

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| OMB APPROVAL | |
|--|-----------|
| OMB Number: | 3235-0287 |
| Estimated average burden hours per response: | 0.5 |

| | | |
|---|--|--|
| 1. Name and Address of Reporting Person* COLELLA SAMUEL D (Last) (First) (Middle) C/O VERSANT VENTURES 3000 SAND HILL ROAD, #4-210 (Street) MENLO PARK CA 94025 (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol FLUIDIGM CORP [FLDM] | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below) |
| | 3. Date of Earliest Transaction (Month/Day/Year) 11/01/2013 | |
| | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person |

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|-------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Stock | 11/01/2013 | | J ⁽¹⁾ | V | 640,900 | D | \$0 | 0 | I | Versant Venture Capital I, L.P. ⁽¹⁾ |
| Common Stock | 11/01/2013 | | J ⁽¹⁾ | V | 13,345 | D | \$0 | 0 | I | Versant Side Fund I, L.P. ⁽¹⁾ |
| Common Stock | 11/01/2013 | | J ⁽¹⁾ | V | 11,797 | D | \$0 | 0 | I | Versant Affiliates Fund I-A, L.P. ⁽¹⁾ |
| Common Stock | 11/01/2013 | | J ⁽¹⁾ | V | 34,585 | D | \$0 | 0 | I | Versant Affiliates Fund I-B, L.P. ⁽¹⁾ |
| Common Stock | 11/04/2013 | | J ⁽²⁾ | V | 4,030 | A | \$0 | 5,294 | I | Colella Family Partners, L.P. ⁽²⁾ |
| Common Stock | 11/04/2013 | | J ⁽³⁾ | V | 8,063 | A | \$0 | 18,940 | D | |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | | | | | |

Explanation of Responses:

- The Reporting Person is a managing member of Versant Ventures I, LLC, which is the general partner of each of Versant Venture Capital I, L.P., Versant Side Fund I, L.P., Versant Affiliates Fund I-A, L.P. and Versant Affiliates Fund I-B, L.P. (collectively, the "Versant Funds"). As such, the Reporting Person shares voting and investment power over the shares held by the Versant Funds and may be deemed to have indirect beneficial ownership of such shares. The Versant Funds made an in-kind distribution of common stock of the Issuer to their respective partners on November 1, 2013. The Reporting Person disclaims beneficial ownership of such shares held by the Versant Funds, except to the extent of his proportionate pecuniary interest therein, if any.
- The shares are held by Colella Family Partners, L.P. ("Colella Partners"). The shares were received in in-kind distributions by Versant Ventures I, LLC, which is the general partner of each of the Versant Funds, on November 4, 2013. The Reporting Person is the General Partner of Colella Partners. The Reporting Person disclaims beneficial ownership of such shares held by Colella Partners, except to the extent of his proportionate pecuniary interest therein, if any.
- The shares are held by the Colella Family Trust UTA Dtd. 9/21/92 ("Colella Trust"). The shares were received in in-kind distributions by Versant Ventures I, LLC, which is the general partner of each of the Versant Funds, on November 4, 2013. The Reporting Person is a trustee and beneficiary of the Colella Trust.

/s/ Valerie Barnett, attorney-in- 11/05/2013

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.