

FLUIDIGM CORP  
Form S-1/A  
February 02, 2011

As filed with the Securities and Exchange Commission on February 2, 2011

Registration No. 333-170965

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

**AMENDMENT NO. 4 TO**  
**FORM S-1**  
**REGISTRATION STATEMENT**  
*UNDER*  
*THE SECURITIES ACT OF 1933*

**FLUIDIGM CORPORATION**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**3826**  
(Primary Standard Industrial  
Classification Code Number)  
7000 Shoreline Court, Suite 100

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

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South San Francisco, CA 94080

(650) 266-6000

(Address, including ZIP code, and telephone number, including area code, of registrant's principal executive offices)

**Gajus V. Worthington**

**President and Chief Executive Officer**

**7000 Shoreline Court, Suite 100**

**South San Francisco, CA 94080**

**(650) 266-6000**

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

*Copies to:*

**David J. Segre**

**William M. Smith**

**Charles K. Ruck**

**Robert F. Kornegay**

**Vice President, Legal Affairs**

**B. Shayne Kennedy**

**Asaf H. Kharal**

**and General Counsel**

**Latham & Watkins LLP**

**Wilson Sonsini Goodrich & Rosati P.C.**

**7000 Shoreline Court, Suite 100**

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**South San Francisco, CA 94080**

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**Telecopy: (714) 755-8290**

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**Approximate date of commencement of proposed sale to the public:** As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, as amended, check the following box. "

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. "

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If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ..

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. (Check one):

Large accelerated filer ..

Accelerated filer ..

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

Smaller reporting company ..

**The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to such Section 8(a), may determine.**

**EXPLANATORY NOTE**

This Amendment No. 4 to the Registration Statement on Form S-1 (File No. 333-170965) is solely to file Exhibits 10.21, 10.22 and 10.23. Accordingly, a preliminary prospectus has been omitted.

**PART II****INFORMATION NOT REQUIRED IN PROSPECTUS****Item 13. Other Expenses of Issuance and Distribution.**

The following table sets forth all expenses to be paid by the registrant, other than estimated underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the SEC registration fee and the Financial Industry Regulatory Authority, or FINRA, filing fee.

SEC registration fee	\$6,150
FINRA filing fee	\$9,125
The NASDAQ Global Market listing fee	\$125,000
Printing and engraving expenses	\$100,000
Legal fees and expenses	\$1,350,000
Accounting fees and expenses	\$600,000
Blue sky fees and expenses (including legal fees)	\$20,000
Transfer agent and registrar fees	\$2,500
Miscellaneous expenses	\$37,225
 Total	 \$2,250,000

**Item 14. 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 Delaware General Corporation Law, 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.

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 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.

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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.

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The registrant may not retroactively amend the bylaw provisions to reduce its indemnification obligations to directors, officers, employees and agents.

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

These indemnification provisions and the indemnification agreements entered into between the registrant and its officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters of the registrant and its officers and directors for certain liabilities arising under the Securities Act and otherwise.

**Item 15. Recent Sales of Unregistered Securities.**

In the three years prior to the filing of this registration statement, the registrant has issued the following unregistered securities:

(a) From December 20, 2007 through June 11, 2010, the registrant issued and sold an aggregate of 90,014 shares of its common stock upon the exercise of options issued to certain employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, at exercise prices ranging from \$0.92 to \$14.54, for aggregate consideration of \$246,318.

(b) From December 28, 2007 through December 29, 2008, the registrant granted to certain of its employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 531,964 shares of its common stock at exercise prices ranging from \$6.60 to \$21.99 per share.

(c) From August 3, 2010 through August 30, 2010, the registrant issued and sold an aggregate of 3,726 shares of its common stock upon the exercise of options issued to certain employees, directors and consultants under the registrant's 2009 Equity Incentive Plan, as amended, at exercise prices ranging from \$4.09 to \$4.45, for aggregate consideration of \$16,388.

(d) From November 17, 2009 through January 24, 2011, the registrant granted to certain of its employees, directors and consultants under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 702,831 shares of its common stock at exercise prices ranging from \$4.09 to \$8.38 per share.

(e) From October 2007 through December 2007, the registrant issued and sold an aggregate of 1,452,508 shares of Series E preferred stock to a total of seven investors at \$24.22 per share, for aggregate proceeds of \$35,179,780.

