, directors, stockholders holding at least 5% of our outstanding stock, and their respective affiliates, collectively beneficially owned or controlled approximately 46% 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;

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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.

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 $201,250,000 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

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subsidiaries are separate and distinct legal entities and have no obligation, contingent or otherwise, to make payments on the notes or to make any funds available for that purpose. In addition, dividends, loans or other distributions to us from such subsidiaries may be subject to contractual and other restrictions and are subject to other business and tax considerations.

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

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

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

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

The stock market in recent years has experienced significant price and volume fluctuations that have often been unrelated to the operating performance of companies. The market price of our common stock could fluctuate significantly for many reasons, including in response to the risks described in this section, elsewhere in this prospectus and the documents we have incorporated by reference herein, 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. A decrease in the market price of our common stock would likely adversely impact the trading price of the notes. The market price of our common stock could also be affected by possible sales of our common stock by investors who view the notes as a more attractive means of equity participation in us and by hedging or arbitrage trading activity that we expect to develop involving our common stock. This trading activity could, in turn, affect the trading price of the notes.

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

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

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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.

Future sales of our common stock in the public market could cause our stock price to decline and adversely impact the trading price of the notes.

In the future, we may sell additional shares of our common stock to raise capital. The market price of our common stock could 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 and the trading price of the notes. As of December 31, 2013, we had 25,810,890 shares of common stock outstanding.

Substantial sales of our common stock may make it more difficult for us to sell equity or equity-linked securities in the future at a time and at a price that we deem appropriate. These sales also could cause our stock price and the trading price of the notes to fall and make it more difficult for holders of the notes or the shares of our common stock received upon conversion of the notes.

Holders of notes are not be 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 your 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;

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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 your 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 you for any lost value of your notes as a result of such transaction or redemption.

If a make-whole fundamental change occurs prior to February 6, 2021 or upon our issuance of a notice of provisional redemption, under certain circumstances, we will increase the conversion rate by a number of additional shares of our common stock for notes converted in connection such events. The increase in the conversion rate for notes converted in connection with such events may not adequately compensate you for any lost value of your 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 your 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.

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We cannot assure you that an active trading market will develop for the notes.

There has historically been no trading market for the notes, and we do not intend to apply to list the 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 you that an active trading market will develop 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 you may not be able to sell your notes at a particular time or you may not be able to sell your notes 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 you 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, you 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 your 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.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the Shares. All proceeds from the sale of the Shares will be for the account of the Selling Stockholders, as described below. See Selling Stockholders and Plan of Distribution described below.

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SELLING STOCKHOLDERS

None of the Selling Stockholders is an executive officer or director of Fluidigm. The Selling Stockholders do not beneficially own, individually or in the aggregate, more than 1% of the outstanding common stock of Fluidigm prior to this offering. The following table shows the names of the Selling Stockholders and the number of Shares to be sold by them pursuant to this Prospectus:

Name	Number of Shares Owned Prior to Offering	Number of Shares Registered for Sale Hereby	Number of Shares to be Beneficially Owned After Offering
Dmitry Bandura	32,230	32,230	32,230
Vladimir Baranov	32,230	32,230	32,230
Olga Ornatsky	32,230	32,230	32,230
Scott Tanner	52,374	52,374	52,374
Serguei Vorobiev	12,086	12,086	12,086
Neil Kennedy	17,880	17,880	17,880
Pamela Delucci	7,387	7,387	7,387

PLAN OF DISTRIBUTION

The Company has been advised by the Selling Stockholders that they intend to sell all or a portion of the Shares offered hereby from time to time in the NASDAQ Global Market and that sales will be made at prices prevailing in the NASDAQ Global Market at the times of such sales. The Selling Stockholders may also make private sales directly or through a broker or brokers, who may act as agent or as principal. Further, the Selling Stockholders may choose to dispose of the Shares offered hereby by gift to a third party or as a donation to a charitable or other non-profit entity. In connection with any sales, the Selling Stockholders and any brokers participating in such sales may be deemed to be underwriters within the meaning of the Securities Act.

