

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-8
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)

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

7000 Shoreline Court, Suite 100
South San Francisco, California 94080
(650) 266-6000
(Address of principal executive offices, including zip code)

Fluidigm Corporation 2011 Equity Incentive Plan
(Full title of the plan)

Stephen Christopher Linthwaite
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)

Copies to:
Nicholas Khadder
General Counsel
7000 Shoreline Court, Suite 100
South San Francisco, California 94080
Telephone: (650) 266-6000

Robert F. Kornegay
Wilson Sonsini Goodrich & Rosati,
Professional Corporation
650 Page Mill Road
Palo Alto, California 94304
Telephone: (650) 493-9300

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

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

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 par value per share, reserved for issuance pursuant to the Fluidigm Corporation 2011 Equity Incentive Plan	1,000,000 ⁽²⁾	\$6.46 ⁽³⁾	\$6,460,000	\$804.27
TOTAL:	1,000,000		\$6,460,000	\$804.27

- (1) Pursuant to Rule 416(a) of the Securities Act of 1933, as amended, this Registration Statement shall also cover any additional shares of the Registrant's common stock that become issuable under the Fluidigm Corporation 2011 Equity Incentive Plan ("2011 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.
- (2) Represents 1,000,000 shares of the Registrant's common stock that were automatically added to the shares authorized for issuance under the 2011 Plan on January 1, 2018 pursuant to an "evergreen" provision contained in the 2011 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 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.
- (3) Estimated in accordance with paragraphs (c) and (h) of Rule 457 solely for the purpose of calculating the total registration fee. Computation based on the average of the high and low prices of the Registrant's common stock as reported on the NASDAQ Global Select Market on January 12, 2018.

FLUIDIGM CORPORATION
REGISTRATION OF ADDITIONAL SECURITIES
PURSUANT TO GENERAL INSTRUCTION E

This Registration Statement registers additional shares of the common stock of Fluidigm Corporation (the “Registrant”) to be issued pursuant to the Registrant’s 2011 Equity Incentive Plan (the “2011 Plan”). Accordingly, the contents of (i) the previous Registration Statement on Form S-8 filed by the Registrant with the Securities and Exchange Commission (the “Commission”) on February 11, 2011 (Registration No. 333-172206); (ii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission on March 26, 2012 (Registration No. 333-180363); (iii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission on March 12, 2013 (Registration No. 333-187204); (iv) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission on February 21, 2014 (Registration No. 333-194084); (v) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission on February 26, 2015 (Registration No. 333-202325); (vi) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission on March 3, 2016 (Registration No. 333-209904), as amended on March 15, 2016; and (vii) the previous Registration Statement on Form S-8 filed by the Registrant with the Commission on January 13, 2017 (Registration No. 333-215555) (together, the “Previous Forms S-8”) are incorporated by reference into this Registration Statement pursuant to General Instruction E of Form S-8.

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

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

- (1) The Registrant’s Annual Report on Form 10-K for the fiscal year ended December 31, 2016, filed with the Commission on March 3, 2017 and the Registrant’s Amendment No. 1 to the Registrant’s Form 10-K, filed with the Commission on April 28, 2017;
- (2) The Registrant’s Quarterly Reports on Form 10-Q for the three months ended March 31, 2017, June 30, 2017, and September 30, 2017 filed with the Commission on May 9, 2017, August 8, 2017, and November 7, 2017, respectively;
- (3) The Registrant’s Current Reports on Form 8-K filed with the Commission on January 11, 2017, February 10, 2017, March 2, 2017, March 27, 2017, May 24, 2017, August 2, 2017, August 2, 2017, August 3, 2017, August 3, 2017, and August 23, 2017, only to the extent that the items therein are specifically stated to be “filed” rather than “furnished” for the purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”); and
- (4) The description of the Registrant’s common stock contained in the Company’s Registration Statements 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.

Under no circumstances will any information furnished under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Form 8-K expressly provides to the contrary.

Item 8. Exhibits.

Exhibit Number	Description	Incorporated by Reference From Form	Incorporated by Reference From Exhibit Number	Date Filed
4.1	Specimen Common Stock Certificate of the Registrant.	S-8	4.1	8/3/2017
4.2+	2011 Equity Incentive Plan of Fluidigm Corporation.	S-1/A	10.4	1/28/2011
4.3+	Forms of U.S. agreements under the 2011 Equity Incentive Plan.	SC TO-I	(d)(2)	8/23/2017
4.4+	Rules of the Fluidigm Corporation 2011 Equity Incentive Plan for Restricted Stock Unit Awards Granted to French Participants.	SC TO-I	(d)(3)	8/23/2017
4.5+	Rules of the Fluidigm Corporation 2011 Equity Incentive Plan for Options Granted to French Participants.	SC TO-I	(d)(4)	8/23/2017
4.6+	UK Sub-plan to the Fluidigm Corporation 2011 Equity Incentive Plan.	SC TO-I	(d)(5)	8/23/2017