(f) In December 2007, the registrant issued 990 shares of its common stock to one accredited investor at an issuance price of \$8.24 per share for aggregate monetary consideration of \$8,160, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(g) In December 2007, the registrant granted to one of its directors under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 16,515 shares of the registrant's common stock at an exercise price of \$14.54 per share.

(h) In February 2008, in connection with an amendment to a loan and security agreement between the registrant and Lighthouse Capital Partners V, L.P., or LCP, the registrant issued a warrant to purchase 49,545 shares of the registrant's Series E preferred stock to LCP, or LCP, at an exercise price of \$24.22 per share.

(i) In February 2008, the registrant granted to one of its executive officers under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 99,090 shares of the registrant's common stock at an exercise price of \$14.54 per share.

(j) In April 2008, the registrant granted to 110 of its employees, consultants and directors under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 316,017 shares of its common stock at an exercise price of \$19.31 per share.

(k) On May 12, 2008, the registrant issued 2,712 shares of its Series C preferred stock to Imperial Bank pursuant to Imperial Bank's net exercise of its warrant to purchase up to 6,817 shares of Series C preferred stock. The remainder of the warrant was cancelled pursuant to the terms of the net exercise.

(l) In June 2008, the registrant granted to seven of its employees and consultants under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 14,119 shares of its common stock at an exercise price of \$20.71 per share.

(m) In August 2008, the registrant granted to eight of its employees under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 10,650 shares of its common stock at an exercise price of \$21.99 per share.

(n) In August 2009, the registrant issued and sold convertible promissory notes with an aggregate principal amount of \$10,666,814 and warrants to purchase an aggregate of 220,176 shares of the registrant's Series E preferred stock at an exercise price of \$24.22 per share to a total of 100 accredited investors.

(o) In November 2009, the registrant issued and sold an aggregate of 765,186 shares of the registrant's Series E preferred stock to a total of 101 accredited investors at a purchase price of \$24.22 per share, for aggregate consideration of \$18,532,822, of which (i) \$11,032,826 was paid by the conversion of indebtedness of the registrant and interest accrued thereon, and (ii) \$7,499,996 was paid by cash payments to the registrant.

(p) In November 2009, the registrant granted to seven of its employees and consultants under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 108,985 shares of its common stock at an exercise price of \$4.09 per share.

(q) In December 2009, as part of a stock option exchange program, the registrant granted to 109 of its employees, directors and consultants under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 806,743 shares of the registrant's common stock at an exercise price of \$4.45 per share in exchange for the cancellation by such parties of stock options to purchase an equal number of shares of the registrant's common stock that were previously outstanding under the registrant's 1999 Stock Option Plan, as amended.

(r) In January 2010, the registrant granted to five of its directors under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 43,352 shares of its common stock at an exercise price of \$4.45 per share.

(s) In June 2010, in connection with an amendment to a loan and security agreement between the registrant and LCP, the registrant (i) amended and restated warrants previously issued to LCP and its affiliates to provide that the exercise price of the amended and restated warrants will be reduced to \$12.11 per share and that the

amended and restated warrants will be exercisable for a number of shares of the registrant's Series D-1 preferred stock or Series E-1 preferred stock, as applicable, equal to the number of shares of the registrant's Series D preferred stock or Series E preferred stock that was previously issuable upon the exercise of the warrants; and (ii) issued a new warrant to purchase 148,6178 shares of the registrant's Series E-1 preferred stock to LCP at an exercise price of \$12.11 per share.

(t) In August 2010, upon exercise of outstanding amended and restated warrants, the registrant issued and sold an aggregate of 57,724 shares of the registrant's Series E-1 preferred stock and an aggregate of 57,724 shares of the registrant's common stock to 49 accredited investors for aggregate proceeds of \$699,048.

(u) In August 2010, the registrant granted to one of its employees under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 115,606 shares of its common stock at an exercise price of \$4.45 per share.

(v) In January 2011, the registrant granted to fourteen of its executive officers and directors under the registrant's 2009 Equity Incentive Plan, as amended, options to purchase an aggregate of 138,150 shares of its common stock at an exercise price of \$8.38 per share.

