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 10, 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))

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

Item 2.02 Results of Operations and Financial Condition

On May 10, 2012, Fluidigm Corporation issued a press release reporting its financial results for the first quarter of 2012. A copy of the press release is furnished herewith as Exhibit 99.1.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

Exhibit No.	Description
99.1	Fluidigm Corporation Press Release dated May 10, 2012

The information furnished in this Current Report under Item 2.02 and the exhibit attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

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 10, 2012

Exhibit No.Description99.1Fluidigm Corporation Press Release dated May 10, 2012

FLUIDIGM REPORTS FINANCIAL RESULTS FOR FIRST QUARTER 2012 Q1 Product Revenue Up 28%; Q1 Total Revenue Up 26% Compared to Q1 2011

SOUTH SAN FRANCISCO, Calif. – May 10, 2012 – Fluidigm Corporation (NASDAQ:FLDM) today announced its financial results for the first quarter ended March 31, 2012.

Product revenue for the first quarter of 2012 was \$10.8 million, an increase of 28% from \$8.4 million in the first quarter of 2011. Total revenue for the first quarter of 2012 was \$10.9 million, an increase of 26% from \$8.7 million in the first quarter of 2011. Product margin was 67% in the first quarter of 2012, compared to 65% in the first quarter of 2011. Net loss for the first quarter of 2012 was \$6.7 million, compared to a net loss of \$7.3 million in the first quarter of 2011. Non-GAAP net loss for the first quarter of 2012 was \$5.1 million, compared to \$3.7 million for the first quarter of 2011 (see accompanying table for reconciliation of GAAP and non-GAAP measures).

"This was a good start of the year for Fluidigm. Our leadership in single-cell genomics continued to be the catalyst behind sales of our BioMarkTM HD System. For the second quarter in a row, about two-thirds of BioMark HD sales were designated for single-cell genomic research use," stated Gajus Worthington, Fluidigm President and Chief Executive Officer. "Consumable pull-through was healthy for all our major applications, indicating that our growing installed base is being put to good use. In addition, we revealed what the future for single-cell genomics will entail, with the expected launch of our C_1^{TM} Single-Cell AutoPrep System later this year," Worthington continued.

Financial Highlights and Analysis

- Sales of consumables grew significantly during the quarter and we saw steadily increasing contributions from our DELTAgene[™] assays, SNPtype[™] assays and Access Array[™] Target-Specific primers.
- Instrument/consumable mix was 55% and 45%, respectively, for the first quarter of 2012, compared to 59% and 41%, respectively, in the first quarter of 2011.
- Geographic revenue as a percent of total product revenue were as follows: United States—54%; Europe 24%; Asia-Pacific 11%; Japan 9%; and Other 2%.
- Research and development expense was \$4.3 million in the first quarter of 2012, compared to \$3.2 million in the first quarter of 2011.
- Selling, general and administrative expense was \$9.4 million in the first quarter of 2012, compared to \$7.4 million in the first quarter of 2011.

Cash, cash equivalents and investments at the end of the first quarter of 2012 was \$44.9 million, compared to \$55.0 million at the beginning of the quarter. Cash used during the quarter included loan repayments of \$3.8 million, including a balloon payment of \$2.3 million as required under our loan agreement.

Business Highlights Since Fluidigm's Last Earnings Release

- The Broad Institute and Fluidigm announced the launch of the world's first research center dedicated to accelerating the development of research methods and discoveries in mammalian single-cell genomics. The Single-Cell Genomics Center, housed at the Broad Institute in Massachusetts, is expected to act as a hub for collaboration among single-cell genomics researchers in many fields, including stem cell and cancer biology.
- Instrument revenue grew in double-digit percentages year-on-year for six consecutive quarters.
- Unit numbers and percentage of sales of BioMark HD Systems designated for single-cell genomic use continued at a strong pace during the first quarter of 2012. Two-thirds of the BioMark HD instruments sold during the quarter were designated for single-cell genomics research.
- Fluidigm unveiled a new system designed to revolutionize single-cell handling and preparation for genetic analysis. The new system, named C₁ Single-Cell AutoPrep System, is expected to be available in the second half of 2012 and will be complementary to the BioMark HD System.
- Production genotyping consumable sales increased sharply in Q1 of 2012 relative to Q1 of 2011.
- Consumable pull-through for analytical systems was within our historical range of \$40,000 to \$50,000 per system per year. Similarly, pull-through for
 preparative systems was also within our historical range of \$10,000 to \$15,000 per system per year. DELTAgene and SNPtype assays continued to gain
 acceptance with our customer base.
- Fluidigm achieved its best-ever level of sales in China during Q1 of 2012 and established its Fluidigm China subsidiary.

