

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

AMENDMENT NO. 5 TO
Form S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

FLUIDIGM CORPORATION

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

3826
(Primary Standard Industrial Classification Code Number)
7000 Shoreline Court, Suite 100
South San Francisco, CA 94080
(650) 266-6000

77-0513190
(I.R.S. Employer Identification Number)

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Gajus V. Worthington
President and Chief Executive Officer
7000 Shoreline Court, Suite 100
South San Francisco, CA 94080
(650) 266-6000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, as amended, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Ruler 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to such Section 8(a), may determine.

EXPLANATORY NOTE

Fluidigm Corporation has prepared this Amendment No. 5 to the Registration Statement on Form S-1 (File No. 333-150227) for the purpose of refiling Exhibits 4.2, 4.4, 10.6, 10.9 and 10.15 to the Registration Statement with the Securities and Exchange Commission. This Amendment No. 5 does not modify any provision of the prospectus that forms a part of the Registration Statement, and accordingly such prospectus has not been included herein.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all expenses to be paid by the registrant, other than estimated underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the SEC registration fee, the NASD filing fee and the NASDAQ Global Market listing fee.

SEC registration fee	\$ 3,390
NASD filing fee	9,125
NASDAQ Global Market listing fee	*
Printing and engraving	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue sky fees and expenses (including legal fees)	*
Transfer agent and registrar fees	*
Miscellaneous	*
Total	*

* To be provided by amendment.

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

As permitted by Section 102(b)(7) of the Delaware General Corporation Law, the registrant's certificate of incorporation includes provisions that eliminate the personal liability of its directors and officers for monetary damages for breach of their fiduciary duty as directors and officers.

In addition, as permitted by Section 145 of the Delaware General Corporation Law, the bylaws of the registrant provide that:

- The registrant shall indemnify its directors and officers for serving the registrant in those capacities or for serving other business enterprises at the registrant's request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful.
- The registrant may, in its discretion, indemnify employees and agents in those circumstances where indemnification is not required by law.
- The registrant is required to advance expenses, as incurred, to its directors and officers in connection with defending a proceeding, except that such director or officer shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification.
- The registrant will not be obligated pursuant to the bylaws to indemnify a person with respect to proceedings initiated by that person, except with respect to proceedings authorized by the registrant's Board of Directors or brought to enforce a right to indemnification.
- The rights conferred in the bylaws are not exclusive, and the registrant is authorized to enter into indemnification agreements with its directors, officers, employees and agents and to obtain insurance to indemnify such persons.

- The registrant may not retroactively amend the bylaw provisions to reduce its indemnification obligations to directors, officers, employees and agents.

The registrant's policy is to enter into separate indemnification agreements with each of its directors and officers that provide the maximum indemnity allowed to directors and executive officers by Section 145 of the Delaware General Corporation Law and also provides for certain additional procedural protections. The registrant also maintains directors and officers insurance to insure such persons against certain liabilities.

These indemnification provisions and the indemnification agreements entered into between the registrant and its officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters of the registrant and its officers and directors for certain liabilities arising under the Securities Act and otherwise.

Item 15. Recent Sales of Unregistered Securities.

In the three years prior to the filing of this registration statement, the registrant has issued the following unregistered securities:

(a) From March 2005 through July 17, 2007, Fluidigm Corporation, a California corporation, issued and sold an aggregate of 470,965 shares of its common stock upon the exercise of options issued to certain employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, at exercise prices ranging from \$0.30 to \$0.83, for aggregate consideration of \$188,442. From July 18, 2007 through May 22, 2008, the registrant issued and sold an aggregate of 250,720 shares of its common stock upon the exercise of options issued to certain employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, at exercise prices ranging from \$0.30 to \$1.36 per share, for aggregate consideration of \$123,346.

(b) From March 2005 through July 17, 2007, Fluidigm Corporation, a California corporation, granted to certain of its employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 3,986,044 shares of its common stock at exercise prices ranging from \$0.30 to \$1.36 per share. From July 18, 2007 through May 22, 2008, the registrant granted to certain of its employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 452,200 shares of the registrant's common stock at exercise prices ranging from \$1.38 to \$2.40 per share.

(c) In March 2005, Fluidigm Corporation, a California corporation, pursuant to a loan and security agreement, issued and sold a warrant to purchase 371,428 shares of its Series D Preferred Stock to one accredited investor at an exercise price of \$2.80 per share. In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the warrant was converted into a warrant to purchase an equal number of shares of the registrant's Series D Preferred Stock.

(d) In November 2005, Fluidigm Corporation, a California corporation, issued and sold 70,000 shares of its common stock to one accredited investor at an issuance price of \$0.56 per share for aggregate monetary consideration of \$39,200, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(e) In December 2005, Fluidigm Corporation, a California corporation, issued 832,635 shares of its Series D Preferred Stock to one accredited investor in connection with the conversion of a convertible promissory note at a conversion price per share of \$2.80.

(f) In June 2006, Fluidigm Corporation, a California corporation, issued to one accredited investor a convertible promissory notes in an aggregate principal amount of \$3,000,000 convertible into shares of its Series D Preferred Stock. In July 2007, the notes were converted into 1,157,142 shares of Series D Preferred Stock at a conversion price per share of \$2.80.

(g) In June 2006, Fluidigm Corporation, a California corporation, issued 214,285 shares of its Series D Preferred Stock to one accredited investor at an issuance price of \$2.80 per share, for aggregate monetary consideration of \$599,998, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(h) In June 2006, Fluidigm Corporation, a California corporation, issued 267,858 shares of its Series D Preferred Stock to one accredited investor in connection with the exercise of a warrant to purchase shares of its Series D Preferred Stock at an exercise price per share of \$2.80.

(i) From August 2006 through April 2007, Fluidigm Corporation, a California corporation, issued three convertible promissory notes to one accredited investor in an aggregate principal amount of \$15,000,000, all of which were convertible into shares of its Series E Preferred Stock. In March 2007, two of the notes were converted into an aggregate of 2,954,337 shares of the Series E Preferred Stock of Fluidigm Corporation, a California corporation. In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the remaining outstanding convertible promissory note was made convertible into shares of the registrant's Series E Preferred Stock.

(j) In March 2007, Fluidigm Corporation, a California corporation, issued 100,000 shares of its common stock to one accredited investor at an issuance price of \$0.83 per share, for aggregate monetary consideration of \$83,000, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(k) In May 2007, Fluidigm Corporation, a California corporation, granted to seven of its employees and directors under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 767,000 shares of its common stock at an exercise price of \$1.36 per share.

(l) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 9,695,998 shares of common stock to a total of 128 stockholders in exchange for the outstanding shares of common stock Fluidigm Corporation, a California corporation.

(m) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 2,727,273 shares of the registrant's Series A Preferred Stock to a total of 41 investors in exchange for the outstanding shares of Series A Preferred Stock of Fluidigm Corporation, a California corporation.

(n) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 6,460,675 shares of the registrant's Series B Preferred Stock to a total of 35 investors in exchange for the outstanding shares of Series B Preferred Stock of Fluidigm Corporation, a California corporation.

(o) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 16,364,832 shares of the registrant's Series C Preferred Stock to a total of 62 investors in exchange for the outstanding shares of Series C Preferred Stock of Fluidigm Corporation, a California corporation.

(p) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 12,196,191 shares of the registrant's Series D Preferred Stock to a total of 52 investors in exchange for the outstanding shares of Series D Preferred Stock of Fluidigm Corporation, a California corporation.

(q) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 8,969,836 shares of the registrant's Series E Preferred Stock to a total of 35 investors in exchange for the outstanding shares of Series E Preferred Stock of Fluidigm Corporation, a California corporation.

(r) From October 2007 through December 2007, the registrant issued and sold an aggregate of 8,794,945 shares of Series E Preferred Stock to a total of seven investors at \$4.00 per share, for aggregate proceeds of \$35,179,780.

(s) In December 2007, the registrant issued 6,000 shares of its common stock to one accredited investor at an issuance price of \$1.36 per share for aggregate monetary consideration of \$8,160, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(t) In December 2007, the registrant granted to one of its directors under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 100,000 shares of the registrant's common stock at an exercise price of \$2.40 per share.

(u) In February 2008, the registrant issued a warrant to purchase 100,000 shares of the registrant's Series E Preferred Stock to one accredited investor at an exercise price of \$4.00 per share.

(v) In February 2008, the registrant granted to one of its executive officers under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 600,000 shares of the registrant's common stock at an exercise price of \$2.40 per share.

(w) In April 2008, the registrant granted to six of its employees and directors under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 1,090,000 shares of its common stock at an exercise price of \$3.19 per share.

(x) On May 12, 2008, the registrant issued 16,422 shares of its Series C Preferred Stock to Imperial Bank pursuant to Imperial Bank's net exercise of its warrant to purchase up to 41,284 shares of Series C Preferred Stock. The remainder of the warrant was cancelled pursuant to the terms of the net exercise.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering, and the registrant believes that each transaction was exempt from the registration requirements of the Securities Act in reliance on the following exemptions:

- with respect to the transactions described in paragraphs (a) and (b), Rule 701 promulgated under the Securities Act as transactions pursuant to a compensatory benefit plan approved by the registrant's Board of Directors;
- with respect to the transactions described in paragraphs (1) through (q), Rule 145(a)(2) promulgated under the Securities Act as transactions pursuant to a plan or agreement for statutory merger or similar plan or acquisition in which securities of the registrant were exchanged for the securities of Fluidigm Corporation, a California corporation, the sole purpose of which was to change the registrant's domicile solely within the United States, and a Permit granted pursuant to Section 25121 of the California Corporations Code; and
- with respect to the transactions described in paragraphs (c) through (k) and paragraphs (r) through (x), Section 4(2) of the Securities Act, or Rule 506 of Regulation D promulgated thereunder, as transactions by an issuer not involving a public offering. Each recipient of the securities in this transaction represented his or her intention to acquire the securities for investment only and not with a view to, or for resale in connection with, any distribution thereof, and appropriate legends were affixed to the share certificates issued in each such transaction. In each case, the recipient received adequate information about the registrant or had adequate access, through his or her relationship with the registrant, to information about the registrant.

Item 16. Exhibits and Financial Statement Schedules.

(a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference:

<u>Exhibit Number</u>	<u>Description</u>
1.1(1)	Form of Underwriting Agreement.
3.1(3)	Certificate of Incorporation of the Registrant, as currently in effect.
3.2(3)	Form of Restated Certificate of Incorporation of the Registrant, to be in effect upon the completion of this offering.
3.3(3)	Bylaws of the Registrant.
3.4(1)	Form of Amended and Restated Bylaws of the Registrant, to be in effect upon completion of this offering.
4.1(1)	Specimen Common Stock Certificate of the Registrant.

<u>Exhibit Number</u>	<u>Description</u>
4.2	Series E Preferred Stock Purchase Agreement dated June 13, 2006 through December 31, 2007 between the Registrant and the Purchasers set forth therein, as amended.
4.3(3)	Eighth Amended and Restated Investor Rights Agreement between the Registrant and certain holders of the Registrant's common stock named therein, including amendments No. 1 and No. 2.
4.4(2)	Loan and Security Agreement No. 4561 between the Registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005, including amendments Nos. 1 through 4.
4.4A(3)	Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective March 29, 2005.
4.4B(3)	Negative Pledge Agreement by and between the Registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005.
4.5(3)	Convertible Note Purchase Agreement by and between Biomedical Sciences Investment Fund Pte Ltd and the Registrant dated August 7, 2006.
4.5A(2)(3)	Convertible Promissory Note issued to Biomedical Sciences Investment Fund Pte Ltd dated April 19, 2007, as amended.
5.1(1)	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.1(3)	Form of Indemnification Agreement between the Registrant and its directors and officers.
10.2(3)	1999 Stock Plan of the Registrant, as amended April 24, 2008.
10.2A(3)	Forms of agreements under the 1999 Stock Plan.
10.3(1)	2008 Equity Incentive Plan.
10.3A(1)	Forms of agreements under the 2008 Equity Incentive Plan.
10.4(2)(3)	Second Amended and Restated License Agreement by and between California Institute of Technology and the Registrant effective as of May 1, 2004.
10.4A(2)(3)	First Addendum, effective as of March 29, 2007, to Second Amended and Restated License Agreement by and between California Institute of Technology and the Registrant effective as of May 1, 2004.
10.5(2)(3)	Co-Exclusive License Agreement between President and Fellows of Harvard College and the Registrant effective as of October 15, 2000.
10.5A(2)(3)	First Amendment to Co-Exclusive License Agreement between President and Fellows of Harvard College and the Registrant effective as of October 15, 2000.
10.6(2)	Co-Exclusive License Agreement between President and Fellows of Harvard College and the Registrant effective as of October 15, 2000.
10.7(2)(3)	Co-Exclusive License Agreement between President and Fellows of Harvard College and the Registrant effective as of October 15, 2000.
10.8(2)(3)	Patent License Agreement by and between Gyros AB and the Registrant dated January 9, 2003.
10.8A(2)(3)	Amendment No. 1 dated January 9, 2005 to Patent License Agreement by and between Gyros AB and the Registrant dated January 9, 2003.
10.9(2)	Master Closing Agreement by and between UAB Research Foundation, Oculus Pharmaceuticals, Inc. and the Registrant dated March 7, 2003.
10.9A(2)(3)	License Agreement by and between UAB Research Foundation and the Registrant dated March 7, 2003.
10.10(2)(3)	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated October 7, 2005), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.10A(2)(3)	Supplement Dated January 11, 2006 to Letter Agreement Relating to Application for Incentives under the Research Incentive Scheme for Companies (RISC), dated October 7, 2005 between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.11(2)(3)	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated February 12, 2007), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.

<u>Exhibit Number</u>	<u>Description</u>
10.12(2)(3)	Distribution Agreement by and between Eppendorf AG and the Registrant effective as of April 1, 2005.
10.13(3)	Form of Employment and Severance Agreement between the Registrant and each of its executive officers.
10.14(3)	Consulting Agreement by and between the Registrant and Richard DeLateur dated February 29, 2008.
10.15	Employee Loan Agreement with Gajus Worthington dated January 20, 2004.
10.15A(3)	Stock Repurchase Agreement between the Registrant and Gajus V. Worthington dated April 10, 2008.
10.16(3)	Offer Letter to Vikram Jog dated January 29, 2008.
10.17(3)	Settlement Agreement and General Release of all Claims by and between Michael Ybarra Lucero and the Registrant dated March 20, 2008.
10.18(2)(3)	Letter Agreement between President and Fellows of Harvard College and the Registrant dated December 22, 2004.
21.1(3)	List of subsidiaries of Registrant.
23.1(3)	Consent of Independent Registered Public Accounting Firm.
23.2(1)	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1(3)	Power of Attorney.

(1) To be filed by amendment.

(2) Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(3) Previously filed.

(b) *Financial Statement Schedules.*

All schedules have been omitted because the information required to be presented in them is not applicable or is shown in the consolidated financial statements or related notes.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to

the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) For the purpose of determining liability under the Securities Act of 1933 to any purchaser, if the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness; provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(4) For the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser to the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchasers and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

EXHIBIT INDEX

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3.3(3)	Bylaws of the Registrant.
3.4(1)	Form of Amended and Restated Bylaws of the Registrant, to be in effect upon completion of this offering.
4.1(1)	Specimen Common Stock Certificate of the Registrant.
4.2	Series E Preferred Stock Purchase Agreement dated June 13, 2006 through December 31, 2007 between the Registrant and the Purchasers set forth therein, as amended.
4.3(3)	Eighth Amended and Restated Investor Rights Agreement between the Registrant and certain holders of the Registrant's common stock named therein, including amendments No. 1 and No. 2.
4.4(2)	Loan and Security Agreement No. 4561 between the Registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005, including amendments Nos. 1 through 4.
4.4A(3)	Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective March 29, 2005.
4.4B(3)	Negative Pledge Agreement by and between the Registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005.
4.5(3)	Convertible Note Purchase Agreement by and between Biomedical Sciences Investment Fund Pte Ltd and the Registrant dated August 7, 2006.
4.5A(2)(3)	Convertible Promissory Note issued to Biomedical Sciences Investment Fund Pte Ltd dated April 19, 2007, as amended.
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10.8(2)(3)	Patent License Agreement by and between Gyros AB and the Registrant dated January 9, 2003.
10.8A(2)(3)	Amendment No. 1 dated January 9, 2005 to Patent License Agreement by and between Gyros AB and the Registrant dated January 9, 2003.

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10.9(2)	Master Closing Agreement by and between UAB Research Foundation, Oculus Pharmaceuticals, Inc. and the Registrant dated March 7, 2003.
10.9A(2)(3)	License Agreement by and between UAB Research Foundation and the Registrant dated March 7, 2003.
10.10(2)(3)	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated October 7, 2005), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.10A(2)(3)	Supplement Dated January 11, 2006 to Letter Agreement Relating to Application for Incentives under the Research Incentive Scheme for Companies (RISC), dated October 7, 2005 between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
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10.17(3)	Settlement Agreement and General Release of all Claims by and between Michael Ybarra Lucero and the Registrant dated March 20, 2008.
10.18(2)(3)	Letter Agreement between President and Fellows of Harvard College and the Registrant dated December 22, 2004.
21.1(3)	List of subsidiaries of Registrant.
23.1(3)	Consent of Independent Registered Public Accounting Firm.
23.2(1)	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1(3)	Power of Attorney.

(1) To be filed by amendment.

(2) Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(3) Previously filed.

FLUIDIGM CORPORATION
SERIES E PREFERRED STOCK PURCHASE AGREEMENT

First Closing: June 13, 2006
Second Closing: December 22, 2006
Third Closing: March 30, 2007
Fourth Extended Closing: October 10, 2007
Fifth Extended Closing: October 26, 2007
Sixth Extended Closing: December 31, 2007

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EXHIBITS

Exhibit A	Schedule of Purchasers
Exhibit B	Form of Amended and Restated Articles of Incorporation
Exhibit C	Schedule of Exceptions
Exhibit D	Form of Eighth Amended and Restated Investor Rights Agreement
Exhibit E	Form of Legal Opinion

SERIES E PREFERRED STOCK PURCHASE AGREEMENT

THIS SERIES E PREFERRED STOCK PURCHASE AGREEMENT is made as of June 13, 2006, by and among Fluidigm Corporation, a California corporation (the “**Company**”), and the purchasers listed on the Schedule of Purchasers attached hereto as EXHIBIT A (the “**Schedule of Purchasers**”). The persons or entities listed thereon are hereinafter referred to collectively as the “**Purchasers**” and individually as a “**Purchaser**.”

THE PARTIES HEREBY AGREE AS FOLLOWS:

1. Purchase and Sale of Preferred Stock.

1.1 Authorization of the Shares. The Company will on or before the Closing (as defined below) authorize the sale and issuance pursuant to this Agreement of up to 5,000,000 shares (the “**Shares**”) of its Series E Preferred Stock (the “**Series E Preferred**”), having the rights, preferences and privileges as set forth in the Amended and Restated Articles of Incorporation attached hereto as EXHIBIT B (the “**Restated Articles**”).

1.2 Purchase and Sale of the Shares. Subject to the terms and conditions hereof and in reliance upon the representations, warranties and agreements contained herein, the Company will issue and sell to each Purchaser, severally and not jointly, and each Purchaser will purchase from the Company, severally and not jointly, at the Closing, the number of Shares set forth opposite the Purchaser’s name on the Schedule of Purchasers, at a purchase price of Four Dollars (\$4.00) per Share. The Company shall be entitled to sell any unpurchased Shares to any Purchaser or to a person who is not a Purchaser and to amend the Schedule of Purchasers to include the information relating to such sales, and such purchasers shall be considered “Purchasers” and parties to this Agreement; provided that (i) such sales are made pursuant to this Agreement or an agreement identical to this one except for the Closing Date and exhibits, and (ii) such sales are completed within 120 days of the Initial Closing (as defined below). The Company’s agreement with each Purchaser is a separate agreement, and the sale of the Shares to each Purchaser is a separate sale.

1.3 Closing Date. The first closing of the purchase and sale of the Shares hereunder (the “**Initial Closing**”) shall be held at the offices of Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, California 94304 on June 13, 2006 (the “**Closing Date**”) or such other date as the Company and a majority-in-interest of the Purchasers may agree. Subject to Section 1.2 above, subsequent closings under this Agreement may be held from time to time after the Initial Closing at such time and place as the Company and the relevant Purchasers agree (“**Subsequent Closings**”). For the purposes of this Agreement, the term “**Closing**” and “**Closing Date**” unless otherwise indicated, refers to the closing or date of closing of the purchase and sale of the Shares with respect to a particular Purchaser or group of Purchasers, whether such closing occurs at the Initial Closing or at a Subsequent Closing.

1.4 Delivery. At Closing, the Company shall deliver to each Purchaser a certificate, in such denomination and registered in Purchaser’s name as set forth on the Schedule of Purchasers, representing the number of Shares which Purchaser is purchasing from the Company

against delivery to the Company of a check or wire transfer payable to the order of the Company in the amount of the purchase price of the Shares to be purchased by such Purchaser.

2. **Representations and Warranties of the Company.** The Company hereby represents and warrants to Purchaser that, except as set forth in the Schedule of Exceptions attached hereto as **EXHIBIT C** (the "**Schedule of Exceptions**"), which has been delivered to each Purchaser prior to Purchaser's execution hereof, each of the representations, warranties and statements contained in this Section 2 is true and correct as of the date of this Agreement and will be true and correct on and as of the Closing Date. For all purposes of this Agreement, the statements contained in the Schedule of Exceptions shall also be deemed to be representations and warranties made and given by Company under this Agreement.

2.1 **Organization, Good Standing and Qualification.** The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of California and has all requisite corporate power and authority to carry on its business as currently conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify, individually or in the aggregate, would have a material adverse effect on its business (as now conducted), properties, or financial condition.

2.2 **Corporate Power.** The Company will have at the Closing all requisite legal and corporate power and authority to (i) execute and deliver this Agreement; (ii) sell and issue the Shares hereunder; (iii) issue the Common Stock issuable upon conversion of the Shares (the "**Conversion Shares**"); and (iv) carry out and perform its obligations under the terms of this Agreement.

2.3 **Subsidiaries.** The Company does not presently own or control, directly or indirectly, any interest in any other corporation, association, or other business entity.

2.4 **Capitalization.** The authorized capital stock of the Company consists, or immediately prior to the Initial Closing will consist, of 77,857,144 shares of Common Stock ("**Common Stock**"), of which 9,274,356 shares are issued and outstanding immediately prior to the Initial Closing and 51,687,948 shares of Preferred Stock ("**Preferred Stock**"), 2,727,273 of which are designated Series A Preferred Stock of which 2,727,273 are outstanding immediately prior to the Initial Closing; 6,460,675 of which are designated Series B Preferred Stock of which 6,460,675 are outstanding immediately prior to the Initial Closing; 17,000,000 of which are designated Series C Preferred Stock, 16,364,832 of which are issued and outstanding immediately prior to the Initial Closing; and 15,500,000 of which are designated Series D Preferred Stock, 11,714,048 of which are issued and outstanding immediately prior to the Initial Closing; and 10,000,000 of which are designated Series E Preferred Stock, none of which will be outstanding immediately prior to the Initial Closing. All such issued and outstanding shares have been duly authorized and validly issued in compliance with applicable laws, and are fully paid and nonassessable.

The Company has reserved: (i) 5,000,000 shares of Series E Preferred for issuance hereunder and 5,000,000 shares of Common Stock for issuance upon conversion of such shares of Series E Preferred; (ii) 11,714,048 shares of Common Stock for issuance upon conversion of the outstanding

shares of Series D Preferred; (iii) 916,335 shares of Series D Preferred for issuance upon exercise of outstanding warrants and 916,335 shares of Common Stock for issuance upon conversion of such Series D Preferred; (iv) 16,364,832 shares of Common Stock for issuance upon conversion of the outstanding shares of Series C Preferred Stock; (v) 294,868 shares of Series C Preferred Stock for issuance upon exercise of outstanding warrants and 294,868 shares of Common Stock for issuance upon conversion of such Series C Preferred Stock; (vi) 6,460,675 shares of Common Stock for issuance upon conversion of the outstanding Series B Preferred Stock; (vii) 2,727,273 shares of Common Stock for issuance upon conversion of the outstanding Series A Preferred Stock; and (viii) an aggregate of 10,800,000 shares of Common Stock for issuance to employees and consultants of the Company pursuant to the Company's 1999 Stock Option Plan, pursuant to which options to purchase 5,597,763 shares are granted and outstanding and 1,554,643 shares are available for future grant. Other than with respect to the shares reserved for issuance in the preceding sentence, or as set forth in the Ancillary Agreements (as defined below), there are no outstanding rights, options, warrants, conversion rights, preemptive rights, rights of first refusal or similar rights for the purchase or acquisition from the Company of any securities of the Company. There are no outstanding obligations of the Company to repurchase or redeem any of its securities.

Except as contemplated in the Investor Rights Agreement (as defined below), the Company has not granted or agreed to grant any registration rights, including piggyback rights, to any person or entity. Except as contemplated in the Second Amended and Restated Voting Agreement dated as of August 16, 2005, the Company is not a party or subject to any agreement or understanding, and to the Company's knowledge, there is no agreement or understanding between any person or entities, which relates to the voting or the giving of written consents with respect to any security of the Company or by a director of the Company.

2.5 Authorization. All corporate action on the part of the Company, its officers, directors and shareholders necessary for the authorization, execution and delivery of this Agreement, the Eighth Amended and Restated Investor Rights Agreement in the form attached hereto as EXHIBIT D (the "**Investor Rights Agreement**"), the performance of all obligations of the Company under this Agreement and the Investor Rights Agreement (other than those registration obligations contained in Section 1 of the Investor Rights Agreement), and any other agreements to which the Company is a party, the execution and delivery of which is a contemplated hereby (the "**Ancillary Agreements**") and the authorization, issuance (or reservation for issuance), sale and delivery of the Shares and the Conversion Shares has been taken or will be taken prior to the Closing. This Agreement and the Investor Rights Agreement constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms, subject to: (i) judicial principles limiting the availability of specific performance, injunctive relief, and other equitable remedies; (ii) bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights; and (iii) limitations on the enforceability of the indemnification provisions of the Investor Rights Agreement.

2.6 Valid Issuance of Preferred and Common Stock. The Shares that are being purchased by the Purchasers hereunder, when issued, sold and delivered in accordance with the

terms of this Agreement for the consideration expressed herein, will be duly and validly issued, fully paid, and nonassessable, and will be free of restrictions on transfer other than restrictions on transfer under this Agreement and the Investor Rights Agreement and under applicable state and federal securities laws. The Conversion Shares have been duly and validly reserved for issuance, and, upon issuance in accordance with the terms of the Restated Articles, will be duly and validly issued, fully paid, and nonassessable and will be free of restrictions on transfer other than restrictions on transfer under this Agreement and the Investor Rights Agreement and under applicable state and federal securities laws. The Conversion Shares may be issued without any registration or qualification under state and federal securities laws as such laws are currently in effect.

2.7 Governmental Consents. No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority on the part of the Company is required in connection with the offer, sale or issuance of the Shares or the Conversion Shares or the consummation of any other transaction contemplated hereby, except for (a) the filing of the Restated Articles with the Secretary of State of the State of California prior to the Closing and (b) filings required pursuant to applicable federal and state securities laws and blue sky laws, which filings, the Company covenants to complete within the required statutory period.

2.8 Litigation. There is no action, suit, proceeding or investigation pending or, to the Company's knowledge, currently threatened against the Company before any court, administrative agency or other governmental body which questions the validity of this Agreement or the Investor Rights Agreement or the right of the Company to enter into any of them, or to consummate the transactions contemplated hereby or thereby, or which could result, either individually or in the aggregate, in any material adverse change in the condition (financial or otherwise), business, property, assets or liabilities of the Company, nor is the Company aware that there is any basis for the foregoing. The Company is not a party or subject to, and none of its assets is bound by, the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality. There is no action, suit, proceeding or investigation by or involving the Company currently pending or that the Company intends to initiate.

2.9 Employees. Each employee of the Company has executed a proprietary information and invention assignment agreement substantially in the form or forms made available to the Purchasers. To the Company's knowledge, no officer or key employee is in violation of any prior employee contract or proprietary information agreement. No employees of the Company are represented by any labor union or covered by any collective bargaining agreement. There is no pending or, to the Company's knowledge, threatened labor dispute involving the Company and any group of its employees. The Company is not aware that any officer or key employee intends to terminate his or her employment with the Company within the six months after Closing. The Company does not have a present intention to terminate the employment of any officer or key employee. Each officer and key employee is devoting 100% of his or her business time to the conduct of the business of the Company. The Company is not aware that any officer or key employee intends to work less than full time during the six months after Closing. Subject to general

principles related to wrongful termination of employees, the employment of each officer and employee of the Company is terminable at will.

2.10 Patents and Other Intangible Assets.

(a) The Company owns, or is licensed or otherwise has the legally enforceable right to use, all copyrights, domain names, maskworks, applications for the issuance or registration of any of the foregoing, trade secrets, confidential or proprietary know-how, data and information, ideas, inventions, designs, developments, algorithms, processes, schematics, techniques, computer programs, applications and other software, works of authorship, creative effort and, to the Company's knowledge after such investigation as the Company deemed reasonable, patents, patent applications, trademarks (including service marks and design marks) and applications therefor, tradenames (all of the foregoing generically, "**Intellectual Property Rights**") utilized in, or necessary for, its business as now conducted (collectively, the "**Company Intellectual Property**") without infringing upon the right of any person, corporation or other entity.

(b) Section 2.10 of the Schedule of Exceptions lists (i) all patents and patent applications and all registered and unregistered trademarks, trade names, copyrights and maskworks and registered domain names included in the Company Intellectual Property, including the jurisdictions in which each such intellectual property right has been issued or registered or in which any application for such issuance or registration has been filed, (ii) all licenses, sublicenses, collaborations and other agreements (or options for any of the foregoing) to which the Company is a party and pursuant to which any person, corporation or other entity is authorized to use any of the Company Intellectual Property, and (iii) all licenses, sublicenses, collaborations and other agreements (or options for any of the foregoing) to which the Company is a party and pursuant to which the Company is authorized to use any Intellectual Property Right of any third party (other than standard licenses for commercially available software). Each of the agreements in (ii) and (iii) above remain in full force and effect and, to the Company's knowledge, no party to any such agreement is in material breach or default under such agreement, and the Company is not aware of any act or failure to act by a party which would constitute a material breach or default under any such agreement, give rise to a right of the licensor to terminate any such agreement or otherwise result in termination of, or suspension or loss of exclusive rights under, any such agreement.

(c) To the Company's knowledge, the Company has not infringed or misappropriated any Intellectual Property Right of any other person, corporation or other entity. The Company has not received any communication or otherwise received any information alleging any such conduct by the Company or asserting a claim by any third party to the ownership of, or right to use, any of the Company Intellectual Property, and the Company does not know of any basis for any such claim. The Company is not aware of any action, suit, proceeding or investigation pending or currently threatened against the Company (or any third party owner or licensor of rights to the Company of any of the Company Intellectual Property) which would have a material impact on the Company's ownership of or exclusive or co-exclusive rights to use, the Company Intellectual Property.

(d) The Company is not aware that any of its employees is obligated under any agreement, or subject to any judgment, decree or order of any court or administrative agency, that would materially interfere with his or her ability to fully and freely perform their duties to the Company or that would conflict with the Company's business. To the Company's knowledge, neither the filing of the Restated Articles nor the execution and delivery of this Agreement or the Investor Rights Agreement, nor the carrying on of the Company's business by the employees of the Company, will conflict with or result in a material breach of the terms, conditions, or provisions of, or constitute a default under, any agreement under which any such employee is now obligated. The Company does not utilize, and will not be required to utilize, any invention, development or work of authorship of any of its employees (or persons it currently intends to hire) made prior to their employment by the Company.

(e) Except as described in Schedule 2.10, (i) the Company is not obligated, or under any liability whatsoever to make any payments by way of royalties, fees or otherwise, to any owner or licensor of, or other claimant to, any Company Intellectual Property, and (ii) the Company is not a party to any agreement concerning the Company Intellectual Property or any other Intellectual Property Right used or to be used by the Company in its business as conducted. No founder, director, officer or employee of the Company, or, to the Company's knowledge, no shareholder of the Company has any interest in the Company Intellectual Property.

(f) Except with respect to any rights granted under the agreements described in Schedule 2.10, the Company owns exclusively all rights arising from or associated with the research and development efforts of the Company, its founders, employees and independent contractors relating to the Company's business as now conducted, and all such rights form part of the Company Intellectual Property. The Company has secured valid written assignments from all employees and independent contractors who contributed to the creation or development of any of the Company Intellectual Property of the rights to such contributions that the Company does not already own by operation of law. The Company has not received notice of any claim being asserted by any current or former employee, independent contractor or other third party to the ownership, of or right to use, any of the Company Intellectual Property, or challenging or questioning the validity of any of the Company Intellectual Property, and the Company is not aware of any basis for any such claim.

(g) The Company has taken reasonable steps to protect and preserve the confidentiality of all material trade secrets included in Company Intellectual Property not otherwise protected by patents or copyright ("**Confidential Information**"). All disclosure of Confidential Information to a third party has been pursuant to the terms of a written confidentiality or non-disclosure agreement between the Company and such third party.

(h) The Company hereby represents and warrants that the data, written and oral reports and other representations and information that the Company provided to its investors (or their counsel) pertaining to the Company Intellectual Property, when taken as a whole, were truthful and, to the Company's knowledge, accurate in all material respects, and there was no omission therefrom which made such information misleading, or incomplete in any material way.

2.11 Compliance with Other Instruments. The Company is not in violation or default of any provision of its Articles of Incorporation or Bylaws, each as amended and in effect on and as of the Closing. The Company is not in violation or default of any material provision of any instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation to which it is a party or by which it or any of its properties or assets are bound or, to the best of its knowledge, of any provision of any federal, state or local statute, rule or governmental regulation. The execution, delivery and performance of and compliance with this Agreement and the Investor Rights Agreement, and the issuance and sale of the Shares, will not result in any such violation, be in conflict with or constitute, with or without the passage of time or giving of notice, a default under any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation; or require any consent or waiver under any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation (other than any consents or waivers that have been obtained); or result in the creation of any mortgage, pledge, lien, encumbrance or charge upon any of the properties or assets of the Company pursuant to any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation.

2.12 Permits. The Company has all franchises, permits, licenses, and any similar authority necessary for the conduct of its business as now being conducted by it. The Company is not in default in any material respect under any of such franchises, permits, licenses, or other similar authority.

2.13 Environmental and Safety Laws. To its knowledge, the Company is not in violation of any applicable statute, law, or regulation relating to the environment or occupational health and safety, and to its knowledge, no material expenditures by the Company are or will be required in order to comply with any such existing statute, law, or regulation.

2.14 Title to Property and Assets. The Company has good and marketable title to all of its properties and assets free and clear of all pledges, mortgages, liens security interests, charges and encumbrances, except liens for current taxes and assessments not yet due and possible minor liens and encumbrances which do not, in any case, individually or in the aggregate, materially detract from the value of the property subject thereto or materially impair the ownership or use of said property or assets, or the operations of the Company. With respect to the property and assets it leases, the Company is in compliance with such leases and, to the best of its knowledge, holds a valid leasehold interest free of all liens, claims or encumbrances. The Company's properties and assets are in good condition and repair in all material respects.

2.15 Agreements: Action.

(a) Except for agreements contemplated by this Agreement, there are no agreements, understandings or proposed transactions between the Company and any of its officers, directors, affiliates, or any affiliate thereof other than standard option grants and stock purchase agreements entered into prior to the date of this Agreement.

(b) There are no agreements, understandings, instruments, contracts, proposed transactions, judgments, orders, writs or decrees to which the Company is a party or by which it is bound that may involve (i) obligations (contingent or otherwise) of, or payments by the Company in excess of, \$100,000, other than in the ordinary course of business, (ii) the license of any patent, copyright, trade secret or other proprietary right to or from the Company other than standard commercial software licenses, (iii) provisions restricting or adversely affecting the development, manufacture or distribution of the Company's products or services, or (iv) indemnification by the Company with respect to infringements of proprietary rights other than indemnifications entered into in the ordinary course of business.

(c) For the purposes of subsection (b) above, all indebtedness, liabilities, agreements, understandings, instruments, contracts and proposed transactions involving the same person or entity (including persons or entities the Company has reason to believe are affiliated therewith) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsection.

(d) The Company is not a party to and is not bound by any contract, agreement or instrument, or subject to any restriction under its Restated Articles or its Bylaws that adversely affects its business as now conducted, its properties or its financial condition.

(e) The Company is not a guarantor or indemnitor of any indebtedness of any other person or entity.

(f) The Company has not engaged in the past three months in any discussion (i) with any representative of any entity or entities regarding the merger of the Company with or into any such entity or entities or any affiliate thereof, (ii) with any representative of any entity or any individual regarding the sale, conveyance or disposition of all or substantially all of the assets of the Company or a transaction or series of related transactions in which more than fifty percent (50%) of the voting power of the Company would be disposed of, or (iii) regarding any other form of liquidation, dissolution or winding up of the Company.

2.16 Financial Statements. The Company has made available to each Purchaser its unaudited balance sheet dated as of December 31, 2005 and the unaudited statement of operations for the fiscal year then ended, its unaudited balance sheet as of March 31, 2006, and its unaudited statement of operations and cash flow statement covering the three month period then ended (collectively, the "**Financial Statements**"). The Financial Statements are complete and correct in all material respects and have been prepared in accordance with generally accepted accounting principles applied on a consistent basis throughout the periods indicated. The Financial Statements accurately set out and describe the financial condition and operating results of the Company as of the date, and during the periods, indicated therein. Except as set forth in the Financial Statements, the Company has no material liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to March 31, 2006 and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in the Financial Statements, which, in both cases, individually or in the aggregate are not material to the financial condition or operating results of the Company.

2.17 Changes. Since March 31 2006:

(a) the Company has not (i) declared or paid any dividends or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or any other liabilities outside the ordinary course of its business individually in excess of \$100,000 or, in the case of indebtedness and/or liabilities individually less than \$100,000, in excess of \$200,000 in the aggregate, (iii) made any loans or advances to any person, other than ordinary advances for reimbursable businesses expenses, (iv) sold, exchanged, assigned, transferred, licensed or otherwise disposed of any of its assets or rights (including Company Intellectual Property), other than the sale of its inventory in the ordinary course of business, (v) waived or compromised a valuable right or a material debt owed to it, (vi) materially changed any compensation arrangement or agreement with any employee, officer, director or shareholder, or (vii) arranged or committed to do any of the things described in this subsection (a); and

(b) there has not been (i) a loss of, or a material order cancellation by, any major customer of the Company, (ii) any damage, destruction or loss, whether or not covered by insurance, materially and adversely affecting the business, properties, or financial condition of the Company, (iii) any change in the assets, liabilities, financial condition or operating results of the Company from that reflected in the Financial Statements, except changes in the ordinary course of business that have not been, in the aggregate, materially adverse, (iv) any resignation or termination of any officer or key employee of the Company, and the Company is not aware of the impending resignation or termination of employment of any such officer, or (v) to the best of the Company's knowledge, any other event or condition of any character that would materially and adversely affect the business, properties, or financial condition of the Company.

2.18 Brokers or Finders. The Company has not agreed to incur, directly or indirectly, any liability for brokerage or finders' fees, agents' commissions or other similar charges in connection with this Agreement or any of the transactions contemplated hereby.

2.19 Qualified Small Business Stock.

(a) As of and immediately following the Closing, the Shares will meet each of the requirements for qualification as "qualified small business stock" set forth in Section 1202(c) of the Internal Revenue Code of 1986, as amended (the "**Code**"), including without limitation the following: (i) the Company will be a domestic C corporation, (ii) the Company will not have made any purchases of its own stock described in Code Section 1202(c)(3)(B) during the one-year period preceding the Closing, and (iii) the Company's (and any predecessor's) aggregate gross assets, as defined by Code Section 1202(d)(2), at no time from the date of incorporation of the Company and through the Closing have exceeded or will exceed \$50 million, taking into account the assets of any corporations required to be aggregated with the Company in accordance with Code Section 1202(d)(3).

(b) As of the Closing, at least 80% (by value) of the assets of the Company are used by it in the active conduct of one or more qualified trades or businesses, as defined by Code

Section 1202(e)(3), and the Company is an eligible corporation, as defined by Code Section 1202(e)(4).

2.20 Employee Benefit Plans. The Company does not have any Employee Benefit Plan as defined in the Employee Retirement Income Security Act of 1974 other than the Company's 401(k) Plan. The Company is in material compliance with the terms of the Company's 401(k) Plan and has not received notice of any material increase in the costs of such plans.

2.21 Tax Matters. The Company has filed all tax returns and reports as required by law. These returns and reports are true and correct in all material respects. The Company has paid all taxes and other assessments due. The Company has not elected pursuant to the Code, to be treated as a Subchapter S corporation or a collapsible corporation pursuant to Section 1362(a) or Section 341(f) of the Code, nor has it made any other elections pursuant to the Code (other than elections that relate solely to methods of accounting, depreciation or amortization) that would have a material effect on the business, properties or condition (financial or otherwise) of the Company. None of the Company's tax returns have ever been audited by any governmental authorities. The Company has withheld or collected from each payment made to its employees the amount of all taxes (including without limitation, federal income taxes, Federal Insurance Contribution Act taxes and Federal Unemployment Tax Act taxes) required to be withheld or collected therefrom, and has paid the same to the proper tax receiving officers or authorized depositories.

2.22 Insurance. The Company has in full force and effect fire and casualty insurance policies, with extended coverage, sufficient in amount (subject to reasonable deductibles) to allow it to replace any of its properties that might be damaged or destroyed. The Company has obtained term life insurance payable to the Company on the lives of Stephen Quake and Gajus Worthington in the amount of \$500,000. The Company has in full force and effect directors and officers liability insurance, covering all of its directors, with aggregate coverage in the amount of \$2,000,000.

2.23 Corporate Documents. The Restated Articles and Bylaws of the Company are in the form made available to the Purchasers. The copy of the minute books of the Company made available to the Purchasers' counsel contains true and correct minutes of all meetings of directors (including any committees thereof) and shareholders and all actions by written consent taken without a meeting by the directors and shareholders since December 18, 2003.

2.24 Disclosure. The Company has fully provided each Purchaser with all the information which such Purchaser has requested in connection with the purchase of the Shares hereunder, as well as all information which the Company in its judgment believes is reasonably necessary to enable such Purchaser to make a decision as to whether to invest in the Company. Neither this Agreement with the Exhibits hereto, nor any other statements, certificates or documents made or delivered in connection herewith or therewith, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading in light of the circumstances under which they were made. The financial projections made available to the Purchasers (the "**Projections**") were prepared in good faith and based upon assumptions that the Company believes are reasonable, and represent the Company's good faith

estimate of its future plans and results; provided however that the Company does not represent or warrant that it will achieve any of the Projections.

2.25 Offering. Subject in part to the truth and accuracy of each Purchaser's representations set forth in this Agreement, the offer, sale and issuance of the Shares as contemplated by this Agreement is exempt from the registration requirements of the Securities Act of 1933, as amended (the "**Securities Act**"), and from the registration or qualification requirements of applicable state securities laws or blue sky laws, and neither the Company nor any authorized agent acting on its behalf will take any action hereafter that would cause the loss of such exemption.

2.26 Returns and Complaints. The Company has not received customer complaints concerning alleged defects in the design of its products that, if true, would have, individually or in the aggregate, a material adverse effect on its business, properties, or financial condition.

3. Representations and Warranties of the Purchasers. Each Purchaser, individually and not jointly, hereby represents and warrants as of the Closing Date that:

3.1 Experience. Such Purchaser is experienced in evaluating start-up companies such as the Company, is able to evaluate and represent its own interests in transactions such as the one contemplated by this Agreement, has such knowledge and experience in financial and business matters such that Purchaser is capable of evaluating the merits and risks of Purchaser's prospective investment in the Company, and has the ability to bear the economic risks of its investment.

