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) May 1, 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)

(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):

□ 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))

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

Item 1.02. Termination of a Material Definitive Agreement

On May 17, 2010, we entered into a Collaboration and Option Agreement with Novartis Vaccines & Diagnostics, Inc. ("**Novartis V&D**") pursuant to which our capabilities in digital polymerase chain reaction were being developed for certain in-vitro diagnostics applications (as amended, the "**Collaboration Agreement**"). In connection with the Collaboration Agreement, we also entered into a Quality Agreement for Development of In-Vitro Diagnostics Devices (the "**Quality Agreement**" and together with the Collaboration Agreement, the "**Novartis Agreements**"). The Collaboration Agreement provided Novartis V&D with an exclusive option, exercisable on or before April 30, 2012 (the "**Term**"), to exclusively license our technology in the primary field of non-invasive testing of genetic abnormality, disease or condition in a fetus or in a pregnant woman (other than as tested in the primary field), RhD genotyping or carrier status in a pregnant woman and the genetic carrier status of a prospective mother and her male partner (the "**Option**"). Under the Collaboration Agreement, except with Novartis V&D, we could not, directly or in collaboration with a third party, use, develop or sell our products or services in the primary field or the secondary field, other than for research applications in the secondary field.

We successfully achieved all of our technical feasibility milestones, completed the first phase of the collaboration plan, and received all milestone payments for the first phase under the Collaboration Agreement. Thereafter, the parties engaged in discussions in accordance with the Collaboration Agreement; however, the collaboration will not proceed to the next phase. The Novartis Agreements specifically provided that the agreements would automatically terminate if Novartis V&D did not exercise the Option prior to the expiration of the Option Term. The Option expired unexercised on April 30, 2012 and, therefore, the Novartis Agreements terminated in accordance with their terms, effective May 1, 2012.

On May 7, 2012, we issued a press release relating to the ending of the collaboration. A copy of the press release is attached to this Current Report on Form 8-K as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits.

Exhibit No.	Description
99.1	Fluidigm Corporation Press Release dated May 7, 2012

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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: May 7, 2012

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<u>Exhibit No.</u> 99.1 Description Fluidigm Corporation Press Release dated May 7, 2012

FLUIDIGM ANNOUNCES UNRESTRICTED SALES INTO PRENATAL HEALTH AND NON-INVASIVE PRENATAL DIAGNOSTICS FIELDS OF RESEARCH

Fluidigm Collaboration Ends; New Product Opportunities in Digital PCR

SOUTH SAN FRANCISCO, Calif. – May 7, 2012 – Fluidigm Corporation (NASDAQ:FLDM) today announced that it can now offer unrestricted sales of its digital PCR and other advanced technology to customers interested in pursuing research and product development into the prenatal health and non-invasive prenatal diagnostics fields, as well as other fields. This enhanced freedom to operate comes as a result of the ending of the collaboration agreement previously reported in the company's filings with the Securities and Exchange Commission between Fluidigm and Novartis Vaccines & Diagnostics, Inc.

Under the collaboration agreement, Fluidigm granted an exclusive option to its technology in specific areas of prenatal health and diagnostics, and Fluidigm could not sell its products or services in these fields, other than in some cases for research applications. This option has expired unexercised. Also, while the details of the collaboration remain confidential, Fluidigm can confirm that it successfully achieved all of its technical feasibility milestones in the first phase of the collaboration and, accordingly, received all milestone payments. The re-opening of previously restricted fields of use for Fluidigm products and access to significant product enhancements represent exciting opportunities for Fluidigm's customer base.

A number of Fluidigm's customers had expressed concerns over their ability to freely operate in the fields of prenatal health and non-invasive prenatal diagnostics in view of the collaboration agreement. Some potential customers chose to pursue alternative options because of this uncertainty. "With the termination of this agreement, highly valuable intellectual property rights in non-invasive prenatal diagnostics and digital PCR, which had been exclusively optioned under the agreement, now revert back to Fluidigm. We are open for business without restriction in all fields," said Gajus Worthington, Fluidigm President and Chief Executive Officer.

Fluidigm can now fully pursue all market opportunities with customers interested in researching and developing products in all fields, including prenatal health and non-invasive prenatal diagnostics. "We appreciate that there are significant market opportunities in these areas and there is substantial customer interest. We look forward to helping these customers achieve their research and development objectives," Worthington added.

With the termination of the collaboration, Fluidigm's customers may experience other, more direct benefits. Chief among them is unrestricted access to the company's prototype 200,000-chambered digital PCR chip with associated instrumentation and software developed under several on-going collaborative efforts. The company can now commercialize this much higher density chip, for which it has experimentally demonstrated both very high sensitivity and reproducibility.

Use of Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include, among others, statements relating to market opportunities in the fields of prenatal health and non-invasive prenatal diagnostics, and plans, objectives, expectations and strategies for our business, our technology and future product launches. Forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from currently anticipated results. Factors that could materially affect future results include, but are not limited to, changes in our business plans and strategies, costs associated with sales and research and development activities, our ability to successfully launch new products and applications, our ability to protect our intellectual property and proprietary technology, competition, and risks relating to market acceptance of our products. Information on these and additional risks, uncertainties, and other information affecting Fluidigm's business and operating results are contained in our Annual Report on Form 10-K for the year ended December 31, 2011 and subsequent filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof. Fluidigm Corporation disclaims any obligation to update these forward-looking statements.

About Fluidigm

Fluidigm (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 three microfluidic systems, including eight different commercial chips, to leading academic institutions, diagnostic laboratories, and pharmaceutical, biotechnology and Ag-Bio companies.

For more information, please visit www.fluidigm.com.

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