Any broker-dealer participating in such transactions as agent may receive commissions from the Selling Stockholders (and, if such broker acts as agent for the purchaser of such Shares, from such purchaser). Usual and customary brokerage fees will be paid by the Selling Stockholders. Broker-dealers may agree with the Selling Stockholders to sell a specified number of Shares at a stipulated price per share, and, to the extent such a broker-dealer is unable to do so acting as agent for the Selling Stockholders, to purchase as principal any unsold Shares at the price required to fulfill the broker-dealer commitment to the Selling Stockholders. Broker-dealers who acquire Shares as principal may thereafter resell such Shares from time to time in transactions (which may involve crosses and block transactions and which may involve sales to and through other broker-dealers, including transactions of the nature described above) in the over-the-counter market, in negotiated transactions or otherwise at market prices prevailing at the time of sale or at negotiated prices, and in connection with such resales may pay to or receive from the purchasers of such Shares commissions computed as described above.

The Company has advised the Selling Stockholders that Regulation M promulgated under the Exchange Act may apply to sales in the market and has informed them of the possible need for delivery of copies of this Prospectus. The Selling Stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the Shares

against certain liabilities, including liabilities arising under the Securities Act. Any commissions paid or any discounts or concessions allowed to any such broker-dealers, and, if any such broker-dealers purchase Shares as principal, any profits received on the resale of such Shares, may be deemed to be underwriting discounts and commissions under the Securities Act.

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Upon the Company s being notified by the Selling Stockholders that any material arrangement has been entered into with a broker-dealer for the sale of Shares through a cross or block trade, a supplemental prospectus will be filed under Rule 424(c) under the Securities Act, setting forth the name of the participating broker-dealer(s), the number of Shares involved, the price at which such Shares were sold by the Selling Stockholders, the commissions paid or discounts or concessions allowed by the Selling Stockholders to such broker-dealer(s), and where applicable, that such broker-dealer(s) did not conduct any investigation to verify the information set out in this Prospectus.

Any securities covered by this Prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than pursuant to this Prospectus. In general, under Rule 144 as currently in effect, the Shares must be held for a minimum of six months (i) the later of the date the Shares were acquired from the Company or its affiliates, and (ii) any resale of such Shares for the account of either the Selling Stockholder or any subsequent holder of such securities; *provided however*, that if the Shares are sold for the account of an affiliate of the Company, regardless of whether those securities are restricted, the amount of such Shares sold, together with all sales of common stock of the Company beneficially owned by such person within the preceding three months, shall not exceed the greatest of: (i) 1% of the then outstanding shares of common stock as shown on the most recent report or statement published by the Company, or (ii) the average weekly reported volume in shares of common stock during the four calendar weeks preceding the filing of notice of such sale, or (iii) the average weekly trading volume in shares of common stock of the Company pursuant to an effective transaction reporting plan or an effective national market system plan, as such terms are defined in section 242.600 of the Securities Act, during the four-week period specified in (ii) above. Sales by affiliates of the Company pursuant to Rule 144 are also subject to certain requirements as to the manner of sale, notice and availability of current public information regarding the Company. Sales by non-affiliates pursuant to Rule 144 after the expiration of the initial six month holding period and prior to the expiration of one year from the date of acquisition require that the Company satisfy the current public information requirements set forth in Rule 144(c).

There can be no assurance that the Selling Stockholders will sell any or all of the shares of Common Stock offered hereunder.

LEGAL MATTERS

Certain legal matters will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Additional legal matters may be passed on for us, or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements and schedule included in our Annual Report on Form 10-K for the year ended December 31, 2012, and the effectiveness of our internal control over financial reporting as of December 31, 2012, as set forth in their reports, which are incorporated by reference in this prospectus and elsewhere in the Registration Statement. Our financial statements (and schedule) are incorporated by reference in reliance on Ernst & Young LLP s reports, given on their authority as experts in accounting and auditing.

The consolidated financial statements of DVS Sciences, Inc. as of December 31, 2012 and 2011 and for the years then ended incorporated by reference in this Prospectus have been so incorporated in reliance on the report of BDO USA, LLP, an independent registered public accounting firm, incorporated herein by reference, given on the authority of said firm as experts in auditing and accounting.

INCORPORATION OF DOCUMENTS BY REFERENCE.