3.2 Investment. Such Purchaser is acquiring the Shares, and the Conversion Shares, for investment for such Purchaser's own account and not with the view to, or for resale in connection with, any distribution thereof. Such Purchaser understands that the Shares, and the Conversion Shares have not been registered under the Securities Act by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent as expressed herein. Such Purchaser further represents that it does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer or grant participation to any third person with respect to any of the Shares, or the Conversion Shares, other than a transfer not involving a change of beneficial ownership. Such Purchaser understands and acknowledges that the offering of the Shares pursuant to this Agreement will not be registered under the Securities Act on the ground that the sale provided for in this Agreement is exempt from the registration requirements of the Securities Act.

3.3 Rule 144. Such Purchaser acknowledges that the Shares and the Conversion Shares must be held indefinitely unless subsequently registered under the Securities Act or an exemption from such registration is available. Such Purchaser is aware of the provisions of Rule 144 promulgated under the Securities Act which permit limited resale of shares purchased in a private placement subject to the satisfaction of certain conditions. Such Purchaser covenants that, in the absence of an effective registration statement covering the stock in question, such Purchaser will sell, transfer, or otherwise dispose of the Shares or the Conversion Shares only in a manner consistent with applicable securities laws and such Purchaser's representations and covenants set forth in this Section 3. In connection therewith, such Purchaser acknowledges that the Company

will make a notation on its stock books regarding the restrictions on transfers set forth in this Section 3 and will transfer securities on the books of the Company only to the extent not inconsistent therewith.

3.4 Legends. Purchaser understands and acknowledges that the certificate evidencing its Shares and the Conversion Shares will be imprinted with legends in the form set forth in Section 1.3 of the Investor Rights Agreement.

3.5 No Public Market. Such Purchaser understands that no public market now exists for any of the securities issued by the Company, and that the Company has made no assurances that a public market will ever exist for the Shares or the Conversion Shares.

3.6 Access to Data. Such Purchaser has received and reviewed information about the Company and has had an opportunity to discuss the Company's business, management and financial affairs with its management and to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Purchasers to rely thereon.

3.7 Authorization. This Agreement when executed and delivered by such Purchaser will constitute a valid and legally binding obligation of the Purchaser, enforceable against the Purchaser in accordance with its terms, subject to: (i) judicial principles respecting election of remedies or limiting the availability of specific performance, injunctive relief, and other equitable remedies; (ii) bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights; and (iii) limitations on the enforceability of the indemnification provisions of the Investor Rights Agreement.

3.8 Accredited Investor. Such Purchaser acknowledges that it is an "accredited investor" as defined in Rule 501 of Regulation D as promulgated by the Securities and Exchange Commission under the Securities Act and shall submit to the Company such further assurances of such status as may be reasonably requested by the Company. The principal address of such Purchaser is as set forth on the Schedule of Purchasers.

3.9 Public Solicitation. Purchaser knows of no public solicitation or advertisement of an offer in connection with the proposed issuance and sale of the Shares.

3.10 Tax Advisors. Purchaser has reviewed with Purchaser's own tax advisors the federal, state and local tax consequences of this investment, where applicable, and the transactions contemplated by this Agreement. Each Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents and understands that each Purchaser (and not the Company) shall be responsible for the Purchaser's own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

3.11 Purchaser Counsel. Purchaser acknowledges that it has had the opportunity to review this Agreement, the exhibits and the schedules attached hereto and the transactions contemplated by this Agreement with Purchaser's own legal counsel. Each Purchaser is relying

solely on such counsel and not on any statements or representations of the Company or any of its agents for legal advice with respect to this investment or the transactions contemplated by this Agreement.

3.12 Brokers or Finders. The Company has not incurred and will not incur, directly or indirectly, as a result of any action taken by such Purchaser, any liability for brokerage or finders' fees or agents' commissions or any similar changes in connection with this Agreement.

3.13 Non-United States Persons. If Purchaser is not a United States person, such Purchaser hereby represents that such Purchaser is satisfied as to the full observance of the laws of such Purchaser's jurisdiction in connection with any invitation to subscribe for the Shares and the Conversion Shares or any use of this Agreement, the Investor Rights Agreement and the Voting Agreement, including (i) the legal requirements within such Purchaser's jurisdiction for the purchase of Shares and the Conversion Shares, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of such securities. Such Purchaser's subscription and payment for, and such Purchaser's continued beneficial ownership of, the Shares and the Conversion Shares will not violate any applicable securities or other laws of such Purchaser's jurisdiction.

4. Conditions of Purchaser's Obligations at Closing. The obligations of each Purchaser under this Agreement are subject to the fulfillment on or before the Closing of each of the following conditions, the waiver of which shall not be effective against any Purchaser who does not consent in writing thereto:

4.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the date of the Closing.

4.2 Performance. The Company shall have performed and complied with all agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by it on or before the Closing.

4.3 Compliance Certificate. The President of the Company shall deliver to each Purchaser at the Closing a certificate stating that the conditions specified in Sections 4.1 and 4.2 have been fulfilled and stating that as of the Closing there shall have been no adverse change in the business, affairs, operations, properties, assets or condition of the Company.

4.4 Blue Sky. The Company shall have obtained all necessary permits and qualifications, if any, or secured an exemption therefrom, required by any state or country prior to the offer and sale of the Shares.

4.5 Opinion of Company Counsel. Each Purchaser in the Initial Closing shall have received from Wilson Sonsini Goodrich & Rosati, Professional Corporation, counsel for the Company, an opinion, dated as of the Initial Closing, in the form attached hereto as EXHIBIT E.

4.6 Investor Rights Agreement. The Company and each Purchaser shall have entered into the Investor Rights Agreement.

4.7 Restated Articles. The Restated Articles shall have been accepted for filing by the California Secretary of State and shall be in full force and effect as of the Closing Date.

4.8 Corporate Proceedings, Waivers and Consents. All corporate and other proceedings to be taken and all waivers, consents and permits necessary or appropriate for the consummation of the transactions contemplated by this Agreement will have been taken or obtained.

5. Conditions of the Company's Obligations at Closing. The obligations of the Company to each Purchaser under this Agreement are subject to the fulfillment on or before the Closing of each of the following conditions by that Purchaser:

5.1 Representations and Warranties. The representations and warranties of the Purchasers contained in Section 3 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the Closing.

5.2 Payment of Purchase Price. Each Purchaser shall have delivered the purchase price against delivery of the Shares as set forth in Section 1.4 by the Company to such Purchaser.

5.3 Blue Sky. The Company shall have obtained all necessary permits and qualifications, if any, or secured an exemption therefrom, required by any state or country for the offer and sale of the Shares.

5.4 Investor Rights Agreements. The Company and each Purchaser shall have entered into the Investor Rights Agreement.

5.5 Restated Articles. The Restated Articles shall have been accepted for filing by the California Secretary of State and shall be in full force and effect as of the Closing Date.

5.6 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing hereby, and all documents and instruments incident to these transactions, shall be reasonably satisfactory in substance to the Company and its counsel.

6. Miscellaneous.

6.1 Governing Law; Jurisdiction. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed in all respects by the laws of the State of California, without regard to any provisions thereof relating to conflicts of laws among different jurisdictions. The parties hereto agree to submit to the exclusive jurisdiction of the federal and state courts of San Mateo County, California with respect to the breach or interpretation of this Agreement or the enforcement of any and all rights, duties, liabilities, obligations, powers, and other relations between the parties arising under this Agreement.

6.2 Indemnification. The Company shall indemnify, defend and hold each Purchaser harmless against all liability, loss or damage (collectively, “Losses” and individually, a “Loss”) arising from any litigation, proceeding or dispute arising from such Purchaser’s status as a shareholder of the Company other than Losses arising from such Purchaser’s gross negligence or willful misconduct, provided that such indemnification shall apply only to litigation, proceedings or disputes arising prior to the Company’s Initial Public Offering (as defined in the Investor Rights Agreement) and the Company’s obligation to indemnify any Purchaser shall be limited in amount to the amount paid by such Purchaser for the purchase of such Purchaser’s Shares as set forth on EXHIBIT A. The foregoing indemnity is not intended to supercede or replace the indemnification obligations of the parties set forth in Section 1.10 of the Investor Rights Agreement nor shall it be construed to limit any other rights and remedies of the Purchasers under this Agreement or any other indemnification to which such Purchaser may be entitled under any other agreement of the Company. The foregoing indemnification rights are transferable only to Affiliates (as defined in the Investor Rights Agreement) of a Purchaser.

6.3 Survival. The representations, warranties, covenants and agreements made herein shall survive any investigation made by any Purchaser or the Company and the Closing of the transactions contemplated hereby; provided, however, that such representations and warranties are only made as of the date of such execution and delivery and as of such Closing.

6.4 Successors and Assigns. Except as otherwise provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto; provided, however, that the rights of a Purchaser to purchase Shares at the Closing shall not be assignable without the consent of the Company.

6.5 Entire Agreement; Amendment. This Agreement and the other documents delivered pursuant hereto constitute the full and entire understanding and agreement among the parties with regard to the subjects hereof and thereof relating to the purchase of the Shares. Neither this Agreement nor any term hereof may be amended, waived, discharged or terminated other than by a written instrument signed by the Company and the holder or holders of greater than fifty percent (50%) of the then-outstanding Shares or the Conversion Shares. Notwithstanding the foregoing, any additional purchaser pursuant to Section 1.2 may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and such purchaser shall be deemed a Purchaser hereunder. The parties agree that the Schedule of Purchasers attached hereto as Exhibit A shall be updated automatically without any formal amendment to reflect the addition of any such additional Purchaser. Any amendment or waiver effected in accordance with this Section 6.5 shall be binding upon the Purchasers and each transferee of the Shares (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company.

6.6 Notices, Etc. All notices and other communications required or permitted hereunder, shall be in writing and shall be personally delivered, sent by facsimile, mailed by registered or certified mail, postage prepaid, return receipt requested, or delivered by a nationally recognized overnight courier, addressed (a) if to a Purchaser, at such Purchaser’s address or

facsimile number set forth on the Schedule of Purchasers, or at such other address or facsimile number as such Purchaser shall have furnished to the Company in writing, or (b) if to the Company, at its address or facsimile number set forth on the signature page to this Agreement addressed to the attention of the Corporate Secretary, or at such other address or facsimile number as the Company shall have furnished to the Purchasers. Any such notice or communication shall be deemed to have been received (A) in the case of personal delivery or delivery by telecopier, on the date of such delivery, (B) in the case of a commercial overnight courier, on the next business day after the date when sent and (C) in the case of mailing, on the fifth business day following that on which the piece of mail containing such communication is posted.

6.7 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any holder of any Shares upon any breach or default of the Company under this Agreement shall impair any such right, power or remedy of such holder, nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any holder of any breach or default under this Agreement, or any waiver on the part of any holder of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing or as provided in this Agreement. All remedies, either under this Agreement or by law or otherwise afforded to any holder, shall be cumulative and not alternative.

6.8 California Corporate Securities Law. THE SALE OF THE SECURITIES WHICH ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF SUCH SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO SUCH QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM THE QUALIFICATION BY SECTION 25100, 25102, OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON SUCH QUALIFICATION BEING OBTAINED, UNLESS THE SALE IS SO EXEMPT.

6.9 Finder's Fee. The Company and each Purchaser shall each indemnify and hold the other harmless from any liability for any commission or compensation in the nature of a finder's fee (including the costs, expenses and legal fees of defending against such liability) for which the Company or the Purchasers, or any of their respective partners, employees, or representatives, as the case may be, is responsible.

6.10 Expenses. The Company and each Purchaser shall bear its own expenses and legal fees incurred on its behalf with respect to this Agreement and the transactions contemplated hereby.

6.11 Waiver of Conflict. Each of the Purchasers and the Company acknowledges that Wilson Sonsini Goodrich & Rosati, Professional Corporation ("WSGR") may have represented and may currently represent Purchasers. In the course of such representation, WSGR may have

come into possession of confidential information relating to such Purchasers. Each of the Purchasers and the Company acknowledges that WSGR is representing only the Company in this transaction. Pursuant to Rule 3-310 of the Rules of Professional Conduct promulgated by the State Bar of California, an attorney must avoid representations in which the attorney has or had a relationship with another party interested in the representation without the informed written consent of all parties affected. By executing this Agreement, each of the Purchasers and the Company hereby waives any actual or potential conflict of interest that may arise in this financing as a result of WSGR's representation of such persons or entities, WSGR's possession of such confidential information and the participation by WSGR's affiliate in the financing. Each of the Purchasers and the Company represents that it has had the opportunity to consult with independent counsel concerning the giving of this waiver.

6.12 Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision; provided that no such severability shall be effective if it materially changes the economic benefit of this Agreement to any party.

6.13 Counterparts; Facsimile. This Agreement may be executed in any number of counterparts, each of which may be executed by less than all Purchasers, each of which shall be enforceable against the parties actually executing such counterparts, and all of which together shall constitute one instrument. This Agreement may be executed by facsimile signature.

6.14 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.15 Exculpation Among Purchasers. Each Purchaser acknowledges that it is not relying upon any person, firm or corporation (including without limitation any other Purchaser), other than the Company and its officers and directors (acting in their capacity as representatives of the Company), in deciding to invest and in making its investment in the Company. Each Purchaser agrees that no other Purchaser nor the respective controlling persons, officers, directors, partners, agents or employees of any other Purchaser shall be liable to such Purchaser for any losses incurred by such Purchaser in connection with its investment in the Company.

6.16 Like Treatment of Holders. The Company shall not directly or indirectly pay or cause to be paid any consideration, whether by way of interest, fee, payment for the redemption or exchange of Preferred Stock, or otherwise to any holder of Preferred Stock for or as inducement to, any consent, waiver or amendment of any term or provision of the Preferred Stock, this Agreement or the Investor Rights Agreement unless equivalent consideration is offered on equivalent terms and conditions to all Purchasers of Preferred Stock under this Agreement bound by such consent, waiver or amendment.

6.17 Jury Trial. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING (WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATED TO THIS AGREEMENT.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington
Gajus Worthington
President and Chief Executive Officer

7100 Shoreline Court
South San Francisco, CA 94080
FAX: (650) 871-7195

[FLUIDIGM CORPORATION SERIES E PREFERRED STOCK PURCHASE AGREEMENT]

PURCHASER:

ALLIANCEBERNSTEIN L.P.

By: /s/ Adam Spilka

Name: Adam Spilka

Title: SVP, Counsel, Secretary

[FLUIDIGM CORPORATION SERIES E PREFERRED STOCK PURCHASE AGREEMENT]

EXHIBIT A
SCHEDULE OF PURCHASERS

<u>Name and Address</u>	<u>Shares of Series E</u>	<u>Purchase Price</u>
AllianceBernstein L.P.	1,250,000	\$ 5,000,000.00
TOTALS	1,250,000	\$ 5,000,000.00

FLUIDIGM CORPORATION
AMENDMENT NO. 1 TO
SERIES E PREFERRED STOCK PURCHASE AGREEMENT

This Amendment No. 1 (the "**Amendment**") to that certain Series E Preferred Stock Purchase Agreement, dated as of June 13, 2006 (the "**Purchase Agreement**"), is made and entered into effective as of December 22, 2006 (the "**Effective Date**") by and among Fluidigm Corporation, a California corporation (the "**Company**"), and the Purchasers named therein. Capitalized terms used in this Amendment that are not otherwise defined herein shall have the respective meanings assigned to them in the Purchase Agreement.

RECITALS

WHEREAS, the Company previously sold and issued an aggregate of 1,250,000 shares of Series E Preferred Stock of the Company (the "**Series E Preferred**") pursuant to the terms of the Purchase Agreement at the Initial Closing held on June 13, 2006;

WHEREAS, the Company and the Purchaser now desire to amend the terms of the Purchase Agreement to provide that the Company may sell and issue additional shares of Series E Preferred pursuant to the Purchase Agreement, at one or more additional Subsequent Closings, provided that any such additional Subsequent Closings shall take place no later than March 31, 2007.

WHEREAS, pursuant to Section 6.5 of the Purchase Agreement, the terms of the Purchase Agreement may be amended upon the written consent of the Company and the holder or holders of greater than fifty percent (50%) of the outstanding Shares or the Conversion Shares; and

WHEREAS, the Purchaser who has signed below holds greater than fifty percent (50%) of the outstanding Shares purchased under the Purchase Agreement as of the Effective Date and consents to the changes as set forth in this Amendment.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto mutually agree as follows:

AGREEMENT

1. Amendment to Section 1.1. Section 1.1 (Authorization of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"1.1 Authorization of the Shares. The Company will on or before the Closing (as defined below) authorize the sale and issuance pursuant to this Agreement of up to 6,318,333 shares (the "**Shares**") of its

Series E Preferred Stock (the "**Series E Preferred**"), having the rights, preferences and privileges as set forth in the Amended and Restated Articles of Incorporation attached hereto as EXHIBIT B (the "**Restated Articles**")."

2. **Amendment to Section 1.2.** Section 1.2 (Purchase and Sale of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"1.2 **Purchase and Sale of the Shares.** Subject to the terms and conditions hereof and in reliance upon the representations, warranties and agreements contained herein, the Company will issue and sell to each Purchaser, severally and not jointly, and each Purchaser will purchase from the Company, severally and not jointly, at the Closing, the number of Shares set forth opposite the Purchaser's name on the Schedule of Purchasers, at a purchase price of Four Dollars (\$4.00) per Share. The Company shall be entitled to sell any unpurchased Shares to any Purchaser or to a person who is not a Purchaser and to amend the Schedule of Purchasers to include the information relating to such sales, and such purchasers shall be considered "Purchasers" and parties to this Agreement; provided that (i) such sales are made pursuant to this Agreement or an agreement identical to this one except for the Closing Date and exhibits, and (ii) such sales are completed on or prior to March 31, 2007. The Company's agreement with each Purchaser is a separate agreement, and the sale of the Shares to each Purchaser is a separate sale."

3. **Governing Law.** This Amendment shall be governed in all respects by the laws of the State of California, without regard to any provisions thereof relating to conflicts of laws among different jurisdictions.

4. **Purchase Agreement.** Wherever necessary, all other terms of the Purchase Agreement are hereby amended to be consistent with the terms of this Amendment. Except as specifically set forth herein, the Purchase Agreement shall remain in full force and effect.

5. **Counterparts; Facsimile.** This Amendment may be executed in any number of counterparts, each of which shall be an original, and all of which together shall constitute one instrument. Executed signatures transmitted via facsimile will be accepted and considered duly executed.

6. **Effect of Execution of Amendment by Certain Purchaser.** This Amendment, when executed and delivered by the Company and a Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof, shall also constitute and shall be deemed a counterpart signature page to the Purchase Agreement. Consequently, each undersigned Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof acknowledges and agrees that he, she or it is bound by the terms and

conditions contained in the Purchase Agreement, as amended by this Amendment, with respect to the purchase of such shares.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

COMPANY:

FLUIDIGM CORPORATION
a California corporation

By: /s/ Gajus Worthington
Gajus Worthington,
President and Chief Executive Officer

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

CROSS CREEK CAPITAL, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

CROSS CREEK CAPITAL EMPLOYEES' FUND, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

WASATCH FUNDS, INC.
Wasatch Small Cap Growth Fund

By: Wasatch Advisors, Inc.
Its: Investment Adviser

By: /s/ Dan Thurber
Name: Dan Thurber
Title: Vice President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

SMALLCAP WORLD FUND, INC.

**By: Capital Research and Management Company,
its, investment adviser**

By: /s/ Michael Downer

Name: Michael Downer

Title: _____

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

By: AllianceBernstein ESG Venture Management, L.P., its general partner

By: AllianceBernstein Global Derivatives Corporation, its general partner

By: /s/ James D. Kiggen

Name: James D. Kiggen

Title: Senior Vice President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

VERSANT AFFILIATES FUND 1-A, L.P.

VERSANT AFFILIATES FUND 1-B, L.P.

VERSANT SIDE FUND I, L.P.

VERSANT VENTURE CAPITAL I, L.P.

By: Versant Ventures I, LLC
its General Partner

By: /s/ Samuel D. Colella

Name: Samuel D. Colella

Title: Managing Director

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

LEHMAN BROTHERS HEALTHCARE VENTURE CAPITAL L.P.

By: Lehman Brothers HealthCare Venture Capital Associates L.P.,
its General Partner
By: LB I Group Inc., its General Partner

By: /s/ Michael Odrich
Name: Michael Odrich
Its: Senior Vice President

LEHMAN BROTHERS P.A. LLC

By: /s/ Michael Odrich
Name: Michael Odrich
Its: Senior Vice President

**LEHMAN BROTHERS PARTNERSHIP ACCOUNT
2000/2001, L.P.**

By: LB I Group Inc., its General Partner

By: /s/ Michael Odrich
Name: Michael Odrich
Its: Senior Vice President

LEHMAN BROTHERS OFFSHORE PARTNERSHIP ACCOUNT 2000/2001, L.P.

By: LB I Offshore Partners Group Ltd., its General Partner

By: /s/ Michael Odrich
Name: Michael Odrich
Its: Senior Vice President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

EUCLIDSR PARTNERS, L.P.

By: EuclidSR Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones _____

Name: Elaine V. Jones

Title: General Partner

EUCLIDSR BIOTECHNOLOGY PARTNERS, L.P.

By: EuclidSR Biotechnology Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones _____

Name: Elaine V. Jones

Title: General Partner

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

INTERWEST PARTNERS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney _____

Name: Michael Sweeney

Title: As agent for the general partner

INTERWEST INVESTORS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney _____

Name: Michael Sweeney

Title: As agent for the general partner

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

LILLY BIOVENTURES, ELI LILLY & COMPANY

By: /s/ Thomas W. Grein

Name: Thomas W. Grein

Title: Vice President and Treasurer

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

ALLOY VENTURES 2005, L.P.

By: Alloy Ventures 2005, LLC
its General Partner

By: /s/ Tony DiBona

Name: Toni DiBona

Title: Managing Member of Alloy Ventures 2005 LLC

ALLOY VENTURES 2002, L.P.

ALLOY PARTNERS 2002, L.P.

By: Alloy Ventures 2002, LLC
its General Partner

By: /s/ Tony DiBona

Name: Tony DiBona

Title: Managing Member of Alloy Ventures 2002, L.L.C. the general partner of
Alloy Partners 2002, L.P. and Alloy Ventures 2002, L.P.

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

SIGHTLINE HEALTHCARE FUND III, L.P.

By: /s/ Kenneth E. Higgins

Name: Kenneth E. Higgins

Title: Managing Director of Sightline Partners LLC, general partner of its general partner

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

/s/ BRUCE BURROWS
BRUCE BURROWS

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ John M. Harland
JOHN M. HARLAND

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

FERGUSON/EGAN FAMILY TRUST DATED 6/28/99

By: /s/ Rodney A. Ferguson

Name: Rodney A. Ferguson

Title: Trustee

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

HEALTH CARE ADMINISTRATION COMPANY

By: /s/ Gary L. Bowers

Name: Gary L. Bowers

Title: President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

THE CONDON FAMILY TRUST

By: /s/ Thomas J. Condon

Name: Thomas J. Condon

Title: Trustee

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

IN-Q-TEL, INC.

By: /s/ Scott G. Yancey

Name: Scott G. Yancey

Title: Executive Vice President

IN-Q-TEL EMPLOYEE FUND, LLC

By: /s/ Scott G. Yancey

Name: Scott G. Yancey

Title: EVP of In-Q-Tel, Inc., the manager of the fund

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

THE V FOUNDATION FOR CANCER RESEARCH

By: /s/ Nicholas Valvano

Name: Nicholas Valvano

Title: Chief Executive Officer

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ Fredrick H. Stern

FREDRICK H. STERN

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ Alfred J. Mandel

ALFRED J. MANDEL

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ Pauline E. van Ysendoorn

PAULINE E. VAN YSENDOORN

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ Rhett E. Brown

RHETT E. BROWN

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

SMALLCAP WORLD FUND, INC.

By: Capital Research and Management Company, its investment adviser

By: /s/ Timothy D. Armour

Name: Timothy D. Armour

Title: President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERRED STOCK FINANCING
DECEMBER 22, 2006

Name	Shares of Series E Preferred Stock	Purchase Price
CLIPPERBAY & CO.		
SMALLCAP World Fund, Inc.	1,875,000	\$7,500,000.00
PACO c/o 80-16-200-1037662		
Cross Creek Capital, L.P.	569,074	\$2,276,296.00
PACO c/o 80-16-200-1037670		
CLEARMOON & CO.	55,926	\$ 223,704.00
ALLIANCEBERNSTEIN VENTURE FUND I, L.P.		
ALLOY VENTURES 2005, L.P.	625,000	\$2,500,000.00
ALLOY VENTURES 2002, L.P.		
ALLOY PARTNERS 2002, L.P.	62,500	\$ 250,000.00
INTERWEST INVESTORS VII, L.P.		
INTERWEST PARTNERS VII, L.P.	80,625	\$ 322,500.00
EUCLIDSR BIOTECHNOLOGY PARTNERS, L.P.		
EUCLIDSR PARTNERS, L.P.	78,505	\$ 314,020.00
VERSANT AFFILIATES FUND 1-A, L.P.		
VERSANT AFFILIATES FUND 1-B, L.P.	2,120	\$ 8,480.00
	2,285	\$ 9,140.00
	47,715	\$ 190,860.00
	105,875	\$ 423,500.00
	105,875	\$ 423,500.00
	5,000	\$ 20,000.00
	10,500	\$ 42,000.00

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERRED STOCK FINANCING
DECEMBER 22, 2006

Name	Shares of Series E Preferred Stock	Purchase Price
VERSANT SIDE FUND I, L.P.	4,500	\$ 18,000.00
VERSANT VENTURE CAPITAL I, L.P.	230,000	\$ 920,000.00
LILLY BIO VENTURES, ELI LILLY AND COMPANY	89,750	\$ 359,000.00
SIGHTLINE HEALTHCARE FUND III, L.P.	30,000	\$ 120,000.00
BRUCE BURROWS	144,750	\$ 579,000.00
LEHMAN BROTHERS HEALTHCARE VENTURE CAPITAL, L.P.	39,937	\$ 159,748.00
LEHMAN BROTHERS OFFSHORE PARTNERSHIP ACCOUNT 2000/2001, L.P.	8,932	\$ 35,728.00
LEHMAN BROTHERS P.A., LLC	76,440	\$ 305,760.00
LEHMAN BROTHERS PARTNERSHIP ACCOUNT 2000/2001, L.P.	34,440	\$ 137,760.00
TOTALS	4,284,749	\$17,138,996.00

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERRED STOCK FINANCING
MARCH 30, 2007

Name	Shares of Series E Preferred Stock	Purchase Price
JOHN M. HARLAND	5,000	\$ 20,000.00
FERGUSON/EGAN FAMILY TRUST DATED 6/28/99	15,000	\$ 60,000.00
HEALTH CARE ADMINISTRATION COMPANY	25,000	\$ 100,000.00
THE CONDON FAMILY TRUST	12,500	\$ 50,000.00
IN-Q-TEL, INC.	10,125	\$ 40,500.00
IN-Q-TEL EMPLOYEE FUND, LLC	3,375	\$ 13,500.00
THE V FOUNDATION FOR CANCER RESEARCH	6,250	\$ 25,000.00
FREDRICK H. STERN	37,500	\$ 150,000.00
ALFRED J. MANDEL	1,000	\$ 4,000.00
PAULINE E. VAN YSENDOORN	2,500	\$ 10,000.00
RHETT E. BROWN	12,500	\$ 50,000.00
CLIPPERBAY & CO.	350,000	\$1,400,000.00
TOTALS	480,750	\$1,923,000.00

FLUIDIGM CORPORATION
AMENDMENT NO. 2 TO
SERIES E PREFERRED STOCK PURCHASE AGREEMENT

This Amendment No. 2 (the "**Amendment**") to that certain Series E Preferred Stock Purchase Agreement, dated as of June 13, 2006, as amended December 22, 2006, by and among Fluidigm Corporation, a California corporation ("**Fluidigm California**") and the Purchasers named therein (the "**Purchase Agreement**"), is made and entered into effective as of October 10, 2007 (the "**Effective Date**") by and among Fluidigm Corporation, a Delaware corporation (the "**Company**"), and the Purchasers named herein. Capitalized terms used in this Amendment that are not otherwise defined herein shall have the respective meanings assigned to them in the Purchase Agreement.

RECITALS

WHEREAS, Fluidigm California previously sold and issued an aggregate of 1,250,000 shares of Series E Preferred Stock (the "**Series E Preferred**") pursuant to the terms of the Purchase Agreement at the Initial Closing held on June 13, 2006 and an additional 6,015,499 shares of Series E Preferred at Subsequent Closings held on December 22, 2006 and March 30, 2007;

WHEREAS, on July 18, 2007, Fluidigm California was merged with and into the Company, with the Company being the surviving corporation such that the Company succeeded to all of Fluidigm California's rights and obligations under the Purchase Agreement and all outstanding shares of Series E Preferred of Fluidigm California were exchanged on a one for one basis for shares of Series E Preferred of the Company;

WHEREAS, the Company and the Purchasers now desire to amend the terms of the Purchase Agreement to provide that the Company may sell and issue up to 7,375,000 additional shares of Series E Preferred (the "**Additional Shares**") pursuant to the Purchase Agreement, at one or more additional Subsequent Closings, provided that any such additional Subsequent Closings shall take place no later than December 31, 2007.

WHEREAS, pursuant to Section 6.5 of the Purchase Agreement, the terms of the Purchase Agreement may be amended upon the written consent of the Company and the holder or holders of greater than fifty percent (50%) of the outstanding Shares or the Conversion Shares;

WHEREAS, the Purchasers who have signed below hold greater than fifty percent (50%) of the outstanding Shares purchased under the Purchase Agreement as of the Effective Date and consent to the changes as set forth in this Amendment;

WHEREAS, in connection with the execution of this Amendment, the Company is amending the Amended and Restated Certificate of Incorporation of the Company to increase the

number of authorized shares of capital stock of the Company to facilitate the sale of the Additional Shares.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto mutually agree as follows:

AGREEMENT

1. **Amendment to Section 1.1.** Section 1.1 (Authorization of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

“1.1 **Authorization of the Shares.** The Company will on or before the Closing (as defined below) authorize the sale and issuance pursuant to this Agreement of up to 17,956,252 shares (the “**Shares**”) of its Series E Preferred Stock (the “**Series E Preferred**”), having the rights, preferences and privileges as set forth in the Amended and Restated Certificate of Incorporation, as amended by Amendment No. 1 to Amended and Restated Certificate of Incorporation and Amendment No. 2 to Amended and Restated Certificate of Incorporation, as attached hereto as **EXHIBITS B-1 AND B-2**, respectively (together for purposes of this Agreement, the “**Restated Certificate**”).”

2. **Amendment to Section 1.2.** Section 1.2 (Purchase and Sale of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

“1.2 **Purchase and Sale of the Shares.** Subject to the terms and conditions hereof and in reliance upon the representations, warranties and agreements contained herein, the Company will issue and sell to each Purchaser, severally and not jointly, and each Purchaser will purchase from the Company, severally and not jointly, at the applicable Closing, the number of Shares set forth opposite the Purchaser’s name on the Schedule of Purchasers, at a purchase price of Four Dollars (\$4.00) per Share. The Company shall be entitled to sell any unpurchased Shares to any Purchaser or to a person who is not a Purchaser and to amend the Schedule of Purchasers to include the information relating to such sales, and such purchasers shall be considered “Purchasers” and parties to this Agreement; provided that (i) such sales are made pursuant to this Agreement or an agreement identical to this one except for the Closing Date and exhibits, and (ii) such sales are completed on or prior to December 31, 2007. The Company’s agreement with each Purchaser is a separate agreement, and the sale of the Shares to each Purchaser is a separate sale.”

3. Amendment to Section 2. Section 2 (Representations and Warranties of the Company) of the Purchase Agreement is hereby amended to add the following sentence to the end of the paragraph which reads in its entirety as follows:

“At each Subsequent Closing, the Company shall provide an updated Schedule of Exceptions and EXHIBIT C shall be concurrently amended and restated for purposes of such Subsequent Closing.”

4. Amendment to Section 2.4. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 2.4 (Capitalization) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

“The authorized capital stock of the Company consists, or immediately prior to the Closing will consist, of 85,232,144 shares of Common Stock (“**Common Stock**”), of which 9,760,848 shares are issued and outstanding immediately prior to the Closing and 57,961,085 shares of Preferred Stock (“**Preferred Stock**”), 2,727,273 of which are designated Series A Preferred Stock of which 2,727,273 are outstanding immediately prior to the Closing; 6,460,675 of which are designated Series B Preferred Stock of which 6,460,675 are outstanding immediately prior to the Closing; 16,854,624 of which are designated Series C Preferred Stock, 16,364,832 of which are issued and outstanding immediately prior to the Closing; and 13,962,261 of which are designated Series D Preferred Stock, 13,353,333 of which are issued and outstanding immediately prior to the Closing; and 17,956,252 of which are designated Series E Preferred Stock, 8,969,836 of which are issued and outstanding immediately prior to the Closing. All such issued and outstanding shares have been duly authorized and validly issued in compliance with applicable laws, and are fully paid and nonassessable.

The Company has reserved: (i) 17,956,252 shares of Series E Preferred for issuance hereunder and 17,956,252 shares of Common Stock for issuance upon conversion of such shares of Series E Preferred; (ii) 13,353,333 shares of Common Stock for issuance upon conversion of the outstanding shares of Series D Preferred; (iii) 408,928 shares of Series D Preferred for issuance upon exercise of outstanding warrants and 408,928 shares of Common Stock for issuance upon conversion of such Series D Preferred; (iv) 16,364,832 shares of Common Stock for issuance upon conversion of the outstanding shares of Series C Preferred Stock; (v) 289,792 shares of Series C Preferred Stock for issuance upon exercise of outstanding warrants and 289,792 shares of Common Stock for issuance upon conversion of such Series C Preferred Stock; (vi) 6,460,675 shares of Common Stock for issuance upon conversion of the outstanding Series B Preferred Stock; (vii) 2,727,273 shares of Common Stock for issuance upon conversion of the outstanding Series A Preferred Stock; and (viii) an aggregate of 12,800,000 shares of Common Stock for issuance to

employees and consultants of the Company pursuant to the Company's 1999 Stock Option Plan, pursuant to which options to purchase 7,247,691 shares are granted and outstanding and 1,518,223 shares are available for future grant. As of the date hereof and after giving effect to the purchase of Shares hereunder, each share of each series of the Company's Preferred Stock is convertible into one share of the Company's Common Stock. Other than with respect to the shares reserved for issuance in this paragraph, or as set forth in the Ancillary Agreements (as defined below), there are no outstanding rights, options, warrants, conversion rights, preemptive rights, rights of first refusal or similar rights for the purchase or acquisition from the Company of any securities of the Company. There are no outstanding obligations of the Company to repurchase or redeem any of its securities."

5. Amendment to Section 2.16. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 2.16 (Financial Statements) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"The Company has made available to each Purchaser its audited balance sheet dated as of December 31, 2004. The Company has also made available to each Purchaser unaudited balance sheets dated December 31, 2005 and December 31, 2006 and the unaudited statements of operations for the fiscal years then ended (collectively, the "**Financial Statements**"). The Financial Statements are complete and correct in all material respects and have been prepared in accordance with generally accepted accounting principles applied on a consistent basis throughout the periods indicated. The Financial Statements accurately set out and describe the financial condition and operating results of the Company as of the date, and during the periods, indicated therein. Except as set forth in the Financial Statements, the Company has no material liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to December 31, 2006 and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in the Financial Statements, which, in both cases, individually or in the aggregate are not material to the financial condition or operating results of the Company."

6. Deletion of Sections 6.9 and 6.11. Solely in connection with the sale of Additional Shares pursuant to this Amendment, the Purchase Agreement is hereby amended to delete Section 6.9 (Finder's Fee) and Section 6.11 (Waiver of Conflict), each in its entirety.

7. Amendment to Section 6.10. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 6.10 of the Purchase Agreement is hereby amended and restated in its entirety to read as follows:

“6.10 Expenses. The Company and each Purchaser shall bear its own expenses and legal fees incurred on its behalf with respect to this Agreement and the transactions contemplated hereby, *provided, however,* that if a Closing is effected, the Company shall reimburse the reasonable documented fees of one counsel for the Purchasers, such amount not to exceed \$25,000, by wire transfer at such Closing.”

8. Addition of Section 6.17. The Purchase Agreement is hereby amended to add the following Section 6.17 which reads in its entirety as follows:

“6.17 Reincorporation. Each Purchaser hereunder acknowledges that the Company completed a reincorporation into the State of Delaware on July 18, 2007 and each Purchaser hereby consents to the assignment of this Agreement to Fluidigm Corporation, a Delaware corporation effective as of July 18, 2007.”

9. Restated Certificate. All references in the Purchase Agreement to the term “Restated Articles” are hereby deleted and replaced with the term “Restated Certificate.”

10. Governing Law. This Amendment shall be governed in all respects by the laws of the State of California, without regard to any provisions thereof relating to conflicts of laws among different jurisdictions.

11. Purchase Agreement. Wherever necessary, all other terms of the Purchase Agreement are hereby amended to be consistent with the terms of this Amendment. Except as specifically set forth herein, the Purchase Agreement shall remain in full force and effect.

12. Counterparts; Facsimile. This Amendment may be executed in any number of counterparts, each of which shall be an original, and all of which together shall constitute one instrument. Executed signatures transmitted via facsimile will be accepted and considered duly executed.

13. Effect of Execution of Amendment by Certain Purchasers. This Amendment, when executed and delivered by the Company and a Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof, shall also constitute and shall be deemed a counterpart signature page to the Purchase Agreement. Consequently, each undersigned Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof acknowledges and agrees that he, she or it is bound by the terms and conditions contained in the Purchase Agreement, as amended by this Amendment, with respect to the purchase of such shares.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

COMPANY:

FLUIDIGM CORPORATION

a Delaware corporation

By: /s/ Gajus Worthington

Gajus Worthington,

President and Chief Executive Officer

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

**FIDELITY CONTRAFUND:
FIDELITY ADVISOR NEW INSIGHTS FUND**

By: /s/ Gary Ryan

Name: Gary Ryan

Title: Assistant Treasurer

FIDELITY CONTRAFUND: FIDELITY CONTRAFUND

By: /s/ Gary Ryan

Name: Gary Ryan

Title: Assistant Treasurer

**VARIABLE INSURANCE PRODUCTS FUND II:
CONTRAFUND PORTFOLIO**

By: /s/ Gary Ryan

Name: Gary Ryan

Title: Assistant Treasurer

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LEERINK SWANN HOLDINGS, LLC

By: /s/ Jeffrey A. Leerink

Name: Jeffrey A. Leerink

Title: Chief Executive Officer

LEERINK SWANN HOLDINGS, LLC

Co-INVESTMENT FUND, LLC

By: /s/ Donald D. Notman, Jr.

Name: Donald D. Notman, Jr.

Title: Managing Director

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

CROSS CREEK CAPITAL, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

CROSS CREEK CAPITAL EMPLOYEES' FUND, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

WASATCH FUNDS, INC.

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Dan Thurber

Name: Dan Thurber

Title: Vice President

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

SMALLCAP WORLD FUND, INC.

**By: Capital Research and Management Company,
its, investment adviser**

By: /s/ Michael Downer

Name: Michael Downer

Title: _____

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

**By: AllianceBernstein ESG Venture
Management, L.P., its general partner**

**By: AllianceBernstein Global Derivatives
Corporation, its general partner**

By: /s/ James D. Kiggen

Name: James D. Kiggen

Title: Senior Vice President

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

VERSANT AFFILIATES FUND 1-A, L.P.
VERSANT AFFILIATES FUND 1-B, L.P.
VERSANT SIDE FUND I, L.P.
VERSANT VENTURE CAPITAL I, L.P.

By: Versant Ventures I, LLC
its General Partner

By: /s/ Samuel D. Colella

Name: Samuel D. Colella

Title: Managing Director

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

**LEHMAN BROTHERS HEALTHCARE VENTURE CAPITAL
L.P.**

By: Lehman Brothers HealthCare Venture Capital
Associates L.P.,
its General Partner
By: LB I Group Inc., its General Partner

By: /s/ Steven Berkenfeld
Name: Steven Berkenfeld
Its: Senior Vice President

LEHMAN BROTHERS P.A. LLC

By: /s/ Steven Berkenfeld
Name: Steven Berkenfeld
Its: Senior Vice President

**LEHMAN BROTHERS PARTNERSHIP ACCOUNT 2000/2001,
L.P.**

By: LB I Group Inc., its General Partner

By: /s/ Steven Berkenfeld
Name: Steven Berkenfeld
Its: Senior Vice President

**LEHMAN BROTHERS OFFSHORE PARTNERSHIP ACCOUNT
2000/2001, L.P.**

By: LB I Offshore Partners Group Ltd., its General
Partner

By: /s/ Steven Berkenfeld
Name: Steven Berkenfeld
Its: Senior Vice President

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

EUCLIDSR PARTNERS, L.P.

By: EuclidSR Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones

Name: Elaine V. Jones

Title: General Partner

EUCLIDSR BIOTECHNOLOGY PARTNERS, L.P.

By: EuclidSR Biotechnology Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones

Name: Elaine V. Jones

Title: General Partner

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

INTERWEST PARTNERS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney

Name: Michael Sweeney

Title: As agent for the general partner

INTERWEST INVESTORS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney

Name: Michael Sweeney

Title: As agent for the general partner

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LILLY BIOVENTURES, ELI LILLY & COMPANY

By: /s/ Darren J. Carroll

Name: Darren J. Carroll

Title: Executive Director

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

/s/ Bruce Burrows

BRUCE BURROWS

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

BIOMEDICAL SCIENCES INVESTMENT FUND PTE LTD

By: /s/ Chu Swee Yeok

Name: Chu Swee Yeok

Title: Director

SINGAPORE BIO-INNOVATIONS PTE LTD

By: /s/ Sim Sze Kuan

Name: Sim Sze Kuan

Title: Director

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

Invus, L.P.

By: Invus Advisors LLC
General Partner of Invus LP

By: /s/ Aflalo Guimaraes

Name: Aflalo Guimaraes

Title: Managing Director

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERRED STOCK FINANCING
OCTOBER 10, 2007

<u>Name</u>	<u>Shares of Series E Preferred Stock</u>	<u>Purchase Price</u>
FIDELITY CONTRAFUND:		
FIDELITY ADVISOR NEW INSIGHTS FUND	481,170	\$ 1,924,679.00
FIDELITY CONTRAFUND: FIDELITY CONTRAFUND	4,389,865	\$ 17,559,461.00
VARIABLE INSURANCE PRODUCTS FUND II:		
CONTRAFUND PORTFOLIO	1,378,965	\$ 5,515,860.00
LEERICK SWANN HOLDINGS, LLC	62,500	\$ 250,000.00
LEERICK SWANN CO-INVESTMENT FUND, LLC	78,750	\$ 315,000.00
TOTALS	6,391,250	\$ 25,565,000.00

FLUIDIGM CORPORATION
AMENDMENT NO. 3 TO
SERIES E PREFERRED STOCK PURCHASE AGREEMENT

This Amendment No. 3 (the "**Amendment**") to that certain Series E Preferred Stock Purchase Agreement, dated as of June 13, 2006, as amended December 22, 2006 and further amended October 10, 2007, by and among Fluidigm Corporation, a California corporation ("**Fluidigm California**") and the Purchasers named therein (the "**Purchase Agreement**"), is made and entered into effective as of October 26, 2007 (the "**Effective Date**") by and among Fluidigm Corporation, a Delaware corporation (the "**Company**"), and the Purchasers named herein. Capitalized terms used in this Amendment that are not otherwise defined herein shall have the respective meanings assigned to them in the Purchase Agreement.