(w) In January 2011, the registrant issued and sold subordinated secured promissory notes with an aggregate principal amount of \$5,000,000 and warrants to purchase an aggregate of 98,751 shares of the registrant's Series E-1 preferred stock at an exercise price of \$0.02 per share to a total of 49 accredited investors all of whom were existing investors in the registrant and had a substantial pre-existing relationship with the registrant.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering, and the registrant believes that each transaction was exempt from the registration requirements of the Securities Act in reliance on the following exemptions:

with respect to the transactions described in paragraphs (a) through (d), Rule 701 promulgated under the Securities Act as transactions pursuant to a compensatory benefit plan approved by the registrant's Board of Directors; and

with respect to the transactions described in paragraphs (e) through (w), Section 4(2) of the Securities Act, or Rule 506 of Regulation D promulgated thereunder, as transactions by an issuer not involving a public offering. Each recipient of the securities in this transaction represented his or her intention to acquire the securities for investment only and not with a view to, or for resale in connection with, any distribution thereof, and appropriate legends were affixed to the share certificates issued in each such transaction. In each case, the recipient received adequate information about the registrant or had adequate access, through his or her relationship with the registrant, to information about the registrant.

**Item 16. Exhibits and Financial Statement Schedules.**

(a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference:

<b>Exhibit Number</b>	<b>Description</b>
1.1 <sup>(1)</sup>	Form of Underwriting Agreement.
3.1 <sup>(3)</sup>	Certificate of Incorporation of the registrant, as currently in effect.
3.1.1 <sup>(3)</sup>	Form of Certificate of Incorporation of the registrant, to be in effect prior to completion of this offering.
3.2 <sup>(3)</sup>	Form of Restated Certificate of Incorporation of the registrant, to be in effect upon the completion of this offering.
3.3 <sup>(3)</sup>	Bylaws of the registrant, as currently in effect.
3.4 <sup>(3)</sup>	Form of Amended and Restated Bylaws of the registrant, to be in effect upon completion of this offering.
4.1 <sup>(1)</sup>	Specimen Common Stock Certificate of the registrant.

Exhibit Number	Description
4.2 <sup>(2)(3)</sup>	Series E Preferred Stock Purchase Agreement dated June 13, 2006 by and among the registrant and the purchasers of the registrant's preferred stock set forth therein, as amended.
4.3 <sup>(3)</sup>	Form of Warrant to Purchase Shares of Preferred Stock of the registrant dated as of August 25, 2009.
4.4 <sup>(3)</sup>	Series E Preferred Stock Purchase Agreement dated November 16, 2009 by and among the registrant and the purchasers of the registrant's preferred stock set forth therein.
4.5 <sup>(3)</sup>	Ninth Amended and Restated Investor Rights Agreement between the registrant and certain holders of the registrant's capital stock named therein, including amendments No. 1, No. 2 and No. 3.
4.6 <sup>(2)(3)</sup>	Loan and Security Agreement No. 4561 between the registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005, including amendments No. 1 through No. 8.
4.6A <sup>(3)</sup>	Amended and Restated Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective June 14, 2010.
4.6B <sup>(3)</sup>	Amended and Restated Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective June 14, 2010.
4.6C <sup>(3)</sup>	Amended and Restated Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective June 14, 2010.
4.6D <sup>(3)</sup>	Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective June 14, 2010.
4.6E <sup>(3)</sup>	Negative Pledge Agreement by and between the registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005.
4.7 <sup>(3)</sup>	Note and Warrant Purchase Agreement dated January 6, 2011 among the registrant and the investors named therein.
4.8 <sup>(3)</sup>	Business Financing Agreement between the registrant and Bridge Bank, National Association, dated as of December 16, 2010.
5.1 <sup>(1)</sup>	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.1 <sup>(3)</sup>	Form of Indemnification Agreement between the registrant and its directors and officers.
10.2 <sup>(3)</sup>	1999 Stock Option Plan of the registrant, as amended.
10.2A <sup>(3)</sup>	Forms of agreements under the 1999 Stock Option Plan.
10.3 <sup>(3)</sup>	2009 Equity Incentive Plan of the registrant, as amended.
10.3A <sup>(3)</sup>	Forms of agreements under the 2009 Equity Incentive Plan.
10.4 <sup>(3)</sup>	2011 Equity Incentive Plan of the registrant.
10.4A <sup>(3)</sup>	Forms of agreements under the 2011 Equity Incentive Plan.
10.5 <sup>(2)(3)</sup>	Second Amended and Restated License Agreement by and between California Institute of Technology and the registrant effective as of May 1, 2004.
10.5A <sup>(2)(3)</sup>	First Addendum, effective as of March 29, 2007, to Second Amended and Restated License Agreement by and between California Institute of Technology and the registrant effective as of May 1, 2004.

