

**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*<br><u>Worthington Gajus Vincent</u><br><br>(Last) (First) (Middle)<br>FLUIDIGM CORPORATION<br>7000 SHORELINE COURT, SUITE 100<br><br>(Street)<br>SOUTH SAN FRANCISCO CA 94080<br><br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>FLUIDIGM CORP [ FLDM ]</u> | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br><br>Director 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><u>President &amp; CEO</u> |
|  | 3. Date of Earliest Transaction (Month/Day/Year)<br><u>02/15/2011</u>        |  |
|  | 4. If Amendment, Date of Original Filed (Month/Day/Year)                     |  |

**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                    | 02/15/2011                           | 02/15/2011   | X <sup>(1)</sup>               |   | 514   | A          | \$0 <sup>(2)</sup> | 375,160   | I  | See Footnote <sup>(3)</sup>                           |
| Common Stock                    | 02/15/2011                           | 02/15/2011   | F <sup>(1)(4)</sup>            |   | 1   | D          | \$13.5             | 375,159   | I  | See Footnote <sup>(3)</sup>                           |

**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 |   |  |  |   |  |
| Series E-1 Preferred Warrant (Right to Buy) | \$0.02   | 02/15/2011                           | 02/15/2011   | X                              |   | 515  |     | 01/06/2011   | (4)(5)          | Common Stock 515  | \$0  | 0  | I   | See Footnote <sup>(3)</sup>                            |

**Explanation of Responses:**

- Represents shares of Common Stock issued upon the exercise and subsequent conversion of a Warrant to purchase shares of Series E-1 Preferred Stock and has no expiration date.
- Not applicable.
- Gajus V. Worthington and Jami A. Worthington as TTEEs of the Worthington Family Trust UAD dated March 6, 2007 are the record holder of the securities reported.
- Each share of Series E-1 Preferred Stock automatically converted into one share of Common Stock on February 15, 2011, the closing date of the Issuer's initial public offering (the "Closing").
- The warrant was automatically net exercised immediately prior to the Closing.

/s/ William Smith, attorney-in-fact 02/16/2011

\*\* Signature of Reporting Person Date

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.