The Registrant hereby incorporates by reference in this Registration Statement the following documents and information previously filed with the Commission:

(1) The Registrant s annual report on Form 10-K for the fiscal year ended December 31, 2012 (the Annual Report), filed with the Commission on March 12, 2013; and

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(2) All other reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act) since the end of the fiscal year covered by the Annual Report (provided that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement).

(3) The description of the Registrant s Common Stock contained in the Registrant s Registration Statement on Form 8-A (File No. 001-34180) filed with the Commission on February 7, 2011, pursuant to Section 12(b) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents; *provided*, *however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and other reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC s website at http://www.sec.gov. You may also read and copy any document we file at the SEC s Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including any amendments to those reports, and other information that we file with or furnish to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act can also be accessed free of charge by linking directly from our website at http://www.fluidigm.com under the About Investors SEC Filings caption. These filings will be available as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Information contained on our website is not part of this prospectus.

The Registrant hereby undertakes to provide without charge to each person, including any beneficial owner, to whom a copy of this Prospectus is delivered, upon written or oral request of any such person, a copy of any and all of the information that has been or may be incorporated by reference in this Prospectus, other than exhibits to such documents. Requests for such copies should be directed to our Investor Relations department, at the following address:

Fluidigm Corporation

7000 Shoreline Court, Suite 100

South San Francisco, California 94080

(650) 266-6000

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PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

The Registrant hereby incorporates by reference in this Registration Statement the following documents and information previously filed with the Commission:

(1) The Registrant s annual report on Form 10-K for the fiscal year ended December 31, 2012 (the Annual Report), filed with the Commission on March 12, 2013.

(2) All other reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act) since the end of the fiscal year covered by the Annual Report (provided that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement).

(3) The description of the Registrant s Common Stock contained in the Registrant s Registration Statement on Form 8-A (File No. 001-34180) filed with the Commission on February 7, 2011, pursuant to Section 12(b) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing of such documents; *provided*, *however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement.

Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

The validity of the securities being registered by this Registration Statement will be passed upon by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Certain members of Wilson Sonsini Goodrich & Rosati, and investment partnerships of which such persons are partners, beneficially own less than 1% of the Company s outstanding common stock.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Section 145 of the Delaware General Corporation Law, or DGCL, authorizes a corporation s board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

As permitted by Section 102(b)(7) of the DGCL, the Registrant s certificate of incorporation includes provisions that eliminate the personal liability of its directors and officers for monetary damages for breach of their fiduciary duty as directors and officers.

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In addition, as permitted by Section 145 of the DGCL, the bylaws of the Registrant provide that:

The Registrant shall indemnify its directors and officers for serving the registrant in those capacities or for serving other business enterprises as a director, officer, employee or agent at the Registrant s request, to the fullest extent permitted by the DGCL. The DGCL provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person s conduct was unlawful.

The Registrant shall indemnify its directors and officers for serving the Registrant in those capacities or for serving other business enterprises as a director, officer, employee or agent at the Registrant s request, to the fullest extent permitted by the DGCL. The DGCL provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person s conduct was unlawful.

The Registrant may, in its discretion, indemnify employees and agents in those circumstances where indemnification is not prohibited by the DGCL or other law.

The Registrant is required to advance expenses, as incurred, to its directors and officers in connection with defending a proceeding, except that such director or officer shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification under the Registrant s bylaws or the DGCL.

The Registrant will not be obligated pursuant to the bylaws to indemnify a person with respect to proceedings initiated by that person against the Registrant or its directors, officers, employees, agents or other indemnities, except with respect to proceedings authorized by the Registrant s board of directors prior to their initiation, or brought to enforce a right to indemnifications as otherwise required by applicable law.

The rights conferred in the bylaws are not exclusive, and the Registrant is authorized to enter into indemnification agreements with its directors, officers, employees and agents and to obtain insurance to indemnify such persons.

The Registrant s policy is to enter into separate indemnification agreements with each of its directors and executive officers that provide the maximum indemnity allowed to directors and executive officers by Section 145 of the DGCL and that allow for certain additional procedural protections. The registrant also maintains directors and officers insurance to insure such persons against certain liabilities.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

The issuance of the Shares being offered by the Form S-3 resale prospectus were deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act or Regulation D promulgated thereunder. The recipients of securities in each such transaction represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and instruments issued in such transactions.