Exhibit Number	Description
10.6 <sup>(2)(3)</sup>	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.6A <sup>(2)(3)</sup>	First Amendment to Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.7 <sup>(2)(3)</sup>	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.8 <sup>(2)(3)</sup>	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.9 <sup>(2)(3)</sup>	Letter Agreement between President and Fellows of Harvard College and the registrant dated December 22, 2004.
10.10 <sup>(2)(3)</sup>	Patent License Agreement by and between Gyros AB and the registrant dated January 9, 2003.
10.10A <sup>(2)(3)</sup>	Amendment No. 1 dated January 9, 2005 to Patent License Agreement by and between Gyros AB and the registrant dated January 9, 2003.
10.11	Reserved.
10.12 <sup>(2)(3)</sup>	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated October 7, 2005), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.12A <sup>(2)(3)</sup>	Supplement, dated January 11, 2006, to Letter Agreement Relating to Application for Incentives under the Research Incentive Scheme for Companies (RISC), dated October 7, 2005 between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.13 <sup>(2)(3)</sup>	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated February 12, 2007), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.14 <sup>(3)</sup>	Form of Employment and Severance Agreement between the registrant and each of its executive officers.
10.15 <sup>(3)</sup>	Employee Loan Agreement by and between the registrant and Gajus V. Worthington dated January 20, 2004.
10.16 <sup>(3)</sup>	Stock Repurchase Agreement by and between the registrant and Gajus V. Worthington dated April 10, 2008.
10.17 <sup>(3)</sup>	Offer Letter to Vikram Jog dated January 29, 2008.
10.18 <sup>(3)</sup>	Offer Letter to Fredric Walder dated May 3, 2010.
10.19 <sup>(3)</sup>	Lease Agreement between ARE - San Francisco No. 17 LLC and the registrant, dated September 14, 2010, as amended September 22, 2010.
10.20 <sup>(3)</sup>	Tenancy for Flatted Factory Space in Singapore between JTC Corporation and the registrant dated July 27, 2005, as amended August 12, 2008 and May 31, 2010.
10.21 <sup>(2)</sup>	Collaboration and Option Agreement by and between Novartis Vaccines & Diagnostics, Inc. and the registrant dated May 17, 2010, including all exhibits thereto.
10.22 <sup>(2)</sup>	Form of License Agreement by and between Novartis Vaccines & Diagnostics, Inc. and the registrant.

Exhibit Number	Description
10.23 <sup>(2)</sup>	Quality Agreement for Development of In-Vitro Diagnostic Devices by and between Novartis Vaccines & Diagnostics, Inc. and the registrant dated May 14, 2010.
10.24 <sup>(3)</sup>	Co-Promotion Agreement, by and between 454 Life Sciences and the registrant dated May 20, 2010.
21.1 <sup>(3)</sup>	List of subsidiaries of registrant.
23.1 <sup>(3)</sup>	Consent of Independent Registered Public Accounting Firm.
23.2 <sup>(1)</sup>	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1 <sup>(3)</sup>	Power of Attorney.

- (1) To be filed by amendment.
  - (2) Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.
  - (3) Previously filed.
- (b) *Financial Statement Schedules.*

All schedules have been omitted because the information required to be presented in them is not applicable or is shown in the consolidated financial statements or related notes.

**Item 17. Undertakings.**

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the 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 Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act of 1933, each post effective amendment that contains a form of prospectus 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.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Amendment No. 4 to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Palo Alto, State of California, on the 2nd day of February, 2011.