RECITALS

WHEREAS, Fluidigm California previously sold and issued an aggregate of 1,250,000 shares of Series E Preferred Stock (the "**Series E Preferred**") pursuant to the terms of the Purchase Agreement at the Initial Closing held on June 13, 2006, an additional 4,284,749 shares of Series E Preferred at a Subsequent Closing held on December 22, 2006, an additional 480,750 shares of Series E Preferred at a Subsequent Closing held on March 30, 2007, and an additional 6,391,250 shares of Series E Preferred at a Subsequent Closing held on October 10, 2007;

WHEREAS, on July 18, 2007, Fluidigm California was merged with and into the Company, with the Company being the surviving corporation such that the Company succeeded to all of Fluidigm California's rights and obligations under the Purchase Agreement and all outstanding shares of Series E Preferred of Fluidigm California were exchanged on a one for one basis for shares of Series E Preferred of the Company;

WHEREAS, the Company and the Purchasers now desire to amend the terms of the Purchase Agreement to provide that the Company may sell and issue up to 2,153,695 additional shares of Series E Preferred (the "**Additional Shares**") pursuant to the Purchase Agreement, at one or more additional Subsequent Closings, provided that any such additional Subsequent Closings shall take place no later than December 31, 2007.

WHEREAS, pursuant to Section 6.5 of the Purchase Agreement, the terms of the Purchase Agreement may be amended upon the written consent of the Company and the holder or holders of greater than fifty percent (50%) of the outstanding Shares or the Conversion Shares;

WHEREAS, the Purchasers who have signed below hold greater than fifty percent (50%) of the outstanding Shares purchased under the Purchase Agreement as of the Effective Date and consent to the changes as set forth in this Amendment;

WHEREAS, in connection with the execution of this Amendment, the Company is amending the Amended and Restated Certificate of Incorporation of the Company to increase the number of authorized shares of capital stock of the Company to facilitate the sale of the Additional Shares.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto mutually agree as follows:

AGREEMENT

1. **Amendment to Section 1.1.** Section 1.1 (Authorization of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

“1.1 **Authorization of the Shares.** The Company will on or before the Closing (as defined below) authorize the sale and issuance pursuant to this Agreement of up to 18,498,531 shares (the “**Shares**”) of its Series E Preferred Stock (the “**Series E Preferred**”), having the rights, preferences and privileges as set forth in the Amended and Restated Certificate of Incorporation, as amended by a Certificate of Amendment to Amended and Restated Certificate of Incorporation dated October 10, 2007 and a Certificate of Amendment to Amended and Restated Certificate of Incorporation dated October 26, 2007, as attached hereto as **EXHIBITS B-1 AND B-2**, respectively (together for purposes of this Agreement, the “**Restated Certificate**”).”

2. **Amendment to Section 2.4.** Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 2.4 (Capitalization) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

“The authorized capital stock of the Company consists, or immediately prior to the Closing will consist, of 87,385,839 shares of Common Stock (“**Common Stock**”), of which 9,760,848 shares are issued and outstanding immediately prior to the Closing and 60,114,780 shares of Preferred Stock (“**Preferred Stock**”), 2,727,273 of which are designated Series A Preferred Stock of which 2,727,273 are outstanding immediately prior to the Closing; 6,460,675 of which are designated Series B Preferred Stock of which 6,460,675 are outstanding immediately prior to the Closing; 16,854,624 of which are designated Series C Preferred Stock, 16,364,832 of which are issued and outstanding immediately prior to the Closing; and 13,962,261 of which are designated Series D Preferred Stock, 13,353,333 of which are issued and outstanding immediately prior to the Closing; and 20,109,947 of which are designated Series E Preferred Stock, 15,361,086 of which are issued and outstanding immediately prior to the Closing. All such issued and outstanding shares have been duly

authorized and validly issued in compliance with applicable laws, and are fully paid and nonassessable.

The Company has reserved: (i) 18,498,531 shares of Series E Preferred for issuance hereunder and 20,109,947 shares of Common Stock for issuance upon conversion of all shares of Series E Preferred; (ii) 13,353,333 shares of Common Stock for issuance upon conversion of the outstanding shares of Series D Preferred; (iii) 408,928 shares of Series D Preferred for issuance upon exercise of outstanding warrants and 408,928 shares of Common Stock for issuance upon conversion of such Series D Preferred; (iv) 16,364,832 shares of Common Stock for issuance upon conversion of the outstanding shares of Series C Preferred Stock; (v) 289,792 shares of Series C Preferred Stock for issuance upon exercise of outstanding warrants and 289,792 shares of Common Stock for issuance upon conversion of such Series C Preferred Stock; (vi) 6,460,675 shares of Common Stock for issuance upon conversion of the outstanding Series B Preferred Stock; (vii) 2,727,273 shares of Common Stock for issuance upon conversion of the outstanding Series A Preferred Stock; and (viii) an aggregate of 12,800,000 shares of Common Stock for issuance to employees and consultants of the Company pursuant to the Company's 1999 Stock Option Plan, pursuant to which options to purchase 7,247,691 shares are granted and outstanding and 1,518,223 shares are available for future grant. As of the date hereof and after giving effect to the purchase of Shares hereunder, each share of each series of the Company's Preferred Stock is convertible into one share of the Company's Common Stock. Other than with respect to the shares reserved for issuance in this paragraph, or as set forth in the Ancillary Agreements (as defined below), there are no outstanding rights, options, warrants, conversion rights, preemptive rights, rights of first refusal or similar rights for the purchase or acquisition from the Company of any securities of the Company. There are no outstanding obligations of the Company to repurchase or redeem any of its securities."

3. Amendment to Section 2.16. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 2.16 (Financial Statements) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"The Company has made available to each Purchaser its audited balance sheet dated as of December 31, 2004. The Company has also made available to each Purchaser unaudited balance sheets dated December 31, 2005 and December 31, 2006 and the unaudited statements of operations for the fiscal years then ended (collectively, the "**Financial Statements**"). The Financial Statements are complete and correct in all material respects and have been prepared in accordance with generally

accepted accounting principles applied on a consistent basis throughout the periods indicated. The Financial Statements accurately set out and describe the financial condition and operating results of the Company as of the date, and during the periods, indicated therein. Except as set forth in the Financial Statements, the Company has no material liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to December 31, 2006 and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in the Financial Statements, which, in both cases, individually or in the aggregate are not material to the financial condition or operating results of the Company.”

4. Governing Law. This Amendment shall be governed in all respects by the laws of the State of California, without regard to any provisions thereof relating to conflicts of laws among different jurisdictions.

5. Purchase Agreement. Wherever necessary, all other terms of the Purchase Agreement are hereby amended to be consistent with the terms of this Amendment. Except as specifically set forth herein, the Purchase Agreement shall remain in full force and effect.

6. Counterparts; Facsimile. This Amendment may be executed in any number of counterparts, each of which shall be an original, and all of which together shall constitute one instrument. Executed signatures transmitted via facsimile will be accepted and considered duly executed.

7. Effect of Execution of Amendment by Certain Purchasers. This Amendment, when executed and delivered by the Company and a Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof, shall also constitute and shall be deemed a counterpart signature page to the Purchase Agreement. Consequently, each undersigned Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof acknowledges and agrees that he, she or it is bound by the terms and conditions contained in the Purchase Agreement, as amended by this Amendment, with respect to the purchase of such shares.

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

COMPANY:

FLUIDIGM CORPORATION
a Delaware corporation

By: /s/ Gajus Worthington
Gajus Worthington,
President and Chief Executive Officer

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

**FIDELITY CONTRAFUND:
FIDELITY ADVISOR NEW INSIGHTS FUND**

By: /s/ Peter Lydecker

Name: Peter Lydecker

Title: Assistant Treasurer

FIDELITY CONTRAFUND: FIDELITY CONTRAFUND

By: /s/ Peter Lydecker

Name: Peter Lydecker

Title: Assistant Treasurer

**VARIABLE INSURANCE PRODUCTS FUND II:
CONTRAFUND PORTFOLIO**

By: /s/ Peter Lydecker

Name: Peter Lydecker

Title: Assistant Treasurer

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LEERINK SWANN HOLDINGS, LLC

By: /s/ Jeffrey Leerink

Name: Jeffrey Leerink

Title: Chairman

LEERINK SWANN HOLDINGS, LLC

Co-INVESTMENT FUND, LLC

By: /s/ Donald D. Notman, Jr.

Name: Donald D. Notman, Jr.

Title: Managing Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

CROSS CREEK CAPITAL, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker _____

Name: Karey Barker

Title: Vice President

CROSS CREEK CAPITAL EMPLOYEES' FUND, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker _____

Name: Karey Barker

Title: Vice President

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

WASATCH FUNDS, INC.

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Venice Edwards _____

Name: Venice Edwards

Title: Secretary

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

SMALLCAP WORLD FUND, INC.

**By: Capital Research and Management Company,
its, investment adviser**

By: /s/ Paul Haaga

Name: Paul Haaga

Title: _____

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

**By: AllianceBernstein ESG Venture
Management, L.P., its general partner**

**By: AllianceBernstein Global Derivatives
Corporation, its general partner**

By: /s/ James D. Kiggen

Name: James D. Kiggen

Title: Senior Vice President

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

VERSANT AFFILIATES FUND 1-A, L.P.

VERSANT AFFILIATES FUND 1-B, L.P.

VERSANT SIDE FUND I, L.P.

VERSANT VENTURE CAPITAL I, L.P.

By: Versant Ventures I, LLC
its General Partner

By: /s/ Samuel D. Colella

Name: Samuel D. Colella

Title: Managing Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

**LEHMAN BROTHERS HEALTHCARE VENTURE CAPITAL
L.P.**

By: Lehman Brothers HealthCare Venture Capital
Associates L.P.,
its General Partner

By: LB I Group Inc., its General Partner

By: /s/ Ashvin Rao

Name: Ashvin Rao

Its: Vice President

LEHMAN BROTHERS P.A. LLC

By: /s/ Deborah Nordell

Name: Deborah Nordell

Its: Vice President

**LEHMAN BROTHERS PARTNERSHIP ACCOUNT 2000/2001,
L.P.**

By: LB I Group Inc., its General Partner

By: /s/ Ashvin Rao

Name: Ashvin Rao

Its: Vice President

**LEHMAN BROTHERS OFFSHORE PARTNERSHIP ACCOUNT
2000/2001, L.P.**

By: LB I Offshore Partners Group Ltd., its General Partner

By: /s/ Ashvin Rao

Name: Ashvin Rao

Its: Vice President

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

EUCLIDSR PARTNERS, L.P.

By: EuclidSR Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones _____

Name: Elaine V. Jones

Title: General Partner

EUCLIDSR BIOTECHNOLOGY PARTNERS, L.P.

By: EuclidSR Biotechnology Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones _____

Name: Elaine V. Jones

Title: General Partner

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

INTERWEST PARTNERS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney _____

Name: Michael Sweeney

Title: As agent for the general partner

INTERWEST INVESTORS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney _____

Name: Michael Sweeney

Title: As agent for the general partner

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LILLY BIOVENTURES, ELI LILLY & COMPANY

By: /s/ Darren J. Carroll

Name: Darren J. Carroll

Title: Executive Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

ALLOY VENTURES 2005, L.P.

By: Alloy Ventures 2005, LLC
its General Partner

By: /s/ Tony DiBona _____

Name: Toni DiBona

Title: Managing Member of Alloy Ventures
2005 LLC

ALLOY VENTURES 2002, L.P.

ALLOY PARTNERS 2002, L.P.

By: Alloy Ventures 2002, LLC
its General Partner

By: /s/ Tony DiBona _____

Name: Tony DiBona

Title: Managing Member of Alloy Ventures
2002, LLC, the general partner of Alloy
Partners 2002, L.P. and Alloy Ventures
2002, L.P.

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

/s/ Bruce Burrows

BRUCE BURROWS

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

SIGHTLINE HEALTHCARE FUND III, L.P.

By: /s/ Maureen Harder

Name: Maureen Harder

Title: Managing Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

BIOMEDICAL SCIENCES INVESTMENT FUND PTE LTD

By: /s/ Chu Swee Yeok

Name: Chu Swee Yeok

Title: Director

SINGAPORE BIO-INNOVATIONS PTE LTD

By: /s/ Sim Sze Kuan

Name: Sim Sze Kuan

Title: Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

Invus, L.P.

By: Invus Advisors LLC
General Partner of Invus LP

By: /s/ Afalo Guimaraes

Name: Afalo Guimaraes

Title: Managing Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERRED STOCK FINANCING – SECOND EXTENDED CLOSING
OCTOBER 26, 2007

<u>Name</u>	<u>Shares of Series E Preferred Stock</u>	<u>Purchase Price</u>
CLIPPERBAY & CO. SMALLCAP World Fund, Inc.	2,153,695	\$8,614,780.00
TOTALS	2,153,695	\$8,614,780.00

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the 31st day of December, 2007.

COMPANY:

FLUIDIGM CORPORATION

a Delaware corporation

By: /s/ Gajus Worthington
Gajus Worthington,
President and Chief Executive Officer

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the 31st day of December, 2007.

PURCHASER:

/s/ Bruce Burrows

Bruce Burrows

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

EXHIBIT A
SCHEDULE OF PURCHASER
SERIES E PREFERRED STOCK FINANCING – THIRD EXTENDED CLOSING
DECEMBER 31, 2007

<u>Name</u>	<u>Shares of Series E Preferred Stock</u>	<u>Purchase Price</u>
BRUCE BURROWS	250,000	\$1,000,000.00
TOTALS	250,000	\$1,000,000.00

EXHIBIT B

FORM OF AMENDED AND RESTATED ARTICLES OF INCORPORATION

Superseded by Exhibit 3.1 filed with Registration Statement on Form S-1 on April 14, 2008.

EXHIBIT C

SCHEDULE OF EXCEPTIONS

EXHIBIT D

FORM OF EIGHTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

Superseded by Exhibit 4.3 filed with Registration Statement on Form S-1 on April 14, 2008.

EXHIBIT E

FORM OF LEGAL OPINION

LOAN AND SECURITY AGREEMENTS

THIS LOAN AND SECURITY AGREEMENT No. 4561 (this "Agreement") is entered into as of March 29, 2005, by and between LIGHTHOUSE CAPITAL PARTNERS V, L.P. ("Lender") and FLUIDIGM CORPORATION, a California corporation ("Borrower" or sometimes referred to herein as "Debtor") and sets forth the terms and conditions upon which Lender will lend and Borrower will repay money. In consideration of the mutual covenants herein contained, the parties agree as follows:

1. DEFINITIONS AND CONSTRUCTION

1.1 Definitions. Initially capitalized terms used and not otherwise defined herein are defined in the California Uniform Commercial Code ("UCC").

"ACH" means the Automated Clearing House electronic funds transfer system.

"Advance" means a Loan advanced by Lender to Borrower hereunder.

"Basic Rate" means a variable *per annum* rate of interest equal to the Index plus the Interest Margin which shall be subject to adjustment as provided in the Loan Agreement and/or the Note. On and after the Loan Commencement Date the Basic Rate shall be fixed and not subject to any further adjustments.

"Borrower's Books" means all of Borrower's books and records, including records concerning Collateral, Borrower's assets, liabilities, business operations or financial condition, on any media, and the equipment containing such information.

"Change of Management or Board Composition" means that (i) Borrower's senior management shall not include Gajus Worthington; (ii) Versant Ventures shall cease to have a representative (currently Samuel Colella) serving on Borrower's Board of Directors; or (iii) Lehman Brothers shall cease to have a representative (currently Hingge Hsu) serving on Borrower's Board of Directors.

"Collateral" means: (i) all property listed on *Exhibit A* attached hereto; and (ii) all products and proceeds of the foregoing, including proceeds of insurance and proceeds of proceeds, *provided that*, notwithstanding anything to the contrary contained in this Agreement, the term Collateral shall not include (a) any property that is subject to a Lien that is otherwise permitted pursuant to subsection (v) of the definition of "Permitted Liens" and Lender agrees to execute any instruments or documents necessary to evidence the intent of the foregoing; (b) more than 65% of the issued and outstanding voting securities of any Subsidiary of Borrower that is not incorporated or organized in the United States; or (c) any of the Company's Intellectual Property (as defined below).

"Commitment" means \$13,000,000.

"Commitment Fee" means \$10,000.

"Commitment Termination Date" means the earliest to occur of (i) the earlier to occur of (a) June 1, 2005, if Borrower has not borrowed at least \$2,000,000 by such date; (b) September 1, 2005, if Borrower has not borrowed an additional \$3,000,000 by such date or (c) December 1, 2005; (ii) any Default or Event of Default that has not been cured by Borrower or waived in writing by Lender, or (iii) Change of Management or Board Composition (unless Lender has waived this condition in writing).

"Control Agreement" means an agreement substantially in the form of *Exhibit I* or otherwise reasonably acceptable to Lender.

"Default" means any event that with the passing of time or the giving of notice or both would become an Event of Default.

"Default Rate" means the lesser of 5% per annum above the otherwise applicable rate or the highest rate permitted by applicable law.

"Disclosure Schedule" means the Disclosure Schedule, dated as of the date hereof, and delivered to Lender in connection with the execution and delivery of this Agreement.

"Event of Default" is defined in **Section 8**.

"Funding Date" means any date on which an Advance is made to or on account of Borrower hereunder.

"Indebtedness" means (i) all indebtedness for borrowed money or the deferred purchase of property or services, (ii) all obligations evidenced by notes, bonds, debentures or similar instruments, (iii) all capital lease obligations, and (iv) all contingent obligations, consisting of guaranties of Indebtedness of other persons and obligations of reimbursement with respect to letters of credit.

“*Incumbency Certificate*” means the document in the form of **Exhibit E**.

“*Index*” means the prevailing variable Prime Rate of annual interest as quoted from time to time in the western edition of the Wall Street Journal.

“*Intellectual Property*” means, collectively, all rights, priorities and privileges of the Borrower relating to intellectual property, in any medium, of any kind or nature whatsoever, now or hereafter owned or acquired or received by Borrower, or in which Borrower now holds or hereafter acquires or receives any right or interest, whether arising under United States, multinational or foreign laws or otherwise, including, without limitation, any and all property of the Borrower that is subject to, listed in or otherwise described in the Negative Pledge Agreement dated March 29, 2005 between Borrower and Lender, and shall include, in any event, all copyrights, copyright licenses, patents, patent licenses, trademarks, trademark licenses, trade secrets, internet domain names (including any right related to the registration thereof), proprietary or confidential information, mask works, source object or other programming codes, inventions (whether or not patented or patentable), technical information, procedures, designs, knowledge, know-how, software, data base, data, skill, expertise, recipe, experience, process, models, drawings, materials or records. Notwithstanding the foregoing, Intellectual Property as defined above does not include proceeds or other revenue consisting of accounts, accounts receivable, royalties, licensing fees, or payment intangibles, obtained or owed from or on account of the licensing or other exploitation or disposition of Intellectual Property, and all of which are included as Collateral in the security interest granted by Borrower to Lender.

“*Interest Margin*” means 2.5% per annum.

“*Lender’s Expenses*” means all reasonable costs or expenses (including reasonable attorneys’ fees and expenses) incurred in connection with the preparation, negotiation, modification, administration, or enforcement of the Loan or Loan Documents, or the exercise or preservation of any rights or remedies by Lender, whether or not suit is brought. Lender will apply deposits (including the Commitment Fee) received by Lender, if any, towards Lender’s Expenses.

“*Lien*” means any lien, security interest, pledge, bailment, lease, mortgage, hypothecation, conditional sales and title retention agreement, charge, claim, or other encumbrance.

“*Liquidation Event*” means any of: **(i)** a merger of Borrower with another entity, other than a merger whereby the shareholders of Borrower immediately prior to such merger own at least 50% of the outstanding voting securities of Borrower immediately after such merger; **(ii)** the sale (in one or a series of related transactions) of all or substantially all of Borrower’s assets; or **(iii)** any transaction (or series of related transactions) whereby the shareholders of Borrower immediately prior to such transaction(s) own less than 50% of the outstanding voting securities of Borrower immediately after such transaction(s).

“*Loan*” means all of the Advances, however evidenced, and all other amounts due or to become due hereunder.

“*Loan Commencement Date*” means March 1, 2006.

“*Loan Documents*” means, collectively, this Agreement, the Warrant, the Notes, the Financing Statement and Security Agreement in the form attached as **Exhibit A** and all other documents, instruments and agreements entered into between Borrower and Lender in connection with the Loan, all as amended or extended from time to time.

“*Negative Pledge Agreement*” means an agreement, dated as of the date hereof, in the form of **Exhibit H**.

“*Note*” means each Secured Promissory Note in the form of **Exhibit B**, delivered in connection with each Advance.

“*Notice of Borrowing*” means the form attached as **Exhibit D**.

“*Obligations*” means all Loans, debt, principal, interest, fees, charges, Lender’s Expenses and other amounts, obligations, covenants, and duties owing by Borrower to Lender of any kind or description (whether pursuant to the Loan Documents or otherwise (with the exception of the Warrant), and whether or not for the payment of money), whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising, and including any of the same obtained by Lender by assignment or otherwise, and all amounts Borrower is required to pay or reimburse by the Loan Documents, by law, or otherwise.

“*Permitted Indebtedness*” means: **(i)** the Loan; **(ii)** unsecured trade debt incurred in the ordinary course of Borrower’s business; **(iii)** Indebtedness secured by clause **(ii)** and **(v)** of Permitted Liens; **(iv)** Subordinated Indebtedness; **(v)** Indebtedness existing as of the date hereof and listed on the Disclosure Schedule; **(vi)** Indebtedness arising from the endorsement of negotiable instruments for deposits or collections or similar transactions in the ordinary course of business; **(vii)** other Indebtedness consisting of letters of credit and

reimbursement obligations in an amount not to exceed \$250,000; **(viii)** Indebtedness of (A) Borrower to any Subsidiary that is unsecured, (B) one Subsidiary to another Subsidiary, or (C) any Subsidiary to Borrower in an amount not to exceed \$4,500,000 in the aggregate; **(ix)** other Indebtedness in an outstanding principal amount not to exceed \$150,000 in the aggregate; and **(x)** Indebtedness incurred in connection with the extension, renewal or refinancing of any Indebtedness of the type described in clauses (i) through (ix) above, provided that the principal amount of such Indebtedness does not increase other than any reasonable premium in connection therewith. Notwithstanding the foregoing, the restrictions on Indebtedness for Subordinated Indebtedness and referenced in clause (v) of the definition of Permitted Liens shall cease at the effective date of a public offering of Borrower's capital stock which results in proceeds of at least \$25,000,000.

"*Permitted Liens*" means: **(i)** Liens in favor of Lender; **(ii)** Liens disclosed in the Disclosure Schedule; **(iii)** Liens for taxes, fees, assessments or other governmental charges or levies not delinquent or being contested in good faith by appropriate proceedings, that do not jeopardize Lender's interest in any Collateral; **(iv)** Liens to secure payment of worker's compensation, employment insurance, old age pensions or other social security obligations of Borrower on which Borrower is current and are in the ordinary course of its business; provided none of the same diminish or impair Lender's rights and remedies respecting the Collateral; and **(v)** Liens upon or in any equipment (including any accessions, attachments, replacements, improvements or proceeds thereto) acquired or held by Borrower to secure the purchase price of such equipment or Indebtedness incurred solely for the purposes of financing such equipment, provided that the aggregate outstanding principal amount of all such financing shall not exceed \$5,000,000, **(vi)** license or sublicenses of Intellectual Property granted in the ordinary course of business; **(vii)** banker's Liens, rights of setoff and similar Liens incurred on deposit and securities accounts in the ordinary course of business; **(viii)** Liens arising from judgments in circumstances not constituting an Event of Default; **(ix)** Liens in favor of customs and revenue authorities arising as a matter of law to secure payments of customs duties in connections with the importation of goods; **(x)** Liens on insurance proceeds in favor of insurance companies granted solely as security for financed premiums; **(xi)** carriers', warehousemen's, mechanics', landlords', materialmen's, repairmen's or other similar Liens arising in the ordinary course of business which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings; **(xii)** Liens with respect to cash collateral to secure Indebtedness otherwise permitted pursuant to clause (vii) of the definition of Permitted Indebtedness; and **(xiii)** Liens incurred in connection with the extension, renewal or refinancing of the Indebtedness secured by Liens of the type described in clauses (i) through (xi) above, provided that any extension, renewal, or replacement Lien shall be limited to the collateral securing the existing Lien and the principal amount of such Indebtedness does not increase other than any reasonable premium in connection therewith.

"*Regulated Substance*" means any substance, material or waste the use, generation, handling, storage, treatment or disposal of which is regulated by any local or state government authority, including any of the same designated by any authority as hazardous, genetic, cloning, fetal, or embryonic.

"*Responsible Officer*" means each person as authorized by the board of directors of Borrower as set forth on the Incumbency Certificate.

"*Subordinated Indebtedness*" means Indebtedness of Borrower to Singapore EDB and Invus Group that is subordinated in both security and right of payment to the Obligations on terms and conditions reasonably satisfactory to Lender in an amount not to exceed \$6,000,000.

"*Subsidiary*" shall mean any entity of which a majority of the outstanding equity interests entitled to vote for the election of directors is owned by Borrower.

"*Term*" means the period from and after the date hereof until the full, final and indefeasible payment and performance of all Obligations.

"*Warrant*" means the Warrant, dated as of the date hereof, in favor of Lender and its affiliates to purchase securities of Borrower substantially in the form of *Exhibit C*.

1.2 Interpretation. References to "Articles," "Sections," "Exhibits," and "Schedules" are to articles, sections, exhibits and schedules herein and hereto unless otherwise indicated. "Hereof," "herein" and "hereunder" refer to this Agreement as a whole. "Including" is not limiting. All accounting and financial computations shall be computed in accordance with generally accepted accounting principles consistently applied ("GAAP"). "Or" is not necessarily exclusive. All interest computation interest shall be based on a 360-day year and actual days elapsed.

2. THE LOANS

2.1 Commitment. Subject to the terms hereof, Lender will make Advances to Borrower up to the principal amount of the Commitment, before the Commitment Termination Date. Notwithstanding anything in the Loan Documents to the contrary, Lender's obligation to make any Advances or to lend the undisbursed portion of the Commitment shall terminate on the Commitment Termination Date. Repaid principal of the Advances may not be re-borrowed.

2.2 The Advances. A Note setting forth the specific terms of repayment will evidence each Advance. No Advance will be made for less than \$1,000,000, unless less than \$1,000,000 remains available under the Commitment for borrowing. Absence of a Note evidencing any portion of the Loan shall not impair Borrower's obligation to repay it to Lender.

2.3 Terms of Payment, Repayment.

(a) **Repayment.** Borrower shall repay the principal and pay interest on each Advance on the terms set forth in the applicable Note. Amounts not paid when due hereunder or under the Note shall bear interest at the Default Rate. If a court of competent jurisdiction determines that Lender has received payments that, if interest, would exceed the maximum lawfully permitted, Lender will instead apply such money to fees and expenses and then to early prepayment of principal (provided that notwithstanding anything contained in any Loan Document, any such prepayment shall not trigger any Prepayment Fees).

(b) **ACH.** All payments due to Lender must be, at Lender's option, paid to Lender in cash or through ACH. Borrower shall execute and deliver the ACH Authorization Form substantially in the form of *Exhibit G*. Lender shall provide Borrower an invoice for any Obligations that are to be transferred by ACH at least 10 days in advance of the date of any ACH funds transfer with respect to Obligations which have become due and payable and are to be transferred by ACH. If the ACH payment arrangement is terminated for any reason, Borrower shall make all payments due to Lender at Lender's address specified in **Section 11**.

(c) **Default Rate.** While an Event of Default has occurred and is continuing, interest on the Loan shall be increased to the Default Rate. Lender's failure to charge or accrue interest at the Default Rate during the existence of a Default shall not be deemed a waiver by Lender of its right or claim thereto.

(d) **Date.** Whenever any payment due under the Loan Documents is due on a day other than a business day, such payment shall be made on the next succeeding business day, and such extension of time shall be included in the computation of interest or fees, as the case may be.

2.4 Fees. Borrower shall pay to Lender the following:

(a) **Commitment Fee.** The Commitment Fee, which has been previously paid by Borrower, and shall be applied by Lender to Lender's Expenses and other Obligations;

(b) **Late Fee.** On demand, a late charge on any sums due hereunder that are not paid when due, in an amount equal to 2% of the past due amount, payable on demand.

(c) **Lender's Expenses.** The payment of all Lender's Expenses, which may become due to Lender by Borrower hereunder shall be payable by Borrower as set forth in **Section 2.3(b)**. Lender's Expenses not paid when due shall bear interest as principal at the Default Rate.

3. CONDITIONS OF ADVANCES; PROCEDURE FOR REQUESTING ADVANCES

3.1 Conditions Precedent to any and all Advances. The obligation of Lender to make any Advances is subject to each and every of the following conditions precedent in form and substance satisfactory to Lender in its sole discretion: (i) this Agreement, a Note evidencing the Advance, the Warrant, and all other UCC financing statements, and other documents required or as specified herein have been duly authorized, executed and delivered; (ii) no Default or Event of Default has occurred and is continuing; (iii) delivery of a Notice of Borrowing with respect to the proposed Advance; (iv) Lender's security interests in the Collateral are valid and first priority, except for Permitted Liens; and (v) all such other items as Lender may reasonably deem necessary or appropriate have been delivered or satisfied. The extension of an Advance prior to the receipt by Lender of any of the foregoing shall not constitute a waiver by Lender of Borrower's obligation to deliver such item.

3.2 Procedure for Making Advances. For any Advance, Borrower shall provide Lender an irrevocable Notice of Borrowing at least 7 business days prior to the desired Funding Date and Lender shall only be required to make Advances hereunder based upon written requests which comply with the terms and exhibits of this Loan Agreement (as the same may be amended from time to time), and which are submitted and signed by a Responsible Officer. Borrower shall execute and deliver to Lender a Note and such other documents and instruments as Lender may reasonably require for each Advance made.

4. CREATION OF SECURITY INTEREST

4.1 Grant of Security Interest. Borrower grants to Lender a valid, first priority, continuing security interest in all present and future Collateral in order to secure prompt, full, faithful and timely payment and performance of all Obligations.

4.2 Inspections. Lender shall have the right upon reasonable prior notice to inspect Borrower's Books, including computer files, and to make copies, and to test, inspect and appraise the Collateral, in order to verify any matter relating to Borrower or the Collateral.

4.3 Authorization to File Financing Statements. Borrower irrevocably authorizes Lender at any time and from time to time to file in any jurisdiction any financing statements and amendments that: **(i)** name Collateral as collateral thereunder, regardless of whether any particular Collateral falls within the scope of the UCC; **(ii)** contain any other information required by the UCC for sufficiency or filing office acceptance, including organization identification numbers; and **(iii)** contain such language as Lender determines helpful in protecting or preserving rights against third parties. Borrower ratifies any such filings made prior to the date hereof.

5. REPRESENTATIONS AND WARRANTIES

Except as set forth on the Disclosure Schedule, Borrower represents and warrants as follows:

5.1 Due Organization and Qualification. Borrower is a corporation duly formed, existing and in good standing under the laws of its state of incorporation and qualified and licensed to do business in, and is in good standing in, any state in which the conduct of its business or its ownership of property requires that it be so qualified or in which the Collateral is located, except to the extent that such non-compliance would not reasonably be expected to result in an adverse effect on Borrower's business.

5.2 Authority. Borrower has all corporate power and authority, and has taken all actions, and has obtained all third party consents necessary to execute, deliver, and perform the Loan Documents.

5.3 Disclosure Schedule. All information on the Disclosure Schedule is true, correct and complete.

5.4 Authorization; Enforceability. The execution and delivery hereof, the granting of the security interest in the Collateral, the incurring of the Obligations, the execution and delivery of all Loan Documents and the consummation of the transactions herein and therein contemplated have been duly authorized by all necessary action by Borrower. The Loan Documents constitute legal, valid and binding obligations of Borrower, enforceable in accordance with their terms, except as enforceability may be limited by bankruptcy or similar laws relating to enforcement of creditors' rights generally.

5.5 Name and Location. Borrower has not done business under any name other than that specified on the signature page hereof. The chief executive office, principal place of business, and the place where Borrower maintains its records concerning the Collateral is set forth in **Section 11**. The Collateral is presently located at the address(es) set forth in **Section 11** and on the Disclosure Schedule or any other location that Borrower has provided Lender with written notice thereof.

5.6 Litigation. All actions or proceedings pending by or against Borrower that could reasonably be expected to result in a material adverse effect on Borrower's business before any court or administrative agency are set forth on the Disclosure Schedule.

5.7 Financial Statements. All financial statements delivered by Borrower to Lender present fairly in all material respects Borrower's financial condition for the periods indicated. All statements respecting Collateral that have been or may hereafter be delivered by Borrower to Lender are true, complete and correct in all material respects for the periods indicated.

5.8 Solvency. Borrower is solvent and able to pay its debts (including trade debts) as they come due.

5.9 Taxes. Borrower has filed and will file all required tax returns, and has paid and will pay all taxes it owes other than where the failure to comply would not reasonably be expected to have a material adverse effect on Borrower.

5.10 Rights; Title to Assets. To Borrower's knowledge, Borrower possesses, owns, or has the right to use all necessary assets, rights, trademarks, trade names, copyrights, patents, patent rights, franchises and licenses which are required to conduct of its business as now operated, except where the failure to possess or own could not reasonably be expected to have a material adverse effect on Borrower's business. Borrower has good title to its assets, free and clear of any Liens, except for Permitted Liens.

5.11 Full Disclosure. No written representation, warranty or other statement made by Borrower in any Loan Document, certificate or statement furnished to Lender contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained in such certificates or statements not misleading (it being recognized by Lender that projections and estimates as to future events are not to be viewed as facts and the actual results during the period or periods covered by any such projections and estimates may differ from projected or estimated results).

5.12 Regulated Substances. Borrower complies and will comply with all laws respecting Regulated Substances, except where the failure to comply could not reasonably be expected to have an adverse effect on Borrower's business.

5.13 Reaffirmation. Each Notice of Borrowing will constitute (i) a warranty and representation in favor of Lender that there does not exist any Default and (ii) subject to any amended Disclosure Schedule delivered to Lender or any other written disclosure required to be sent to Lender pursuant to the terms hereof, a reaffirmation as of the date thereof of all of the representations and warranties contained in this Agreement and the Loan Documents.

6. AFFIRMATIVE COVENANTS

So long as any Obligations (other than inchoate indemnity obligations) remain outstanding, Borrower covenants and agrees that it shall do all of the following:

6.1 Good Standing and Compliance. Borrower shall maintain all governmental licenses, rights and agreements necessary for its operations or business and comply in all respects with all statutes, laws, ordinances and government rules and regulations to which it is subject except where the failure to comply would not reasonably be expected to result in a material adverse effect on Borrower.

6.2 Financial Statements, Reports, Certificates. Borrower shall deliver to Lender: (i) as soon as prepared, and no later than 30 days after the end of each calendar month, a balance sheet, income statement and cash flow statement covering Borrower's operations during such period; (ii) as soon as prepared, but no later than 90 days after the end of the fiscal year, or such other timeframe formally approved by Borrower's audit committee, audited financial statements prepared in accordance with GAAP, together with an opinion that such financial statements fairly present Borrower's financial condition by an independent public accounting firm reasonably acceptable to Lender; (iii) immediately upon notice thereof, a report of any legal or administrative action pending or threatened in writing against Borrower which is likely to result in liability to Borrower in excess of \$100,000 (provided that Borrower shall not be required to report notices of possibly relevant third party patents, or proposals or demands to license intellectual property); and (iv) such other financial information as Lender may reasonably request from time to time. Financial statements delivered pursuant to subsections (i) and (ii) above shall be accompanied by a certificate signed by a Responsible Officer (each an "Officer's Certificate") in the form of *Exhibit F*.

6.3 Notice of Defaults. Upon any Default or Event of Default, an Officer's Certificate setting forth the facts relating to or giving rise thereto, and the Borrower's proposed action with respect thereto.

6.4 Use; Maintenance. Borrower, at its expense, shall (i) maintain the tangible Collateral in good condition, reasonable wear and tear excepted, and will comply in all material respects with all laws, rules and regulations regarding use and operation of the tangible Collateral and (ii) repair or replace any lost or damaged Collateral except to the extent that Borrower in its good faith judgment deems it to be in its best interest not to repair or replace such lost or damaged Collateral, so long as applied to a purchase or acquisition useful to Borrower's business.

6.5 Insurance. Borrower, at its own expense, shall maintain insurance in amounts and coverages reasonably satisfactory to Lender. Each insurance shall: (i) name Lender loss payee or additional insured, as appropriate, (ii) provide for insurer's waiver of its right of subrogation against Lender and Borrower, (iii) provide that such insurance shall not be invalidated by any action of, or breach of warranty by, Borrower and waive set-off, counterclaim or offset against Lender, (iv) be primary without a right of contribution of Lender's insurance, if any, or any obligation on the part of Lender to pay premiums of Borrower, and (v) require the insurer to give Lender at least 30 days prior written notice of cancellation. Borrower shall furnish all certificates of insurance required by Lender.

6.6 Loss Proceeds. So long as no Event of Default has occurred and is continuing, any proceeds of insurance on or condemnation of Collateral shall, at Borrower's election and so long as Lender's security interest in such proceeds remains first priority, be used either to repair or replace such Collateral or otherwise applied to the purchase or acquisition of property useful to Borrower's business.

6.7 Further Assurances. At any time and from time to time, Borrower shall execute and deliver such further instruments and take such further action as Lender may reasonably request to effect the intent and purposes hereof, to perfect and continue perfected and of first priority Lender's security interests in the Collateral, and to effect and maintain ACH payment arrangements.

7. NEGATIVE COVENANTS

So long as any Obligations (other than inchoate indemnity obligations) remain outstanding, Borrower will not do any of the following:

7.1 Location of Collateral. Change its chief executive office or principal place of business or remove, except in the ordinary course of Borrower's business, the Collateral or Borrower's Books from the premises listed in **Section 11** and the Disclosure Schedule (or otherwise provided to Lender in writing pursuant to this **Section 7.1**) without giving 30 days prior written notice to Lender. Borrower's practice of delivering and maintaining inventory at a customer's location pending testing, validation and/or acceptance of such inventory by such customer shall be deemed to be in the "ordinary course of business" for purposes of this Agreement.

7.2 Extraordinary Transactions. Enter into any transaction not in the ordinary course of Borrower's business, including the sale, lease, license or other disposition of its assets, other than (i) sales of inventory in the ordinary course of Borrower's business; and (ii) licenses of intellectual property assets entered into in the ordinary course of business (provided that licensing arrangements involving universities, governmental agencies, research institutions and corporate partners shall be deemed in the "ordinary course of business"). The parties hereto agree (a) strategic partnerships, strategic collaborations, sponsored research collaborations and development transactions, (b) transactions otherwise permitted in this **Article 7**, and (c) transactions for fair value involving the sale or exclusive licensing of Intellectual Property, that is outside the scope of Borrower's business in the biotechnology field, that is not being commercialized or monetized by the Borrower; in each case, shall be deemed to be in the "ordinary course of business" for purposes of this Agreement.

7.3 Restructure. Make any material change in Borrower's corporate structure or business other than the business of the type conducted by Borrower as of the date of this Agreement or any business reasonably related or incidental thereto; or suspend operation of Borrower's business.

7.4 Liens. Create, incur, assume or suffer to exist any Lien of any kind with respect to any of its property, whether now owned or hereafter acquired, except for Permitted Liens.

7.5 Indebtedness. Create, incur, assume or suffer to exist any Indebtedness, other than Permitted Indebtedness or cause or suffer any Subsidiary to create, incur, assume or suffer to exist any Indebtedness, other than Permitted Indebtedness.

7.6 Distributions. Pay any dividends or distributions, or redeem or purchase, any capital stock, except for (i) repurchases of capital stock from employees, consultants or directors, under incentive stock option plans, restricted stock purchase agreements, repurchase agreements or other similar agreements approved by the Borrower's Board of Directors and (ii) dividends payable solely in capital stock.

7.7 Transactions with Affiliates. Directly or indirectly enter into any transaction with any affiliate which is on terms less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated entity; *provided*, any such transaction shall not be a breach of this Section 7.7 if (i) approved by a disinterested majority of the Borrower's Board of Directors, or (ii) such transaction involves sales, licensing or other transfers of property between Borrower and its Subsidiaries, or between Subsidiaries if the consideration for such sale or transfer is not less than cost (or the fair market value of such property, if lower), or (iii) such transaction involves intercompany loans that are otherwise permitted by **Section 7.5**.

7.8 Compliance. (i) Become regulated as an "investment company" under the Investment Company Act of 1940 or extend credit to purchase or carry margin stock; (ii) fail to meet the minimum funding requirements of ERISA; (iii) permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur; (iv) fail to comply with the Federal Fair Labor Standards Act; or (v) violate any other material law or material regulation.

7.9 UCC Effectiveness. Change its name, jurisdiction of organization, or take any other action that could render Lender's financing statements misleading under the Code, without giving Lender 30 days advance written notice.

7.10 Deposit and Securities Accounts. Maintain any deposit accounts or accounts holding securities owned by Borrower except accounts in which Lender has obtained a perfected first priority security interest with the exception of (i) account number [***] with Silicon Valley Bank or a successor account with Wells Fargo Bank securing a letter of credit in favor of Borrower's landlord in an amount not to exceed \$250,000 in principal amount; (ii) account number [***] with Comerica Bank or a successor account with Wells Fargo Bank securing a letter of credit in favor of a lender providing equipment financing to Borrower in an amount not to exceed \$500,000 in principal amount; or (iii) account number [***] with Wells Fargo Bank securing a letter of credit in favor of Borrower's landlord in an amount not to exceed \$137,527 in principal amount; or (iv) any other accounts at Silicon Valley Bank or Comerica Bank (other than those specified in clause (i) or (ii) of this **Section 7.10**, provided that such accounts are closed and such funds are move to deposit or securities accounts in which Lender has a perfect first priority security interest, on or before June 30, 2005.

8. EVENTS OF DEFAULT

Any one or more of the following shall constitute an Event of Default by Borrower hereunder:

8.1 Payment. Borrower fails to pay when due and payable in accordance with the Loan Documents any portion of the Obligations, or cancels an ACH payment or transfer Lender has initiated in conformity with the terms hereof *provided, however*, that an Event of Default shall not occur on account of a failure to pay due solely to an administrative or operational error if Borrower had the funds to make the payment when due and makes the payment the business day following Borrower's knowledge of such failure to pay.

8.2 Certain Covenant Defaults. Borrower fails to perform any obligation under **Section 6.5 or 6.6**, or violates any of the covenants contained in **Section 7**.

8.3 Other Covenant Defaults. Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant, or agreement contained in this Agreement, in any of the other Loan Documents, or in any other present or future agreement between Borrower and Lender and has failed to cure such failure within 30 days after its occurrence.

8.4 Attachment. Any material portion of Borrower's assets is attached, seized, subjected to a government levy, lien, writ or distress warrant, or comes into the possession of any trustee or receiver and the same is not returned, removed, waived, stayed, discharged or rescinded within 15 days.

8.5 Other Agreements. There is a default in any agreement to which Borrower is a party resulting in a right by a third party, whether or not exercised, to accelerate the maturity of any Indebtedness, in an amount greater than \$ 100,000.

8.6 Judgments. One or more judgments for an aggregate of at least \$100,000 is rendered against Borrower and remains unsatisfied and unstayed for more than 30 days.

8.7 Injunction. Borrower is enjoined, restrained, or in any way prevented by court order from continuing to conduct any material part of its business affairs, or if a judgment or other claim becomes a Lien upon any material portion of Borrower's assets.

8.8 Misrepresentation. Any representation, statement, or report made to Lender by Borrower was false or misleading when made in any material respect.

8.9 Enforceability. Lender's ability to enforce its rights against Borrower or any Collateral is impaired in any material respect, or Borrower asserts that any Loan Document is not a legal, valid and binding obligation of Borrower enforceable in accordance with its terms.

8.10 Involuntary Bankruptcy. An involuntary bankruptcy case remains undismissed or unstayed for 60 days or, if earlier, an order granting the relief sought is entered.

8.11 Voluntary Bankruptcy or Insolvency. Borrower commences a voluntary case under applicable bankruptcy or insolvency law, consents to the entry of an order for relief in an involuntary case under any such law, or consents or is subject to the appointment of or taking possession by a receiver, liquidator, assignee, trustee, custodian or other similar official of Borrower or any substantial part of its property, or makes an assignment for the benefit of creditors, or fails generally or admits in writing to its inability to pay its debts as they become due, or takes any corporate action in furtherance of any of the foregoing.

