UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported) August 21, 2012

FLUIDIGM CORPORATION

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 001-34180 (Commission File Number) 77-0513190 (IRS Employer Identification No.)

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

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

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Dere-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Dere-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 Other Events.

On August 21, 2012, Fluidigm Corporation (the "Company") closed a public offering (the "Offering") of 4,209,000 shares of its common stock at a price of \$14.25 per share, less underwriting discounts and commissions. The Offering included the sale of 549,000 shares pursuant to the underwriters' over-allotment option. The gross proceeds from the sale of shares will be approximately \$60 million, and the net proceeds from the sale of shares, after deducting the underwriters' discounts and other estimated offering expenses payable by the Company, will be approximately \$56.1 million. On August 21, 2012, the Company issued a press release announcing the exercise of the underwriters' over-allotment option and the closing of the Offering.

A copy of the press release is attached as Exhibit 99.1 to this report and is incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Pursuant to the rules and regulations of the Securities and Exchange Commission, the attached exhibit is deemed to have been filed with, the Securities and Exchange Commission:

Exhibit No.

99.1 Fluidigm Corporation Press Release dated August 21, 2012

Description

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

FLUIDIGM CORPORATION

By: /s/ Vikram Jog

Vikram Jog Chief Financial Officer

Date: August 21, 2012

Exhibit No.

99.1 Fluidigm Corporation Press Release dated August 21, 2012

Description

Fluidigm Announces Exercise of Underwriters' Over-Allotment Option and Closing of \$60 million Public Offering of Common Stock

SOUTH SAN FRANCISCO, CALIFORNIA – August 21, 2012 – Fluidigm Corporation (NASDAQ: FLDM), a supplier of microfluidic systems for growth markets in the life science and agricultural biotechnology industries, today announced that it has closed the previously announced underwritten public offering of 4,209,000 shares of its common stock at a price to the public of \$14.25 per share for gross proceeds of approximately \$60 million. The shares include 549,000 shares of common stock sold pursuant to the over-allotment option granted by Fluidigm to the underwriters, which option was exercised in full. The net proceeds from the sale of the shares, after deducting the underwriters' discounts and commissions and other estimated offering expenses payable by Fluidigm, will be approximately \$56.1 million.

Fluidigm currently plans to use the net proceeds from this offering for research and development, commercialization of its products, working capital and other general corporate purposes.

Piper Jaffray & Co. and Cowen and Company, LLC acted as the joint book-running managers for the offering. Leerink Swann LLC, Oppenheimer & Co. Inc. and Cantor Fitzgerald & Co. acted as the co-managers for the offering.

A shelf registration statement (File No. 333-180550) relating to these securities was filed on April 4, 2012, as amended on May 7, 2012, and declared effective by the Securities and Exchange Commission on May 10, 2012. A final prospectus supplement and accompanying prospectus describing the terms of the offering was filed with the SEC on August 16, 2012. Copies of the prospectus supplement and accompanying prospectus relating to the offering may be obtained from Piper Jaffray & Co., Attention: Prospectus Department, 800 Nicollet Mall, J12S03, Minneapolis, MN 55402 or by telephone at 800-747-3924 or by email at prospectus@pjc.com, or from Cowen and Company, LLC (c/o Broadridge Financial Services, 1155 Long Island Avenue, Edgewood, NY, 11717, Attn: Prospectus Department, Phone: 631-274-2806, Fax: 631-254-7140). An electronic copy of the prospectus supplement and accompanying prospectus relating to the offering is available on the website of the Securities and Exchange Commission at <u>www.sec.gov</u>.

This press release does not constitute an offer to sell or the solicitation of offers to buy any securities of Fluidigm, and shall not constitute an offer, solicitation or sale of any security in any state or jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state or jurisdiction.

Forward-Looking Statements

In order to provide Fluidigm's investors with an understanding of our current intentions and future prospects, this release may contain statements that are forward-looking. Any statements contained in this press release that are not statements of historical fact may be deemed to be forward-looking statements. Words such as "believes," "anticipates," "plans," "expects," "will," "intends," "possible" and similar expressions are intended to identify forward-looking statements. These forward-looking statements include our expectations regarding the offering and the use of proceeds from such offering.

Forward-looking statements involve risks and uncertainties related to our business and the general economic environment, many beyond our control. These risks, uncertainties and other factors could cause

our actual results to differ materially from those projected in forward-looking statements, including market risk and the risks we identify in reports filed with the SEC.

Although we believe that the forward-looking statements contained herein are reasonable, we can give no assurance that our expectations are correct. All forward-looking statements are expressly qualified in their entirety by this cautionary statement. For a detailed description of our risks and uncertainties, you are encouraged to review the official corporate documents filed with the SEC. Fluidigm does not undertake any obligation to publicly update its forward-looking statements based on events or circumstances after the date hereof.

About Fluidigm

Fluidigm Corporation (NASDAQ: FLDM) develops, manufactures and markets microfluidic systems for growth markets in the life science and agricultural biotechnology, or Ag-Bio, industries. Fluidigm's proprietary microfluidic systems consist of instruments and consumables, including chips, assays and other reagents. These systems are designed to significantly simplify experimental workflow, increase throughput and reduce costs, while providing the excellent data quality demanded by customers. Fluidigm actively markets four microfluidic systems, including nine different commercial chips, to leading academic institutions, diagnostic laboratories, and pharmaceutical, biotechnology and Ag-Bio companies. Fluidigm products are marketed for research purposes only (not for diagnostic use).

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CONTACT:

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- 2 -