**FLUIDIGM CORPORATION**

By: /s/ Gajus V. Worthington  
Gajus V. Worthington

*President and Chief Executive Officer*

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 4 to the registration statement has been signed by the following persons in the capacities indicated on the 2nd day of February, 2011:

Signature	Title	Date
/s/ Gajus V. Worthington	President, Chief Executive Officer and Director	February 2, 2011
Gajus V. Worthington	(Principal Executive Officer)	
/s/ Vikram Jog	Chief Financial Officer	February 2, 2011
Vikram Jog	(Principal Accounting and Financial Officer)	
*	Director	February 2, 2011
Jeremy Loh		
*	Director	February 2, 2011
Samuel Colella		
*	Director	February 2, 2011
Kenneth Nussbacher		
*	Director	February 2, 2011
Raymond Whitaker		
*	Director	February 2, 2011
John A. Young		

\*By: /s/ Gajus V. Worthington  
Gajus V. Worthington

Attorney-in-Fact

\*By: /s/ Vikram Jog  
Vikram Jog

Attorney-in-Fact

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10.4 <sup>(3)</sup>	2011 Equity Incentive Plan of the registrant.
10.4A <sup>(3)</sup>	Forms of agreements under the 2011 Equity Incentive Plan.
10.5 <sup>(2)(3)</sup>	Second Amended and Restated License Agreement by and between California Institute of Technology and the registrant effective as of May 1, 2004.
10.5A <sup>(2)(3)</sup>	First Addendum, effective as of March 29, 2007, to Second Amended and Restated License Agreement by and between California Institute of Technology and the registrant effective as of May 1, 2004.
10.6 <sup>(2)(3)</sup>	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.6A <sup>(2)(3)</sup>	First Amendment to Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.7 <sup>(2)(3)</sup>	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.8 <sup>(2)(3)</sup>	Co-Exclusive License Agreement between President and Fellows of Harvard College and the registrant effective as of October 15, 2000.
10.9 <sup>(2)(3)</sup>	Letter Agreement between President and Fellows of Harvard College and the registrant dated December 22, 2004.
10.10 <sup>(2)(3)</sup>	Patent License Agreement by and between Gyros AB and the registrant dated January 9, 2003.
10.10A <sup>(2)(3)</sup>	Amendment No. 1 dated January 9, 2005 to Patent License Agreement by and between Gyros AB and the registrant dated January 9, 2003.
10.11	Reserved.
10.12 <sup>(2)(3)</sup>	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated October 7, 2005), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.12A <sup>(2)(3)</sup>	Supplement, dated January 11, 2006, to Letter Agreement Relating to Application for Incentives under the Research Incentive Scheme for Companies (RISC), dated October 7, 2005 between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.13 <sup>(2)(3)</sup>	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated February 12, 2007), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.14 <sup>(3)</sup>	Form of Employment and Severance Agreement between the registrant and each of its executive officers.
10.15 <sup>(3)</sup>	Employee Loan Agreement by and between the registrant and Gajus V. Worthington dated January 20, 2004.
10.16 <sup>(3)</sup>	Stock Repurchase Agreement by and between the registrant and Gajus V. Worthington dated April 10, 2008.
10.17 <sup>(3)</sup>	Offer Letter to Vikram Jog dated January 29, 2008.

Exhibit Number	Description
10.18 <sup>(3)</sup>	Offer Letter to Fredric Walder dated May 3, 2010.
10.19 <sup>(3)</sup>	Lease Agreement between ARE-San Francisco No. 17, LLC and the registrant, dated September 14, 2010, as amended September 22, 2010.
10.20 <sup>(3)</sup>	Tenancy for Flatted Factory Space in Singapore between JTC Corporation and the registrant dated July 27, 2005, as amended August 12, 2008 and May 31, 2010.
10.21 <sup>(2)</sup>	Collaboration and Option Agreement by and between Novartis Vaccines & Diagnostics, Inc. and the registrant dated May 17, 2010, including all exhibits thereto.
10.22 <sup>(2)</sup>	Form of License Agreement by and between Novartis Vaccines & Diagnostics, Inc. and the registrant.
10.23 <sup>(2)</sup>	Quality Agreement for Development of In-Vitro Diagnostic Devices by and between Novartis Vaccines & Diagnostics, Inc. and the registrant dated May 14, 2010.
10.24 <sup>(3)</sup>	Co-Promotion Agreement, by and between 454 Life Sciences and the registrant dated May 20, 2010.
21.1 <sup>(3)</sup>	List of subsidiaries of registrant.
23.1 <sup>(3)</sup>	Consent of Independent Registered Public Accounting Firm.
23.2 <sup>(1)</sup>	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1 <sup>(3)</sup>	Power of Attorney.

(1) To be filed by amendment.

(2) Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(3) Previously filed.