8.12 Merger without Assumption. Borrower or all or substantially all of Borrower's assets are acquired by or merged into any other business entity where more than 50% of Borrower's voting power is transferred by existing shareholders of Borrower, and such acquirer or resulting entity either: **(i)** does not pay off the Obligations at the closing of the acquisition, merger or sale; or **(ii)** does not provide an unconditional, unlimited guaranty of the Obligations in form and substance satisfactory to Lender and is of a credit quality unacceptable to Lender.

8.13 Liquidation Event. Borrower consummates a Liquidation Event where the acquirer or resulting entity either: **(i)** does not pay off the Obligations at the closing of the acquisition, merger or sale; or **(ii)** does not provide an unconditional, unlimited guaranty of the Obligations in form and substance satisfactory to Lender and is of a credit quality unacceptable to Lender.

8.14 General Electric Capital Corporation Indebtedness. The outstanding principal balance of Borrower owed to General Electric Capital Corporation in connection with any equipment financing shall be greater than \$2,500,000 at any time after December 31, 2006.

9. LENDER'S RIGHTS AND REMEDIES

9.1 Rights and Remedies. Upon the occurrence and continuance of any Event of Default, Lender may, at its election, without notice of election and without demand, do any one or more of the following, all of which are authorized by Borrower: **(i)** accelerate and declare the Loan and all Obligations immediately due and payable; **(ii)** make such payments and do such acts as Lender considers necessary or reasonable to protect its security interest in the Collateral, with such amounts becoming Obligations bearing interest at the Default Rate; **(iii)** exercise any and all other rights and remedies available under the UCC or otherwise; **(iv)** require Borrower to assemble the Collateral at such places as Lender may designate; **(v)** enter premises where any Collateral is located, take, maintain possession of, or render unusable the Collateral or any part of it; **(vi)** without notice to Borrower, set off and recoup against any portion of the Obligations; **(vii)** ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral, in connection with which Borrower hereby grants Lender a license to use without charge Borrower's premises, labels, name, trademarks, and other property necessary to complete, advertise, and sell any Collateral; and **(viii)** sell the Collateral at one or more public or private sales.

9.2 Power of Attorney in Respect of the Collateral. Borrower hereby irrevocably appoints Lender (which appointment is coupled with an interest) its true and lawful attorney in fact with full power of substitution, for it and in its name to, during the existence of an Event of Default: **(i)** ask, demand, collect, receive, sue for, compound and give acquittance for any and all Collateral with full power to settle, adjust or compromise any claim, **(ii)** receive payment of and endorse the name of Borrower on any items of Collateral, **(iii)** make all demands, consents and waivers, or take any other action with respect to, the Collateral, **(iv)** file any claim or take any other action, in Lender's or Borrower's name, which Lender may reasonably deem appropriate to protect its rights in the Collateral, or **(v)** otherwise act with respect to the Collateral as though Lender were its outright owner.

9.3 Charges. If Borrower fails to pay any amounts required hereunder to be paid by Borrower to any third party, Lender may at its option pay any part thereof and any amounts so paid including Lender's Expenses incurred shall become Obligations, immediately due and payable, bearing interest at the Default Rate, and secured by the Collateral. Any such payments by Lender shall not constitute an agreement to make similar payments or a waiver of any Event of Default.

9.4 Remedies Cumulative. Lender's rights and remedies under the Loan Documents and all other agreements with Borrower shall be cumulative. Lender shall have all other rights and remedies as provided under the UCC, by law, or in equity. No exercise by Lender of one right or remedy shall be deemed an election, and no waiver by Lender of any Event of Default shall be deemed a continuing waiver. No delay by Lender shall constitute a waiver, election, or acquiescence.

9.5 Application of Collateral Proceeds. Lender will apply proceeds of sale, to the extent actually received in cash, in the manner and order it determines in its sole discretion, and as prescribed by applicable law.

10. WAIVERS; INDEMNIFICATION

10.1 Waivers. Without limiting the generality of the other waivers made by Borrower herein, to the maximum extent permitted under applicable law, Borrower hereby irrevocably waives all of the following: **(i)** any right to assert *against Lender* as a defense, counterclaim, set-off or crossclaim, any defense (legal or equitable), set-off, counterclaim, crossclaim and/or other claim (a) which Borrower may now or at any time hereafter have against any party liable to Lender in any way or manner, or (b) arising directly or indirectly from the present or future lack of perfection, sufficiency, validity and/or enforceability of any Loan Document, or any security interest; **(ii)** notice of presentment, dishonor, notice of intent to accelerate, protest, default, nonpayment, maturity; **(iii)** the benefit of all marshalling, valuation, appraisal and exemption laws; **(iv)** the right, if any, to require Lender to (a) proceed against any person liable for any of the Obligations as a condition to or before proceeding hereunder; or (b) foreclose upon, sell or otherwise realize upon or collect or apply any other property, real or personal, securing any of the Obligations, as a condition to, or before proceeding hereunder; **(v)** any demand for possession before the commencement of any suit or action to recover possession of Collateral; and **(vi)** any requirement that Lender retain possession and not dispose of Collateral until after trial or final judgment.

10.2 Lender's Liability for Collateral. Lender shall not in any way or manner be liable or responsible for: **(i)** the safekeeping of any Collateral (except to the extent mandated by the UCC); **(ii)** any loss or damage thereto occurring or arising in any manner or fashion from any cause; **(iii)** any diminution in the value thereof; or **(iv)** any act or default of any carrier, warehouseman, bailee, forwarding agency, or other person or entity whomsoever. All risk of loss, damage or destruction of the Collateral shall be borne by Borrower. Lender will have no responsibility for taking any steps to preserve rights against any parties respecting any Collateral. Lender's powers hereunder are conferred solely to protect its interest in the Collateral and do not impose any duty to exercise any such powers. None of Lender or any of its officers, directors, employees, agents or counsel will be liable for any action lawfully taken or omitted to be taken hereunder or in connection herewith (excepting gross negligence or willful misconduct), nor under any circumstances have any liability to Borrower for lost profits or other special, indirect, punitive, or consequential damages. Lender retains any documents delivered by Borrower only for its purposes and for such period as Lender, at its sole discretion, may determine necessary, after which time Lender may destroy such records without notice to or consent from Borrower.

10.3 Indemnification. Borrower shall, on an after tax basis, defend, indemnify, and hold Lender and each of its officers, directors, employees, counsel, partners, agents and attorneys-in-fact (each, an "Indemnified Person") harmless from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, charges, expenses or disbursements (including Lender's Expenses and reasonable attorney's fees and the allocated cost of in-house counsel) of any kind or nature whatsoever with respect to the execution, delivery, enforcement, performance and administration of this Agreement and any other Loan Documents, or the transactions contemplated hereby and thereby, with respect to noncompliance with laws or regulations respecting Regulated Substances, government secrecy or technology export, or any Lien not created by Lender or right of another against any Collateral, even if the Collateral is foreclosed upon or sold pursuant hereto, and with respect to any investigation, litigation or proceeding before any agency, court or other governmental authority relating to this Agreement or the Advances or the use of the proceeds thereof, whether or not any Indemnified Person is a party thereto (all the foregoing, collectively, the "Indemnified Liabilities"); *provided*, that Borrower shall have no obligation hereunder to any Indemnified Person with respect to Indemnified Liabilities arising from the gross negligence or willful misconduct of such Indemnified Person. The obligations in this Section shall survive the Term. At the election of any Indemnified Person, Borrower shall defend such Indemnified Person using legal counsel satisfactory to such Indemnified Person, at the sole cost and expense of Borrower. All amounts owing under this Section shall be paid within 30 days after written demand.

11. NOTICES

All notices shall be in writing and personally delivered or sent by certified mail, postage prepaid, return receipt requested, or by confirmed facsimile, at the respective addresses set forth below:

If to Borrower:

Fluidigm Corporation
7100 Shoreline Court
South San Francisco, California 94080
Attention: General Counsel,
Director of Finance
FAX: (650)871-7152

If to Lender:

Lighthouse Capital Partners V, LP
500 Drake's Landing Road
Greenbrae, California 94904
Attention: Contract Administrator
FAX: (415)925-3387

12. GENERAL PROVISIONS

12.1 Successors and Assigns. This Agreement shall bind and inure to the benefit of the parties' respective successors and permitted assigns. Borrower may not assign any rights hereunder without Lender's prior written consent, which consent may be granted or withheld in Lender's sole discretion. Lender shall have the right without the consent of or notice to Borrower to sell, transfer, negotiate, or grant participations in all or any part of any Loan Document, *provided* that Lender shall not sell, transfer, negotiate, or grant participations in all or any part of any Loan Document to any competitor of Borrower.

12.2 Time of Essence. Time is of the essence for the performance of all Obligations.

12.3 Severability of Provisions. Each provision hereof shall be severable from every other provision in determining its legal enforceability.

12.4 Entire Agreement. This Agreement and each of the other Loan Documents dated as of the date hereof, taken together, constitute and contain the entire agreement between Borrower and Lender with respect to their subject matter and supersede any and all prior agreements, negotiations, correspondence, understandings and communications between the parties, whether written or oral. This Agreement is the result of negotiations between and has been reviewed by the Borrower and Lender as of the date hereof and their respective counsel; *accordingly*, this Agreement shall be deemed to be the product of the parties hereto, and no ambiguity shall be construed in favor of or against Borrower or Lender. This Agreement may only be modified with the written consent of Lender. Any waiver or consent with respect to any provision of the Loan Documents shall be effective only in the specific instance and for the specific purpose for which it was given. No notice to or demand on Borrower in any one case shall entitle Borrower to any other or further notice or demand in similar or other circumstances.

12.5 Reliance by Lender. All covenants, agreements, representations and warranties made herein by Borrower shall, notwithstanding any investigation by Lender, be deemed to be material to and to have been relied upon by Lender.

12.6 No Set-Offs by Borrower. All sums payable by Borrower pursuant to this Agreement or any of the other Loan Documents shall be payable without notice or demand and shall be payable in United States Dollars without set-off or reduction of any manner whatsoever.

12.7 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which, when taken together, shall constitute one and the same original instrument.

12.8 Survival. All covenants, representations and warranties made in this Agreement shall continue in full force and effect so long as any Obligations (other than inchoate indemnity obligations) remain outstanding.

12.9 No Original Issue Discount. Borrower and Lender acknowledge and agree that the Warrant is part of an investment unit within the meaning of Section 1273(c)(2) of the Internal Revenue Code, which includes the Loan. Borrower and Lender further agree as between them, that the fair market value of the Warrant is \$100 and that, pursuant to Treas. Reg. § 1.1273-2(h), \$100 of the issue price of the investment unit will be allocable to the Warrant and the balance shall be allocable to the Loans. Borrower and Lender agree to prepare their federal income tax returns in a manner consistent with the foregoing and, pursuant to Treas. Reg. § 1.1273, the original issue discount on the Loan shall be considered to be zero.

12.10 Relationship of Parties. The relationship between Borrower and Lender is, and at all times shall remain, solely that of a borrower and lender. Lender is not a partner or joint venturer of Borrower; nor shall Lender under any circumstances be deemed to be in a relationship of confidence or trust or have a fiduciary relationship with Borrower or any of its affiliates, or to owe any fiduciary duty to Borrower or any of its affiliates. Lender does not undertake or assume any responsibility or duty to Borrower or any of its affiliates to select, review, inspect, supervise, pass judgment upon or otherwise inform any of them of any matter in connection with its or their property, the Loans, any Collateral or the operations of Borrower or any of its affiliates. Borrower and each of its affiliates shall rely entirely on their own judgment with respect to such matters, and any review, inspection, supervision, exercise of judgment or supply of information undertaken or assumed by Lender in connection with such matters is solely for the protection of Lender and neither Borrower nor any affiliate is entitled to rely thereon.

12.11 Choice of Law and Venue; Jury Trial Waiver. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH OF BORROWER AND LENDER HEREBY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS LOCATED IN THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA. BORROWER AND LENDER HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF ANY OF THE LOAN DOCUMENTS OR ANY OF THE TRANSACTIONS CONTEMPLATED THEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

12.12 Termination. Upon the full, faithful and indefeasible payment and performance of all Obligations (other than inchoate indemnity obligations) and the termination of any commitment to extend credit under this Agreement, the security interest granted herein and under the other Loan Documents shall terminate and this Agreement and the other Loan Documents (other than the Warrant) shall terminate, except for any inchoate indemnity obligations under Section 10.3 of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

FLUIDIGM CORPORATION

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.,
its general partner

By: /s/ Gajus Worthington

By: /s/ Thomas Conneely

Name: Gajus Worthington

Name: Thomas Conneely

Title: PRESIDENT & CEO

Title: Vice President

Exhibit A	Collateral Description
Exhibit B	Form of Note
Exhibit C	Form of Preferred Stock Warrant
Exhibit D	Form of Notice of Borrowing
Exhibit E	Form of Incumbency Certificate
Exhibit F	Form of Officers Certificate
Exhibit G	ACH Authorization
Exhibit H	Form of Negative Pledge Agreement
Exhibit I	Control Agreement

EXHIBIT A

COLLATERAL

This FINANCING STATEMENT and SECURITY AGREEMENT covers all of Debtor's interests in all of the following types or items of property described on this **Exhibit A** (collectively, the "*Collateral*"), wherever located and whether now owned or hereafter acquired, and Debtor hereby grants Secured Party a security interest therein as collateral for the payment and performance of all present and future indebtedness, liabilities, guarantees and obligations of Debtor to Secured Party, howsoever arising. Debtor agrees that said security interest may be enforced by Secured Party in accordance with the terms of all security and other agreements between Secured Party and Debtor, the California Uniform Commercial Code, or both, and that this document shall be fully effective as a security agreement, even if there is no other security or other agreement between Secured Party or Debtor:

All assets of the Debtor; all personal property of Debtor;

All "accounts", "general intangibles", "chattel paper", "contract rights", "documents", "instruments", "deposit accounts", "inventory", "farm products", "fixtures" and "equipment", as such terms are defined in Division 9 of the California Uniform Commercial Code in effect on the date hereof;

All general intangibles of every kind, including without limitation, federal, state and local tax refunds and claims of all kinds; all rights as a licensee or any kind; all customer lists, telephone numbers, and purchase orders, and all rights to purchase, lease sell, or otherwise acquire or deal with real or personal property and all rights relating thereto;

All returned and repossessed goods and all rights as a seller of goods; all collateral securing any of the foregoing; all deposit accounts, special and general, whether on deposit with Secured Party or others;

All life and other insurance policies, claims in contract, tort or otherwise, and all judgments now or hereafter arising therefrom;

All right, title and interest of Debtor, and all of Debtor's rights, remedies, security and liens, in, to and in respect of all accounts and other collateral, including, without limitation, rights of stoppage in transit, replevin, repossession and reclamation and other rights and remedies of an unpaid vendor, lienor or secured party, and all guarantees and other contracts of suretyship with respect to any accounts and other collateral, and all deposits and other security for any accounts and other collateral, and all credit and other insurance;

All notes, drafts, letters of credit, contract rights, and things in action; all drawings, specifications, blueprints and catalogs; and all raw materials, work in process, materials used or consumed in Debtor's business, goods, finished goods, returned goods and all other goods and inventory of whatsoever land or nature, any and all wrapping, packaging, advertising and shipping materials, and all documents relating thereto, and all labels and other devices, names and marks affixed or to be affixed thereto for purposes of selling or identifying the same or the seller or manufacturer thereof;

All inventory wherever located; all present and future claims against any supplier of any of the foregoing, including claims for defective goods or overpayments to or undershipments by suppliers; all proceeds arising from the lease or rental of any of the foregoing;

All equipment and fixtures, including without limitation all machinery, machine tools, motors, controls, parts, vehicles, workstations, tools, dies, jigs, furniture, furnishings and fixtures; and all attachments, accessories, accessions and property now or hereafter affixed to or used in connection with any of the foregoing, and all substitutions and replacements for any of the foregoing; all warranty and other claims against any vendor or lessor of any of the foregoing;

All investment property;

All books, records, ledger cards, computer data and programs and other property and general intangibles at any time evidencing or relating to any or all of the foregoing; and

All cash and non-cash products and proceeds of any of the foregoing, in whatever form, including proceeds in the form of inventory, equipment or any other form of personal property, including proceeds of proceeds and proceeds of insurance, and all claims by Debtor against third parties for loss or damage to, or destruction of, or otherwise relating to, any or all of the foregoing.

NOTICE — PURSUANT TO AN AGREEMENT BETWEEN DEBTOR AND SECURED PARTY, DEBTOR HAS AGREED NOT TO FURTHER ENCUMBER THE COLLATERAL DESCRIBED HEREIN (EXCEPT AS EXPRESSLY PERMITTED PURSUANT TO SUCH AGREEMENT), THE FURTHER ENCUMBERING OF WHICH MAY CONSTITUTE THE TORTIOUS INTERFERENCE

WITH SECURED PARTY'S RIGHTS BY SUCH ENCUMBRANCER. IN THE EVENT THAT ANY ENTITY IS GRANTED A SECURITY INTEREST IN DEBTOR'S ACCOUNTS, CHATTEL PAPER, GENERAL INTANGIBLES OR OTHER ASSETS CONTRARY TO THE ABOVE, THE SECURED PARTY ASSERTS A CLAIM TO ANY PROCEEDS THEREOF RECEIVED BY SUCH ENTITY.

Notwithstanding any of the foregoing, this Financing Statement and Security Agreement does not cover any of Debtor's interests in, and the Collateral shall not under any circumstance include, and no security interest is granted in, (i) any property that is subject to a Lien that is otherwise permitted pursuant to subsection (v) of the definition of "Permitted Liens" as defined in that certain Loan and Security Agreement, dated as of March 29, 2005, by and between Secured Party and Debtor, and Secured Party agrees to execute any instruments or documents necessary to evidence the intent of the foregoing, (ii) more than 65% of the issued and outstanding voting securities of any subsidiary of Debtor that is not incorporated or organized in the United States, or (iii) Debtor's Intellectual Property, including, without limitation, any and all property of the Debtor that is subject to, listed in or otherwise described in the Negative Pledge Agreement dated March 29, 2005 between the Secured Party and the Debtor. "Intellectual Property" means, collectively, all rights, priorities and privileges of the Debtor relating to intellectual property, in any medium, of any kind or nature whatsoever, now or hereafter owned or acquired or received by Debtor, or in which Debtor now holds or hereafter acquires or receives any right or interest, whether arising under United States, multinational or foreign laws or otherwise, and shall include, in any event, all copyrights, copyright licenses, patents, patent licenses, trademarks, trademark licenses, trade secrets, internet domain names (including any right related to the registration thereof), proprietary or confidential information, mask works, sources object or other programming codes, inventions (whether or not patented or patentable), technical information, procedures, designs, knowledge, know-how, software, data base, data, skill, expertise, recipe, experience, process, models, drawings, materials or records. Notwithstanding the foregoing, Intellectual Property as defined above does not include proceeds or other revenue consisting of accounts, accounts receivable, royalties, licensing fees, or payment intangibles obtained or owed from or on account of the licensing or other exploitation or disposition of Intellectual Property, none of which are excluded, and all of which are included as collateral in the security interest granted by Debtor to Secured Party.

"DEBTOR"

FLUIDIGM CORPORATION, a California corporation

By: _____

Name: _____

Title: _____

"SECURED PARTY"

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.,
its general partner

By: _____

Name: _____

Title: _____

EXHIBIT B

[_____]

SECURED PROMISSORY NOTE

This SECURED PROMISSORY NOTE (this "Note") is made _____, 200____, by FLUIDIGM CORPORATION ("Borrower") in favor of LIGHTHOUSE CAPITAL PARTNERS V, L.P. (collectively with its assigns, "Lender"). Initially capitalized terms used and not otherwise defined herein are defined in that certain Loan and Security Agreement No. 4561 between Borrower and Lender dated March 29, 2005 (the "Loan Agreement").

FOR VALUE RECEIVED, Borrower promises to pay in lawful money of the United States, to the order of Lender, at 500 Drake's Landing Road, Greenbrae, California 94904, or such other place as Lender may from time to time designate ("Lender's Office"), the principal sum of \$_____ (the "Advance"), including interest on the unpaid balance and all other amounts due or to become due hereunder according to the terms hereof and of the Loan Agreement.

"Basic Rate" means a variable *per annum* rate of interest equal to the Index plus the Interest Margin which shall be subject to adjustment as provided herein. On and after the Loan Commencement Date the Basic Rate shall be fixed and not subject to any further adjustments.

"Final Payment" means 9% of the Advance.

"Index" means the prevailing variable Prime Rate of annual interest as quoted from time to time in the western edition of the Wall Street Journal.

"Interest Margin" means 2.5% per annum.

"Loan Commencement Date" means March 1, 2006.

"Maturity Date" means the last day of the Repayment Period, or if earlier, the date of prepayment under the Note.

"Payment Date" means the first day of each calendar month.

"Prepayment Fee" means (i) if prepaid in the calendar year 2006, 3% of the outstanding principal amount being prepaid; (ii) if prepaid in the calendar year 2007, 2% of the outstanding principal amount being prepaid; and (iii) if prepaid in the calendar year 2008 or 2009, 1% of the outstanding principal amount being prepaid.

"Repayment Period" means the period beginning on the Loan Commencement Date and continuing for 36 calendar months.

1. Repayment. Borrower shall pay principal and interest due hereunder from the Funding Date, until this Note is paid in full, on each Payment Date pursuant to the terms of the Loan Agreement and this Note. Prior to the Loan Commencement Date, Borrower shall pay to Lender, monthly in advance on each Payment Date, interest calculated using the Basic Rate prevailing on the first business day of such calendar month. Beginning on the Loan Commencement Date and on each Payment Date thereafter during the Repayment Period, Borrower shall make equal installments of principal and interest in advance, calculated at the Basic Rate. On the Maturity Date, Borrower shall pay, in addition to all unpaid principal and interest outstanding hereunder, the Final Payment.

2. Interest. Interest not paid when due will, to the maximum extent permitted under applicable law, become part of principal, at Lender's option, and thereafter bear like interest as principal. Interest shall be computed on the basis of a 360 day year. All Obligations not paid when due shall bear interest at the Default Rate unless waived in writing by Lender. All amounts paid hereunder will be applied to the Obligations in Lender's discretion and as provided in the Loan Agreement.

3. Voluntary Prepayment. Borrower may prepay the Note if and only if Borrower pays to Lender (i) the outstanding principal amount of this Note and any unpaid accrued interest (ii) the Final Payment, (iv) the Prepayment Fee, and (v) all other sums, if any, that shall have become due and payable hereunder with respect to this Note.

4. Collateral. This Note is secured by the Collateral.

5. **Waivers.** Borrower, and all guarantors and endorsers of this Note, regardless of the time, order or place of signing, hereby waive notice, demand, presentment, protest, and notices of every kind, presentment for the purpose of accelerating maturity, diligence in collection to the fullest extent permitted by law.

6. **Choice of Law; Venue.** This Note shall be governed by, and construed in accordance with the internal laws of the State of California, without regard to principles of conflicts of law. Each of Borrower and Lender hereby submits to the exclusive jurisdiction of the State and Federal courts located in the City and County of San Francisco, State of California. Borrower and Lender each hereby waive their respective rights to a jury trial of any claim or cause of action based upon or arising out of this Note. Each party further waives any right to consolidate any action in which a jury trial has been waived with any other action in which a jury trial cannot be or has not been waived.

7. **Miscellaneous.** The Note may be modified only by a writing signed by Borrower and Lender. Each provision hereof is severable from every other provision hereof and of the Loan Agreement when determining its legal enforceability. Sections and subsections are titled for convenience, and not for construction. "Hereof," "herein," "hereunder," and similar words refer to this Note in its entirety. "Or" is not necessarily exclusive. "Including" is not limiting. The terms and conditions hereof inure to the benefit of and are binding upon the parties' respective permitted successors and assigns. This Note is subject to all the terms and conditions of the Loan Agreement.

In witness whereof, Borrower has caused this Note to be executed by a duly authorized officer as of the day and year first above written.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

EXHIBIT C
WARRANTS

NEITHER THIS WARRANT NOR THE SHARES OF CAPITAL STOCK ISSUABLE UPON EXERCISE HEREOF HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "1933 ACT"), OR ANY APPLICABLE STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD OR TRANSFERRED UNLESS SUCH SALE OR TRANSFER IS IN ACCORDANCE WITH THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS OR THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL, REASONABLY ACCEPTABLE TO THE COMPANY, TO THE EFFECT THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS.

PREFERRED STOCK PURCHASE WARRANT

Warrant No. _____

Number of Shares: initially, 185,714
Series D Preferred Stock
subject to increase as set forth below

FLUIDIGM CORPORATION

Effective as of March 29, 2005

Void after March 29, 2012

1. Issuance. This Preferred Stock Purchase Warrant (the "Warrant") is issued to LIGHTHOUSE CAPITAL PARTNERS V, L.P. by FLUIDIGM CORPORATION, a California corporation (hereinafter with its successors called the "Company").

2. Purchase Price; Number of Shares.

(a) The registered holder of this Warrant (the "Holder"), commencing on the date hereof, is entitled upon surrender of this Warrant with the subscription form annexed hereto duly executed, at the principal office of the Company, to purchase from the Company, at a price per share of \$2.80 (the "Purchase Price"), 185,714 fully paid and nonassessable shares of the Company's Series D Preferred Stock, (the "Exercise Quantity"), \$0.001 par value (the "Preferred Stock").

(b) On the Commitment Termination Date, the Exercise Quantity shall automatically be increased by such additional number of shares (rounded to the nearest whole share) of Series D Preferred Stock, if any, as is equal to the amount determined by dividing (A) 4% of the Aggregate Advances under the Loan Agreement, if any, by (B) the Purchase Price

In addition to other terms which may be defined herein, the following terms, as used in this Warrant, shall have the following meanings:

- (i) "Aggregate Advances" means the aggregate original dollar amount of all Advances made under the Loan Agreement, whether such Advances are outstanding or prepaid, at the time of any scheduled adjustment to the Exercise Quantity.
- (ii) "Loan Agreement" means that certain Loan and Security Agreement No. 4561 dated March 29, 2005 between the Company and Lighthouse Capital Partners V, L.P..

Any capitalized term not defined herein shall have the meaning as set forth in the Loan Agreement.

Until such time as this Warrant is exercised in full or expires, the Purchase Price and the securities issuable upon exercise of this Warrant are subject to adjustment as hereinafter provided. The person or persons in whose name or names any certificate representing shares of Preferred Stock is issued hereunder shall be deemed to have become the holder of record of the shares represented thereby as at the close of business on the date this Warrant is exercised with respect to such shares, whether or not the transfer books of the Company shall be closed.

3. Payment of Purchase Price. The Purchase Price may be paid (i) in cash or by check, (ii) by the surrender by the Holder to the Company of any promissory notes or other obligations issued by the Company, with all such notes and obligations so surrendered being credited against the Purchase Price in an amount equal to the principal amount thereof plus accrued interest to the date of surrender, or (iii) by any combination of the foregoing.

4. Net Issue Election. The Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Preferred Stock equal to the value of this Warrant or any portion hereof by the surrender of this Warrant or such portion to the Company, with the net issue election notice annexed hereto duly executed, at the principal office of the Company. Thereupon, the Company shall issue to the Holder such number of fully paid and nonassessable shares of Preferred Stock as is computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

- where: X = the number of shares of Preferred Stock to be issued to the Holder pursuant to this **Section 4**.
- Y = the number of shares of Preferred Stock covered by this Warrant in respect of which the net issue election is made pursuant to this **Section 4**.
- A = the Fair Market Value (defined below) of one share of Preferred Stock, as determined at the time the net issue election is made pursuant to this **Section 4**.
- B = the Purchase Price in effect under this Warrant at the time the net issue election is made pursuant to this **Section 4**.

“Fair Market Value” of a share of Preferred Stock (or fully paid and nonassessable shares of the Company’s common stock, \$0.001 par value (the “Common Stock”) if the Preferred Stock has been automatically converted into Common Stock) as of the date that the net issue election is made (the “Determination Date”) shall mean:

(i) If the net issue election is made in connection with and contingent upon the closing of the sale of the Company’s Common Stock to the public in a public offering pursuant to a Registration Statement under the Securities Act of 1933, as amended (a “Public Offering”), and if the Company’s Registration Statement relating to such Public Offering (“Registration Statement”) has been declared effective by the Securities and Exchange Commission, then the initial “Price to Public” specified in the final prospectus with respect to such offering multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible.

(ii) If the net issue election is not made in connection with and contingent upon a Public Offering, then as follows:

(a) If traded on a securities exchange or the Nasdaq National Market, the fair market value of the Common Stock shall be deemed to be the average of the closing or last reported sale prices of the Common Stock on such exchange or market over the five day period ending five trading days prior to the Determination Date, and the fair market value of the Preferred Stock shall be deemed to be such fair market value of the Common Stock multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible;

(b) If otherwise traded in an over-the-counter market, the fair market value of the Common Stock shall be deemed to be the average of the closing ask prices of the Common Stock over the five day period ending five trading days prior to the Determination Date, and the fair market value of the Preferred Stock shall be deemed to be such fair market value of the Common Stock multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible; and

(c) If there is no public market for the Common Stock, then fair market value shall be determined in good faith by the Company's Board of Directors.

5. Partial Exercise. This Warrant may be exercised in part, and the Holder shall be entitled to receive a new warrant, which shall be dated as of the date of this Warrant, covering the number of shares in respect of which this Warrant shall not have been exercised.

6. Fractional Shares. In no event shall any fractional share of Preferred Stock be issued upon any exercise of this Warrant. If, upon exercise of this Warrant in its entirety, the Holder would, except as provided in this Section 6, be entitled to receive a fractional share of Preferred Stock, then the Company shall issue the next higher number of full shares of Preferred Stock, issuing a full share with respect to such fractional share.

7. Expiration Date; Automatic Exercise. This Warrant shall expire at the close of business on March 29, 2012, and shall be void thereafter (the "Expiration Date"). Notwithstanding the term of this Warrant fixed pursuant to this Section 7, and provided Holder has received advance written notice of at least twenty (20) days and has not earlier exercised this Warrant, and provided this Warrant has not been assumed by the successor entity (or parent thereof), upon the consummation of a Merger (as defined below), this Warrant shall automatically be exercised pursuant to Section 4 hereof, without any action by Holder. "Merger" means: (i) a sale of all or substantially all of the Company's assets to an Unaffiliated Entity (as defined below), or (ii) the merger, consolidation or acquisition of the Company with, into or by an Unaffiliated Entity (other than a merger or consolidation for the principle purpose of changing the domicile of the Company or a bona fide round of preferred stock equity financing), that results in the Company's shareholders immediately prior to such merger, consolidation, or acquisition holding, immediately thereafter, less than a majority of the outstanding voting securities of the successor corporation or its parent. "Unaffiliated Entity" means any entity that is owned or controlled by parties who own less than twenty percent (20%) of the combined voting power of the voting securities of the Company immediately prior to such merger or sale of assets, consolidation or acquisition. Notwithstanding the foregoing, in the event that any outstanding warrants to purchase equity securities of the Company (it being acknowledged and agreed that options to acquire common stock issued to officers, directors, employees and consultants shall not be deemed "warrants") are assumed by the successor entity of a Merger (or parent thereof), this Warrant shall also be similarly assumed and the automatic exercise provision in this Section 7 shall have no effect. The Company agrees to give the Holder written notice promptly after it has entered into a definitive agreement relating to any proposed Merger and written notice of termination of any definitive agreement relating to any proposed Merger. Notwithstanding anything to the contrary in this Warrant, (i) the Holder may expressly make any voluntary exercise of this Warrant contingent on, and effective immediately prior to, the consummation of such Merger and (ii) any automatic exercise of this Warrant in connection with a Merger shall be conditioned on consummation of such Merger and shall be effective immediately prior thereto.

8. Reserved Shares; Valid Issuance. The Company covenants that it will at all times from and after the date hereof reserve and keep available such number of its authorized shares of Preferred Stock and Common Stock free from all preemptive or similar rights therein, as will be sufficient to permit, respectively, the exercise of this Warrant in full and the conversion into shares of Common Stock of all shares of Preferred Stock receivable upon such exercise. The Company further covenants that such shares as may be issued pursuant to such exercise and/or conversion will, upon issuance, be duly and validly issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issuance thereof.

9. Stock Splits and Dividends. If after the date hereof the Company shall subdivide the Preferred Stock, by split-up or otherwise, or combine the Preferred Stock, or issue additional shares of Preferred Stock in payment of a stock dividend on the Preferred Stock, the number of shares of Preferred Stock issuable on the exercise

of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination, and the Purchase Price shall forthwith be proportionately decreased in the case of a subdivision or stock dividend, or proportionately increased in the case of a combination.

10. Adjustments for Diluting Issuances. The antidilution rights applicable to the Series D Preferred Stock of the Company are set forth in the Amended and Restated Articles of Incorporation, as amended from time to time (the "Articles"), a true and complete copy in its current form which has been made available to Holder. Such rights shall not be restated, amended or modified in any manner which affects the Holder differently than the holders of outstanding Series D Preferred Stock without such Holder's prior written consent. The Company shall provide the Holder hereof with any restatement, amendment or modification to the Articles promptly after the same has been made.

11. Mergers and Reclassifications. (a) Except as set forth in Section 7, If after the date hereof the Company shall enter into any Reorganization (as hereinafter defined), then, as a condition of such Reorganization, lawful provisions shall be made, and duly executed documents evidencing the same from the Company or its successor shall be delivered to the Holder, so that the Holder shall thereafter have the right to purchase, at a total price not to exceed that payable upon the exercise of this Warrant in full, the kind and amount of shares of stock and other securities and property receivable upon such Reorganization by a holder of the number of shares of Preferred Stock which might have been purchased by the Holder immediately prior to such Reorganization, and in any such case appropriate provisions shall be made with respect to the rights and interest of the Holder to the end that the provisions hereof (including without limitation, provisions for the adjustment of the Purchase Price and the number of shares issuable hereunder and the provisions relating to the net issue election) shall thereafter be applicable in relation to any shares of stock or other securities and property thereafter deliverable upon exercise hereof. For the purposes of this Section 11, the term "Reorganization" shall include without limitation any reclassification, capital reorganization or change of the Preferred Stock (other than as a result of a subdivision, combination or stock dividend provided for in Section 9 hereof), or any consolidation of the Company with, or merger of the Company into, another corporation or other business organization (other than a merger in which the Company is the surviving corporation and which does not result in any reclassification or change of the outstanding Preferred Stock), or any sale or conveyance to another corporation or other business organization of all or substantially all of the assets of the Company.

(b) Notwithstanding any other provision of this Warrant, in the event of an automatic conversion of the Company's outstanding Series D Preferred Stock into Common Stock in accordance with the Company's Articles, as in effect from time to time, this Warrant shall thereafter represent the right to acquire for the aggregate Purchase Price (as then in effect) the number of shares of Common Stock into which the number of shares of Preferred Stock issuable upon exercise of this Warrant would have then been convertible.

12. Certificate of Adjustment. Whenever the Purchase Price is adjusted, as herein provided, the Company shall promptly deliver to the Holder a certificate of the Company's chief financial officer (or other appropriate officer) setting forth the Purchase Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

13. Notices of Record Date, Etc. In the event of:

(a) any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, or any right to subscribe for, purchase, sell or otherwise acquire or dispose of any shares of stock of any class or any other securities or property, or to receive any other right;

(b) any reclassification of the capital stock of the Company, capital reorganization of the Company, consolidation or merger involving the Company, or sale or conveyance of all or substantially all of its assets; or

(c) any voluntary or involuntary dissolution, liquidation or winding-up of the Company;

then in each such event the Company will provide or cause to be provided to the Holder a written notice thereof. Such notice shall be provided at least twenty (20) business days prior to the date specified in such notice on which any such action is to be taken.

14. Representations, Warranties and Covenants. This Warrant is issued and delivered by the Company and accepted by each Holder on the basis of the following representations, warranties and covenants made by the Company:

(a) The Company has all necessary corporate power and authority to issue, execute and deliver this Warrant and to perform its obligations hereunder. This Warrant has been duly authorized issued, executed and delivered by the Company and is the valid and binding obligation of the Company, enforceable in accordance with its terms, except as enforceability may be limited by bankruptcy or similar laws relating to the enforcement of creditors' rights generally.

(b) The shares of Preferred Stock issuable upon the exercise of this Warrant have been duly authorized and reserved for issuance by the Company and, when issued in accordance with the terms hereof, will be validly issued, fully paid and nonassessable.

(c) The issuance, execution and delivery of this Warrant do not, and the issuance of the shares of Preferred Stock upon the exercise of this Warrant in accordance with the terms hereof will not, (i) violate or contravene the Company's Articles or by-laws, or any law, statute, regulation, rule, judgment or order applicable to the Company, (ii) violate, contravene or result in a breach or default under any contract, agreement or instrument to which the Company is a party or by which the Company or any of its assets are bound or (iii) require the consent or approval of or the filing of any notice or registration with any person or entity (other than such notices or filings as may be required under applicable securities laws).

(d) As long as this Warrant is, or any shares of Preferred Stock issued upon exercise of this Warrant or any shares of Common Stock issued upon conversion of such shares of Preferred Stock are, issued and outstanding, the Company will provide to the Holder the financial and other information described in that certain Loan and Security Agreement No. 4561 between the Company and Lighthouse Capital Partners V, L.P. dated as of March 29, 2005.

(e) As of the date hereof, the authorized capital stock of the Company consists of (i) 65,500,000 shares of Common Stock, of which 8,909,357 shares are issued and outstanding and 185,714 shares are reserved for issuance upon the exercise of this Warrant with respect to Common Stock and the conversion of the Preferred Stock into Common Stock if this Warrant is exercised with respect to Preferred Stock, (ii) 2,727,273 shares of Series A Preferred Stock, of which 2,727,273 are issued and outstanding shares, (iii) 6,460,675 shares of Series B Preferred Stock, of which 6,460,675 are issued and outstanding shares, (iv) 20,551,163 shares of Series C Preferred Stock, of which 16,364,832 are issued and outstanding shares, and (v) 13,887,716 shares of Series D Preferred Stock, of which 7,292,127 are issued and outstanding shares. Company has delivered a capitalization table to Holder summarizing the capitalization of the Company. At the request of Holder, not more than once per calendar quarter, the Company will provide Holder with a current capitalization table indicating changes, if any, to the number of outstanding shares of common stock and preferred stock.

15. Registration Rights. The Company grants to the Holder all the rights of a "Holder" [and an "Investor"] under the Company's Amended and Restated Investors' Rights Agreement dated as of December 18, 2003 (the "Rights Agreement"), including, without limitation, the registration rights contained therein, and agrees to amend the Rights Agreement so that (i) the shares of Common Stock issuable upon conversion of the shares of Preferred Stock issuable upon exercise of this Warrant shall be "Registrable Securities," and (ii) the Holder shall be a "Holder" [and an "Investor"] for all purposes of such Rights Agreement.

16. Amendment. The terms of this Warrant may be amended, modified or waived only with the written consent of the Holder and the Company.

17. Representations and Covenants of the Holder. This Warrant has been entered into by the Company in reliance upon the following representations and covenants of the Holder, which by its execution hereof the Holder hereby confirms:

(a) **Investment Purpose.** The right to acquire Preferred Stock or the Preferred Stock issuable upon exercise of the Holder's rights contained herein will be acquired for investment and not with a view to the sale or distribution of any part thereof, and the Holder has no present intention of selling or engaging in any public distribution of the same except pursuant to a registration or exemption.

(b) **Accredited Investor.** Holder is an "accredited investor" within the meaning of Rule 501 of Regulation D, promulgated under the 1933 Act as presently in effect.

(c) **Private Issue.** The Holder understands (i) that neither the issuance of this Warrant nor the issuance of any shares of the Company's capital stock issuable upon exercise of the Holder's rights contained herein has been registered under the 1933 Act or qualified under applicable state securities laws on the ground that the issuances contemplated by this Warrant will be exempt from the registration and qualifications requirements thereof, and (ii) that the Company's reliance on such exemption is predicated on the representations of the Holder set forth in this **Section 17**.

(d) **Financial Risk.** The Holder has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment and has the ability to bear the economic risks of its investment.

18. Notices, Transfers, Etc.

(a) Any notice or written communication required or permitted to be given to the Holder may be given by certified mail or delivered to the Holder at the address most recently provided by the Holder to the Company.

(b) Subject to compliance with applicable federal and state securities laws, this Warrant may be transferred by the Holder with respect to any or all of the shares purchasable hereunder. Upon surrender of this Warrant to the Company, together with the assignment notice annexed hereto duly executed, for transfer of this Warrant as an entirety by the Holder, the Company shall issue a new warrant of the same denomination to the assignee. Upon surrender of this Warrant to the Company, together with the assignment hereof properly endorsed, by the Holder for transfer with respect to a portion of the shares of Preferred Stock purchasable hereunder, the Company shall issue a new warrant to the assignee, in such denomination as shall be requested by the Holder hereof, and shall issue to such Holder a new warrant covering the number of shares in respect of which this Warrant shall not have been transferred.

(c) In case this Warrant shall be mutilated, lost, stolen or destroyed, the Company shall issue a new warrant of like tenor and denomination and deliver the same (i) in exchange and substitution for and upon surrender and cancellation of any mutilated Warrant, or (ii) in lieu of any Warrant lost, stolen or destroyed, upon receipt of an affidavit of the Holder or other evidence reasonably satisfactory to the Company of the loss, theft or destruction of such Warrant.

19. No Impairment. The Company will not, by amendment of its Articles or through any reclassification, capital reorganization, consolidation, merger, sale or conveyance of assets, dissolution, liquidation, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance of performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder. In no event shall any reclassification, capital reorganization, consolidation, merger, sale or conveyance of assets, dissolution, liquidation, issue or sale of securities or any other transaction be deemed an "impairment" for purposes of this Section 18 if the shares of the Company's capital stock issuable upon exercise of this Warrant are affected thereby in the same manner as outstanding shares of such capital stock.

20. Governing Law. The provisions and terms of this Warrant shall be governed by and construed in accordance with the internal laws of the State of California without giving effect to its principles regarding conflicts of laws.

21. Successors and Assigns. This Warrant shall be binding upon the Company's successors and assigns and shall inure to the benefit of the Holder's successors, legal representatives and permitted assigns.

22. Business Days. If the last or appointed day for the taking of any action required or the expiration of any rights granted herein shall be a Saturday or Sunday or a legal holiday in California, then such action may be taken or right may be exercised on the next succeeding day which is not a Saturday or Sunday or such a legal holiday.

23. Value. The Company and the Holder agree that the value of this Warrant on the date of grant is \$100.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

Subscription

To: _____

Date: _____

The undersigned hereby subscribes for _____ shares of Preferred Stock covered by this Warrant. The certificate(s) for such shares shall be issued in the name of the undersigned or as otherwise indicated below:

Signature

Name for Registration

Mailing Address

Net Issue Election Notice

To: _____

Date: _____

The undersigned hereby elects under **Section 4** to surrender the right to purchase shares of Preferred Stock pursuant to this Warrant. The certificate(s) for such shares issuable upon such net issue election shall be issued in the name of the undersigned or as otherwise indicated below:

Signature

Name for Registration

Mailing Address

Assignment

For value received _____ hereby sells, assigns and transfers unto

[Please print or typewrite name and address of Assignee]

the within Warrant, and does hereby irrevocably constitute and appoint _____ its attorney to transfer the within Warrant on the books of the within named Company with full power of substitution on the premises.

Dated: _____

Signature

Name for Registration

In the Presence of:

ЕХИВТ А

Amended and Restated Articles of Incorporation

Superseded by Exhibit 3.1 filed with Registration Statement on Form S-1 on April 14, 2008.