Financial Outlook

The Company currently expects full year 2012 product revenue to grow 25-30% from full year 2011 product revenue of \$40.6 million. The Company expects 2012 grant revenue to be approximately \$0.6 million. Historically, Fluidigm's product revenue have tended to be lowest in the first quarter of the year, down from the prior year's fourth quarter, reflecting numerous factors, including, among others, seasonal variations in customer operations and customer budget and capital spending cycles. In recent years, product revenue experienced its largest sequential growth in the second and fourth quarters of the year, and we expect that trend to continue. We expect each quarter in 2012 to show year-on-year growth.

Conference Call Information

Fluidigm will host a conference call today, May 10, 2012 at 5:30 p.m. Eastern Time. The call can be accessed by calling (877) 556-5248 (domestic toll-free) or (720) 545-0029 (international toll). Fluidigm will also provide a live stream of its first quarter of 2012 financial results conference call for investors at: http://investors.fluidigm.com/events.cfm. The link will not be active until 5:15 p.m. Eastern Time on May 10, 2012. A telephone replay of the teleconference will be available 90 minutes after the end of the call at (855) 859-2056 (domestic toll-free), or (404) 537-3406 (international toll), access code 78347912. The conference call will also be archived on the Fluidigm investor's page at: http://investors.fluidigm.com.

Statement Regarding Use of Non-GAAP Financial Information

The Company has presented certain financial information in accordance with GAAP and also on a non-GAAP basis for the first quarter of 2012 and 2011. Management believes that non-GAAP financial measures, taken in conjunction with GAAP financial measures, provide useful information for both management and investors by excluding certain non-cash and other expenses that are not indicative of the Company's core operating results. Management uses non-GAAP measures to compare the Company's performance relative to forecasts and strategic plans and to benchmark the Company's performance externally against competitors. Non-GAAP information is not prepared under a comprehensive set of accounting rules and should only be used to supplement an understanding of the Company's operating results as reported under U.S. GAAP. The Company encourages investors to carefully consider its results under GAAP, as well as its supplemental non-GAAP information and the reconciliation between these presentations, to more fully understand its business. Reconciliations between GAAP and non-GAAP results are presented in the accompanying table of this release.

Use of Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, including, among others, statements relating to the launch of new products, market trends, current estimates of 2012 product and grant revenue, our future growth, quarterly growth in our revenue, factors affecting quarter to quarter fluctuations in our revenues, and potential developments in the field of single-cell genomics research. Forward-looking statements are subject to numerous risks and uncertainties that could cause actual results to differ materially from currently anticipated results, including but not limited to, risks relating to market acceptance of our products, our ability to successfully launch new products and applications, competition, variability in our sales cycle, our sales, marketing and distribution capabilities, our planned sales and research and development activities, reduction in research and development spending or changes in budget priorities by customers, interruptions or delays in the supply of components or materials for our products, and risk associated with international operations. 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 other filings with the Securities and Exchange

Commission. Additional information will also be set forth in our Quarterly Report on Form 10-Q for the three months ended March 31, 2012 to be filed 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.

Fluidigm, the Fluidigm logo, BioMark, C₁, Access Array, DELTAgene and SNPtype are trademarks or registered trademarks of Fluidigm Corporation.

Contact:

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FLUIDIGM CORPORATION CONDENSED CONSOLIDATED BALANCE SHEETS (In thousands)

	March 31, 2012 (Unaudited)		Dece	ember 31, 2011 (1)
ASSETS				
Current assets:				
Cash and cash equivalents	\$	8,496	\$	13,553
Short-term investments		30,382		39,914
Accounts receivable, net		9,764		9,253
Inventories		6,444		5,970
Prepaid expenses and other current assets		1,569		1,343
Total current assets		56,655		70,033
Long-term investments		6,065		1,500
Property and equipment, net		3,577		3,256
Other non-current assets		4,369		4,537
Total assets	\$	70,666	\$	79,326
LIABILITIES AND STOCKHOLDERS' EQUITY				
Current liabilities:				
Accounts payable	\$	4,101	\$	4,010
Accrued compensation and related benefits		2,928		2,442
Other accrued liabilities		2,844		2,787
Deferred revenue, current portion		1,527		2,011
Long-term debt, current portion		6,343		8,921
Total current liabilities		17,743		20,171
Long-term debt, net of current portion				1,217
Other non-current liabilities		1,025		1,041
Total liabilities		18,768		22,429
Total stockholders' equity		51,898		56,897
Total liabilities and stockholders' equity	\$	70,666	\$	79,326

(1) Derived from audited consolidated financial statements.