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ITEM 8. EXHIBITS.

Exhibit Number	Exhibit Description
4.1*	Specimen common stock certificate of Registrant (which is incorporated herein by reference to Exhibit 4.1 to the Registrant s Registration Statement on Form S-1 (Registration No. 333-170965), as amended (Registrant s Form S-1).
4.2*	2011 Equity Incentive Plan and forms of agreement thereunder (which are incorporated herein by reference to Exhibit 10.4 and 10.4A to the Registrant s Form S-1).
4.3	DVS Sciences, Inc. s 2010 Equity Incentive Plan, as amended.
4.4	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Dmitry Bandura.
4.5	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Vladimir Baranov.
4.6	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Olga Ornatsky.
4.7	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Scott Tanner.
4.8	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Serguei Vorobiev.
4.9	Restricted Stock Purchase Agreement, dated December 19, 2011, between DVS Sciences, Inc. and Neil Kennedy.
4.10	Restricted Stock Purchase Agreement, dated June 3, 2011, between DVS Sciences, Inc. and Pamela Delucci.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (contained in Exhibit 5.1 hereto).
23.3	Consent of BDO USA, LLP, independent registered public accounting firm.
24.1	Power of Attorney (contained on signature page hereto).

* Incorporated by reference to exhibits filed with the Registrant s Registration Statement on Form S-1, as amended (Registration No. 333-170965), as declared effective on February 9, 2011.

ITEM 9. UNDERTAKINGS.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of a prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

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provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) above shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant s annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan s annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8/S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on the 21st day of February, 2014.

FLUIDIGM CORPORATION

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

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Gajus V. Worthington and Vikram Jog and each of them, as his true and lawful attorney in fact and agent with full power of substitution, for him in any and all capacities, to sign any and all amendments to this Registration Statement on Form S-8/S-3 (including post effective amendments), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney in fact, proxy and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney in fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement on Form S-8/S-3 has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Gajus V. Worthington Gajus V. Worthington	President, Chief Executive Officer and Director (Principal Executive Officer)	February 21, 2014
/s/ Vikram Jog Vikram Jog	Chief Financial Officer (Principal Accounting and Financial Officer)	February 21, 2014
/s/ Samuel Colella Samuel Colella	Director	February 21, 2014
Evan Jones	Director	
/s/ Patrick S. Jones	Director	February 21, 2014

Patrick S. Jones		
/s/ Gerhard F. Burbach	Director	February 21, 2014
Gerhard F. Burbach		
/s/ John A. Young	Director	February 21, 2014
John A. Young		

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INDEX TO EXHIBITS

Exhibit Number	Exhibit Description
4.1*	Specimen common stock certificate of Registrant (which is incorporated herein by reference to Exhibit 4.1 to the Registrant s Registration Statement on Form S-1 (Registration No. 333-170965), as amended (Registrant s Form S-1).
4.2*	2011 Equity Incentive Plan and forms of agreement thereunder (which are incorporated herein by reference to Exhibit 10.4 and 10.4A to the Registrant s Form S-1).
4.3	DVS Sciences, Inc. s 2010 Equity Incentive Plan, as amended.
4.4	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Dmitry Bandura.
4.5	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Vladimir Baranov.
4.6	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Olga Ornatsky.
4.7	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Scott Tanner.
4.8	Stock Restriction Agreement, dated December 17, 2010, between DVS Sciences, Inc. and Serguei Vorobiev.
4.9	Restricted Stock Purchase Agreement, dated December 19, 2011, between DVS Sciences, Inc. and Neil Kennedy.
4.10	Restricted Stock Purchase Agreement, dated June 3, 2011, between DVS Sciences, Inc. and Pamela Delucci.
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm.
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (contained in Exhibit 5.1 hereto).
23.3	Consent of BDO USA, LLP, independent registered public accounting firm.
24.1	Power of Attorney (contained on signature page hereto).

* Incorporated by reference to exhibits filed with the Registrant s Registration Statement on Form S-1, as amended (Registration No. 333-170965), as declared effective on February 9, 2011.