EXHIBIT D
NOTICE OF BORROWING

_____, _____
Lighthouse Capital Partners V, L.P.
500 Drake's Landing Road
Greenbrae, CA 94904-3011

Ladies and Gentlemen:

Reference is made to the Loan and Security Agreement No. 4561 dated as of March 29, 2005 (as it has been and may be amended from time to time, the "*Loan Agreement*," initially capitalized terms used herein as defined therein), between LIGHTHOUSE CAPITAL PARTNERS V, L.P. and FLUIDIGM CORPORATION (the "*Company*")

The undersigned is the President and CEO of the Company, and hereby irrevocably requests an Advance under the Loan Agreement, and in that connection certifies as follows:

1. The amount of the proposed Advance is \$ _____. The business day of the proposed Advance is _____.
2. The Loan Commencement Date for this Advance shall be March 1, 2006.
3. As of this date, no Event of Default, or event which with notice or the passage of time would constitute an Event of Default, has occurred and is continuing, or will result from the making of the proposed Advance, and the representations and warranties of the Company contained in **Section 5** of the Loan Agreement are true and correct in all material respects.
4. No event that could reasonably be expected to have a material adverse effect on the ability of Borrower to fulfill its obligations under the Loan Agreement has occurred since the date of the most recent financial statements, submitted to you by the Company.

The Company agrees to notify you promptly before the funding of the Advance if any of the matters to which I have certified above shall not be true and correct on the Funding Date.

Very truly yours,

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

EXHIBIT E
INCUMBENCY CERTIFICATE

The undersigned, William Smith, hereby certifies that:

1. He/She is the duly elected and acting General Counsel and Vice President of Legal Affairs of **FLUIDIGM CORPORATION**, a California corporation (the "*Company*").
2. That on the date hereof, each person listed below holds the office in the Company indicated opposite his or her name and that the signature appearing thereon is the genuine signature of each such person:

<u>NAME</u>	<u>OFFICE</u>	<u>SIGNATURE</u>
Gajus Worthington	President and CEO	_____
William Smith	General Counsel and Vice President of Legal Affairs	_____

3. Attached hereto as **Exhibit A** is a true and correct copy of the Articles of Incorporation of the Company, as amended, as in effect as of the date hereof.
4. Attached hereto as **Exhibit B** is a true and correct copy of the Bylaws of the Company, as amended, as in effect as of the date hereof.
5. Attached hereto as **Exhibit C** is a copy of the resolutions of the Board of Directors of the Company authorizing and approving the Company's execution, delivery and performance of a loan facility with Lighthouse Capital Partners V, L.P.

IN WITNESS WHEREOF, the undersigned has executed this Incumbency Certificate on March 29, 2005.

FLUIDIGM CORPORATION

By: _____

Name: William Smith

Title: General Counsel and Vice President of Legal Affairs

I, the President and CEO of the Company, do hereby certify that William Smith is the duly qualified, elected and acting General Counsel and Vice President of Legal Affairs of the Company and that the above signature is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has executed and delivered this Officer's Certificate on March 29, 2005.

FLUIDIGM CORPORATION

By: _____

Name: Gajus Worthington

Title: President and CEO

EXHIBIT F
OFFICER'S CERTIFICATE

The undersigned, to induce **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** ("*Lender*"), to extend or continue financial accommodations to **FLUIDIGM CORPORATION**, a California corporation (the "*Borrower*") pursuant to the terms of that certain Loan and Security Agreement dated March 29, 2005 (the "*Loan Agreement*"), hereby certifies that on the date hereof:

1. I am the duly elected and acting _____ of Borrower.
2. I am a Responsible Officer as that term is defined in the Loan Agreement.
3. The information submitted herewith complies with **Sections 5.7** and **6.2** of the Loan Agreement.
4. The financial statements delivered herewith fairly present the financial condition of Borrower
5. Borrower is currently able to meet its obligations as they come due.
6. I understand that Lender is relying upon the truthfulness, accuracy and completeness hereof in connection with the Loan Agreement.
7. I will advise you if it comes to my attention that, as of the date hereof, the information submitted herewith was not in fact true, correct and complete.

IN WITNESS WHEREOF, the undersigned has executed this Officer's Certificate on _____.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

EXHIBIT H
NEGATIVE PLEDGE AGREEMENT

THIS NEGATIVE PLEDGE AGREEMENT is made as of March 29, 2005, by and between **FLUIDIGM CORPORATION** ("*Borrower*") and **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** ("*Lender*").

In consideration of the Loan and Security Agreement between the parties of proximate date herewith (the "*Loan Agreement*"), Borrower agrees as follows:

Except as otherwise permitted in the Loan Agreement, Borrower shall not sell, transfer, assign, mortgage, pledge, lease, grant a security interest in, or encumber any of Borrower's owned intellectual property, including, without limitation, the following:

- (a) Any and all copyright rights, copyright applications, copyright registration and like protection in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held (collectively, the "*Copyrights*");
- (b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;
- (c) Any and all design rights which may be available to Borrower now or hereafter existing, created, acquired or held;
- (d) All patents, patent applications and like protections, including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including, without limitation, the patents and patent applications (collectively, the "*Patents*");
- (e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks (collectively, the "*Trademarks*");
- (f) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for an collect such damages for said use or infringement of the intellectual property rights identified above;
- (g) Any and all licenses or other rights to use any of the Copyrights, Patents or Trademarks and all license fees and royalties arising from such use to the extent permitted by such license or rights
- (h) Any and all amendments, extensions, renewals and extensions of any of the Copyrights, Patents or Trademarks; and
- (i) Any and all proceeds and products of the foregoing, including, without limitation, all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

It shall be an Event of Default under the Loan Agreement if there is a breach of any term of this Negative Pledge Agreement. Borrower agrees to properly execute all documents reasonably required by Lender in order to fulfill the intent and purposes hereof.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: **LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.**, its
general partner

By: _____

Name: _____

Title: _____

EXHIBIT I

CONTROL AGREEMENT

[In form and substance acceptable to Lender in its reasonable discretion]

RESTRICTED ACCOUNT AGREEMENT

(ACCOUNT RESTRICTED AFTER INSTRUCTIONS — Standing Wire Transfers)

This **Restricted Account Agreement** (the "Agreement"), dated as of the date specified at the end of this Agreement, is entered into among **Fluidigm Corporation** ("Company"), **Lighthouse Capital Partners V, L.P.** ("Secured Party") and the Wells Fargo Bank identified in the signature block at the end of this Agreement ("Bank"), and sets forth the rights of Secured Party and the obligations of Bank with respect to the deposit account(s) of Company at Bank identified at the end of this Agreement as the "Restricted Account(s)". As used in this Agreement, the term "Restricted Account" refers, individually and collectively, to each such deposit account.

- Secured Party's Interest in Restricted Account.** Secured Party represents that it is either (i) a lender who has extended credit to Company and has been granted a security interest in the Restricted Account or (ii) such a lender and the agent for a group of such lenders (the "Lenders"). Company hereby confirms, and Bank hereby acknowledges, the security interest granted by Company to Secured Party in all of Company's right, title and interest in and to the Restricted Account and all sums now or hereafter on deposit in or payable or withdrawable from the Restricted Account (the "Account Funds"). Except as specifically provided otherwise in this Agreement, Company has given Secured Party complete control over the Account Funds. Secured Party hereby appoints Bank as agent for Secured Party only for the purpose of perfecting the security interest of Secured Party in the Account Funds while they are in the Restricted Account. Company and Secured Party would like to use the Restricted Account Service of Bank described in this Agreement (the "Service") to further the arrangements between Secured Party and Company regarding the Restricted Account and the Account Funds.
- Access to Restricted Account.** Secured Party agrees that Company will be allowed access to the Account Funds until Bank receives written instructions from Secured Party directing that Company no longer have access to any Account Funds (the "Instructions"). Company agrees that the Account Funds should be paid to Secured Party after Bank receives the Instructions, and hereby irrevocably authorizes Bank to comply with the Instructions even if Company objects in any way to the Instructions. Company further agrees that after Bank receives the Instructions, Company will not have access to any Account Funds.
- Balance Reports.** Bank agrees, at the telephone request of Secured Party on any Business Day (a day on which Bank is open to conduct its regular banking business, other than a Saturday, Sunday or public holiday), to make available to Secured Party a report ("Balance Report") showing the opening available balance in the Restricted Account as of the beginning of such Business Day, either on-line or by facsimile transmission, at Bank's option. Company expressly consents to this transmission of information. Secured Party and Company understand and agree that the opening available balance in the Restricted Account at the beginning of any Business Day will be determined after deducting from the Restricted Account the face amount of all Returned Items (as defined in Section 8 of this Agreement).
- Transfers to Secured Party.** Bank agrees that on each Business Day after it receives the Instructions it will transfer to the Secured Party's account specified at the end of this Agreement

with the bank specified at the end of this Agreement (the "Secured Party Account") the full amount of the opening available balance in the Restricted Account at the beginning of such Business Day. Bank will use the Fedwire system to make each funds transfer unless for any reason the Fedwire system is unavailable, in which case Bank will determine the funds transfer system to be used in making each funds transfer and the means by which each transfer will be made. Bank, Secured Party and Company each agree that Bank will comply with instructions given to Bank by Secured Party directing disposition of funds in the Restricted Account without further consent by Company, subject otherwise to the terms of this Agreement and Bank's standard policies, procedures and documentation in effect from time to time governing the type of disposition requested. Company authorizes all such transfers. Except as otherwise required by law, Bank will not agree with any third party to comply with instructions for disposition of funds in the Restricted Account originated by such third party.

5. **Delays in Making Funds Transfers.** Secured Party and Company understand that a funds transfer may be delayed or not made if (a) the transfer would cause Bank to exceed any limitation on its intra-day net funds position established in accordance with Federal Reserve or other regulatory guidelines or to violate any other Federal Reserve or other regulatory risk control program, or (b) the funds transfer would otherwise cause Bank to violate any applicable law or regulation. If a funds transfer cannot be made or will be delayed, Bank will notify Secured Party by telephone.
6. **Reliance on Identifying Numbers.** If Secured Party indicates a name and an identifying number for the bank of the person or entity to receive funds transfers out of the Restricted Account, Secured Party and Company understand and agree that Bank may rely on the number Secured Party indicates even if that number identifies a bank different from the bank Secured Party named. If Secured Party indicates a name and an account number for the person or entity to receive funds transfers out of the Restricted Account, Secured Party and Company understand and agree that Bank may rely on the account number Secured Party indicates even if that account number is not the account number for the person or entity who is to receive the transfers.
7. **Reporting Errors in Transfers.** If Secured Party or Company learns of any error in a funds transfer or any unauthorized funds transfer, then the party learning of such error or unauthorized transfer (the "Informed Party") must notify Bank as soon as possible by telephone at (800) AT- WELLS (which is a recorded line), and provide written confirmation to Bank of such telephonic notice within two Business Days at the address given for Bank on the signature page of this Agreement. In no case may such notice to Bank by an Informed Party be made more than fourteen (14) calendar days after such Informed Party learns of the erroneous or unauthorized transfer. If a funds transfer is made in error and Bank suffers a loss because an Informed Party breached its agreement to notify Bank of such error within the time limits specified in this Section 7, then such Informed Party shall reimburse Bank for the loss promptly upon demand by Bank; provided, however, that in the event both Secured Party and Company breach this notification requirement, Secured Party shall not be obligated to reimburse Bank for the loss unless Company fails to satisfy Bank's demand for reimbursement within fifteen (15) calendar days after demand is made on Company.
8. **Returned Item Amounts.** Secured Party and Company understand and agree that the face amount ("Returned Item Amount") of each Returned Item will be paid by Bank debiting the Restricted Account, without prior notice to Secured Party or Company. As used in this Agreement, the term "Returned Item" means (i) any item deposited to the Restricted Account and returned unpaid, whether for insufficient funds or for any other reason, and without regard to the timeliness of such return or the occurrence or timeliness of any drawee's notice of non-payment; (ii) any item subject to a claim against Bank of breach of transfer or presentment warranty under the Uniform Commercial Code, as adopted in the applicable state; (iii) any automated clearing house ("ACH") entry credited to the Restricted Account and returned unpaid

or subject to an adjustment entry under applicable clearing house rules, whether for insufficient funds or for any other reason, and without regard to the timeliness of such return or adjustment; (iv) any credit to the Restricted Account from a merchant card transaction, against which a contractual demand for chargeback has been made; and (v) any credit to the Restricted Account made in error. Company agrees to pay all Returned Item Amounts immediately on demand, without setoff or counterclaim, to the extent there are not sufficient funds in the Restricted Account to cover the Returned Item Amounts on the day they are to be debited from the Restricted Account. Secured Party agrees to pay all Returned Item Amounts within thirty (30) calendar days after demand, without setoff or counterclaim, to the extent the Returned Item Amounts are not paid in full by Company within fifteen (15) calendar days after demand on Company by Bank, and to the extent Secured Party received proceeds from the corresponding Returned Items.

9. **Bank Fees.** Company agrees to pay all Bank's fees and charges for the maintenance and administration of the Restricted Account and for the treasury management and other account services provided with respect to the Restricted Account (collectively "Bank Fees"), including, but not limited to, the fees for (a) the Balance Reports provided on the Restricted Account, (b) the wire transfer services received with respect to the Restricted Account, (c) Returned Items, (d) funds advanced to cover overdrafts in the Restricted Account (but without Bank being in any way obligated to make any such advances), and (e) duplicate bank statements on the Restricted Account. Before Bank receives the Instructions, the Bank Fees will be paid by Bank debiting the Restricted Account, and after Bank receives the Instructions the Bank fees will be paid by Bank debiting one or more of the demand deposit operating accounts of Company at Bank specified at the end of this Agreement (the "Operating Accounts"). All such debits will be made on the Business Day that the Bank Fees are due without notice to Secured Party or Company. If there are not sufficient funds in the Restricted Account, or after Bank receives the Instructions, the Operating Accounts, to cover fully the Bank Fees on the Business Day they are debited from the Restricted Account or the Operating Accounts, or if no Operating Accounts are indicated at the end of this Agreement, such shortfall or the amount of such Bank Fees will be paid by Company sending Bank a check in the amount of such shortfall or such Bank Fees, without setoff or counterclaim, within fifteen (15) calendar days after demand of Bank. After Bank receives the Instructions, Secured Party agrees to pay the Bank Fees within thirty (30) calendar days after demand, without setoff or counterclaim, to the extent such Bank Fees are not paid in full by Company by check within fifteen (15) calendar days after demand on Company by Bank. Bank may, in its discretion, change the Bank Fees upon thirty (30) calendar days prior written notice to Company and Secured Party.
10. **Account Documentation.** Secured Party and Company agree that, except as specifically provided in this Agreement, the Restricted Account will be subject to, and Bank's operation of the Restricted Account will be in accordance with, the terms and provisions of Bank's deposit account agreement governing the Restricted Account ("Account Agreement"), a copy of which Company and Secured Party acknowledge having received.
11. **Bank Statements.** After Bank receives the Instructions, Bank will, if so indicated on the signature page of this Agreement, send to Secured Party by United States mail, at the address indicated for Secured Party after its signature to this Agreement, duplicate copies of all bank statements on the Restricted Account which are sent to Company. Company and/or Secured Party will have thirty (30) calendar days after receipt of a bank statement to notify Bank of an error in such statement. Bank's liability for such errors is limited as provided in the "Limitation of Liability" section of this Agreement.
12. **Partial Subordination of Bank's Rights.** Bank hereby subordinates to the security interest of Secured Party in the Restricted Account (i) any security interest which Bank may have or acquire in the Restricted Account, and (ii) any right which Bank may have or acquire to set off or otherwise apply any Account Funds against the payment of any indebtedness from time to time

owing to Bank from Company, except for debits to the Restricted Account permitted under this Agreement for the payment of Returned Item Amounts or Bank Fees.

13. **Bankruptcy Notice; Effect of Filing.** If Bank at any time receives notice of the commencement of a bankruptcy case or other insolvency or liquidation proceeding by or against Company (a "Bankruptcy Notice"), Bank will continue to comply with its obligations under this Agreement, except to the extent that any action required of Bank under this Agreement is prohibited under applicable bankruptcy laws or regulations or is stayed pursuant to the automatic stay imposed under the United States Bankruptcy Code or by order of any court or agency. With respect to any obligation of Secured Party hereunder which requires prior demand upon Company, the commencement of a bankruptcy case or other insolvency or liquidation proceeding by or against Company shall automatically eliminate the necessity of such demand upon Company by Bank, and shall immediately entitle Bank to make demand on Secured Party with the same effect as if demand had been made upon Company and the time for Company's performance had expired.
14. **Legal Process, Legal Notices and Court Orders.** Bank will comply with any legal process, legal notice or court order it receives if Bank determines in its sole discretion that the legal process, legal notice or court order is legally binding on it.
15. **Indemnification for Following Instructions.** Secured Party and Company each agree that, notwithstanding any other provision of this Agreement, except to the extent caused by Bank's gross negligence or willful misconduct Bank will not be liable to Secured Party or Company for any losses, liabilities, damages, claims (including, but not limited to, third party claims), demands, obligations, actions, suits, judgments, penalties, costs or expenses, including, but not limited to, attorneys' fees, (collectively, "Losses and Liabilities") suffered or incurred by Secured Party or Company as a result of or in connection with, (a) Bank complying with any binding legal process, legal notice or court order referred to in Section 14 of this Agreement, (b) Bank following any instruction or request of Secured Party, or (c) Bank complying with its obligations under this Agreement. Further, Company, and to the extent not paid by Company within fifteen (15) calendar days after demand, Secured Party, will indemnify Bank against any Losses and Liabilities Bank may suffer or incur as a result of or in connection with any of the circumstances referred to in clauses (a) through (c) of the preceding sentence.
16. **No Representations or Warranties of Bank.** Bank agrees to perform its obligations under this Agreement in a manner consistent with the quality provided when Bank performs similar services for its own account. However, Bank will not be responsible for the errors, acts or omissions of others, such as communications carriers, correspondents or clearinghouses through which Bank may perform its obligations under this Agreement or receive or transmit information in performing its obligations under this Agreement. Secured Party and Company also understand that Bank will not be responsible for any loss, liability or delay caused by wars, failures in communications networks, labor disputes, legal constraints, fires, power surges or failures, earthquakes, civil disturbances or other events beyond Bank's control. **BANK MAKES NO EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE SERVICE OTHER THAN THOSE EXPRESSLY SET FORTH IN THIS AGREEMENT.**
17. **Limitation of Liability.** In the event that Secured Party, Company or Bank suffers or incurs any Losses and Liabilities as a result of, or in connection with, its or any other party's performance or failure to perform its obligations under this Agreement, the affected parties shall negotiate in good faith in an effort to reach a mutually satisfactory allocation of such Losses and Liabilities, it being understood that Bank will not be responsible for any Losses and Liabilities due to any cause other than its own negligence or breach of this Agreement, in which case its liability to Secured Party and Company shall, unless otherwise provided by any law which cannot be

varied by contract, be limited to direct money damages in an amount not to exceed ten (10) times all the Bank Fees charged or incurred during the calendar month immediately preceding the calendar month in which such Losses and Liabilities occurred (or, if no Bank Fees were charged or incurred in the preceding month, the Bank Fees charged or incurred in the month in which the Losses and Liabilities occurred). Company will indemnify Bank against all Losses and Liabilities suffered or incurred by Bank as a result of third party claims; provided, however, that to the extent such Losses and Liabilities are directly caused by Bank's negligence or breach of this Agreement such indemnity will only apply to those Losses and Liabilities which exceed the liability limitation specified in the preceding sentence. The limitation of Bank's liability and the indemnification by Company set out above will not be applicable to the extent any Losses and Liabilities of any party to this Agreement are directly caused by Bank's gross negligence or willful misconduct. **IN NO EVENT WILL BANK BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES, WHETHER ANY CLAIM IS BASED ON CONTRACT OR TORT, WHETHER THE LIKELIHOOD OF SUCH DAMAGES WAS KNOWN TO BANK AND REGARDLESS OF THE FORM OF THE CLAIM OR ACTION, INCLUDING, BUT NOT LIMITED TO, ANY CLAIM OR ACTION ALLEGING GROSS NEGLIGENCE, WILLFUL MISCONDUCT, FAILURE TO EXERCISE REASONABLE CARE OR FAILURE TO ACT IN GOOD FAITH.** Any action against Bank by Company or Secured Party under or related to this Agreement must be brought within twelve months after the cause of action accrues.

18. **Termination.** This Agreement and the Service may be terminated by Secured Party or Bank at any time by either of them giving thirty (30) calendar days prior written notice of such termination to the other two parties to this Agreement at their contact addresses specified after their signatures to this Agreement; provided, however, that this Agreement and the Service may be terminated immediately upon written notice from Bank to Company and Secured Party should Secured Party fail to make any payment when due to Bank from Secured Party under the terms of this Agreement. Secured Party and Company agree that the Restricted Account may be closed by Bank as provided in the Account Agreement. Company's and Secured Party's obligation to report errors in funds transfers and bank statements and to pay the Bank Fees, as well as the indemnifications made, and the limitations on the liability of Bank accepted, by Company and Secured Party under this Agreement will continue after the termination of this Agreement and/or the closure of the Restricted Account with respect to all the circumstances to which they are applicable existing or occurring before such termination or closure, and any liability of any party to this Agreement, as determined under the provisions of this Agreement, with respect to acts or omissions of such party prior to such termination or closure will also survive such termination or closure. Upon any termination of this Agreement and the Service or closure of the Restricted Account all collected and available balances in the Restricted Account on the date of such termination or closure will be transferred to Secured Party as requested by Secured Party in writing to Bank.
19. **Modifications, Amendments, and Waivers.** This Agreement may not be modified or amended, or any provision thereof waived, except in a writing signed by all the parties to this Agreement; provided, however, that the Bank Fees may be changed after thirty (30) calendar days prior written notice to Company and Secured Party.
20. **Notices.** All notices from one party to another shall be in writing, or be made by a telecommunications device capable of creating a written record, shall be delivered to Company, Secured Party and/or Bank at their contact addresses specified after their signatures to this Agreement, or any other address of any party notified to the other parties in writing, and shall be effective upon receipt. Any notice sent by one party to this Agreement to another party shall also be sent to the third party to this Agreement. Bank is authorized by Company and Secured Party to act on any instructions or notices received by Bank if (a) such instructions or notices

purport to be made in the name of Secured Party, (b) Bank reasonably believes that they are so made, and (c) they do not conflict with the terms of this Agreement as such terms may be amended from time to time, unless such conflicting instructions or notices are supported by a court order.

21. **Successors and Assigns.** Neither Company nor Secured Party may assign or transfer its rights or obligations under this Agreement to any person or entity without the prior written consent of Bank, which consent will not be unreasonably withheld. Bank may not assign its rights or obligations under this Agreement to any person or entity without the prior written consent of Secured Party, which consent will not be unreasonably withheld; provided, however, that no such consent will be required if the assignee is a bank affiliate of Bank.
22. **Governing Law.** Company and Secured Party understand that Bank's provision of the Service under this Agreement is subject to federal laws and regulations. To the extent that such federal laws and regulations are not applicable this Agreement shall be governed by and be construed in accordance with the laws of the state in which the office of Bank that maintains the Restricted Account is located, without regard to conflict of laws principles.
23. **Severability.** To the extent that this Agreement or the Service to be provided under this Agreement are inconsistent with, or prohibited or unenforceable under, any applicable law or regulation, they will be deemed ineffective only to the extent of such prohibition or unenforceability and be deemed modified and applied in a manner consistent with such law or regulation. Any provision of this Agreement which is deemed unenforceable or invalid in any jurisdiction shall not affect the enforceability or validity of the remaining provisions of this Agreement or the same provision in any other jurisdiction.
24. **Usury.** It is never the intention of Bank to violate any applicable usury or interest rate laws. Bank does not agree to, or intend to contract for, charge, collect, take, reserve or receive (collectively, "charge or collect") any amount in the nature of interest or in the nature of a fee, penalty or other charge which would in any way or event cause Bank to charge or collect more than the maximum Bank would be permitted to charge or collect by any applicable federal or state law. Any such excess interest or unauthorized fee shall, notwithstanding anything stated to the contrary in this Agreement, be applied first to reduce the amount owed, if any, and then any excess amounts will be refunded.
25. **Counterparts.** This Agreement may be executed in any number of counterparts each of which shall be an original with the same effect as if the signatures thereto and hereto were upon the same instrument.
26. **Entire Agreement.** This Agreement, together with the Account Agreement, contains the entire and only agreement among all the parties to this Agreement and between Bank and Company, and Bank and Secured Party, with respect to (a) the Service, (b) the interest of Secured Party and the Lenders in the Account Funds and the Restricted Account, and (c) Bank's obligations to Secured Party and the Lenders in connection with the Account Funds and the Restricted Account.

This Agreement has been signed by the duly authorized officers or representatives of Company, Secured Party and Bank on the date specified below.

Date: March 29, 2005

Restricted Account Number(s):
Operating Account Number(s):
Secured Party Account Number:
Bank of Secured Party Account:

Comerica Bank

Secured Party is to be sent duplicate Bank Statements.

[Company] FLUIDIGM CORPORATION

[Secured Party] LIGHTHOUSE CAPITAL
PARTNERS V, L.P.

BY: LIGHTHOUSE MANAGEMENT
PARTNERS V, L.L.C. ITS GENERAL
PARTNER

By: _____
Name: Gajus Worthington
Title: CEO

By: _____
Name: Thomas Conneely
Title: Vice President

Address For All Notices:

Address For All Notices:

Fluidigm Corporation
Attn: James Neesen
7100 Shoreline Court

Lighthouse Capital Partners V, L.P.
500 Drakes Landing Road
Greenbrae, CA 94904
Attn: Contracts Administration

WELLS FARGO BANK, N.A.

By: _____
Name: Scott M. Van Gorder
Title: Vice President, Senior Relationship Manager

Address For All Notices:

420 Montgomery Street, 9th Floor
MAC A0101-096
San Francisco, CA 94108

Morgan Stanley & Co. Incorporated (the "Broker")
555 California Street 14th Floor
San Francisco, CA 94104

Re: Notice of Pledge and Security

Gentlemen:

Please be advised that the undersigned, Fluidigm Corporation ("Pledgor"), has pledged a security interest in Account No. [***] (the "Account") held by Broker, as securities intermediary, and in all of the securities, proceeds, cash or other assets now or hereafter held in the Account (collectively, the "Collateral"), to Lighthouse Capital Partners V, L.P. ("Pledgee") pursuant to the terms and provisions of a certain Loan and Security Agreement (the "Agreement"), dated March 29, 2005.

Broker, Pledgor and Pledgee, by signing this letter, hereby agree as follows:

- a) The Account shall be retitled "Fluidigm Corporation — Pledgor/ Lighthouse Capital – Pledgee";
 - b) Pledgee has a security interest in the Collateral and is authorized to instruct the Broker with regard to the Account without further consent needed by Pledgor;
 - c) Broker is hereby notified of Pledgee's security interest, and agrees to comply with all instructions and entitlement orders of Pledgee with regard to the Account. Broker shall not comply with instructions and entitlement orders with respect to the Collateral or the Account that are originated by the Pledgor except as described in Paragraph D below. Broker is also hereby authorized and agrees to send duplicate copies of any and all statements and confirmations, as well as any other appropriate correspondence, relating to the Account directly to the Pledgee at the address indicated below, or to such other address as Pledgee may designate in writing. This pledge will remain in full force and effect until Pledgee notifies Broker in writing to the contrary;
 - d) Pledgee hereby instructs Broker that until further instruction in writing from an Authorized Officer of Pledgee (as defined below) that Pledgee is assuming exclusive control over the Account ("Notice of Exclusive Control"), the Broker shall comply with directions of Pledgor with respect to any transactions, including withdrawals, in the Account. Notwithstanding anything contained herein, upon receipt of a Notice of Exclusive Control (it being understood that Broker shall have no duty or obligation whatsoever to investigate or determine whether the Notice of Exclusive Control was
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rightfully or legally issued), Broker shall only follow the directions and instructions of Pledgee with regard to the Account. In that case, if Pledgee so requests, Broker will proceed to liquidate the assets of the Account in accordance with Pledgee's instructions and to deliver the proceeds to Pledgee.

For purposes of this Agreement, "Authorized Officer of Pledgee" shall refer to any one of the following individuals: Richard Stubblefield and Thomas Conneely. If Pledgee finds it necessary to designate a replacement for any of the designated Authorized Officers of Pledgee, written notice of replacement shall be given to Broker, which notice shall be signed by the President, an Executive Vice President, a Senior Vice President, or such other officer of Pledgee as Broker may approve. However, Broker shall be entitled to rely on any notice it receives from someone whom it reasonably believes is an Authorized Officer of Pledgee;

- e) Broker shall have no obligation to monitor the Account for any purpose in connection with the pledge granted hereunder. The Pledgee accepts and acknowledges full responsibility for reviewing daily confirmations and monthly statements to ensure that it is adequately secured;
 - f) Pledgor and Pledgee hereby agree to indemnify and hold harmless Broker, its affiliates, officers, and employees from and against any and all claims, causes of actions, liabilities, lawsuits, demands, and/or damages, including, without limitation, any and all court costs and reasonable attorney's fees, that might result by reason of the actions of Broker under this Agreement. Broker shall not be responsible for any losses, claims, damages, liabilities and expenses incurred by Pledgor or Pledgee, except to the extent that such losses, claims, damages, liabilities or expenses arise out of the bad faith, gross negligence, or criminal acts or omissions on the part of Broker;
 - g) Broker may terminate this Agreement at any time by canceling the Account and transferring all funds and securities in the Account to Pledgee;
 - h) As of the date hereof, the Collateral has not been paid to or withdrawn by the Pledgor; Broker is not in receipt of any notice of withdrawal or redemption with regard to the Collateral or notice not to renew the Account, and Broker has not given any notice that the Account will not be renewed or extended, as the case may be;
 - i) Broker's records indicate that the value of the Collateral, as of the date hereof, is approximately [***].
 - j) Broker subordinates any right of offset Broker may now or hereafter have against the Collateral for any indebtedness now or hereafter owing to Broker by the Pledgors to the security interest of Pledgee; provided that Broker shall continue to have a first perfected security interest in the Collateral with respect to any charges incurred in connection with the operation of the Account, including, but not limited to, fees, commissions and any costs related to unsettled securities transactions.
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k) This Agreement shall be governed by the law of the State of New York, excluding its conflict of law rules. The parties hereby agree that (i) the "securities intermediary's jurisdiction" with respect to the Account and the Collateral is New York and (ii) the parties shall not agree with any other person that such securities intermediary's jurisdiction is any jurisdiction other than New York.

Very truly yours,
FLUIDIGM CORPORATION

By: James Neeson
Title: Controller

Read and Agreed to:
MORGAN STANLEY & CO. INCORPORATED

By _____
Name:
Title:

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

**By: Lighthouse Management Partners V, L.L.C.
its general partner**

By _____
Name: Thomas Conneely
Title: Vice President
Address: 500 Drakes Landing Road
Greenbrae, CA 94904

SUBORDINATION AGREEMENT

This SUBORDINATION AGREEMENT (this "Agreement"), dated as of March 29, 2005, is between, on the one hand, each undersigned holder (each a "Holder" and collectively the "Holders") of Convertible Promissory Notes issued pursuant to those certain Convertible Note Purchase Agreement dated December 18, 2003, as amended from time to time (each a "Note" and collectively the "Notes") issued by FLUMIGM CORPORATION, a California corporation ("Company"), and, on the other hand, LIGHTHOUSE CAPITAL PARTNERS V, L.P., a Delaware limited partnership ("LCP"), lender under that certain Loan and Security Agreement No. 4561, dated March 29, 2005 (the "Loan Agreement") with Company (all obligations of payment and performance due or to become due pursuant to the Obligations or the Loan Documents as those terms are defined therein, as the same may be amended from time to time, are the "LCP Obligations"), with reference to the following:

WHEREAS, in order to induce LCP to enter into the Loan Agreement, the Holders agree to enter into this Agreement;

NOW, THEREFORE, in consideration of the mutual promises herein contained, the parties hereby agree as follows:

1. Subordination. Each Holder agrees that it shall not receive any payment of any amounts on account of the Notes until the LCP Obligations have been paid and performed in full. Regardless of (i) any agreement of any Holder or LCP with Company, (ii) the time, place, manner or order of attachment, perfection, or the filing of UCC-1 filings or other documents, or (iii) the giving or failure to give notice, each Holder does hereby subordinate payment by Company on its Notes to the full and final payment to LCP of the LCP Obligations. Each Holder agrees that all payments and the proceeds received by Holders on account of the Notes shall be held by them in trust for LCP for the payment of the LCP Obligations, and turned over to LCP in kind upon receipt of notice from LCP that Company has failed to pay LCP any of the LCP Obligations. Holders hereby agree they have no security interest in any property of the Company.

Notwithstanding anything in this Agreement, (i) in the event the Convertible Note, dated as of December 18, 2003 (the "Initial EDB Note"), issued by Company to Biomedical Sciences Investment Fund Pte Ltd ("BMSIF") has not been converted according to the terms set forth in Section 2 of such Initial EDB Note by the Payment Date (as defined in such Initial EDB Note), BMSIF may receive payment by the Company in an amount not to exceed 50% of the principal amount outstanding under such Initial EDB Note, and (ii) each Holder may convert any Note into capital stock of the Company and accept cash in lieu of fractional shares in connection with any such conversion. Upon conversion of any Note into capital stock of the Company and acceptance of cash in lieu of fractional shares in connection with any such conversion, this Agreement shall terminate with respect to such Note and any proceeds received by a Holder in connection with the conversion of such Note.

2. Bankruptcy. (Subject to paragraph (1) above), Each Holder agrees that upon any

distribution of assets or readjustment of indebtedness of Company, whether by liquidation, bankruptcy, assignment for the benefit of creditors, or otherwise, LCP shall receive payment in full on the LCP Obligations before Holder receives payment of any amounts due under the Notes and Holders shall pay over to LCP any amounts so received by them related to the Notes until the LCP Obligations are paid in full. In furtherance thereof, each Holder authorizes LCP to make and vote (without LCP being obligated to make or vote) any and all proofs of claim respecting the Notes in any such proceeding and to receive and collect all dividends or other payments thereupon; provided that LCP will pay over to Holders a pro rata distribution of amounts received by it in excess of that necessary for the full and final satisfaction of the LCP Obligations. Holders agree to execute such instruments of assignment and other documents as may be necessary to enforce such claims and collect such dividends or to otherwise carry out the intent and purpose hereof.

3. Representations. Each party hereto warrants and represents to the others that it has full power and authority to enter hereinto and to perform all obligations hereunder, that this Agreement is valid, binding and enforceable in accordance with its terms and that execution and performance hereof does not violate any agreement with any other person or entity. Each Holder represents and warrants that it (i) is the owner of the Notes, free and clear of the claims of any others, (ii) has not heretofore subordinated or assigned the Notes or its interest therein to any entity, (iii) will not transfer any Notes to any entity other than one which agrees to be bound hereby, and (iv) waives any rights to claim that the enforceability of this Agreement may be affected by any subsequent modification, release, extension, or change in LCP obligations.

4. No Third Party Beneficiaries. Company has no rights hereunder. This Agreement is made only for the benefit of Holders and LCP and their successors and assigns, and may not be relied upon by any other third party, including Company or any successor thereto or any judgment lien creditor thereof. Nothing herein shall constitute a commitment or agreement by either of LCP or Holder to provide funds to Company.

5. Miscellaneous. This Agreement: (i) may only be amended by a writing signed by LCP and the affected Holder; (ii) contains the entire agreement between Holders and LCP with respect to its subject matter, and all prior negotiations, documents and discussions are superseded hereby; (iii) shall be governed by the laws of the state of California; (iv) may be executed in counterparts delivered by telefacsimile, all of which, when taken together, shall constitute one and the same original document; and (v) may be attached to a Form UCC-1 and filed in the public records of any jurisdiction; and (vi) shall terminate upon the full, final and indefeasible payment and performance by Company to LCP of all LCP Obligations.

6. Waiver of Jury Trial. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

LIGHTHOUSE CAPITAL PARTNERS V, L.P.
a Delaware limited partnership

by: Lighthouse Management Partners V, L.L.C.
its general partner

by: /s/ Thomas Conneely
Thomas Conneely
Vice President

500 Drakes Landing Road
Greenbrae, CA 94904
Attn: Contracts Administration
Tel: (415) 464-5900
Fax: (415) 925-3387

HOLDERS:

BIOMEDICAL SCIENCES INVESTMENT FUND PTD LTD

By: /s/ Lily Chan
Title: Director
20 Biopolis Way
#09-01 Centros
Singapore 138668
Attn: Lily Chan, PhD
Tel: 65-6395-7700
Fax: 65-6395-7796

INVUS, L.P.

By: Invus Advisors, LLC
Its general partner
By: _____
Title: _____
135 East 57th Street
New York, NY 10022
Attn: Phillippe J. Amouyal
Tel: (212) 371-1717
Fax: (212) 371-1829

Company hereby acknowledges and consents to the Agreement, promises to take all such action as may be necessary to fulfill its essential intent and purpose, agrees that failure to do so shall be an Event of Default under the LCP Obligations, and acknowledges that in the transactions referenced herein it has been advised to seek, and has selected, counsel of its own choosing, namely Wilson, Sonsini, Goodrich & Rosati of Palo Alto, California.

FLUIDIGM CORPORATION

By: _____
Its: _____

Signature page to Fluidigm Corporation
Subordination Agreement

Fluidigm Confidential

HOLDERS:

BIOMEDICAL SCIENCES INVESTMENT FUND PTD LTD

By: _____
Title: _____
20 Biopolis Way
#09-01 Centros
Singapore 138668
Attn: General Manager
Tel: 65-6395-7700
Fax: 65-6395-7796

INVUS, L.P.

By: Invus Advisors, LLC
Its general partner
By: /s/ Aflalo Guimaraes _____
Title: Managing Director
135 East 57th Street
New York, NY 10022
Attn: Phillippe J. Amouyal
Tel: (212) 371- 1717
Fax: (212) 371-1829

Company hereby acknowledges and consents to the Agreement, promises to take all such action as may be necessary to fulfill its essential intent and purpose, agrees that failure to do so shall be an Event of Default under the LCP Obligations, and acknowledges that in the transactions referenced herein it has been advised to seek, and has selected, counsel of its own choosing, namely Wilson, Sonsini, Goodrich & Rosati of Palo Alto, California.

FLUIDIGM CORPORATION

By _____
Its _____

HOLDERS:

BIOMEDICAL SCIENCES INVESTMENT FUND PTD LTD

By: _____
Title: _____
20 Biopolis Way
#09-01 Centros
Singapore 138668
Attn: General Manager
Tel: 65-6395-7700
Fax: 65-6395-7796

INVUS, L.P.

By: Invus Advisors, LLC
Its general partner

By: _____
Title: _____
135 East 57th Street
New York, NY 10022
Attn: Phillippe J. Amouyal
Tel: (212) 371-1717
Fax: (212) 371-1829

Company hereby acknowledges and consents to the Agreement, promises to take all such action as may be necessary to fulfill its essential intent and purpose, agrees that failure to do so shall be an Event of Default under the LCP Obligations, and acknowledges that in the transactions referenced herein it has been advised to seek, and has selected, counsel of its own choosing, namely Wilson, Sonsini, Goodrich & Rosati of Palo Alto, California.

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington _____
Its President & CEO

**AMENDMENT NO. 01 ("Amendment")
TO LOAN AND SECURITY AGREEMENT NO. 4561**

Entered into as of August 4, 2006 by and between
LIGHTHOUSE CAPITAL PARTNERS V, L.P. ("Lender") and **FLUIDIGM CORPORATION** ("Borrower").

RECITALS

WHEREAS, Borrower and Lender have previously entered into that certain Loan and Security Agreement No. 4561 dated as of March 29, 2005 (the "*Loan and Security Agreement*"; all initially capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Loan and Security Agreement), together with the other agreements and instruments entered into in connection therewith (collectively, the "*Loan Documents*"); and

WHEREAS, Borrower and Lender each have agreed to amend the Loan Documents subject to Borrower's performance of the terms and conditions hereof; and

WHEREAS, as of August 31, 2006, Borrower and Lender mutually agree that the outstanding principal balance of the Loans is \$11,093,832.04;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained, the parties hereby agree to modify the Loan Documents by entering into this Amendment and Borrower agrees to perform such other covenants and conditions as follows:

A) Loan and Security Agreement

(i) **Definitions** — The definition of "*Subordinated Indebtedness*", shall be amended and restated to read as follows:

"*Subordinated Indebtedness*" means Indebtedness of Borrower to Singapore EDB (including its investment fund BioMedical Sciences Investment Fund Ptd Ltd) and Invus Group that is subordinated in both security and right of payment to the Obligations on terms and conditions reasonably satisfactory to Lender in an amount not to exceed \$8,000,000.

B) Secured Term Promissory Note

(i) **Definitions** — The following definitions shall be added to the Notes, and to the extent these terms are already defined in the Loan Documents, they shall be deleted in their entirety and replaced with the following:

"*Final Payment*" means 11.25% of the Advance.

"*Basic Rate*" means a variable *per annum* rate of interest equal to the Index plus the Interest Margin which shall be subject to adjustment as provided herein. On and after March 1, 2006 through and including August 31, 2006, the Basic Rate shall be fixed at 10.00%. On and after September 1, 2006, the Basic Rate shall be fixed at 9.75%.

"*Repayment Period*" means the period beginning on the Loan Commencement Date and continuing for 48 calendar months.

C) Additional Terms and Conditions

1. **Repayment.** Notwithstanding anything contained in any Note issued in connection with the Loan and Security Agreement, Section 1 of each such Note shall be superseded by the following payment terms: for and on account of all of the Notes, from March 1, 2006 through and including August 31, 2006, Borrower will pay Lender \$416,006.71 per month. On and after September 1, 2006 through February 28, 2010, Borrower shall pay Lender \$310,305.95 per month. In addition to all other amounts due or to become due hereunder, the Final Payment is due on the earliest to occur of the Maturity Date or March 1, 2009.
2. **Restructure Fee.** In addition to all other amounts due or to become due hereunder, on the earliest to occur of (i) the Maturity Date; (ii) the date of prepayment of all of the Notes, or (iii) March 1, 2009, Borrower shall pay to Lender a restructure fee in the amount of \$150,000, in cash.
3. **Expenses.** Borrower shall pay reasonable fees and expenses incurred by Lender's legal counsel in connection with the preparation and negotiation of documentation related to this Amendment. Such restructure expenses are due and payable when billed.

D) Acknowledgments; Representations and Warranties. Borrower warrants and represents to Lender, as a material inducement to Lender's entering hereinto, as follows:

- a) **No Further Funding Obligations.** Lender has no obligations to make further Advances to Borrower.
- b) **No Waivers.** Lender has made no separate oral or written waiver of any existing or future Default or Event of Default by Borrower under any Loan Document.
- c) **No Set-Off.** Borrower has no claims or rights of set-off against Lender of any kind under any Loan Document or otherwise. Borrower has no defenses to payments of any amounts owed to Lender as the same become due and payable.
- d) **Representations and Warranties of Borrower.** The representations and warranties contained in the Loan Agreement are true and complete in all material respects as of the date hereof, except with respect to any such representation or warranty which speak only as of a specific date prior to the date hereof. Borrower warrants and represents that no Events of Default have occurred. Borrower warrants and represents that it has not reached any settlement with any other creditor of Borrower that has not been disclosed in writing to Lender.

E. Release. Borrower for itself and for its agents, partners, stockholders, employees and affiliates and its or their successors and assigns hereby (a) agrees to waive, release and further discharge Lender and its officers, directors, stockholders, partners, successors, assigns, agents and employees of and from any and all manner of claims arising in connection with the Loan Documents for damages at law or in equity with respect to any matter occurring prior to the date hereof which Borrower or such other releasing party may have had, and (b) waives California Civil Code Section 1542, which reads: "A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor." Each provision of this release shall be severable from every other provision when determining its legal enforceability.

Except as amended hereby, the Loan Documents remain unmodified and unchanged and ratified by Borrower as though fully set forth herein. In the event of any contradiction between any term of this Amendment with any other Loan Document, the terms under this Amendment shall control Lender and Borrower have executed this Amendment as of the date first written above.

