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) September 15, 2014

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)

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

(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):

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

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

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

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

Item 1.01 Entry into a Material Definitive Agreement

On September 15, 2014, Fluidigm Corporation (the "Company") and ARE-SAN FRANCISCO NO. 17, LLC entered into an amendment (the "Amendment") to the lease agreement dated as of September 14, 2010, as amended (the "Lease"), relating to the lease of office and laboratory space at the Company's headquarters located at 7000 Shoreline Court, South San Francisco, California. The Amendment provides for the following:

- the expansion of the premises covered under the Lease by approximately 9,000 square feet of office and laboratory space, effective on October 1, 2014 (the "Additional Space");
- payment by the Company of monthly base rent for the Additional Space of approximately \$24,000 from October 1, 2014 through April 30, 2016, with annual increases of 3% thereafter commencing in May 2016;
- payment by the Company of certain operating expenses during the term of the Lease; and
- the expansion and extension of the Company's existing right of first refusal to any additional space which becomes available within the building by one year to April 15, 2017.

The foregoing summary of the Amendment does not purport to be complete and is qualified in its entirety by reference to the Amendment, which will be filed as an exhibit to the Company's Quarterly Report on Form 10-Q for the quarter ending September 30, 2014.

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

Date: September 19, 2014

By: /s/ Vikram Jog

Vikram Jog Chief Financial Officer