

POWER OF ATTORNEY

The undersigned, as a Section 16 reporting person of Fluidigm Corporation (the "Company"), hereby constitutes and appoints the officers of the Company and the responsible attorneys and paralegals of Wilson Sonsini Goodrich & Rosati, P.C., and each of them, the undersigned's true and lawful attorney-in-fact to:

1. complete and execute Forms ID, 3,4 and 5 and other forms and all amendments thereto as such attorney-in-fact shall in his or her discretion determine to be required or advisable pursuant to Section 16 of the Securities Exchange Act of 1934 (as amended) and the rules and regulations promulgated thereunder, or any successor laws and regulations, as a consequence of the undersigned's ownership, acquisition or disposition of securities of the Company; and
2. do all acts necessary in order to file such forms with the Securities and Exchange Commission, any securities exchange or national association, the Company and such other person or agency as the attorney-in-fact shall deem appropriate.

The undersigned hereby ratifies and confirms all that said attorney-in-fact and agents shall do or cause to be done by virtue hereof. The undersigned acknowledges that the foregoing attorney-in-fact, in serving in such capacity at the request of the undersigned, are not assuming, nor is the Company assuming, any of the undersigned's responsibilities to comply with Section 16 of the Securities Exchange Act of 1934 (as amended).

This Power of Attorney shall remain in full force and effect until the undersigned is no longer required to file Forms ID, 3, 4 and 5 with respect to the undersigned's holdings of and transactions in securities issued by the Company, unless earlier revoked by the undersigned in a signed writing delivered to the Company and the foregoing attorney-in-fact.

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 4th day of February, 2011.

Signature: /s/ Raymond J. Whitaker

Raymond J. Whitaker