BORROWER:

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington

Name: Gajus Worthington

Title: CEO

LENDER:

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: **LIGHTHOUSE MANAGEMENT
PARTNERS V, L.L.C., its general partner**

By: /s/ Thomas Conneely

Name: Thomas Conneely

Title: Vice President

**AMENDMENT NO. 02 (“Amendment”)
TO LOAN AND SECURITY AGREEMENT NO. 4561**

Entered into as of November 16, 2006 by and between
LIGHTHOUSE CAPITAL PARTNERS V, L.P. (“Lender”) and **FLUIDIGM CORPORATION** (“Borrower”).

Without limiting or amending any other provisions of the Agreement, as amended, Lender and Borrower agree to the following:

Section 1.1 of the Agreement, the definition of “*Subordinated Indebtedness*”, shall be amended and restated to read as follows:

“*Subordinated Indebtedness*” means Indebtedness of Borrower to Singapore EDB (including its investment fund BioMedical Sciences Investment Fund Ptd Ltd) and Invus Group that is subordinated in both security and right of payment to the Obligations on terms and conditions reasonably satisfactory to Lender in an amount not to exceed \$13,000,000.

All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Agreement.

BORROWER:
FLUIDIGM CORPORATION

LENDER:
LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: **LIGHTHOUSE MANAGEMENT
PARTNERS V, L.L.C.**, its general partner

By: /s/ Rich Delateur

By: /s/ Darren Haggerty

Name: Rich Delateur

Name: Darren Haggerty

Title: Chief Financial Officer

Title: Director of Portfolio Analysis

AMENDMENT NO. 03

Dated August 8, 2007

TO

that certain Loan and Security Agreement No. 4561
dated as of March 29, 2005, as amended ("*Agreement*"), by and between
LIGHTHOUSE CAPITAL PARTNERS V, L.P. ("*Lender*") and
FLUIDIGM CORPORATION, a Delaware corporation (formerly a California corporation) ("*Borrower*").

(All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Agreement.)

Without limiting or amending any other provisions of the Loan Documents, Lender and Borrower agree to the following:

Effective March 29, 2007, Borrower's state of incorporation has reincorporated from the State of California to the State of Delaware.

Except as amended hereby, the Loan Documents remains unmodified and unchanged.

BORROWER:

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington

Name: Gajus Worthington

Title: President & CEO

LENDER:

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: **LIGHTHOUSE MANAGEMENT
PARTNERS V, L.L.C.**, its general partner

By: /s/ Tom Conneely

Name: Tom Conneely

Title: Vice President

AMENDMENT NO. 04

Dated February 15, 2008

TO

that certain Loan and Security Agreement No. 4561
dated as of March 29, 2005, as amended ("*Agreement*"), by and between
LIGHTHOUSE CAPITAL PARTNERS V, L.P. ("*Lender*") and
FLUIDIGM CORPORATION ("*Borrower*").

THIS AMENDMENT NO. 04 ("*Amendment 04*") to that certain Loan and Security Agreement No. 4561 dated March 29, 2005 (as amended to date, the "*Agreement*") is entered into as of February 15, 2008, by and between **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** ("*Lender*") and **FLUIDIGM CORPORATION**, a Delaware corporation ("*Borrower*").

WHEREAS, Borrower and Lender have previously entered into and amended the Agreement; and

WHEREAS, Borrower has requested Lender provide an additional term loan financing, which Lender has agreed to provide subject to the terms of this Amendment 04.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained, the parties hereby agree to modify the Agreement and to perform such other covenants and conditions as follows:
(All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Agreement.)

I. Section 1.1, the following definitions shall be added to the Agreement:

"*Change of Management or Board Composition*" means that (i) Borrower's senior management shall not include Gajus Worthington; (ii) Versant Ventures or any of its affiliated funds shall cease to have a representative (currently Samuel Colella) serving on Borrower's Board of Directors; or (iii) Alloy Ventures or any of its affiliated funds shall cease to have a representative (currently Mike Hunkapiller) serving on Borrower's Board of Directors.

"*Commitment One*" means the Commitment as that term is used in the Agreement prior to the effect of this Amendment 04.

"*Commitment Two*" means \$10,000,000.

"*Commitment Two Warrant*" mean the Warrant in favor of Lender to purchase securities of Borrower, substantially in the form of *Exhibit C-2* attached to this Amendment 04 and issued in conjunction with Commitment Two.

II. Section 1.1, the following definitions of the Agreement shall be deleted in its entirety and replaced with the following:

"*Basic Rate*" (i) under Commitment One, as defined in the Notes, as amended pursuant to Amendment No. 01, and (ii) under Commitment Two, as defined in the Notes for Advances under Commitment Two.

"*Commitment*" means Commitment One and Commitment Two.

"*Commitment Fee*" means \$10,000 under Commitment One and \$10,000 under Commitment Two.

"*Commitment Termination Date*" has occurred for Commitment One, and for Commitment Two it means the earliest to occur of (i) July 1, 2008; (ii) any Default or Event of Default, or (iii) Change of Management or Board Composition (unless Lender has waived this condition in writing).

"*Disclosure Schedule*" means the Disclosure Schedule delivered to Lender in connection with the execution and delivery of Amendment No. 04 to this Agreement.

"*Loan Commencement Date*" means (i) for Advances under Commitment One, as defined in the Notes, as amended pursuant to Amendment No. 01, and (ii) for Advances under Commitment Two, as defined in the Notes for Advances under Commitment Two.

"Note" means (i) in connection with Advances under Commitment One, Secured Promissory Notes in the form of *Exhibit B*, and (ii) in connection with Advances under Commitment Two, Secured Promissory Notes in the form of *Exhibits B-2* to Amendment 04.

"Notice of Borrowing" means (i) in connection with Advances under Commitment One, the form attached as *Exhibit D*, and (ii) in connection with Advances under Commitment Two in the form of *Exhibit D-2* attached to Amendment 04.

"Warrant" means (i) all Warrants issued by Borrower to Lender prior to the date of Amendment 04, and (ii) the Commitment Two Warrant.

III. Section 6.2 — Section 6.2 of the Agreement shall be amended deleted in its entirety and replaced with the following:

6.2 Financial Statements, Reports, Certificates. Borrower shall deliver to Lender: **(i)** as soon as prepared, and no later than 30 days after the end of each calendar quarter, a balance sheet, income statement and cash flow statement covering Borrower's operations for each of the three months during such period, provided for each calendar month ending after the calendar quarter ending on September 30, 2008, Borrower shall deliver to Lender as soon as prepared, and no later than 30 days after the end of each calendar month, a balance sheet, income statement and cash flow statement covering Borrower's operations during such period; **(ii)** as soon as prepared, but no later than 90 days after the end of the fiscal year, or such other timeframe formally approved by Borrower's audit committee, audited financial statements prepared in accordance with GAAP, together with an opinion that such financial statements fairly present Borrower's financial condition by an independent public accounting firm reasonably acceptable to Lender; **(iii)** immediately upon notice thereof, a report of any legal or administrative action pending or threatened in writing against Borrower which is likely to result in liability to Borrower in excess of \$100,000 (provided that Borrower shall not be required to report notices of possibly relevant third party patents, or proposals or demands to license intellectual property); and **(iv)** such other financial information as Lender may reasonably request from time to time. Financial statements delivered pursuant to subsections **(i)** and **(ii)** above shall be accompanied by a certificate signed by a Responsible Officer (each an "Officer's Certificate") in the form of *Exhibit F*.

IV. Section 3 — Conditions of Advances; Procedure for requesting Advances; the following new **Sections 3.2 and 3.3** shall be added:

3.2 Procedure for Making Advances. For any Advance, Borrower shall provide Lender an irrevocable Notice of Borrowing at least 15 business days prior to the desired Funding Date and Lender shall only be required to make Advances hereunder based upon written requests which comply with the terms and exhibits of this Loan Agreement (as the same may be amended from time to time), and which are submitted and signed by a Responsible Officer. Borrower shall execute and deliver to Lender a Note and such other documents and instruments as Lender may reasonably require for each Advance made.

3.3. Conditions Precedent to Initial Advance under Commitment Two. The obligation of Lender to make the Initial Advance under Commitment Two is subject the satisfaction of each of the following conditions:

(a) This Amendment 04 duly executed by Borrower.

(b) The Commitment Two Warrant to be issued to Lender duly executed by Borrower.

(c) Delivery to Lender of an officer's certificate of Borrower with copies of the following documents attached: **(i)** the certificate of incorporation and by-laws or other organizational documents of Borrower certified by Borrower as being in full force and effect as of the date of Amendment 04, **(ii)** incumbency and representative signatures, and **(iii)** resolutions authorizing the execution and delivery of Amendment 04 and each of the other Loan Documents.

(d) Delivery to Lender of a good standing certificate from Borrower's state of incorporation or formation and the state in which Borrower's principal place of business is located, together with certificates of the applicable governmental authorities stating that Borrower is in compliance with the franchise tax laws of each such state, each dated as of a recent date.

(e) Borrower has obtained all necessary consents of shareholders, members, and other third parties with respect to the execution, delivery and performance of the Agreement, Amendment 04, the Commitment Two Warrant, and the other Loan Documents.

(f) Borrower shall have satisfied all the conditions set forth in **Section 3.1 and 3.2** of the Agreement.

3.4 Reaffirmation Subject to the Disclosure Schedule attached hereto as Schedule 1, Borrower reaffirms the representations and warranties made to Lender in the Agreement as of the date hereof as though fully set forth herein.

3.5 Existing Notes Notes for Advances under Commitment Two are not affected by Amendment No. 01 and Notes for Advances under Commitment One remain subject to Amendment No. 01

V. Further Terms and Conditions of this Amendment 04.

1. **Representations and Warranties of Borrower.** Borrower warrants and represents, as a significant material inducement to Lender to enter hereinto, that: (i) no Events of Default have occurred and are continuing that have not been disclosed to Lender by Borrower in writing; (ii) it is not and has no reason to believe it may be named as a party to any judicial or administrative proceeding, litigation or arbitration, and has not received any written communication from any person or entity (whether private or governmental) threatening or indicating the same, except to the extent that any such written communication could not reasonably be expected to result in a material adverse effect on Borrower's business; and (iii) it is in full compliance with Section 7.10 of the Loan and Security Agreement.
2. **No Control.** Borrower warrants and represents, as a significant material inducement to Lender to enter hereinto, that none of Lender nor any affiliate, officer, director, employee, agent, or attorney of Lender have at any time, from Borrower's date of formation through to the date hereof, (i) exercised management or other control over the Borrower, (ii) exercised undue influence over Borrower or any of its officers, employees or directors, (iii) made any representation or warranty, express or implied, to any party on behalf of Borrower, (iv) entered into any joint venture, agency relationship, employment relationship, or partnership with Borrower, (v) directed or instructed Borrower on the manner, method, amount, or identity of payee of any payment made to any creditor of Borrower, and further, Borrower warrants and represents that by entering hereinto with Lender has not, are not and will not have engaged in any of the foregoing.
3. **Integration Clause.** This Agreement represents and documents the entirety of the agreement and understanding of the parties hereto with respect to its subject matter. All prior understandings, whether oral or written, other than the Loan Documents, are hereby merged hereinto. **NEITHER THE LOAN AND SECURITY AGREEMENT NOR THIS AGREEMENT MAY BE MODIFIED EXCEPT BY A WRITING SIGNED BY LENDER AND BORROWER.** Each provision hereof shall be severable from every other provision when determining its legal enforceability such that Lender's rights and remedies under this Agreement and the Loan Documents may be enforced to the maximum extent permitted under applicable law. This Agreement shall be binding upon, and inure to the benefit of, each party's respective permitted successors and assigns. This Agreement may be executed in counterpart originals, all of which, when taken together, shall constitute one and the same original document. No provision of any other document between Lender and Borrower shall limit the effectiveness hereof or the rights and remedies of Lender against Borrower. In the event of any contradiction or inconsistency among the terms and conditions of this Agreement or any Loan Document, the interpretation most favorable to the interests of Lender shall prevail.

Except as amended hereby, the Agreement remains unmodified and unchanged.

BORROWER:

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington
Name: Gajus Worthington
Title: President and CEO

LENDER:

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: **LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.,**
its general partner

By: /s/ Thomas Conneely
Name: Thomas Conneely
Title: Vice President

EXHIBIT B-2
(COMMITMENT TWO)

[_____]

SECURED PROMISSORY NOTE

This SECURED PROMISSORY NOTE (this "Note") is made _____, 2008, by FLUIDIGM CORPORATION ("Borrower") in favor of LIGHTHOUSE CAPITAL PARTNERS V, L.P. (collectively with its assigns, "Lender"). Initially capitalized terms used and not otherwise defined herein are defined in that certain Loan and Security Agreement No. 4561 between Borrower and Lender dated March 29, 2005, as amended (the "Loan Agreement").

FOR VALUE RECEIVED, Borrower promises to pay in lawful money of the United States, to the order of Lender, at 500 Drake's Landing Road, Greenbrae, California 94904, or such other place as Lender may from time to time designate ("Lender's Office"), the principal sum of \$_____ (the "Advance"), including interest on the unpaid balance and all other amounts due or to become due hereunder according to the terms hereof and of the Loan Agreement.

"Basic Rate" means a fixed per annum rate of interest equal 8.5%.

"Final Payment" means 6.5% of the Advance.

"Loan Commencement Date" means January 1, 2009.

"Maturity Date" means the last day of the Repayment Period, or if earlier, the date of prepayment under the Note.

"Payment Date" means the first day of each calendar month.

"Prepayment Fee" means (i) if prepaid in the calendar years 2008 or 2009, 3% of the outstanding principal amount being prepaid; (ii) if prepaid in the calendar year 2010, 2% of the outstanding principal amount being prepaid; and (iii) if prepaid in the calendar year 2011 or thereafter, 1% of the outstanding principal amount being prepaid.

"Repayment Period" means the period beginning on the Loan Commencement Date and continuing for 30 calendar months.

1. Repayment. Borrower shall pay principal and interest due hereunder from the Funding Date, until this Note is paid in full, on each Payment Date pursuant to the terms of the Loan Agreement and this Note. Borrower shall pay to Lender, monthly in advance on each Payment Date, interest calculated using the Basic Rate. Beginning on the Loan Commencement Date and on each Payment Date thereafter during the Repayment Period, Borrower shall make equal installments of principal and interest in advance, calculated at the Basic Rate. On the Maturity Date, Borrower shall pay, in addition to all unpaid principal and interest outstanding hereunder, the Final Payment.

2. Interest. Interest not paid when due will, to the maximum extent permitted under applicable law, become part of principal, at Lender's option, and thereafter bear like interest as principal. Interest shall be computed on the basis of a 360 day year. All Obligations not paid when due shall bear interest at the Default Rate unless waived in writing by Lender. All amounts paid hereunder will be applied to the Obligations in Lender's discretion and as provided in the Loan Agreement.

3. Voluntary Prepayment. Borrower may prepay the Note if and only if Borrower pays to Lender (i) the outstanding principal amount of this Note and any unpaid accrued interest (ii) the Final Payment, (iv) the Prepayment Fee, and (v) all other sums, if any, that shall have become due and payable hereunder with respect to this Note.

4. Collateral. This Note is secured by the Collateral.

5. Waivers. Borrower, and all guarantors and endorsers of this Note, regardless of the time, order or place of signing, hereby waive notice, demand, presentment, protest, and notices of every kind, presentment for the purpose of accelerating maturity, diligence in collection to the fullest extent permitted by law.

6. Choice of Law; Venue. THIS NOTE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH OF BORROWER AND LENDER HEREBY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS LOCATED IN THE CITY AND

COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA. BORROWER AND LENDER EACH HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS NOTE. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

7. Miscellaneous. THIS NOTE MAY BE MODIFIED ONLY BY A WRITING SIGNED BY BORROWER AND LENDER. Each provision hereof is severable from every other provision hereof and of the Loan Agreement when determining its legal enforceability. Sections and subsections are titled for convenience, and not for construction. "Hereof," "herein," "hereunder," and similar words refer to this Note in its entirety. "Or" is not necessarily exclusive. "Including" is not limiting. The terms and conditions hereof inure to the benefit of and are binding upon the parties' respective permitted successors and assigns. This Note is subject to all the terms and conditions of the Loan Agreement.

IN WITNESS WHEREOF, Borrower has caused this Note to be executed by a duly authorized officer as of the day and year first above written.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

EXHIBIT D
NOTICE OF BORROWING

_____, _____
Lighthouse Capital Partners V, L.P.
500 Drake's Landing Road
Greenbrae, CA 94904-3011

Ladies and Gentlemen:

Reference is made to the Loan and Security Agreement No. 4561 dated as of March 29, 2005 (as it has been and may be amended from time to time, the "*Loan Agreement*," initially capitalized terms used herein as defined therein), between LIGHTHOUSE CAPITAL PARTNERS V, L.P. and FLUIDIGM CORPORATION (the "*Company*")

The undersigned is the President and CEO of the Company, and hereby irrevocably requests an Advance under the Loan Agreement, and in that connection certifies as follows:

1. The amount of the proposed Advance is \$ _____. The business day of the proposed Advance is _____.
2. The Loan Commencement Date for this Advance shall be March 1, 2006.
3. As of this date, no Event of Default, or event which with notice or the passage of time would constitute an Event of Default, has occurred and is continuing, or will result from the making of the proposed Advance, and the representations and warranties of the Company contained in **Section 5** of the Loan Agreement are true and correct in all material respects.
4. No event that could reasonably be expected to have a material adverse effect on the ability of Borrower to fulfill its obligations under the Loan Agreement has occurred since the date of the most recent financial statements, submitted to you by the Company.

The Company agrees to notify you promptly before the funding of the Advance if any of the matters to which I have certified above shall not be true and correct on the Funding Date.

Very truly yours,

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

4060.LICI.006 Harvard

CO-EXCLUSIVE LICENSE AGREEMENT

Between

President and Fellows of Harvard College

And

Mycometrix Corporation

Effective as of October 15, 2000

Re: Harvard Case [***]

In consideration of the mutual promises and covenants set forth below, the parties hereto agree as follows:

ARTICLE I
DEFINITIONS

As used in this Agreement, the following terms shall have the following meanings:

- 1.1 ACADEMIC RESEARCH PURPOSES: use of PATENT RIGHTS for academic research or other not-for-profit scholarly purposes which are undertaken at a non-profit or governmental institution that does not use the PATENT RIGHTS in the production or manufacture of products for sale or the performance of services for a fee.
- 1.2 AFFILIATE: any entity which controls, is controlled by, or is under common control with a party by ownership or control of at least fifty percent (50%) of the voting stock or other ownership. Unless otherwise specified, the term LICENSEE includes AFFILIATES.
- 1.3 FIELD: use of PATENT RIGHTS to develop, manufacture, use, offer for sale, sell, or import components and products in FIELD I and/or FIELD II:

FIELD I: [***]

FIELD II: [***]

- 1.4 HARVARD: President and Fellows of Harvard College, a nonprofit Massachusetts educational corporation having offices at the Office for Technology and Trademark Licensing, Holyoke Center, Suite 727, 1350 Massachusetts Avenue, Cambridge, Massachusetts 02138.
- 1.5 LICENSED PROCESSES: the processes covered by at least one VALID CLAIM included within the PATENT RIGHTS.
- 1.6 LICENSED PRODUCTS: products covered by at least one VALID CLAIM included within the PATENT RIGHTS or products made or services provided in accordance with or by means of LICENSED PROCESSES.
- 1.7 LICENSEE: Mycometrix Corporation, a corporation organized under the laws of California having its principal offices at 213 East Grand Avenue, South San Francisco, CA 94080.
- 1.8 NET SERVICE INCOME: SERVICE INCOME less LICENSEE's actual direct and indirect cost for research, development and/or services provided.
- 1.9 NET SALES: the amount actually received for sales, leases, or other transfers of LICENSED PRODUCTS, less:
- (i) customary trade, quantity or cash discounts and non-affiliated brokers' or agents' commissions actually allowed and taken;
 - (ii) amounts repaid or credited by reason of rejection or return;
 - (iii) to the extent separately stated on purchase orders, invoices, or other documents of sale, taxes levied on and/or other governmental charges made as to production, sale, transportation, delivery or use and paid by or on behalf of LICENSEE; and
 - (iv) reasonable charges for delivery or transportation provided by third parties and cost of insurance in transit, if separately stated.

NET SALES also includes the fair market value of any non-cash consideration received by LICENSEE for the sale, lease, or transfer of LICENSED PRODUCTS.

If a LICENSED PRODUCT is sold as a combination product containing the LICENSED PRODUCT and one or more other components, NET SALES shall be calculated by multiplying the gross amount invoiced for the sale of the combination product by the fraction $A/A+B$ where A is the average gross selling price of the LICENSED PRODUCT sold separately by LICENSEE and B is the average gross selling price of such other components of the combination products sold separately by LICENSEE during the relevant royalty payment period.

In the event that LICENSEE grants a sublicense hereunder, and receives payments based upon SUBLICENSEE's sales of LICENSED PRODUCTS, LICENSEE may upon approval from HARVARD (which shall not be unreasonably withheld) modify the definition of NET SALES for the purposes of calculating royalties payable to HARVARD on such SUBLICENSEE's sales to be the same as the definition of NET SALES on which such royalties to LICENSEE are calculated.

- 1.10 SERVICE INCOME: the total financial consideration received by LICENSEE for commercial services performed on a fee-for-service basis using the LICENSED PRODUCTS or LICENSED PROCESSES by LICENSEE under a contract with a third party, where such services are based primarily on the use of fully functional LICENSED PRODUCTS or LICENSED PROCESSES (as applicable) for their intended commercial use (such as, for example, where LICENSEE performs commercial-scale genotyping services for a pharmaceutical company on a fee-for-service basis using fully developed microfluidics chips comprising LICENSED PRODUCTS). SERVICE INCOME shall not include amounts received in connection with research and/or development of LICENSED PRODUCTS or LICENSED PROCESSES themselves.
- 1.11 PATENT RIGHTS: The applications and patents as listed in Appendix A of this Agreement, the allowed claims of such applications, the inventions described and claimed therein, and any divisions or continuations of the applications and patents as listed in Appendix A, and specific claims of any continuations-in-part of such applications to the extent the specific claims are directed to subject matter described in the applications and patents listed in Appendix A in a manner sufficient to support such specific claims under 35 U.S.C., patents issuing thereon or reissues thereof, and any and all foreign patents and patent applications corresponding thereto, all to the extent owned or controlled by HARVARD.
- 1.12 SUBLICENSE INCOME: the amount paid to LICENSEE by a third party (other than an AFFILIATE of LICENSEE) (a) for the sublicensing of PATENT RIGHTS to a third party as well as (b) for the related licensing of LICENSEE's own patent rights or know-how or LICENSEE's in-licensed non-HARVARD technologies, including but not limited to (i) license fees, (ii) milestone payments, (iii) royalties, (iv) the fair market value in cash of any non-cash consideration for such sublicense, and (v) in the event that LICENSEE receives any payment for equity in consideration for the grant of sublicense rights that included a premium over the fair market value of such equity, the amount of such premium. LICENSEE shall be responsible for determining such fair market value with reasonable business judgment.
- 1.13 SUBLICENSEE: any non-AFFILIATE granted a sublicense of any of the rights HARVARD has granted to LICENSEE under Section 3.1.
- 1.14 TERRITORY: Worldwide.

- 1.15 VALID CLAIM: either (i) a claim of an issued patent that has not been held unenforceable or invalid by an agency or a court of competent jurisdiction in any unappealable or unappealed decision or (ii) a claim of a published, pending patent application, which claim is substantially identical to a corresponding claim in a subsequently issued patent having priority to the patent application.
- 1.16 The terms "Public Law 96-517" and "Public Law 98-620" include all amendments to those statutes.
- 1.17 The terms "sold" and "sell" include, without limitation, leases and other transfers and similar transactions.

ARTICLE II
REPRESENTATIONS

- 2.1 HARVARD is owner by assignment from [***], in the US and foreign patent applications corresponding thereto, and in the inventions described and claimed therein. Inventorship will be finalized in the near future.
- 2.2 HARVARD has authority to issue licenses under PATENT RIGHTS.
- 2.3 HARVARD is committed to the policy that ideas or creative works produced at HARVARD should be used for the greatest possible public benefit, and believes that every reasonable incentive should be provided for the prompt introduction of such ideas into public use, all in a manner consistent with the public interest.
- 2.4 LICENSEE is prepared and intends to diligently develop the invention and to bring products to market which are subject to this Agreement, specifically including one or more products in the FIELD selected from a [***].
- 2.5 LICENSEE is desirous of obtaining a co-exclusive license in the FIELD and in the TERRITORY in order to practice the PATENT RIGHTS in the United States and in certain foreign countries, and to manufacture, use and sell in the commercial market the products made in accordance therewith, and HARVARD is desirous of granting such a license to LICENSEE in accordance with the terms of this Agreement.

ARTICLE III
GRANT OF RIGHTS

- 3.1 HARVARD hereby grants to LICENSEE and LICENSEE accepts, subject to the terms and conditions hereof, in the TERRITORY a co-exclusive commercial license under PATENT

RIGHTS in FIELD I and in FIELD II to make and have made, to use and have used, to sell and have sold, and to offer for sale and have offered for sale the LICENSED PRODUCTS, and to practice the LICENSED PROCESSES, for the life of the PATENT RIGHTS. HARVARD will grant no more than two commercial licenses in FIELD I at any time and will grant no more than two commercial licenses in FIELD II at any time and HARVARD will not grant other licenses in the FIELD except as required by HARVARD's obligations in Section 3.2(a) or as permitted Section 3.2(b). Such co-exclusive license shall include the right to grant sublicenses under the following circumstances: (i) LICENSEE can demonstrate that it has added significant value to the PATENT RIGHTS to be sublicensed, and that such a sublicense also contains a substantial and essentially simultaneous license of LICENSEE owned intellectual property, or (ii) LICENSEE grants a sublicense under other HARVARD patent rights licensed exclusively to LICENSEE which are dominated by PATENT RIGHTS, and such sublicense under PATENT RIGHTS is necessary to practice such other HARVARD patent rights.

3.2 The granting and exercise of this license is subject to the following conditions:

- (a) HARVARD's "Statement of Policy in Regard to Inventions, Patents and Copyrights," dated August 10, 1998, Public Law 96-517, Public Law 98-620. In addition, this Agreement is subject to HARVARD's obligations under agreements with other sponsors of research, provided that such obligations are not in conflict with the rights granted hereunder. Any right granted in this Agreement greater than that permitted under Public Law 96-517, or Public Law 98-620, shall be subject to modification as may be required to conform to the provisions of those statutes.
- (b) HARVARD reserves the right to make and use, and grant to others non-exclusive licenses to make and use solely for ACADEMIC RESEARCH PURPOSES the subject matter described and claimed in PATENT RIGHTS.
- (c) LICENSEE shall use commercially reasonable efforts to effect introduction of the LICENSED PRODUCTS into the commercial market as soon as practicable, consistent with sound and reasonable business practice and judgment; thereafter, until the expiration of this Agreement, LICENSEE shall endeavor to keep LICENSED PRODUCTS reasonably available to the public.
- (d) At any time after three years from the effective date of this Agreement and as HARVARD's sole remedy for such non-performance, HARVARD may increase the license maintenance royalty under Section 4.4 to [***] (\$[**]) dollars each in FIELD I and in FIELD II in year 2004 and [***] (\$[**]) dollars each in FIELD I and FIELD II per year each year beginning in 2005, if in HARVARD's reasonable judgment, the Progress Reports furnished by LICENSEE do not demonstrate that LICENSEE has satisfied at least one of the following conditions, which non-performance is not cured within ninety (90) days following the written notification of such by HARVARD to LICENSEE:

- (i) has put the licensed subject matter into commercial use in at least one of the countries hereby licensed, directly or through a sublicense, and is keeping the licensed subject matter reasonably available to the public; or
 - (ii) is engaged in research, development, manufacturing, marketing or sublicensing activity appropriate to achieving 3.2(d)(i).
- (e) In all sublicenses granted by LICENSEE hereunder, LICENSEE shall include a requirement that the SUBLICENSEE use commercially reasonable efforts to bring the subject matter of the sublicense into commercial use. LICENSEE shall further provide in such sublicenses that such sublicenses are subject and subordinate to the terms and conditions of this Agreement, except: (i) the SUBLICENSEE may not further sublicense; and (ii) the rate of royalty on NET SALES paid by the SUBLICENSEE to the LICENSEE. Copies of the relevant provisions of all sublicense agreements shall be provided promptly to HARVARD. HARVARD agrees to maintain any information contained in such provisions in confidence, except as otherwise required by law, however, HARVARD may include in its usual reports annual amounts of royalties paid.
- (f) A license in any other field of use in addition to the FIELD shall be the subject of a separate agreement and shall require LICENSEE's submission of evidence, satisfactory to HARVARD, demonstrating LICENSEE's willingness and ability to develop and commercialize in such other field of use the kinds of products or processes likely to be encompassed in such other fields.
- (g) To the extent that federal funds are used to support research leading to a patent or patent application in the PATENT RIGHTS, LICENSEE shall cause any LICENSED PRODUCT produced for sale by LICENSEE or SUBLICENSEES in the United States to be manufactured substantially in the United States during the period of exclusivity of this license in the United States.

3.4 All rights reserved to the United States Government and others under Public Law 96-517, and Public Law 98-620, shall remain and shall in no way be affected by this Agreement.

ARTICLE IV
ROYALTIES

- 4.1 LICENSEE shall pay to HARVARD a non-refundable license royalty fee in the sum of [***] dollars (\$[***]) payable within thirty (30) days of the execution date of this Agreement.
- 4.2 (a) In consideration of the right and license granted herein, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty of [***] percent ([***) on NET SALES of LICENSED PRODUCTS sold by LICENSEE.

(b) In the event that a single LICENSED PRODUCT or LICENSED PROCESS is covered by HARVARD intellectual property in addition to PATENT RIGHTS, which is licensed to LICENSEE under other agreements as of the date of this Agreement, then the total royalty payment due HARVARD under all such agreements including this Agreement shall be [***] percent ([***)] of NET SALES. LICENSEE shall notify HARVARD of the identity of each license agreement that includes patent rights covering the product or process, and HARVARD shall distribute the royalties evenly among such agreements.

(c) As consideration for the rights granted hereunder, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty in the form of stock of LICENSEE as follows:

(i) LICENSEE shall issue to HARVARD [***] shares of the Common Stock of LICENSEE ("Shares") pursuant to the terms of a mutually acceptable Stock Subscription Agreement, provided, however, that HARVARD shall be subject to and enter into appropriate agreements and related documents as required of other stockholders of LICENSEE.

(ii) HARVARD represents and warrants to LICENSEE that:

(1) HARVARD is acquiring the Shares for its own account for investment and not with a view to, or for sale in connection with any distribution thereof, nor with any present intention of distributing or selling the same; and HARVARD has no present or contemplated agreement, undertaking, arrangement, obligation, indebtedness or commitment providing for the disposition thereof.

(2) HARVARD has full power and authority to enter into and to perform this Agreement in accordance with its terms.

(3) HARVARD has sufficient knowledge and experience in investing in companies similar to LICENSEE so as to be able to evaluate the risks and merits of its investment in LICENSEE and is able financially to bear the risks thereof.

(iii) Each certificate representing the Shares shall bear a legend substantially in the following form:

“The shares represented by this certificate have not been registered under the Securities Act of 1933 or any state securities law and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a registration statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Corporation shall have received an opinion of counsel satisfactory to the Corporation that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable securities laws.”

“The shares represented by this certificate are subject to a mutually agree-upon Stock Purchase and Right of First Refusal Agreement with this Corporation, a copy of which Stock Purchase and Right of First Refusal Agreement is available for inspection at the offices of the Corporation or may be made available upon request.”

The foregoing legend shall be removed from the certificates representing any Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to the Securities Act of 1933, as amended.

If at any time prior to the time the Shares are eligible for resale pursuant to an exemption from registration under the Securities Act of 1933, as amended, LICENSEE proposes to register any of its Common Stock, under the Securities Act of 1933, except at LICENSEE's initial public offering or any offering pursuant to Forms S-4 or S-8, LICENSEE shall offer HARVARD the opportunity to have its Shares registered under the registration statement to be filed at such time. HARVARD will be offered the right to register its Shares under the same terms, conditions and restrictions as other shareholders with piggyback registration rights and the inclusion of any Shares in such registration statement shall be subject to the approval of the underwriters of such offering

(iv) HARVARD's ownership rights to Shares shall not be affected should the license pursuant to this Agreement be converted to a non-exclusive one.

(d) In the case of sublicenses, LICENSEE shall also pay to HARVARD a royalty of [***] of SUBLICENSE INCOME. If compensation for such a sublicense of PATENT RIGHTS is bundled with compensation received for the sublicensing of the other HARVARD patent rights licensed to LICENSEE under other agreements as of the date of this Agreement, LICENSEE shall pay HARVARD only [***] of the total compensation received no matter how many license agreements from HARVARD are involved. In such a case, LICENSEE shall notify HARVARD of the identity of each license agreement involved and HARVARD shall distribute its [***] of

compensation equally among those license agreements, including this Agreement.

(e) LICENSEE shall pay HARVARD [***] of NET SERVICE INCOME. If SERVICE INCOME is bundled with service income under another license to LICENSEE as of the date of this Agreement, LICENSEE shall pay a royalty of [***] of NET SERVICE INCOME received from each and every third party ("Third Party") to which services are provided. LICENSEE shall notify HARVARD of the identity of each license agreement involved in the services and HARVARD shall distribute its [***] of compensation equally among those license agreements, including this Agreement.

(f) If other co-exclusive licenses in the same FIELD and TERRITORY are granted after the date this Agreement is executed, the above financial compensation shall not exceed the financial compensation to be paid by other licensees in the same FIELD and TERRITORY during the term of the co-exclusive license provided LICENSEE accepts any less favorable terms included in such other license.

If stock is part of the financial compensation to be paid by other licensees in the same FIELD and TERRITORY, the fair market value of the stock shall be the same as the price per share which other investors paid in the last round of financing unless the stock is publicly traded.

4.3 On sales between LICENSEE and its AFFILIATES for resale or incorporation into products, the royalty shall be paid on the NET SALES of the AFFILIATE. On sales between LICENSEE and sublicensees for resale, the royalty shall be paid on the SUBLICENSE INCOME.

4.4 No later than January 1 of each calendar year indicated below, LICENSEE shall pay to HARVARD the following non-refundable license maintenance royalty and/or advance on royalties. Such payments shall be credited against running royalties due for that calendar year and Royalty Reports shall reflect such a credit. Such payments shall not be credited against milestone payments (if any) nor against royalties due for any subsequent calendar year nor against such payments due under any other agreements with HARVARD.

	FIELD I	FIELD II
January 1, 2002	[***]	[***]
January 1, 2003	[***]	[***]
January 1, 2004	[***]	[***]
each year thereafter	[***]	[***]

ARTICLE V
REPORTING

5.1 Prior to signing this Agreement, LICENSEE has provided to HARVARD a written business plan under which LICENSEE intends to bring the subject matter of the licenses

granted hereunder into commercial use upon execution of this Agreement. Such plan includes proposed marketing efforts.

- 5.2 No later than sixty (60) days after June 30 of each calendar year, LICENSEE shall provide to HARVARD a written annual Progress Report describing progress on research and development, regulatory approvals, manufacturing, sublicensing, marketing and sales during the most recent twelve (12) month period ending June 30 and plans for the forthcoming year. If multiple technologies are covered by the license granted hereunder, the Progress Report shall provide the information set forth above for each technology. If progress differs from that anticipated in the plan required under Section 5.1, LICENSEE shall explain the reasons for the difference and propose a modified plan for HARVARD's review. LICENSEE shall also provide any reasonable additional data HARVARD requires to evaluate LICENSEE's performance.
- 5.3 LICENSEE shall report to HARVARD the date of first sale of LICENSED PRODUCTS (or results of LICENSED PROCESSES) in each country within thirty (30) days of occurrence.
- 5.4 (a) LICENSEE shall submit to HARVARD within sixty (60) days after each calendar half year ending June 30 and December 31, a Royalty Report setting forth for such half year at least the following information:
- (i) the number of LICENSED PRODUCTS sold by LICENSEE in each country;
 - (ii) total billings and amounts actually received for such LICENSED PRODUCTS;
 - (iii) an accounting for all LICENSED PROCESSES used or sold;
 - (iv) deductions applicable to determine the NET SALES thereof;
 - (v) the amount of SERVICE INCOME received by LICENSEE and an accounting of all deductions to yield NET SERVICE INCOME;
 - (vi) the amount of SUBLICENSE INCOME received by LICENSEE; and
 - (vii) the amount of royalty due thereon, or, if no royalties are due to HARVARD for any reporting period, the statement that no royalties are due.
- Such report shall be certified as correct by an officer of LICENSEE and shall include a detailed listing of all deductions from royalties.
- (b) LICENSEE shall pay to HARVARD with each such Royalty Report the amount of royalty due with respect to such half year. If multiple technologies are covered by the license granted hereunder, LICENSEE shall specify which PATENT RIGHTS are utilized for each LICENSED PRODUCT and LICENSED PROCESS included in the Royalty Report.

- (c) All payments due hereunder shall be deemed received when funds are credited to HARVARD's bank account and shall be payable by check or wire transfer in United States dollars. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate existing in the United States (as reported in the New York Times or the Wall Street Journal) on the last working day of each royalty period. No transfer, exchange, collection or other charges shall be deducted from such payments.
- (d) All such reports shall be maintained in confidence by HARVARD except as required by law; however, HARVARD may include in its usual reports annual amounts of royalties paid.
- (e) Late payments shall be subject to a charge of one and one-half percent (1.5%) per month, or \$250, whichever is greater.

5.5 In the event of acquisition, merger, change of corporate name or change in make-up, organization, or identity, LICENSEE shall notify HARVARD in writing within thirty (30) days of such event.

5.6 If by law, regulation or fiscal policy of a particular country, conversion into United States dollars or transfer of funds of a convertible currency to the United States is restricted or forbidden, LICENSEE shall give HARVARD prompt notice in writing and shall pay the royalty and other amounts due through such means or methods as are lawful in such country as HARVARD may reasonably designate. Failing the designation by HARVARD of such lawful means or methods within thirty (30) days after such notice is given to HARVARD, LICENSEE shall deposit such royalty or other payment in local currency to the credit of HARVARD in a recognized banking institution designated by HARVARD, or if none is designated by HARVARD within the thirty (30) day period described above, in a recognized banking institution selected by LICENSEE and identified in a written notice to HARVARD by LICENSEE, and such deposit shall fulfill all obligations of LICENSEE to HARVARD with respect to such royalties. When in any country in which the law or regulations prohibit both the transmittal and deposit of royalties on sales in such country, royalty payments shall be suspended for as long as such prohibition is in effect, and as soon as such prohibition ceases to be in effect, all royalties which LICENSEE would have been under obligation to transmit or deposit, but for the prohibition, shall be deposited or transmitted promptly to the extent allowable.

ARTICLE VI
RECORD KEEPING

6.1 LICENSEE shall keep, and shall require its SUBLICENSEES to keep, accurate records (together with supporting documentation) of LICENSED PRODUCTS made, used or sold under this Agreement, and SERVICE INCOME and SUBLICENSE INCOME received by LICENSEE under this Agreement, appropriate to determine the amount of royalties due to HARVARD hereunder. Such records shall be retained for three (3) years following the end of the reporting period to which they relate. For such three year period, they shall be

available during normal business hours upon reasonable advance notice for examination by a certified public accountant selected by HARVARD, and reasonably acceptable to LICENSEE, for the sole purpose of verifying reports and payments hereunder. In conducting examinations pursuant to this Section 6.1, HARVARD's accountant shall have access to all records which HARVARD reasonably believes to be relevant to the calculation of royalties under Article IV. HARVARD agrees to maintain any information contained in such records in confidence, except as otherwise required by law and except information in regarding the amount of royalties due.

6.2 HARVARD's accountant shall not disclose to HARVARD any information other than information relating to the accuracy of reports and payments made hereunder.

6.3 Such examination by HARVARD's accountant shall be at HARVARD's expense, except that if such examination shows an underreporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then LICENSEE shall pay the cost of such examination as well as any additional sum that would have been payable to HARVARD had the LICENSEE reported correctly, plus interest on said sum at the rate of one and one-half percent (1.5%) per month.

ARTICLE VII

DOMESTIC AND FOREIGN PATENT FILING AND MAINTENANCE

7.1 Upon execution of this Agreement, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all reasonable expenses HARVARD has incurred for the preparation, filing, prosecution, maintenance and counseling with respect to PATENT RIGHTS. Such expenses total [* * *] as of October 1, 2000. Thereafter, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all such future reasonable expenses prior to termination of this Agreement upon receipt of invoices from HARVARD.

7.2 HARVARD shall be responsible for the preparation, filing, prosecution and maintenance of any and all patent applications and patents included in PATENT RIGHTS. HARVARD will instruct counsel to directly notify HARVARD and LICENSEE and provide them copies of any official communications from the United States and foreign patent offices relating to said prosecution, and to provide LICENSEE with advance draft copies of all relevant communications to the various patent offices, so that LICENSEE may be informed and apprised of the continuing prosecution of patent applications in PATENT RIGHTS. LICENSEE shall have reasonable opportunities to participate in decision making on all key decisions affecting filing, prosecution and maintenance of patents and patent applications in PATENT RIGHTS. HARVARD will use reasonable efforts to incorporate LICENSEE's reasonable suggestions regarding said prosecution. HARVARD shall use all reasonable efforts to amend any patent application to include claims reasonably requested by LICENSEE to protect LICENSED PRODUCTS.

7.3 HARVARD and LICENSEE shall cooperate fully in the preparation, filing, prosecution and maintenance of PATENT RIGHTS and of all patents and patent applications licensed to LICENSEE hereunder, executing all papers and instruments or requiring members of

HARVARD to execute such papers and instruments so as to enable HARVARD to apply for, to prosecute and to maintain patent applications and patents in HARVARD's name in any country. Each party shall provide to the other prompt notice as to all matters which come to its attention and which may affect the preparation, filing, prosecution or maintenance of any such patent applications or patents.

- 7.4 LICENSEE may elect to surrender its PATENT RIGHTS in any country upon sixty (60) days written notice to HARVARD. Such notice shall not relieve LICENSEE from responsibility to reimburse HARVARD for patent-related expenses incurred prior to the expiration of the (60) day notice period.
- 7.5 If HARVARD elects not to prosecute or maintain any of the patents or patent applications relating to PATENT RIGHTS or any portion thereof in any country, LICENSEE shall be given sufficient notice of HARVARD's decision so that LICENSEE may request that HARVARD continue prosecuting or maintaining such patents or patent applications, at LICENSEE's expense. If HARVARD elects not to prosecute or maintain such patents or patent applications after such request by LICENSEE, then LICENSEE shall have the right, but not the obligation, at its own expense to prosecute and maintain such patents and patent applications or portion thereof in such country and in HARVARD's name. If LICENSEE assumes 100% of the costs to file, prosecute, and maintain certain patents and patent applications relating to the PATENT RIGHTS pursuant to this Section 7.5, and, if HARVARD licenses the PATENT RIGHTS to one or more co-exclusive licensees designated in Section 3.1 after such time, then HARVARD will credit LICENSEE with the costs LICENSEE has paid in excess of 50% if one other licensee, due for the preparation, filing, prosecution and maintenance of patents and patent applications relating to PATENT RIGHTS pursuant to Section 7.1 above.
- 7.6 If LICENSEE can demonstrate that it is not being adequately informed or apprised of the continuing prosecution of patents or patent applications in PATENT RIGHTS, or that it is not being provided with reasonable opportunities to participate in decision making or that its interests are not being adequately protected, LICENSEE shall be entitled to engage, at LICENSEE's expense, independent patent counsel to review and evaluate patent prosecution and filing of patents and patent applications included in PATENT RIGHTS.

ARTICLE VIII
INFRINGEMENT

- 8.1 With respect to any PATENT RIGHTS that are licensed to LICENSEE pursuant to this Agreement, LICENSEE shall have the right to prosecute in its own name and at its own expense any infringement of such patent. HARVARD agrees to notify LICENSEE promptly of each infringement of such patents of which HARVARD, as applicable, is or becomes aware. Before LICENSEE commences an action with respect to any infringement of such patents, LICENSEE shall give careful consideration to the views of HARVARD and to potential effects on the public interest in making its decision whether or not to sue.