4.7+	Form of Restricted Stock Unit Agreement—Non–U.S. under the 2011 Equity Incentive Plan.	SC TO-I	(d)(6)	8/23/2017
4.8+	Form of Stock Option Agreement—Non–U.S. under the 2011 Equity Incentive Plan.	SC TO-I	(d)(7)	8/23/2017
4.9+	Amendments to the Fluidigm Corporation 2011 Equity Incentive Plan, 2009 Equity Incentive Plan, and 1999 Stock Option Plan and the DVS Sciences, Inc. 2010 Equity Incentive Plan.	8-K	10.2	8/2/2017
4.10	Indenture, dated February 4, 2014, by and between Fluidigm Corporation and U.S. Bank National Association.	8-K	4.1	2/4/2014
4.11	First Supplement Indenture, dated February 4, 2014, by and between Fluidigm Corporation and U.S. Bank National Association.	8-K	4.2	2/4/2014
4.12	Form of Global Note (included in Exhibit 4.11).	8-K	4.3	2/4/2014
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.	Filed herewith.		
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm.	Filed herewith.		
23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.	Filed herewith.		
23.3	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (contained in Exhibit 5.1 hereto).			
24.1	Power of Attorney (contained on signature page hereto).			

+ Indicates management contract or compensatory plan, contract or arrangement.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 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 January 16, 2018.

Fluidigm Corporation

By: /s/ Stephen Christopher Linthwaite
Stephen Christopher Linthwaite
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Stephen Christopher Linthwaite and Vikram Jog, and each of them, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities (including his or her capacity as a director and/or officer of Fluidigm Corporation), to sign the Registration Statement on Form S-8 of Fluidigm Corporation, and any or all amendments thereto (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 attorneys-in-fact and agents, and each of them, 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 they or he might or could do in person, hereby and about the premises hereby ratifying and confirming all that said attorneys-in-fact and agent, proxy and agent, or his, her or their substitute or substitutes, 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 has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Stephen Christopher Linthwaite</u> Stephen Christopher Linthwaite	President, Chief Executive Officer, and Director (Principal Executive Officer)	January 16, 2018
<u>/s/ Vikram Jog</u> Vikram Jog	Chief Financial Officer (Principal Financial Officer)	January 16, 2018
<u>/s/ Jennifer Lee</u> Jennifer Lee	Vice President, Controller (Principal Accounting Officer)	January 16, 2018
<u>/s/ Samuel D. Colella</u> Samuel D. Colella	Chairman of the Board of Directors	January 16, 2018
<u>/s/ Nicolas Barthelemy</u> Nicolas Barthelemy	Director	January 16, 2018
<u>/s/ Carlos Paya</u> Carlos Paya	Director	January 16, 2018
<u>/s/ Gerhard F. Burbach</u> Gerhard F. Burbach	Director	January 16, 2018
<u>/s/ Patrick S. Jones</u> Patrick S. Jones	Director	January 16, 2018

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24.1	Power of Attorney (contained on signature page hereto).			

January 16, 2018

Fluidigm Corporation
7000 Shoreline Court, Suite 100
South San Francisco, CA 94080

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "Registration Statement") to be filed by Fluidigm Corporation, a Delaware corporation, with the Securities and Exchange Commission on or about the date hereof, in connection with the registration under the Securities Act of 1933, as amended, of 1,000,000 shares of your common stock, par value \$0.001 per share (the "Shares"), reserved for future issuance pursuant to the 2011 Equity Incentive Plan (the "Plan"). As your legal counsel, we have reviewed the actions proposed to be taken by you in connection with the issuance and sale of the Shares to be issued under the Plan.

It is our opinion that the Shares, when issued and sold in the manner referred to in the Plan and pursuant to the agreements that accompany the Plan, will be legally and validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement, and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto.

Very truly yours,

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

/s/ Wilson Sansini Goodrich & Rosati,
Professional Corporation

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated March 2, 2017 relating to the financial statements, financial statement schedule and the effectiveness of internal control over financial reporting, which appears in Fluidigm Corporation's Annual Report on Form 10-K for the year ended December 31, 2016.

/s/ PricewaterhouseCoopers LLP
San Jose, CA
January 16, 2018

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statement (Form S-8) for the registration of 1,000,000 shares of common stock pertaining to the Fluidigm Corporation 2011 Equity Incentive Plan of our report dated February 29, 2016, with respect to the consolidated financial statements and schedule of Fluidigm Corporation included in its Annual Report (Form 10-K) for the year ended December 31, 2016, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP
January 16, 2018
Redwood City, California