FLUIDIGM CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share amounts)

(Unaudited)

	Three Months Ended Marc		/Iarch 31,	
		2012		2011
Revenue:				
Instruments	\$	5,900	\$	4,958
Consumables		4,856		3,454
Product revenue		10,756		8,412
License, collaboration, and grant revenue		189		285
Total revenue		10,945		8,697
Costs and expenses:				
Cost of product revenue		3,546		2,913
Research and development		4,279		3,220
Selling, general and administrative		9,403		7,442
Total costs and expenses		17,228		13,575
Loss from operations		(6,283)		(4,878)
Interest expense		(307)		(1,760)
Other expense, net		(61)		(652)
Loss before income taxes		(6,651)		(7,290)
Provision for income taxes		(39)		(48)
Net loss		(6,690)		(7,338)
Deemed dividend related to the change in conversion rate of Series E convertible preferred stock		_		(9,900)
Net loss attributed to common stockholders	\$	(6,690)	\$	(17,238)
Net loss per share attributed to common stockholders, basic and diluted	\$	(0.33)	\$	(1.60)
Shares used in computing net loss per share attributed to common stockholders, basic and diluted		20,394		10,754

FLUIDIGM CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

(Unaudited)

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	Three Months Ended March 31,			
		2012		2011
Operating Activities	^	(6,600)	¢	
Net loss	\$	(6,690)	\$	(7,338)
Depreciation and amortization		331		263
Stock-based compensation expense		935		790
Write-off of debt discount upon note repayment				1,157
Other non-cash items, net		48		803
Changes in assets and liabilities, net		(1,267)		3,096
Net cash used in operating activities		(6,643)		(1,229)
Investing Activities				
Purchases of investments		(19,393)		(21,869)
Proceeds from sales and maturities of investments		24,360		—
Other investing activities		(397)		(220)
Net cash provided by (used in) investing activities		4,570		(22,089)
Financing Activities				
Proceeds from initial public offering, net of issuance costs				76,859
Other financing activities		(3,038)		(3,419)
Net cash (used in) provided by financing activities		(3,038)		73,440
Effect of foreign exchange rate fluctuations on cash and cash equivalents		54		(14)
Net (decrease) increase in cash and cash equivalents		(5,057)		50,108
Cash and cash equivalents at beginning of period		13,553		5,723
Cash and cash equivalents at end of period	\$	8,496	\$	55,831

FLUIDIGM CORPORATION

RECONCILIATION OF GAAP TO NON-GAAP FINANCIAL INFORMATION

(In thousands, except per share amounts)

(Unaudited)

	Three Months Ended March 31,		
	2012	2011	
Net loss attributed to common stockholders (GAAP)	6,690)	\$ (17,238)	
Deemed dividend related to the change in conversion rate of Series E convertible preferred stock	—	9,900	
Stock-based compensation expense	935	790	
Depreciation and amortization	354	348	
Interest expense	307	1,760	
Loss on disposal of property and equipment	25	_	
Change in the fair value of convertible preferred stock warrants and related expense, net		718	
Net loss (Non-GAAP)	5 (5,069)	\$ (3,722)	
Shares used in net loss per share calculation—basic and diluted (GAAP and Non-GAAP)	20,394	10,754	
Net loss per share—basic and diluted (GAAP)	6 (0.33)	\$ (1.60)	
Net loss per share—basic and diluted (Non-GAAP)	6 (0.25)	\$ (0.35)	

(1) The Company reports non-GAAP results which exclude stock-based compensation expense, depreciation of property and equipment, amortization of long-term debt discount, interest expense related to long-term debt, and the write-off of debt discount upon note repayment and remeasurement adjustment for convertible preferred stock warrant fair value, net of gain from extinguishment of convertible preferred stock warrants.