- 8.2 LICENSEE acknowledges that other co-exclusive licensees of PATENT RIGHTS designated in Section 3.1 shall have rights identical to LICENSEE to prosecute infringers and that co-exclusive licensees will be bound by the identical terms of this Section 8.2. In any prosecution instigated by LICENSEE and in which HARVARD, as necessary, is also named plaintiff as owner of the PATENT RIGHTS, LICENSEE must notify other co-exclusive licensees of the existence of such legal action and allow other co-exclusive licensees to join as a plaintiff upon co-exclusive licensees' request. In addition, in the event other co-exclusive licensees instigate an infringement prosecution, LICENSEE hereby consents to being joined as a plaintiff in such suit solely for the purpose of procuring standing to bring the action and at the sole expense of the instigating co-exclusive licensee. To the extent that LICENSEE desires to participate in any strategic decisions affecting the prosecution of the action brought by other co-exclusive licensees, LICENSEE acknowledges that it and co-exclusive licensees will necessarily have to reach a mutual agreement concerning litigation expenses and strategy. In no event shall HARVARD incur any liability or expense in connection with any action of co-exclusive licensees, joint or otherwise.
- During any such litigation, HARVARD will agree to not license any defendant or accused infringer of the PATENT RIGHTS in the litigation, without LICENSEE's prior written consent.
- 8.3 (a) If LICENSEE elects to commence an action as described above, HARVARD may, to the extent permitted by law, elect to join as parties in that action. Regardless of whether HARVARD elects to join as parties, HARVARD shall cooperate fully with LICENSEE in connection with any such action.
- (b) HARVARD agrees to join as a party in any action if required by law to do so in order to bring an action under the PATENT RIGHTS.
- (c) LICENSEE shall reimburse HARVARD for any costs incurs with LICENSEE's approval, including reasonable attorneys' fees, as part of an action brought by LICENSEE, irrespective of whether HARVARD becomes a co-plaintiff.
- 8.4 If LICENSEE elects to commence an action as described above, LICENSEE may deduct from its royalty payments to HARVARD with respect to the patent(s) subject to suit an amount not exceeding fifty percent (50%) of LICENSEE's expenses and costs of such action, including reasonable attorneys' fees; provided, however, that such reduction shall not exceed fifty percent (50%) of the total royalty due to HARVARD with respect to the patent(s) subject to suit for each calendar year. If such fifty percent (50%) of LICENSEE's expenses and costs exceeds the amount of royalties deducted by LICENSEE for any calendar year, LICENSEE may to that extent reduce the royalties due to HARVARD from LICENSEE in succeeding calendar years, but never by more than fifty percent (50%) of the total royalty due in any one year with respect to the patent(s) subject to suit.

- 8.5 No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the prior written consent of HARVARD which consent shall not be unreasonably withheld.
- 8.6 Recoveries or reimbursements from actions commenced by LICENSEE pursuant to this Article shall first be applied to reimburse LICENSEE, HARVARD for litigation costs not paid from royalties and then to reimburse HARVARD for royalties deducted by LICENSEE pursuant to Section 8.4. Any remaining recoveries or reimbursements shall be shared as follows:
- (a) If the amount is lost profits or lost royalties, LICENSEE shall receive an amount equal to the damages the court determines LICENSEE has suffered as a result of the infringement less the amount of any royalties that would have been due HARVARD on sales of LICENSED PRODUCTS lost by LICENSEE as a result of the infringement had LICENSEE made such sales, and HARVARD shall receive an amount equal to the royalties it would have received if such sales had been made by LICENSEE, and
 - (b) As to awards other than lost profits or lost royalties, fifty percent (50%) to LICENSEE and fifty percent (50%) to HARVARD.
 - (c) If two or more co-exclusive licensees undertake the suit, the provision of this Section 8.6 will be modified to take into account each co-exclusive licensee's expenses and lost profits.
- 8.7 If LICENSEE elects not to exercise its right to prosecute an infringement of the PATENT RIGHTS pursuant to this Article, HARVARD may do so at its own expense, controlling such action and retaining all recoveries therefrom. LICENSEE shall cooperate fully with HARVARD in connection with any such action.
- 8.8 If a declaratory judgment action is brought naming LICENSEE as a defendant and alleging invalidity of any of the PATENT RIGHTS, HARVARD may elect to take over the sole defense of the action at its own expense. LICENSEE shall cooperate fully with HARVARD in connection with any such action. HARVARD shall consult with LICENSEE regarding such defense.

ARTICLE IX
TERMINATION OF AGREEMENT

- 9.1 This Agreement, unless terminated as provided herein, shall remain in effect until the last patent or patent application in PATENT RIGHTS has expired or been abandoned.
- 9.2 HARVARD may terminate this Agreement as follows:
- (a) If LICENSEE does not make a payment due hereunder and fails to cure such non-payment (including the payment of interest in accordance with Section 5.4(e)) within

thirty (30) days after the date of notice in writing of such non-payment by HARVARD.

- (b) If LICENSEE defaults in its obligations under Sections 10.3(c) and 10.3(d) to procure and maintain insurance.
- (c) If LICENSEE shall become insolvent, shall make an assignment for the benefit of creditors, or shall have a petition in bankruptcy filed for or against it. Such termination shall be effective immediately upon HARVARD giving written notice to LICENSEE.
- (d) If an examination by HARVARD's accountant pursuant to Article V shows an underreporting or underpayment by LICENSEE in excess of twenty percent (20%) for any twelve (12) month period, provided that such underreporting or underpayment is not determined to be inadvertent or the result of an honest mistake.
- (e) If LICENSEE is convicted of a felony relating to the manufacture, use, or sale of LICENSED PRODUCTS.
- (f) Except as provided in Subsections (a), (b), and (c) above, if LICENSEE defaults in the performance of any material obligations under this Agreement and the default has not been remedied within forty-five (45) days after the date of notice in writing of such default by HARVARD.

9.3 LICENSEE shall provide, in all sublicenses granted by it under this Agreement, that LICENSEE's interest in such sublicenses shall at HARVARD's option terminate or be assigned to HARVARD upon termination of this Agreement; however, LICENSEE shall have the option to nominate one of its sublicensees as a substitute for LICENSEE. The proposed substitute must (i) have a net worth of at least equivalent to the net worth LICENSEE had as of the date of this Agreement and (ii) have available resources and sufficient scientific, business and other expertise comparable to LICENSEE in order to satisfy its obligations under this Agreement. At least sixty (60) days prior to termination of this Agreement, LICENSEE shall provide HARVARD with written notice of LICENSEE's nominee together with documentation sufficient to demonstrate the requirements set forth in subparagraphs (i) and (ii) above for HARVARD's approval, which shall not be unreasonably withheld. HARVARD shall notify LICENSEE in writing of its decision prior to termination of this Agreement. If HARVARD approves LICENSEE's nominee, LICENSEE shall assign this Agreement to its nominee and its nominee shall accept the assignment no later than thirty (30) days after the termination date of this Agreement.

In the event that HARVARD disapproved LICENSEE's first nominee, prior to the termination date of this Agreement, LICENSEE shall have the option to nominate one of its other sublicensees for HARVARD's approval which shall not be unreasonably withheld.

9.4 LICENSEE may terminate this Agreement by giving ninety (90) days advance written notice of termination to HARVARD. Upon termination, LICENSEE shall submit a final Royalty Report to HARVARD and any royalty payments and unreimbursed patent expenses invoiced by HARVARD shall become immediately payable.

9.5 Sections 6.1, 6.2, 6.3, 7.1, 9.4, 9.5, 10.2, 10.3, 10.4, and 10.7 of this Agreement shall survive termination.

ARTICLE X
GENERAL

10.1 HARVARD does not warrant the validity of the PATENT RIGHTS licensed hereunder and make no representations whatsoever with regard to the scope of the licensed PATENT RIGHTS or that such PATENT RIGHTS may be exploited by LICENSEE, an AFFILIATE, or SUBLICENSEE without infringing other patents, provided, however, HARVARD represents that it has no knowledge of any facts or circumstances as of the execution date of this Agreement that would render any of the PATENT RIGHTS invalid or unenforceable. HARVARD represents and warrants, to the best of its knowledge, that HARVARD owns all right, title and interest in and to the PATENT RIGHTS.

10.2 HARVARD EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES AND MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE PATENT RIGHTS OR INFORMATION SUPPLIED BY HARVARD, LICENSED PROCESSES OR LICENSED PRODUCTS CONTEMPLATED BY THIS AGREEMENT.

10.3 (a) LICENSEE shall indemnify, defend and hold harmless HARVARD and its current or former directors, governing board members, trustees, officers, faculty, medical and professional staff, employees, students, and agents and their respective successors, heirs and assigns (collectively, the "INDEMNITEES"), from and against any claim, liability, cost, expense, damage, deficiency, loss or obligation of any kind or nature (including, without limitation, reasonable attorney's fees and other costs and expenses of litigation) (collectively, "Claims"), based upon, arising out of, or otherwise relating to this Agreement, including without limitation any cause of action relating to product liability concerning any product, process, or service made, used or sold pursuant to any right or license granted under this Agreement, provided, however, that such indemnification shall not apply to any liability, damage, loss, or expense to the extent directly attributable to the negligent activities, reckless misconduct or intentional misconduct of Indemnitees.

(b) Each Indemnitee that intends to claim indemnification under Section 10.3(a) shall promptly notify LICENSEE of any claim or action in respect of which the Indemnitee intends to claim such indemnification, and LICENSEE shall assume the defense thereof with counsel mutually satisfactory to LICENSEE and HARVARD. The failure to deliver notice to LICENSEE within a reasonable time after the

commencement of any such claim or action, if materially prejudicial to its ability to defend such action, shall relieve LICENSEE of any liability to the Indemnitee under Section 10.3(a) with respect to such action, but the omission so to deliver notice to LICENSEE will not relieve it of any liability that it may have to any Indemnitee otherwise than under Section 10.3(a). HARVARD and any other Indemnitee, and their respective employees and agents, shall cooperate fully with LICENSEE and its legal representatives in the investigation of any claim or action covered by the indemnification under Section 10.3(a).

- (c) Beginning at the time any such product, process or service is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in amounts not less than \$2,000,000 per incident and \$2,000,000 annual aggregate and naming the Indemnitees as additional insureds. During clinical trials of any such product, process or service, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in such equal or lesser amount as HARVARD shall require, naming the Indemnitees as additional insureds. Such commercial general liability insurance shall provide: (i) product liability coverage; and (ii) broad form contractual liability coverage for LICENSEE's indemnification under this Agreement. If LICENSEE elects to self-insure all or part of the limits described above (including deductibles or retentions which are in excess of \$250,000 annual aggregate) such self-insurance program must be acceptable to HARVARD and the Risk Management Foundation of the Harvard Medical Institutions, Inc. in their sole discretion. The minimum amounts of insurance coverage required shall not be construed to create a limit of LICENSEE's liability with respect to its indemnification under this Agreement.
- (d) LICENSEE shall provide HARVARD with written evidence of such insurance upon request of HARVARD. LICENSEE shall provide HARVARD with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance; if LICENSEE does not obtain replacement insurance providing comparable coverage within such fifteen (15) day period, HARVARD shall have the right to terminate this Agreement effective at the end of such fifteen (15) day period without notice or any additional waiting periods.
- (e) LICENSEE shall maintain such commercial general liability insurance beyond the expiration or termination of this Agreement during: (i) the period that any product, process, or service, relating to, or developed pursuant to, this Agreement is being commercially distributed or sold by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE; and (ii) a reasonable period after the period referred to in Subsection (e)(i) above which in no event shall be less than fifteen (15) years.

- 10.4 LICENSEE shall not use HARVARD's name or insignia, or any adaptation of them, or the name of any of HARVARD's inventors in any advertising, promotional or sales literature without the prior written approval of HARVARD.
- 10.5 Without the prior written approval of HARVARD in each instance, neither this Agreement nor the rights granted hereunder shall be transferred or assigned in whole or in part by LICENSEE to any person whether voluntarily or involuntarily, by operation of law or otherwise, except that each of LICENSEE and its AFFILIATES may assign this Agreement in connection with a merger, consolidation or sale or transfer of all or substantially all of its assets. This Agreement shall be binding upon the respective successors, legal representatives and assignees of HARVARD and LICENSEE.
- 10.6 The interpretation and application of the provisions of this Agreement shall be governed by the laws of the Commonwealth of Massachusetts.
- 10.7 LICENSEE shall comply with all applicable laws and regulations. In particular, it is understood and acknowledged that the transfer of certain commodities and technical data is subject to United States laws and regulations controlling the export of such commodities and technical data, including all Export Administration Regulations of the United States Department of Commerce. These laws and regulations among other things, prohibit or require a license for the export of certain types of technical data to certain specified countries. LICENSEE hereby agrees and gives written assurance that it will comply with all United States laws and regulations controlling the export of commodities and technical data, that it will be solely responsible for any violation of such by LICENSEE or its AFFILIATES or SUBLICENSEES, and that it will defend and hold HARVARD, CHILDREN, and MIT harmless in the event of any legal action of any nature occasioned by such violation.
- 10.8 LICENSEE agrees: (i) to obtain all regulatory approvals required for the manufacture and sale of LICENSED PRODUCTS and LICENSED PROCESSES; and (ii) to utilize appropriate patent marking on such LICENSED PRODUCTS. LICENSEE also agrees to register or record this Agreement as is required by law or regulation in any country where the license is in effect.
- 10.9 Any notices to be given hereunder shall be sufficient if signed by the party (or party's attorney) giving same and either: (i) delivered in person; (ii) mailed certified mail return receipt requested; or (iii) faxed to other party if the sender has evidence of successful transmission and if the sender promptly sends the original by ordinary mail, in any event to the following addresses:

If to LICENSEE:

Mycometrix Corporation
213 E. Grand Ave.
South San Francisco, CA 94080
Attention:
Fax: (650)-

If to HARVARD:

Office for Technology and Trademark Licensing
Harvard University
Holyoke Center, Suite 727
1350 Massachusetts Avenue
Cambridge, MA 02138
Fax: (617) 495-9568

By such notice either party may change their address for future notices.

Notices delivered in person shall be deemed given on the date delivered. Notices sent by fax shall be deemed given on the date faxed. Notices mailed shall be deemed given on the date postmarked on the envelope.

- 10.10 Should a court of competent jurisdiction later hold any provision of this Agreement to be invalid, illegal, or unenforceable, and such holding is not reversed on appeal, it shall be considered severed from this Agreement. All other provisions, rights and obligations shall continue without regard to the severed provision, provided that the remaining provisions of this Agreement are in accordance with the intention of the parties.
- 10.11 In the event of any controversy or claim arising out of or relating to any provision of this Agreement or the breach thereof, the parties shall try to settle such conflict amicably between themselves. Subject to the limitation stated in the final sentence of this Section 10.11, any such conflict which the parties are unable to resolve promptly shall be settled through arbitration conducted in accordance with the rules of the American Arbitration Association. The demand for arbitration shall be filed within a reasonable time after the controversy or claim has arisen, and in no event after the date upon which institution of legal proceedings based on such controversy or claim would be barred by the applicable statute of limitation. Such arbitration shall be held in Boston, Massachusetts. The award through arbitration shall be final and binding. Either party may enter any such award in a court having jurisdiction or may make application to such court for judicial acceptance of the award and an order of enforcement, as the case may be. Notwithstanding the foregoing, either party may, without recourse to arbitration, assert against the other party a third-party claim or cross-claim in any action brought by a third party, to which the subject matter of this Agreement may be relevant.
- 10.12 This Agreement constitutes the entire understanding between the parties and neither party shall be obligated by any condition or representation other than those expressly stated herein or as may be subsequently agreed to by the parties hereto in writing.

[The remainder of this page is intentionally blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives.

PRESIDENT AND FELLOWS
OF HARVARD COLLEGE

/s/ Joyce Brinton

Joyce Brinton, Director
Office for Technology and
Trademark Licensing

12/7/00

Date

MYCOMETRIX CORPORATION

/s/ Gajus Worthington

President

12/10/00

Date

The following comprise PATENT RIGHTS:

[***]

[***]

MASTER CLOSING AGREEMENT

By and Among

FLUIDIGM CORPORATION,
a California corporation,

OCULUS PHARMACEUTICALS, INC.,
a Delaware corporation,

and

THE UAB RESEARCH FOUNDATION

dated

March 7, 2003

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EXHIBITS AND SCHEDULES

<u>Exhibit</u>	<u>Description</u>
A	Amended and Restated Articles of Incorporation of Fluidigm
B	Form of New License Agreement
C	Form of Sponsored Research Agreement
D	Description of Technology

<u>Schedule</u>	<u>Description</u>
4.6	Pending Litigation

MASTER CLOSING AGREEMENT

THIS MASTER CLOSING AGREEMENT is entered into as of March 7, 2003 by and among FLUIDIGM CORPORATION, a California corporation ("Fluidigm"), OCULUS PHARMACEUTICALS, INC., a Delaware corporation ("Oculus"), and THE UAB RESEARCH FOUNDATION ("UABRF").

RECITALS

A. Oculus and UABRF have entered into a license agreement dated September 21, 2001 (together with all amendments and modifications thereto, the "License Agreement") under which Oculus was granted an exclusive license to practice the intellectual property and technology relating to nanovolume crystallization arrays described in Schedule A to the License Agreement.

B. The parties hereto have entered into a binding letter agreement dated December 19, 2002 (the "Letter Agreement") under which Oculus and UABRF have agreed to terminate the License Agreement, UABRF has agreed to grant to Fluidigm an exclusive license to practice the intellectual property and technology relating to nanovolume crystallization arrays covered by the License Agreement, and Fluidigm and UABRF have agreed to enter into a sponsored research agreement. In exchange for the rights to be acquired by Fluidigm as contemplated by the Letter Agreement, Fluidigm has paid cash in the amount of [***] pursuant to the Letter Agreement and has agreed to the payment of additional cash and securities as specified in the Letter Agreement.

C. The parties desire to enter into this Agreement to set out additional terms and conditions related to the closing of the transactions, and the payments to be made by Fluidigm, contemplated by the Letter Agreement.

NOW, THEREFORE, in consideration of the representations, warranties and agreements herein contained, the parties agree as follows:

ARTICLE I

DEFINITIONS

As used in this Agreement, the following terms shall have the meanings set forth or referenced below:

1.1 "Affiliate" of any specified person shall mean any other person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified person. For purposes of this definition, "control" when used with respect to any specified person means the power to direct or cause the direction of the management and policies of such person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

1.2 "Ancillary Documents" shall mean all documents or agreements required by this Agreement to be executed or delivered by any party hereto.

1.3 "Assigned Rights" shall mean any intellectual property rights owned by Oculus that pertain in any way to the Technology, including without limitation any Inventions (as such term is defined in Section 11 of the License Agreement) and any other patent rights and other intellectual property rights therein owned by Oculus.

1.4 "Cash Consideration" shall mean the sum of cash in the amount of [***] paid in accordance with the Letter Agreement and the Closing Cash Consolidation.

1.5 "Closing" shall mean the closing of the transactions contemplated by this Agreement.

1.6 "Closing Cash Consideration" shall mean cash in the amount of [***].

1.7 "Closing Date" shall mean March 7, 2003, or such other date to which the parties shall mutually agree in writing.

1.8 "Encumbrances" shall mean restrictions on or conditions to transfer or assignment, claims, liabilities, licenses, immunities from lawsuits to third parties, liens, pledges, mortgages or security interests of any kind, whether accrued, absolute, contingent, or otherwise.

1.9 "Fluidigm Series C Preferred Stock" shall mean the Series C Preferred Stock of Fluidigm having the rights, preferences and privileges set forth in Fluidigm's Articles of Incorporation attached hereto as Exhibit A.

1.10 "License Agreement" shall mean the license agreement between Oculus and UABRF as described in Recital A.

1.11 "New License Agreement" shall mean the license agreement between Fluidigm and UABRF in the form of Exhibit B attached hereto.

1.12 "Sponsored Research Agreement" shall mean the sponsored research agreement between Fluidigm and UABRF in the form of Exhibit C attached hereto.

1.13 "Technology" shall mean all intellectual property and other rights relating to nanovolume crystallization arrays described in Exhibit D attached hereto.

1.14 "Transfer Taxes" shall mean all sales taxes, use taxes, conveyance taxes, transfer taxes, filing fees, recording fees, reporting fees and other similar duties, taxes and fees, if any, imposed upon, or resulting from, the transfer of the Assigned Rights hereunder, except federal, state or local income or similar taxes based upon or measured by revenue, income, profit or gain from the transfer of the Assigned Rights or the operation of Oculus' business prior to the Closing or by any increase in the value of any of the Assigned Rights through the Closing Date.

ARTICLE II

TRANSFER OF ASSIGNED RIGHTS AND LICENSE OF TECHNOLOGY

2.1 Transfer of Rights and License of Technology. Oculus and UABRF have mutually terminated the License Agreement as of January 30, 2003 and Oculus has surrendered all rights under the License Agreement to UABRF. Subject to and upon the terms and conditions of this Agreement, effective as of the Closing, Fluidigm and UABRF will enter into the New License Agreement. It is the intent of the parties that all intellectual property rights subject to the License Agreement as of November 27, 2002 shall be transferred and/or assigned to Fluidigm, and that all such rights owned by UABRF shall be licensed to Fluidigm under the New License Agreement, subject to the reservation by UABRF of certain rights as set forth in the License Agreement.

2.2 Excluded Assets and Liabilities. Notwithstanding the provisions of Section 2.1, (a) Fluidigm and Oculus expressly acknowledge and agree that Oculus shall not sell, transfer, assign, convey or deliver to Fluidigm, and Fluidigm shall not purchase, acquire or accept from Oculus, any right, title or interest of Oculus in or to any other property or assets of Oculus, and (b) Fluidigm does not assume, and Oculus does not transfer or assign, any liabilities or obligations, whether presently fixed and determined, contingent or otherwise, of Oculus.

2.3 Payment. In consideration of the execution of the New License Agreement and the transfer of the rights thereunder, Fluidigm will deliver to UABRF the Closing Cash Consideration and [* * *] shares of Fluidigm Series C Preferred Stock valued at 2.58 per share, the price at which Fluidigm sold and issued shares of its Series C Preferred Stock to other investors.

2.4 Taxes. Fluidigm and Oculus shall each pay (or reimburse the other for) one-half of all Transfer Taxes, whether imposed by law on Fluidigm and Oculus or otherwise.

2.5 Assigned Rights. Oculus hereby sells, assigns and transfers to Fluidigm all Assigned Rights, free and clear of all Encumbrances (except to the extent that the settlement agreement pertaining to the Lawsuit (as such term is defined in Section 6.3) may include an immunity from lawsuits for conduct arising prior to the date of the settlement agreement).

2.6 Unassignable Rights.

(a) Notwithstanding any provision of this Agreement or any of the Ancillary Documents, but subject to Section 11.3(c), to the extent that any of the Assigned Rights are not assignable or otherwise transferable to Fluidigm, or if such assignment or transfer would constitute a breach thereof or a violation of any applicable law, then neither this Agreement nor such Ancillary Documents shall constitute an assignment or transfer (or an attempted assignment or transfer) thereof until such consent, approval or waiver of such party or parties has been duly obtained.

(b) If any consent required to transfer the Assigned Rights to Fluidigm has not been obtained as of the Closing Date and Fluidigm nevertheless determines to proceed with the

Closing, Oculus and UABRF shall, at their own expense, continue to cooperate with Fluidigm and use commercially reasonable efforts to obtain such consent after the Closing.

(c) If any Assigned Right is not transferred to Fluidigm at the Closing pursuant to this Agreement, Oculus and Fluidigm shall cooperate with each other in any reasonable arrangement designed to provide for Fluidigm all of the benefits of such Assigned Rights. At Fluidigm's request, Oculus shall take all reasonable actions requested by Fluidigm to enforce for the benefit of Fluidigm any and all rights of Oculus with respect to any such Assigned Right that is not otherwise transferred pursuant to the provisions of this Agreement. Oculus agrees to hold in trust for, and remit promptly to, Fluidigm all future collections or payments received by Oculus in respect of all such Assigned Rights (net of all costs and expenses incurred by Oculus in respect thereto); provided, however, that nothing herein shall create or provide any rights or benefits in or to third parties.

(d) If any intellectual property rights that are described in the New License Agreement cannot be licensed to Fluidigm by UABRF under the New License Agreement without the consent of any third party or without resulting in a breach or default of any agreement affecting such rights, UABRF covenants and agrees that it shall not sue or otherwise take any legal action to restrict or prevent Fluidigm and Fluidigm's permitted assignees and sublicensees from practicing such intellectual property rights as purported to be granted under the terms of the New License Agreement.

(e) If, subsequent to the Closing, a claim brought by any party challenging any of the transactions contemplated hereby results in any ruling or order which has the result of frustrating in a material way the transfer of any of the Assigned Rights hereunder to Fluidigm or the grant of rights to Fluidigm under the New License Agreement or Fluidigm's use thereof as provided herein, Oculus and UABRF shall cooperate with Fluidigm in any reasonable arrangement designed to give Fluidigm, as nearly as practicable, the same economic benefits as if such transfer or license, as the case may be, had been consummated in accordance with the provisions hereof.

(f) Nothing in this Section 2.6 shall be deemed to modify in any respect any of the representations or warranties of Oculus and UABRF set forth herein or the conditions to Fluidigm's obligations contained in this Agreement, be deemed a waiver by Fluidigm of its right to have received on or before the Closing Date an effective assignment of all of the Assigned Rights or be deemed to constitute an agreement to exclude any assets from the Assigned Rights.

ARTICLE III

THE CLOSING

3.1 The Closing. The Closing shall take place at the offices of Gray Cary Ware & Freidenrich LLP, 400 Hamilton Avenue, Palo Alto, California, at 11:00 a.m., Pacific Time, on the Closing Date, or at such other time and place as Oculus, Fluidigm and UABRF may agree.

3.2 Termination of License Agreement. On or before the Closing, Oculus and UABRF shall deliver to Fluidigm an agreement and acknowledgment that the License

Agreement has been terminated and such other agreements and instruments as may be necessary or appropriate to evidence the return by Oculus to UABRF of all rights under the License Agreement.

3.3 Agreements Between Fluidigm and UABRF. At the Closing, Fluidigm and UABRF shall execute and deliver the New License Agreement and the Sponsored Research Agreement.

3.4 Other Documents. Each party shall deliver to the other at the Closing such other documents, certificates, schedules, agreements and instruments required by this Agreement to be delivered at such time.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES OF OCULUS

Oculus hereby represents and warrants to Fluidigm as follows:

4.1 Organization. Oculus is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power to own, lease and operate its properties and to conduct its business as it is currently being conducted. Oculus is duly qualified or licensed to do business as a foreign corporation in each jurisdiction in which the failure to be so qualified or licensed would have a material adverse effect on Oculus.

4.2 Authorization. This Agreement and all of the Ancillary Documents to which Oculus is or will be a party have been, or upon their execution and delivery hereunder will have been, duly and validly executed and delivered by Oculus and constitute, or will constitute, valid and binding agreements of Oculus, enforceable against Oculus in accordance with their respective terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally or by principles of public policy or general equitable principles or the exercise of judicial discretion in accordance with such principles. Oculus has the requisite corporate power and authority to execute and deliver this Agreement and the Ancillary Documents to which Oculus is or will be a party and, at the time of the Closing, will have the requisite corporate power and authority to carry out the transactions contemplated by this Agreement and the Ancillary Documents. The execution, delivery and performance by Oculus of this Agreement and the Ancillary Documents have been duly and validly approved and authorized by the Board of Directors and shareholders of Oculus.

4.3 No Conflicts; Consents. The execution and delivery by Oculus of this Agreement and the Ancillary Documents to which Oculus is or will be a party do not, and the consummation of the transactions contemplated hereby and thereby and compliance by Oculus with the provisions hereof and thereof will not, contravene, conflict with, result in a breach of, constitute a default (with or without notice or lapse of time, or both) under or violation of, or result in the creation of any Encumbrance pursuant to, (i) any provision of the Certificate of Incorporation or Bylaws of Oculus, (ii) any judgment, order, decree, rule, law or regulation of any court or

governmental authority, foreign or domestic, applicable to Oculus or to any of the Assigned Rights, except where any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on Fluidigm's ownership of the Assigned Rights, or (iii) any provision of any material agreement, instrument or understanding to which Oculus is a party or by which Oculus is bound or any of the Assigned Rights are affected, except where any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on Fluidigm's ownership of the Assigned Rights, nor will such actions give to any other person or entity any interests or rights of any kind, including rights of termination, acceleration or cancellation, in or with respect to any of the Assigned Rights, or result in the creation of any Encumbrance on any of the Assigned Rights. No consent, approval, order or authorization of, or registration, declaration or filing with, any third party or any governmental authority is required to be obtained on the part of Oculus to permit the consummation of the transactions contemplated by this Agreement or the Ancillary Documents.

4.4 Title to Assigned Rights. Oculus has good and marketable title to all of the Assigned Rights. All of the Assigned Rights are free and clear of any Encumbrances (except to the extent that the settlement agreement pertaining to the Lawsuit (as such term is defined in Section 6.3) may include an immunity from lawsuits for conduct arising prior to the date of the settlement agreement). At the Closing, Oculus will sell, convey, assign, transfer and deliver to Fluidigm good, valid and marketable title and all right and interest in and to all of the Assigned Rights, free and clear of any Encumbrances.

4.5 No Assignment. Oculus has not sublicensed or otherwise transferred any material rights under the License Agreement to any third party. As of December 19, 2002, the License Agreement was in full force and effect in accordance with its terms. Prior to the termination of the License Agreement, no provisions of the License Agreement had been waived in any material respect. Exhibit D lists all of the patent filings subject to the License Agreement. To the knowledge of Oculus, UABRF is the owner of the patent rights within the technology and inventions subject to the License Agreement and has not granted a license to such technology and inventions to any person or entity other than Oculus.

4.6 Litigation and Claims. Except as set forth on Schedule 4.6 attached hereto, there are no claims, actions, suits, proceedings arbitrations or investigations in progress or pending (or, to the knowledge of Oculus, threatened) before any court, tribunal or governmental agency against Oculus that relate to any of the Assigned Rights. Oculus is not a party to any judgment, decree, order or arbitration award (or agreement entered into in any administrative, judicial or arbitration proceeding with any governmental authority) with respect to any of the Assigned Rights.

4.7 Distribution Agreement. Oculus has entered into a mutually acceptable agreement with UABRF regarding the distribution of any and all consideration to be paid by Fluidigm in connection with the transactions contemplated by this Agreement.

ARTICLE V

REPRESENTATIONS AND WARRANTIES OF FLUIDIGM

Fluidigm hereby represents and warrants to Oculus and UABRF as follows:

5.1 Organization. Fluidigm is a corporation duly organized, validly existing and in good standing under the laws of the State of California and has all requisite corporate power to own, lease and operate its properties, to conduct its business as it is currently being conducted. Fluidigm is duly qualified or licensed to do business as a foreign corporation in each jurisdiction in which the failure to be so qualified or licensed would have a material adverse effect on Fluidigm.

5.2 Authorization. This Agreement and all of the Ancillary Documents to which Fluidigm is or will be a party have been, or upon their execution and delivery hereunder will have been, duly and validly executed by Fluidigm and constitute, or will constitute, valid and binding agreements of Fluidigm, enforceable against Fluidigm in accordance with their respective terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally or by principles of public policy or general equitable principles or the exercise of judicial discretion in accordance with such principles. Fluidigm has the requisite corporate power and authority to execute and deliver this Agreement and the Ancillary Documents to which Fluidigm is or will be a party and, at the time of the Closing, will have the requisite corporate power and authority to sell, issue and deliver the Securities pursuant to this Agreement and to carry out the other transactions contemplated by this Agreement and the Ancillary Documents. The execution, delivery and performance by Fluidigm of this Agreement and the Ancillary Documents have been duly and validly approved and authorized by Fluidigm's Board of Directors and by all requisite action of Fluidigm's stockholders.

5.3 No Conflicts; Consents. The execution and delivery by Fluidigm of this Agreement and the Ancillary Documents to which Fluidigm is or will be a party do not, and the consummation of the transactions contemplated hereby and thereby and compliance by Fluidigm with the provisions hereof and thereof will not, contravene, conflict with, result in a breach of, constitute a default (with or without notice or lapse of time, or both) under or violation of, or result in the creation of any Encumbrance pursuant to, (i) any provision of the Articles of Incorporation or Bylaws of Fluidigm, (ii) any judgment, order, decree, rule, law or regulation of any court or governmental authority, foreign or domestic, applicable to Fluidigm except where such any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on the consummation of the transactions contemplated hereby, or (iii) any provision of any agreement, instrument or understanding to which Fluidigm is a party or by which Fluidigm is bound, except where such any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on the consummation of the transactions contemplated hereby. No consent, approval, order or authorization of, or registration, declaration or filing with, any third party or any governmental authority is required to be obtained on the part of Fluidigm to permit the consummation of the transactions contemplated by this Agreement or the Ancillary Documents.

5.4 Litigation and Claims. There are no claims, actions, suits, proceedings, arbitrations or investigations in progress or pending (or, to Fluidigm's knowledge, threatened, other than potential claims relating to the Interfering Patent (as such term is defined in Section 12.1(a) below), including, but not limited to, a possible interference) before any court, tribunal or governmental agency, against or relating to Fluidigm, which, if determined adversely to Fluidigm, would be likely to have a material adverse effect upon Fluidigm's financial condition or materially impair its ability to carry out and perform its obligations hereunder.

5.5 Securities Laws Exemptions. Based in part on the representations of UABRF contained in Section 6.5, the issuance of the Securities pursuant to the terms of this Agreement will be exempt from the registration requirements of the Securities Act and the regulations thereunder, and the registration, permit or qualification requirements of any applicable state securities laws.

ARTICLE VI

REPRESENTATIONS AND WARRANTIES OF UABRF

To the best knowledge of the UABRF Director and Dr. Larry DeLucas, UABRF hereby represents to Fluidigm as follows:

6.1 Authorization. This Agreement and the Ancillary Documents to which UABRF is or will be a party have been, or upon their execution and delivery hereunder will have been, duly and validly executed and delivered by UABRF and constitute, or will constitute, valid and binding agreements of UABRF, enforceable against UABRF in accordance with their respective terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally or by principles of public policy or general equitable principles or the exercise of judicial discretion in accordance with such principles. UABRF has full power and authority to execute and deliver this Agreement and the Ancillary Documents to which UABRF is or will be a party and, at the time of the Closing, will have all requisite power and authority to carry out the transactions contemplated by this Agreement and the Ancillary Documents. All university, foundation and other internal approvals necessary for UABRF to consummate the transactions contemplated by this Agreement and the Ancillary Documents to which UABRF is or will be a party have been obtained.

6.2 No Conflicts; Consents. The execution and delivery by UABRF of this Agreement and the Ancillary Documents to which UABRF is or will be a party do not, and the consummation of the transactions contemplated hereby and thereby and compliance by UABRF with the provisions hereof and thereof will not, contravene, conflict with, result in a breach of, constitute a default (with or without notice or lapse of time, or both) under or violation of, or result in the creation of any Encumbrance pursuant to, (i) any provision of the charter documents of UABRF, (ii) any judgment, order, decree, rule, law or regulation of any court or governmental authority, foreign or domestic, applicable to UABRF or to the Technology, except where any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on Fluidigm's rights under the New License Agreement or the consummation of the transactions contemplated hereby, or (iii) any provision of any agreement, instrument or understanding to which UABRF is a party or by which UABRF is bound or any of

the Technology is affected, except where such any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on Fluidigm's rights under the New License Agreement or the consummation of the transactions contemplated hereby, nor will such actions give to any other person or entity any interests or rights of any kind, including rights of termination, acceleration or cancellation, in or with respect to any of the Technology, or result in the creation of any Encumbrance on any of the Technology. No consent, approval, order or authorization of, or registration, declaration or filing with, any third party or any governmental authority is required to be obtained on the part of the UABRF to permit the consummation of the transactions contemplated by this Agreement or the Ancillary Documents.

6.3 Title to Technology. UABRF is the sole owner of the technology, inventions and patent rights in the Technology and subject to the License Agreement and has not granted a license to such technology, inventions and patent rights to any person or entity other than Oculus. The License Agreement has been mutually terminated by UABRF and Oculus and neither Oculus nor any other party has any rights thereunder. UABRF has the right to grant an exclusive license to the technology, inventions, patent rights and other rights under the New License Agreement to Fluidigm, free and clear of any Encumbrances of any nature whatsoever, subject to those liens, encumbrances or restrictions which may arise as a result of the settlement of the litigation between Oculus and Syrrx, Inc. ("Syrrx") described in Schedule 4.6 (the "Lawsuit"), provided that Syrrx shall have no rights that may be exercised after the Closing to practice the technology, inventions, patent rights and other rights subject to the New License Agreement, and the potential infringement by Diversified Scientific, Inc. of the Licensed IP Rights (as such term is defined in the New License Agreement) described in Section 2.2.3 of the New License Agreement. Exhibit D lists all of the patent filings subject to the License Agreement. UABRF is not aware of any third-party challenges to the ownership, validity or entitlement to priority date of any of the patent filings subject to the License Agreement or the New License Agreement, except for the Lawsuit between Oculus and Syrrx and the settlement agreement related to said Lawsuit provided to Fluidigm pursuant to Section 7.2 of this Agreement.

6.4 Litigation and Claims. Except as set forth on Schedule 4.6 attached hereto, there are no claims, actions, suits, proceedings, arbitrations or investigations in progress or pending (or, to the knowledge of UABRF, threatened) before any court, tribunal or governmental agency against UABRF that relate to any of the Technology. UABRF is not a party to any judgment, decree, order or arbitration award (or agreement entered into in any administrative, judicial or arbitration proceeding with any governmental authority) with respect to any of the Technology, except to the extent that UABRF may be deemed to be a party thereto as a result of UABRF's status as a shareholder of Oculus and having a member on the Board of Directors of Oculus as well as the status of Dr. Larry DeLucas as a member of the Board of Directors of Oculus and a shareholder of Oculus.

6.5 Distribution Agreement. UABRF has entered into a mutually acceptable agreement with Oculus regarding the distribution of any and all consideration to be paid by Fluidigm in connection with the transactions contemplated by this Agreement.

6.6 Investment Representations

(a) UABRF is acquiring the shares of Fluidigm capital stock to be issued hereunder (the “Securities”) for investment and not with the view to the public resale or distribution thereof, and UABRF has no present intention of selling, granting any participation in, or otherwise distributing the Securities, other than in accordance with the terms of a Termination Agreement dated as of ____, 2003 between UABRF and Oculus. UABRF understands that the Securities have not been registered under the Securities Act by reason of a specific exemption thereunder, which depends upon, among other things, the bona fide nature of UABRF’s investment intent as expressed herein.

(b) UABRF acknowledges that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or Fluidigm receives an opinion of counsel satisfactory to Fluidigm that such registration is not required. UABRF is aware of the provisions of Rule 144 promulgated under the Securities Act which permit limited resale of stock purchased in a private placement subject to the satisfaction of certain conditions.

(c) UABRF understands that no public market now exists for the Securities and that there can be no assurance that a public market will ever exist for the Securities.

(d) UABRF is an “accredited investor” as defined in the Securities Act, and has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the investment in the Securities.

(e) UABRF has been given the opportunity to obtain any information or documents related to, and ask questions and receive answers about Fluidigm and its business, prospects and risks which UABRF deems necessary, to evaluate the merits and risks related to UABRF’s investment in the Securities and to verify the information UABRF received.

(f) UABRF’s financial condition is such that it can afford to bear the economic risk of holding the Securities for an indefinite period of time, and it has adequate means of providing for its current needs and contingencies and to suffer a complete loss of its investment in such Securities.

6.7 Restrictions. No Securities shall be sold, assigned, transferred or pledged except upon the conditions specified in this Agreement. UABRF will cause any proposed purchaser, assignee, transferee or pledgee of the Securities to agree in writing to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

6.8 Restrictive Legend. Each certificate representing the Securities shall (unless otherwise permitted by the provisions of Section 6.9 below) be stamped or otherwise imprinted with a legend in the following form (in addition to any legend required under applicable state securities laws):

“THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE “SECURITIES ACT”). SUCH

SECURITIES MAY NOT BE SOLD, TRANSFERRED OR PLEDGED IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS THE COMPANY RECEIVES AN OPINION OF COUNSEL (WHICH MAY BE COUNSEL FOR THE COMPANY) OR OTHER EVIDENCE REASONABLY ACCEPTABLE TO IT STATING THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE SECURITIES ACT.”

“THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A MARKET STAND-OFF AGREEMENT IN THE EVENT OF A PUBLIC OFFERING, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.”

UABRF consents to Fluidigm making a notation on its records and giving instructions to any transfer agent of the Securities in order to implement the restrictions on transfer established in Sections 6.7 through 6.10 of this Agreement.

6.9 Notice of Proposed Transfers. UABRF and any transferee of any certificate representing the Securities, by acceptance thereof, agrees to comply in all respects with the restrictions on transfer contained in Sections 6.7 through 6.10 of this Agreement. Prior to any proposed sale, assignment, transfer or pledge of any Securities (other than any transfer not involving a change in beneficial ownership), unless there is in effect a registration statement under the Securities Act covering the proposed transfer, the holder thereof shall give written notice to Fluidigm of such holder’s intention to effect such transfer, sale, assignment or pledge. Each such notice shall describe the manner and circumstances of the proposed transfer, sale, assignment or pledge in sufficient detail, and shall be accompanied at such holder’s expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall be, reasonably satisfactory to Fluidigm, addressed to Fluidigm, to the effect that the proposed transfer of the Securities may be effected without registration under the Securities Act, or (ii) a “no action” letter from the Securities and Exchange Commission (the “Commission”) to the effect that the transfer of such Securities without registration will not result in a recommendation by the staff of the Commission that action be taken with respect thereto, or (iii) any other evidence reasonably satisfactory to counsel to Fluidigm, whereupon the holder of such Securities shall be entitled to transfer such Securities in accordance with the terms of the notice delivered by the holder to Fluidigm; provided, however, that no such legal opinion, “no action” letter or other evidence shall be required with respect to a transfer to an affiliate of the holder. Each certificate evidencing the Securities transferred as above provided shall bear, except if such transfer is made pursuant to Rule 144, the appropriate restrictive legend set forth in Section 6.8 above, except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such holder and Fluidigm, such legend is not required in order to establish compliance with any provisions of the Securities Act or this Agreement.

6.10 Standoff Agreement. UABRF agrees in connection with Fluidigm’s initial sale of securities pursuant to an effective registration statement, upon notice by Fluidigm or the underwriters managing such offering, not to sell, make any short sale of, loan, pledge (or

otherwise encumber or hypothecate), grant any option for the purchase of, or otherwise directly or indirectly dispose of any Securities (other than those included in the registration) without the prior written consent of Fluidigm and such managing underwriters for such period of time as Fluidigm's Board of Directors establishes pursuant to its good faith negotiations with such managing underwriters; provided, however that:

(i) such agreement shall not exceed one hundred eighty (180) days;

(ii) such agreement shall not apply to transfers to an affiliate, provided that such affiliate agrees to be bound by the terms of such agreement, to the same extent as if such transferee were the original party thereunder;

(iii) UABRF shall not be subject to such agreement unless (A) all executive officers and directors of Fluidigm, (B) all shareholders of Fluidigm holding more than 1% of Fluidigm's outstanding capital stock and (C) all holders of registration rights, are subject to or obligated to enter into similar agreements; and

(iv) if and when any person identified in clause (iii) is released, in whole or in part, from such agreement (whether or not such release is contemplated at the time of the offering) or if any such agreement is terminated, UABRF shall be concurrently released on a pro rata basis based on the number of Securities held by such person and UABRF.

(b) UABRF agrees that prior to the initial public offering it will not transfer securities of Fluidigm unless each transferee agrees in writing to be bound by all of the provisions of this Section 6.10, provided that this Section 6.10 shall not apply to transfers pursuant to a registration statement.

UABRF hereby consents to the placement of stop transfer orders with Fluidigm's transfer agent in order to enforce the foregoing provision and agrees to execute a market standoff agreement with said underwriters in customary form consistent with the provisions of this Section 6.10.

ARTICLE VII

COVENANTS OF OCULUS

7.1 Conduct of Business. During the period from the date of this Agreement to the Closing, Oculus will conduct its business in the ordinary course consistent with past practices. During the period from the date of this Agreement to the Closing, Oculus will not without the prior written consent of Fluidigm:

(a) encumber or permit to be encumbered any of the Technology or Assigned Rights;

(b) dispose of any of the Technology or Assigned Rights;

(c) waive or release any right or claim relating to any Technology or Assigned Rights; or

(d) agree to do any of the things described in the preceding clauses of this Section 7.1.

Fluidigm agrees that the foregoing restrictions will not prevent Oculus from entering into a settlement agreement with Syrrx to settle the Lawsuit, provided that such settlement does not involve the sale, transfer or assignment of the Technology or the Assigned Rights, or any rights in any of the foregoing, or result in the creation of any Encumbrance on the Technology, the Assigned Rights, or any rights in any of the foregoing.

7.2 Access to Information. Until the earlier of the termination of this Agreement or the Closing, Oculus will allow Fluidigm and its agents reasonable access upon reasonable notice and during normal working hours to its files, books, records, and offices relating to the Technology and Assigned Rights, except where prohibited by contract or protected by privilege. In furtherance of the above, Fluidigm and its counsel and advisors shall have reasonable access during normal business hours to pertinent contracts of Oculus, including an unsigned final version of the settlement agreement between Oculus and Syrrx related to the Lawsuit, and drafts of such settlement agreement (to the extent it is permissible under applicable confidentiality terms and with the understanding that Oculus may be required to obtain the return or destruction by Fluidigm of the final version and drafts of such settlement agreement prior to its execution), as well as all scientific notebooks, invention records and other documents related to the conception and reduction to practice and prosecution of the patent filings listed on Exhibit D, including, without limitation, all patent searches, patent file wrappers, legal and scientific investigations and research related to the Technology, the License Agreement and the New License Agreement.

7.3 Regulatory Approvals. Prior to the Closing, Oculus will execute and file, or join in the execution and filing of, any application or other document that may be reasonably necessary in order to obtain the authorization, approval or consent of any governmental entity that may be required in connection with the consummation of the transactions contemplated by this Agreement. Oculus will use commercially reasonable efforts to obtain all such authorizations, approvals and consents.

7.4 Satisfaction of Conditions Precedent. Oculus will use commercially reasonable efforts to satisfy or cause to be satisfied all the conditions precedent to the Closing hereunder, and to cause the transactions contemplated hereby to be consummated, and, without limiting the generality of the foregoing, to obtain all consents and authorizations of third parties and to make all filings with, and give all notices to, third parties which may be necessary or reasonably required on its part in order to effect the transactions contemplated hereby.

ARTICLE VIII

COVENANTS OF UABRF

8.1 Conduct of Business. During the period from the date of this Agreement to the Closing, UABRF will not without the prior written consent of Fluidigm:

(a) encumber or permit to be encumbered any of the Technology;

- (b) dispose of any of the Technology;
- (c) waive or release any right or claim relating to any Technology; or
- (d) agree to do any of the things described in the preceding clauses of this Section 8.1.

Fluidigm agrees that the foregoing restrictions will not prevent UABRF from consenting to a settlement agreement between Oculus and Syrrx to settle the Lawsuit, provided that such settlement does not involve the sale, transfer or assignment of the Technology or the Assigned Rights, or any rights in any of the foregoing, or result in the creation of any Encumbrance on the Technology, the Assigned Rights, or any rights in any of the foregoing.

8.2 Access to Information. Until the earlier of the termination of this Agreement or the Closing, UABRF will allow Fluidigm and its agents reasonable access upon reasonable notice and during normal working hours to its files, books, records, and offices relating to the Technology and Assigned Rights, except where prohibited by contract or protected by privilege. In furtherance of the above, Fluidigm and its counsel and advisors shall have reasonable access during normal business hours to pertinent scientific notebooks, invention records and other documents related to the conception and reduction to practice and prosecution of the patent filings listed on Exhibit D, including, without limitation, all patent searches, patent file wrappers, legal and scientific investigations and research related to the Technology, the License Agreement and the New License Agreement.

8.3 Regulatory Approvals. Prior to the Closing, UABRF will execute and file, or join in the execution and filing of, any application or other document that may be reasonably necessary in order to obtain the authorization, approval or consent of any governmental entity that may be required in connection with the consummation of the transactions contemplated by this Agreement. UABRF will use commercially reasonable efforts to obtain all such authorizations, approvals and consents.

8.4 Satisfaction of Conditions Precedent. UABRF will use commercially reasonable efforts to satisfy or cause to be satisfied all the conditions precedent to the Closing hereunder, and to cause the transactions contemplated hereby to be consummated, and, without limiting the generality of the foregoing, to obtain all consents and authorizations of third parties and to make all filings with, and give all notices to, third parties which may be necessary or reasonably required on its part in order to effect the transactions contemplated hereby.

ARTICLE IX

COVENANTS OF FLUIDIGM

9.1 Regulatory Approvals. Prior to the Closing, Fluidigm will execute and file, or join in the execution and filing of, any application or other document that may be reasonably necessary in order to obtain the authorization, approval or consent of any governmental entity that may be required in connection with the consummation of the transactions contemplated by this Agreement. Fluidigm will use its commercially reasonable efforts to obtain all such authorizations, approvals and consents.

9.2 Satisfaction of Conditions Precedent. Fluidigm will use commercially reasonable efforts to satisfy or cause to be satisfied all the conditions precedent to the Closing hereunder, and to cause the transactions contemplated hereby to be consummated, and, without limiting the generality of the foregoing, to obtain all consents and authorizations of third parties and to make all filings with, and give all notices to, third parties which may be necessary or reasonably required on its part in order to effect the transaction contemplated hereby.

ARTICLE X

MUTUAL COVENANTS

10.1 Confidentiality. The parties acknowledge that the Confidential Disclosure Agreement dated as of October 8, 2002 between Fluidigm and Oculus and the Confidential Disclosure Agreement dated December 19, 2002 between Fluidigm, Oculus and UABRF are binding upon the parties hereto and in full force and effect, except to the extent that the provisions hereof supersede provisions to similar effect contained in the Confidential Disclosure Agreements. The terms of the Confidential Disclosure Agreements (exclusive of such superseded provisions) are incorporated in this Agreement by this reference.

10.2 Publicity. Except as may otherwise be required by law, none of the parties hereto shall make or cause to be made any public announcements in respect of this Agreement or the transactions contemplated herein or otherwise communicate with any news media without the prior written consent of the other party, provided, however, that following the Closing Fluidigm may issue a press release to announce the closing of the transactions contemplated hereby and the execution and delivery of the New License Agreement and Sponsored Research Agreement with UABRF provided that such press release shall not be issued prior to the execution by Syrrx of a settlement agreement with Oculus to settle the litigation described in Schedule 4.6 but in any event the press release may be issued no later than 30 days from the execution date of the New License Agreement. Except for the press release issued by Fluidigm, none of the parties hereto will make any public disclosure prior to the Closing or with respect to the Closing unless all parties agree on the text and timing of such public disclosure, except as required by law. Nothing contained in this Section shall prevent any party at any time from furnishing any information pursuant to the requirements of any governmental entity; provided, however, that if such party is required to furnish such information, it will provide a copy to the other parties.

10.3 Governmental Filings. As promptly as practicable after the execution of this Agreement, each party shall make any and all governmental filings required with respect to the transactions contemplated in this Agreement and the Ancillary Documents.

ARTICLE XI

CONDITIONS TO CLOSING

11.1 Conditions to Each Party's Obligations. The respective obligations of each party to effect the transactions to be performed by such party at the Closing are subject to the satisfaction at or prior to the Closing of the following conditions any of which may be waived in writing by each party:

(a) No order shall have been entered, and not vacated, by a court or administrative agency of competent jurisdiction, in any action or proceeding which enjoins, restrains or prohibits the sale of the Assigned Rights, the grant of rights under the New License Agreement or the consummation of any other transaction contemplated hereby.

(b) All permits, authorizations, approvals and orders required to be obtained under all applicable statutes, codes, ordinances, rules and regulations in connection with the transactions contemplated hereby shall have been obtained and shall be in full force and effect at the Closing Date.

(c) There shall be no litigation pending or threatened by any regulatory body or private party in which (i) an injunction is or may be sought against the transactions contemplated hereby, or (ii) relief is or may be sought against any party hereto as a result of this Agreement and in which, in the good faith judgment of the Board of Directors of either Fluidigm, Oculus or UABRF (relying on the advice of their respective legal counsel), such regulatory body or private party has the probability of prevailing and such relief would have a material adverse affect upon such party.

11.2 Conditions to Obligations of Oculus and UABRF. The obligations of Oculus and UABRF to effect the transactions to be performed by Oculus and UABRF at the Closing are subject to the satisfaction at or prior to the Closing of the following additional conditions any of which may be waived in writing by Oculus and UABRF:

(a) All of the representations and warranties of Fluidigm set forth in Article V hereof shall be true in all material respects on and as of the Closing Date with the same force and effect as if they had been made at the Closing, except for changes contemplated by this Agreement.

(b) All of the terms, covenants and conditions of this Agreement to be complied with and performed by Fluidigm at or prior to the Closing shall have been duly complied with and performed in all material respects.

11.3 Conditions to Obligations of Fluidigm. The obligations of Fluidigm to effect the transactions to be performed by it at the Closing are subject to the satisfaction at or prior to the Closing of the following additional conditions any of which may be waived in writing by Fluidigm:

(a) All of the representations and warranties of Oculus and UABRF set forth in Articles IV and VI hereof shall be true in all material respects on and as of the Closing Date with the same force and effect as if they had been made at the Closing, except for changes contemplated by this Agreement.

(b) All of the terms, covenants and conditions of this Agreement to be complied with and performed by Oculus and UABRF at or prior to the Closing shall have been duly complied with and performed in all material respects.

(c) All required consents from third parties required to allow the consummation of the sale of the Assigned Rights, the grant of rights under the New License

Agreement and the other transactions contemplated hereby shall have been obtained and delivered to Fluidigm.

(d) Fluidigm shall have received an opinion from the attorney(s) prosecuting the patent filings listed on Exhibit D, in form and substance reasonably acceptable to Fluidigm, as to the following matters: (i) assignments of the inventions covered by the patent filings to UABRF have been properly filed with the United States Patent and Trademark Office ("USPTO"), (ii) UABRF is named as the sole owner of the inventions covered by the patent filings listed on Exhibit D, (iii) a declaration of interference was timely requested with at least one of the pending U.S. patent applications listed on Exhibit D and U.S. Patent No. 6,296,673 with the USPTO in accordance with U.S.C. Section 135, (iv) none of the patents listed on Exhibit D have been held to be permanently revoked, unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal, and none of the patents listed on Exhibit D have been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise, and (v) the patent applications listed on Exhibit D were filed in good faith and have not been abandoned or finally disallowed without the possibility of appeal or refiling of such application.

ARTICLE XII

POST-CLOSING MATTERS

12.1 Additional Payments by Fluidigm. In addition to the consideration delivered by Fluidigm at the Closing, Fluidigm will pay the following amounts to UABRF upon the achievement of the following milestones:

(a) Milestone 1. Milestone 1 shall be satisfied [***]. Within [***] days after [***], Fluidigm will issue shares of its stock having a value of [***] (based on the fair value of the stock at the time Milestone 1 is achieved), subject to compliance with applicable securities laws.

(b) Milestone 2. Milestone 2 shall be satisfied [***]. Within [***] days after [***], Fluidigm will issue shares of its stock having a value of [***] (based on the fair value at the time Milestone 2 is achieved), subject to compliance with applicable securities laws. In addition, (i) [***]

***]

(c) Stock to be Issued. If Fluidigm is a private company at the time a milestone is achieved, upon achievement of a milestone Fluidigm will issue shares of the series of Fluidigm Preferred Stock that was issued in Fluidigm's most recent financing and the shares will be valued at the price at which the shares were sold in such financing. If Fluidigm is a public company at the time a milestone is achieved, upon achievement of a milestone Fluidigm will issue shares of Fluidigm Common Stock and the shares will be valued at the average closing price of Fluidigm's Common Stock over the five trading days preceding the achievement of the milestone.

12.2 Settlement of Lawsuit. If the Lawsuit has not been settled or dismissed as of the Closing Date:

(a) Oculus agrees that Fluidigm and its counsel and advisors shall have reasonable access during normal business hours to the final version of the settlement agreement between Oculus and Syrx related to the Lawsuit, and drafts of such settlement agreement (to the extent permissible under applicable confidentiality terms), in the manner contemplated by Section 7.2 of this Agreement, until the Lawsuit is settled or dismissed.

(b) Oculus and UABRF agree that if a settlement agreement related to the Lawsuit is entered into after the Closing Date, the settlement will not involve the sale, transfer or assignment of the Technology or the Assigned Rights, or any rights in any of the foregoing, or result in the creation of any Encumbrance on the Technology, the Assigned Rights, or any rights in any of the foregoing.

ARTICLE XIII

TERMINATION OF AGREEMENT

13.1 Termination by Fluidigm. This Agreement may be terminated at any time before the Closing by action of the Board of Directors of Fluidigm upon written notice to Oculus and UABRF, specifying the basis for such termination, if (i) Oculus or UABRF shall have breached in any material respect any of their covenants or agreements contained in this Agreement, or (ii) any representation or warranty of Oculus or UABRF contained in this Agreement shall have been materially inaccurate.

13.2 Termination by UABRF. This Agreement may be terminated at any time before the Closing by action of the Board of Directors or other governing body of UABRF upon written notice to Fluidigm, specifying the basis for such termination, if (i) Fluidigm shall have breached in any material respect any of its covenants or agreements contained in this Agreement, or (ii) any representation or warranty of Fluidigm contained in this Agreement shall have been materially inaccurate.

13.3 Mutual Consent. This Agreement may be terminated at any time before the Closing, by the mutual written consent of Fluidigm, Oculus and UABRF.

13.4 Effect of Termination. Upon any termination of this Agreement, all parties hereto shall be relieved of all further obligations under this Agreement, except for the provisions of Section 2.5 regarding the assignment by Oculus to Fluidigm of Assigned Rights, together with all patent rights and all other intellectual property rights therein, Section 15.6 regarding the payment of certain expenses and Section 10.1 regarding the continuing obligations of the parties under the Confidential Disclosure Agreements.

ARTICLE XIV

SURVIVAL OF REPRESENTATIONS AND WARRANTIES

14.1 Survival of Representations and Warranties. The representations and warranties set forth in this Agreement shall survive the Closing for a period equal to the greater of 12 months after the Closing Date or the date on which both Milestones specified in Section 12.1 have been achieved. After the expiration of such period, such representations and warranties shall expire and be of no further force and effect.

ARTICLE XV

GENERAL

15.1 Governing Law. It is the intention of the parties hereto that the internal laws of the State of California (irrespective of its choice of law principles) shall govern the validity of this Agreement, the construction of its terms, and the interpretation and enforcement of the rights and duties of the parties hereto; provided, however, that any disputes involving UABRF shall be governed by the internal laws of the State of Alabama (irrespective of its choice of law principles and any disputes involving UABRF shall be resolved Birmingham, Alabama in accordance with the provisions of Section 15.11 and UABRF shall have the right to raise all of the defenses available to the University of Alabama at Birmingham.

15.2 Assignment; Binding upon Successors and Assigns. None of the parties hereto may assign any of its rights or obligations hereunder (whether by operation of law or otherwise) without the prior written consent of the other party; provided, however, that any party may assign its rights and obligations under covenants and agreements to be performed after the Closing in connection with the sale of all or substantially all of such party's business. This Agreement will be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns.

15.3 Severability. If any provision of this Agreement, or the application thereof, becomes or is declared by a court of competent jurisdiction to be illegal, void or unenforceable, the remainder of this Agreement will continue in full force and effect and the application of such provision to other persons or circumstances shall be interpreted so as best to reasonably effect the intent of the parties hereto. The parties further agree to replace such illegal, void or unenforceable provision of this Agreement with a valid and enforceable provision which will achieve, to the extent possible, the economic, business and other purposes of the illegal, void or unenforceable provision.

15.4 Entire Agreement. This Agreement (including the Exhibits and Schedules hereto) the Ancillary Agreements, the documents and instruments and other agreements among the parties hereto referenced herein and therein, and the exhibits thereto, constitute the entire understanding and agreement of the parties hereto with respect to the subject matter hereof and thereof and supersede all prior and contemporaneous agreements or understandings, inducements or conditions, express or implied, written or oral, between the parties with respect hereto and thereto including, without limitation, the Letter Agreement. To the extent that any provision of this Agreement conflicts with any provision of the New License Agreement or the Sponsored Research Agreement between Fluidigm and UABRF, the applicable provision of the New License Agreement or the Sponsored Research Agreement, as the case may be, shall control and supersede the applicable provision of this Agreement.

15.5 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall constitute an original and all of which together shall constitute one and the same instrument.

15.6 Expenses.

(a) The parties shall each pay their own legal, accounting and financial advisory fees and other out-of-pocket expenses incurred incident to the negotiation, preparation and carrying out of this Agreement and the transactions herein contemplated, whether or not the transactions contemplated hereby are consummated.

(b) Each party shall indemnify the other against, and agrees to hold the other harmless from, all liabilities and expenses (including reasonable attorneys' fees) in connection with any claim by any person for compensation as a broker, finder or in any similar capacity, by reason of services allegedly rendered to the indemnifying party in connection with the transactions contemplated hereby.

15.7 Other Remedies. Except as otherwise provided herein, any and all remedies herein expressly conferred upon a party shall be deemed cumulative with and not exclusive of any other remedy conferred hereby or by law on such party, and the exercise of any one remedy shall not preclude the exercise of any other.

15.8 Amendment. Any term or provision of this Agreement may be amended by a written instrument signed by Fluidigm, Oculus and UABRF; provided that any term or provision that pertains only to UABRF and Fluidigm may be amended by a written instrument signed by UABRF and Fluidigm.

15.9 Waiver. Any party hereto may, by written notice to the other party: (i) waive any of the conditions to its obligations hereunder or extend the time for the performance of any of the obligations or actions of another party; (ii) waive any inaccuracies in the representations of another party contained in this Agreement or in any documents delivered pursuant to this Agreement; (iii) waive compliance with any of the covenants of the other contained in this Agreement; or (iv) waive or modify performance of any of the obligations of another party. Except as specifically contemplated by this Agreement, no action taken pursuant to this Agreement, including without limitation any investigation by or on behalf of any party, shall be

deemed to constitute a waiver by the party taking such action of compliance with any representation, warranty, condition or agreement contained herein. Waiver of the breach of any one or more provisions of this Agreement shall not be deemed or construed to be a waiver of other breaches or subsequent breaches of the same provisions.

15.10 Informal Resolution. In the event of any controversy or claim arising under this Agreement, officers or comparable officials of UABRF, Oculus and Fluidigm shall promptly meet and attempt in good faith to reach a resolution of such controversy or claim.

15.11 Mediation. Any controversy or claim between any of the parties hereto arising out of or relating to this Agreement that is not resolved by the parties within thirty (30) days after delivery of notice of such controversy or claim, upon written notice of either Fluidigm, Oculus or UABRF, shall be submitted for resolution by mediation in accordance with commercial mediation guidelines. Any mediation proceeding shall be conducted in the County of Cook, City of Chicago, in the State of Illinois. The mediation shall be concluded within a ninety (90) day period after notice.

15.12 Notices. All notices and other communications hereunder will be in writing and will be deemed given (i) upon receipt if delivered personally (or if mailed by registered or certified mail), (ii) the next business day after dispatch if sent by overnight delivery service, (iii) upon dispatch if transmitted by facsimile (and confirmed by a copy delivered in accordance with clause (i) or (ii)), properly addressed to the parties at the following addresses:

Fluidigm: Fluidigm Corporation
7100 Shoreline Court
South San Francisco, CA 94080
Attention: President
Facsimile No.: (650) 871-7192

with a copy to: Fluidigm Corporation
7100 Shoreline Court
South San Francisco, CA 94080
Attention: General Counsel
Facsimile No.: (650) 871-7195

Oculus: Oculus Pharmaceuticals, Inc.
1601 12th Avenue South
Birmingham, AL 35205
Attention: B.J. Lehman
Facsimile No: (216) 361-9495

and

Oculus Pharmaceuticals, Inc.
3201 Carnegie Avenue
Cleveland, OH 44115
Attention: B.J. Lehman
Facsimile No.: (216) 361-9495

15.16 Further Assurances. In connection with this Agreement and the transactions contemplated hereby, each party shall execute and deliver any additional documents and instruments and perform any additional acts that may be reasonably necessary or appropriate to effectuate and perform the provisions of this Agreement and such transactions and the intention of the parties.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first set forth above.

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington

Title: President & CEO

OCULUS PHARMACEUTICALS, INC.

By: /s/ (ILLEGIBLE)

Title: President & CEO

THE UAB RESEARCH FOUNDATION

By: /s/ (ILLEGIBLE)

Title: Director

Acknowledged and agreed to
this March 7, 2003.

/s/ Dr. Larry DeLucas
Dr. Larry DeLucas

SCHEDULE 4.6

Lawsuit filed by Syrx, Inc. against Oculus on April 30, 2002 in the United States District Court for the District of Delaware — Syrx and Oculus may enter into a settlement agreement to settle the Lawsuit prior to the Closing under the Agreement; as part of the settlement a judgment or other order will be entered against Oculus by the court in which the Lawsuit was filed.

EXHIBIT A

Amended and Restated
Articles of Incorporation of Fluidigm

Superseded by Exhibit 3.1 filed with Registration Statement on April 14, 2008.

EXHIBIT B

Form of New License Agreement

Superseded by Exhibit 10.9A filed with the Registration Statement on April 14, 2008.

EXHIBIT C
Form of Sponsored Research Agreement

EXHIBIT D

PATENTS AND PATENT APPLICATIONS

[***]

EMPLOYEE LOAN AGREEMENT

THIS EMPLOYEE LOAN AGREEMENT (the "Agreement") is entered into as of January 20, 2004, by and between Fluidigm Corporation, a California corporation (the "Lender"), and Gajus V. Worthington ("Borrower").

RECITALS

A. Borrower is employed by the Lender as its Chief Executive Officer and President.

B. The Lender and Borrower desire that the Lender lend to Borrower the sum of Two Hundred Fifty Thousand Dollars (\$250,000.00) for the purposes described in Section 1 below.

C. Borrower owns 2,447,000 shares of the Common Stock of the Lender, of which 833,334 shares, together with the other collateral described in the Stock Pledge Agreement, shall constitute security for the Loan (as defined below).

NOW, THEREFORE, the Lender and Borrower agree as follows:

AGREEMENT

1. **PAYMENT:** The Lender will lend to Borrower the amount of Two Hundred Fifty Thousand Dollars (\$250,000.00) (the "Loan"), such Loan to be made for the purposes of assisting Borrower to pay any costs, fees, or expenses (including, without limitation, purchase consideration, broker's or agents commissions, mortgage points, closing costs, or similar costs or expenses) associated with Borrower's purchase of a principal residence in the San Francisco Bay Area (the "Property") and/or any improvements or other modifications made to any Property so purchased.

2. **CONDITIONS PRECEDENT:** The Lender's obligation to extend the Loan to Borrower pursuant to this Agreement is expressly conditioned upon the satisfaction of or waiver by the Lender of all of the following conditions precedent, each of which is exclusively for the benefit of the Lender:

2.1 Borrower shall have delivered to the Lender each of the following (herein collectively referred to as "Loan Documents"):

(a) One (1) original promissory note in the amount of Two Hundred Fifty Thousand Dollars (\$250,000.00) in substantially the same form as Exhibit A attached hereto (the "Note"), with all uncompleted information fully completed;

(b) One (1) fully executed, validly acknowledged Stock Pledge Agreement, providing for the pledge of 833,334 shares of Common Stock of the Lender and certain other collateral as security for the Note (collectively, the "Pledged Collateral"), in substantially the same form as Exhibit B attached hereto, with all uncompleted information fully completed (the "Stock Pledge Agreement");

(c) Two (2) fully executed Stock Powers and Assignments Separate From Certificate attached as a part of Exhibit B hereto, with all uncompleted information fully completed, unless otherwise indicated thereon (the "Stock Power");

(d) All certificates representing the securities that constitute Pledged Collateral as of the date of the closing of the Loan; and

(e) Two (2) fully executed Spousal Consents, in substantially the same form as Exhibit C attached hereto, with all uncompleted information fully completed (the "Spousal Consent").

3. BORROWER'S REPRESENTATIONS AND WARRANTIES: Borrower hereby makes the following representations and warranties to the Lender, which representations and warranties shall be true and correct as of the date hereof and as of the date of the closing of the Loan, and Borrower acknowledges that the Lender is relying on such representations in making the Loan:

3.1 The Borrower has good and marketable title to the Pledged Collateral free and clear of any security interests, liens or encumbrances other than (i) joint ownership of the Pledged Collateral with Borrower's spouse, and (ii) a right of first refusal and certain repurchase rights in favor of Lender. All of the shares that constitute Pledged Collateral are fully vested.

3.2 Other than the consent of Borrower's spouse and the Lender, the consent of no other person or entity is required to grant the Lender the security interest in the Pledged Collateral.

3.3 There are no actions, proceedings, claims or disputes pending or, to Borrower's knowledge, threatened against or affecting Borrower, the Pledged Collateral, or any other properties of Borrower.

4. BORROWER'S ADDITIONAL OBLIGATIONS: Borrower shall take any and all further actions that may from time to time be required to ensure that the Stock Pledge Agreement creates a security interest in favor of the Lender, which shall secure the Note. Borrower shall not sell, hypothecate or otherwise dispose of any interest in the Pledged Collateral and shall not encumber the Pledged Collateral or permit any lien to encumber the Pledged Collateral.

5. REPAYMENT OF LOAN: Borrower shall pay to the Lender the outstanding principal balance of the Note, together with all accrued, but unpaid interest thereon, and all other sums due hereunder, under the Note, the Stock Pledge Agreement or under any other document executed by Borrower in connection herewith in accordance with the terms and conditions of this Agreement, the Note, the Stock Pledge Agreement or such other document.

6. MATURITY EVENT: The Note shall immediately become due and payable, without notice or demand, upon the earlier to occur of January 20, 2011 or the occurrence of any "Maturity Event" as defined in the Note.

7. INTEREST PAYABLE BY BORROWER: Interest shall accrue on the unpaid principal amounts of the Note at the rate specified in the Note.

8. ENTIRE AGREEMENT: This Agreement, together with the Loan Documents, constitutes the full and entire understanding and agreement between the parties hereto with regard to the subject matter hereof.

9. NO COVENANT FOR EMPLOYMENT OR ADVANCES: Borrower understands and acknowledges that neither this Agreement nor any other Loan Document modifies Borrower's at-will status at the Lender and does not constitute an employment agreement or a promise by the Lender to continue Borrower's employment. Either the Lender or Borrower may terminate such employment relationship at any time, with or without cause.

10. NOTICES: All notices and other communications required or permitted hereunder shall be in writing and may be given by (a) personal delivery, (b) certified mail, postage prepaid, return-receipt requested, (c) courier service, fully prepaid for next business day delivery, or (d) facsimile. Any such notice shall be properly addressed to the address of the parties set forth on the signature page hereof and shall be deemed to have been given (i) if personally delivered, when delivered, (ii) if by certified mail, return-receipt requested, when delivered or refused, (iii) if by courier service, on the next business day following deposit, cost prepaid, with Federal Express or similar private carrier, or (iv) if by facsimile, instantaneously upon confirmation of receipt of facsimile. The Lender or Borrower may change their respective addresses by giving notice of the same in accordance with this paragraph. The term "business day" shall mean a day on which national banks are open for business in San Francisco, California.

11. ASSIGNMENT: Borrower may not assign any of his rights and/or duties under this Agreement (or any other Loan Document) without the prior written consent of the Lender, which consent may be withheld in the sole discretion of Lender. All of the rights and/or duties of the Lender under the Loan Documents, or any of them, shall be freely assignable. Subject to the foregoing, the rights and obligations of the Borrower and Lender under the Loan Documents shall be binding upon and shall inure to the benefit of the Borrower and Lender and their respective personal representatives, successors, heirs, and permitted assigns.

12. INCOME TAX CONSEQUENCES: **Borrower hereby acknowledges that the Lender has made no representation or warranty to Borrower concerning the income tax consequences of the loan to Borrower and Borrower shall be solely responsible for ascertaining and bearing such tax consequences.**

13. GOVERNING LAW: This Agreement shall be governed in all respects by the laws of the State of California.

14. HEADINGS: The titles and headings of the various paragraphs hereof are intended for means of reference and are not intended to place any construction on the provisions hereof.

15. INVALIDITY: If any provision of this Agreement shall be invalid or unenforceable, the remaining provisions shall not be affected thereby and every provision hereof shall be valid and enforceable to the fullest extent permitted by law.

16. COUNTERPARTS: This Agreement may be executed in one (1) or more separate counterparts, each of which, when so executed, shall be deemed to be an original. Such counterparts, together, shall constitute one and the same instrument.

17. MISCELLANEOUS: Time is of the essence of this Agreement, the Loan Documents, and any other document executed by Borrower in connection therewith. If any action shall be commenced between the parties with respect to the Loan, the prevailing party shall be entitled to recover its reasonable attorneys' fees and expenses from the non-prevailing party or parties. Liability hereunder shall be joint and several among Borrower and all other persons and entities now or hereafter liable for all or any part of the Loan. **Notwithstanding any provision above to the contrary, the Lender may waive in writing or by notation initialed hereon any obligation of Borrower provided for herein.**

18. JURY TRIAL: EACH OF LENDER AND BORROWER TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY AS TO ANY ISSUE RELATING HERETO IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE NOTE OR THE STOCK PLEDGE AGREEMENT.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

BORROWER:

THE LENDER:

/s/ Gajus V. Worthington
Gajus V. Worthington

FLUIDIGM CORPORATION

By: /s/ Erik T. Engelson

Name: Erik T. Engelson

Title: Chief Financial Officer

Address: _____

Address: 7100 Shoreline Court
South San Francisco, California 94080

Telephone: _____

Telephone: (650) 266-6000

Facsimile: _____

Facsimile: (650) 871-7152



EXHIBIT A

FORM OF SECURED PROMISSORY NOTE

SECURED PROMISSORY NOTE

January 20, 2004

\$250,000.00

South San Francisco, California

1. FOR VALUE RECEIVED, the undersigned, Gajus V. Worthington ("**Borrower**"), promises to pay to the order of Fluidigm Corporation, a California corporation ("**Lender**"), at 7100 Shoreline Court, South San Francisco, California 94080 (or at such other place as Lender may from time to time designate by written notice to Borrower), in lawful money of the United States, the principal sum of Two Hundred Fifty Thousand Dollars (\$250,000.00) (the "**Principal**"), together with interest from the date of this Secured Promissory Note ("**Note**") on the unpaid principal balance at a rate equal to 3.52% per annum.

This is a limited recourse Note. The sole recourse of the holder of this Note in the event of the failure to pay this Note as and when due shall be limited to the "Pledged Collateral" as such term is defined in the Stock Pledge Agreement of even date herewith (the "**Stock Pledge Agreement**").

2. PAYMENT: The Principal and interest due pursuant to this Note shall be paid as follows:

2.1 Upon the occurrence of a Maturity Event (as defined herein), Borrower shall pay to Lender all amounts due under this Note.

2.2 Subject to the provisions of Section 4 herein, the Principal amount of this Note and all accrued interest shall be due and payable on January 20, 2011 or earlier as follows:

(a) In the event that Borrower voluntarily terminates his employment with Lender without "good reason," the Principal and all accrued interest shall be due and payable within thirty (30) days of such termination date. In the event that Borrower voluntarily terminates his employment with "good reason," the Principal and all accrued interest shall be due and payable within thirty (30) days of such termination date; provided, however, that if Borrower executes a waiver of all claims against Lender in a form reasonably satisfactory to Lender, the Principal and accrued interest shall be due and payable on the date which is 12 months following the termination date. As used herein, "good reason" shall mean the occurrence of any of the following events without the Borrower's written consent:

(i) a substantial diminution in the nature, status or prestige of Borrower's responsibilities, title or reporting level or the addition of responsibilities of a nature, status or prestige inconsistent with the office of Chief Executive Officer and President of a company such as Lender;

(ii) the relocation of Lender's executive offices or principal business location to a point more than one hundred (100) miles from the South San Francisco, California area;

(iii) a material reduction by Lender of Borrower's annual salary or annual bonus as in effect on the date hereof or as the same may be increased from time to time (other than a general reduction applicable to all or substantially all officers of Lender); or

(iv) any action by Lender (including the elimination of benefit plans without providing substitutes thereof or the reduction of Borrower's benefits thereunder) that would substantially diminish the aggregate value of Borrower's fringe benefits as they exist at such time (other than an elimination in benefits that applies to all or substantially all officers of the Lender).

(b) In the event that Lender terminates Borrower's employment with Lender for "cause," the Principal and all accrued interest shall be due and payable within thirty (30) days of such termination date. In the event that Lender terminates Borrower's employment with Lender other than for "cause," the Principal and all accrued interest shall be due and payable within thirty (30) days of such termination date; provided, however, that if Borrower executes a waiver of all claims against Lender in a form reasonably satisfactory to Lender, the Principal and all accrued interest shall be due and payable on the date which is 12 months following the termination date. As used herein, "cause" shall mean the occurrence of any of the following events:

(i) Borrower's repeated failure to satisfactorily perform his employment duties after written notice by the Board of Directors of Lender (the "Board") of such deficiency and an opportunity to cure within a reasonable period;

(ii) Borrower has committed an act that is, in the opinion of the Board, intended to or does materially injure the business of Lender;

(iii) Borrower has refused or failed to follow lawful and reasonable directions of the Board, after written notice by the Board and a reasonable period thereafter to cure such performance;

(iv) Borrower has been convicted of a felony involving moral turpitude that is likely, in the opinion of the Board, to inflict or has inflicted material injury on the business of Lender;

(v) a determination by the Board that Borrower has engaged in conduct constituting sexual harassment of any current or former employee of Lender; or

(vi) a determination by the Board that Borrower is, or has been, engaging or in any manner participating in any activity which is directly competitive with, or intentionally injurious to, Lender.

(c) In the event the Board has determined, upon advice of counsel, that repayment is required to comply with "Applicable Law" (as defined herein), the Principal and all accrued interest shall be due and payable immediately upon such determination by the Board. As used herein, "Applicable Law" means any and all laws of whatever jurisdiction, within or without the United States, including, but not limited to, the Sarbanes-Oxley Act of 2002, and the rules of any stock exchange or quotation system on which Lender's securities are then listed or quoted or

proposed to be listed or quoted, applicable to the taking or refraining from taking of any action under this Note.

(d) Without limiting the provisions of subsection (c) above, in the event that Lender (or any successor or assign) files a registration statement under the Securities Act of 1933, as amended (a "Registration"), or otherwise becomes an "Issuer" as such term is defined in the Sarbanes-Oxley Act of 2002, the Principal and all accrued interest shall be due and payable on the earliest of (i) the date immediately prior to date of filing of the registration statement with the Securities and Exchange Commission relating to the Registration or (ii) the date immediately prior to the date Lender otherwise becomes an "Issuer" within the meaning of the Sarbanes-Oxley Act of 2002; provided, however, in the event of any amendment to, or binding, non-appealable judicial interpretation of, Applicable Law that would permit Lender to maintain the indebtedness evidenced by the Loan after a Registration or such time as Lender becomes an "Issuer", the Board may, in its sole and absolute discretion and with the advice of legal counsel, extend such due and payable date to a date not more than three years after the closing date of any initial public offering of the Lender's securities pursuant to a Registration.

(e) In the event of a "Fundamental Corporate Transaction", the Principal and all accrued interest shall be due and payable on the date which is 12 months following the effective date of the Fundamental Corporate Transaction. As used herein, a "Fundamental Corporate Transaction" shall mean:

(i) a merger or consolidation in which Lender is not the surviving corporation (other than a merger or consolidation with a wholly-owned subsidiary, a reincorporation of Lender in a different jurisdiction, or other transaction in which there is no substantial change in the stockholders of Lender or their relative stock holdings);

(ii) a merger in which Lender is the surviving corporation but after which the shareholders of Lender immediately prior to such merger (other than any shareholder that merges, or which owns or controls another corporation that merges, with Lender in such merger) cease to own their shares or other equity interest in Lender;

(iii) the sale of all or substantially all of the assets of Lender; or

(iv) the acquisition, sale, or transfer of more than 50% of the outstanding shares of Lender by tender offer or similar transaction.

2.3 Principal and interest shall be payable in lawful money of the United States. Interest shall be calculated on the basis of a 360-day year consisting of twelve (12) months, each of thirty (30) days, and shall compound annually. Each payment shall be applied first to accrued interest, then to any other amounts (other than Principal) payable hereunder as designated by Lender, and then to reduce Principal.

2.4 All payments made hereunder shall be made by Borrower free and clear of, and without deduction for, any and all present and future taxes, levies, charges, deductions and

withholdings. Borrower shall pay upon demand any stamp or other taxes, levies or charges of any jurisdiction with respect to the execution, delivery, performance and enforcement of this Note.

3. SECURITY: This Note is secured by a pledge of shares of Common Stock of the Lender and other collateral (collectively, the "Shares") as set forth in the Stock Pledge Agreement.

4. MATURITY EVENT: Upon the occurrence of a Maturity Event (as hereinafter defined), the entire unpaid Principal balance and all accrued interest shall become immediately due and payable without further demand or notice to Borrower. To the extent permitted by law, any of the following events shall be a "Maturity Event" under this Note and the Stock Pledge Agreement:

(a) Borrower shall fail to pay any amount of the Principal on this Note and all accrued interest when due and shall fail to cure such non-payment within ten (10) days following written notice of such delinquency.

(b) There shall occur a breach or default in the performance of any obligation of Borrower contained in this Note, the Stock Pledge Agreement, the Employee Loan Agreement executed concurrently herewith (collectively, the "Loan Documents"), or any other agreement now or hereafter entered into by Borrower, on the one hand, and the Lender, on the other hand, relating to the loan evidenced by this Note.

(c) Borrower shall sell, convey, encumber, grant any lien upon, or otherwise alienate the Shares or the Property, or any part thereof, or any interest therein, or shall be divested of his title or any interest therein in any manner or way, whether voluntarily or involuntarily, without the written consent of the Lender being first had and obtained.

(d) Borrower (i) admits in writing his inability to pay debts, (ii) makes an assignment for the benefit of creditors, (iii) files a voluntary petition in bankruptcy, effects a plan or other arrangement with creditors, liquidates his assets under arrangement with creditors, or liquidates his assets under court supervision, (iv) has an involuntary petition in bankruptcy filed against him that is not discharged within sixty (60) days after such petition is filed, or (v) applies for or permits the appointment of a receiver or trustee or custodian for any of Borrower's property or assets which shall not have been discharged within sixty (60) days after the date of appointment.

(e) The Principal and accrued interest shall have become due and payable, upon the happening of certain events, on such dates as are set forth in Section 2.2 herein.

(f) Any representation or warranty of Borrower contained herein or in any certificate or agreement entered into between Borrower for the benefit of Lender in connection herewith shall prove to be false or misleading in any material respect.

(g) Any lien or other encumbrance is imposed against the Shares; provided, however, that in the event that a lien or encumbrance is imposed against the Shares without the consent of Borrower, a Maturity Event shall not occur until the lien or other monetary encumbrance is imposed against the Shares for a period of at least thirty (30) days.

(h) One (1) year following the death of the Borrower.

(i) The occurrence of any event which causes the Loan and transactions contemplated under the Loan Documents to be prohibited under Applicable Law, including any prohibition of the Sarbanes-Oxley Act of 2002 or other prohibition relating to loans to officers of public companies under federal or state law.

5. LATE CHARGE: There shall be no late charge apart from the acceleration of Principal and the accrual of interest.

6. BORROWER'S REPRESENTATIONS: Borrower hereby makes the following representations and warranties to the Lender and acknowledges that Lender is relying on such representations in making the Loan:

6.1 Borrower has and shall have good and marketable title to the Shares free and clear of any security interests, liens or encumbrances other than (i) joint ownership of the Shares with Borrower's spouse; (ii) a right of first refusal and repurchase rights in favor of the Lender entered into in connection with the purchase of the Shares; and (iii) the Stock Pledge Agreement in favor of Lender securing this Note. The Shares are and shall be fully vested.

6.2 Other than the consent of Borrower's spouse, the consent of no other person or entity is required to grant to Lender the security interest in the Shares evidenced by the Stock Pledge Agreement.

6.3 There are no actions, proceedings, claims, or disputes pending or, to the Borrower's knowledge, threatened against or affecting Borrower or the Shares.

7. BORROWERS' ADDITIONAL OBLIGATIONS: Borrower shall take any and all further actions that may from time to time be required to ensure that the Stock Pledge Agreement creates a valid first priority security interest on the Shares in favor of the Lender as security for the Note. Borrower shall not further encumber the Shares or permit any lien or other security interest to encumber the Shares. Upon request by Lender, but not more frequently than once during any calendar year, Borrower shall furnish evidence reasonably satisfactory to the Lender that: (i) Borrower has good and marketable title to the Shares; (ii) the consent of no other person or entity is required to grant a first priority security interest in the Shares to the Lender; (iii) the Stock Pledge Agreement is a first priority security interest in the Shares, and (iv) there are no other security interests, liens or encumbrances against the Shares. If it should be hereafter determined that there are defects against title or matters which could result in defects against title to the Shares, or that the consent of another person or entity is required to grant to and perfect in the Lender a valid first priority security interest on the Shares, Borrower shall promptly take all action necessary to remove such defects and to obtain such consent and grant (or cause to be granted) and perfect such security interest on the Shares. Failure of the Stock Pledge Agreement to be a valid first priority security interest on the Shares shall be deemed a Maturity Event as aforesaid.

8. ATTORNEYS' FEES: In the event of Borrower's default hereunder, Borrower shall pay all costs of collection, including reasonable attorneys' fees incurred by the holder hereof on account of such collection, whether or not suit is filed hereon.

9. WAIVER: The waiver by Lender of any breach of or default under any term, covenant or condition contained herein or in any other agreement referred to above shall be in writing and shall not be deemed to be a waiver of any subsequent breach of or default under the same or any other such term, covenant or condition.

10. NO USURY: Borrower hereby represents and warrants that at no time shall the proceeds of the indebtedness evidenced hereby be used "primarily for personal, family, or household purposes" as that term is defined and used in Article XV of the California Constitution (as amended from time to time). Anything in this Note to the contrary notwithstanding, it is expressly stipulated and agreed that the intent of Borrower and Lender are to comply at all times with all usury and other laws relating to this Note. If the laws of the State of California would now or hereafter render usurious, or are revised, repealed or judicially interpreted so as to render usurious, any amount called for under this Note, or contracted for, charged or received with respect to the loan evidenced by this Note, or if any prepayment by Borrower results in Borrower having paid any interest in excess of that permitted by law, then it is Borrower's and Lender's express intent that all excess amounts theretofore collected by Lender be credited to the principal balance of this Note (or, if this Note has been paid in full, refunded to Borrower), and the provisions of this Note immediately be deemed reformed and the amounts therefor collectible hereunder reduced, without the necessity of execution of any new document, so as to comply with the then applicable law, but so as to permit the recovery of the fullest amount otherwise called for hereunder.

11. PREPAYMENT: Borrower may prepay all or any portion of this Note at any time prior to the time it is due, with no premium or penalty.

12. GENERAL PROVISIONS: This Note shall be governed by and construed in accordance with the laws of the State of California. The makers of this Note hereby waive presentment for payment, protest and demand, notice of protest, demand and dishonor and nonpayment of this Note, and consent that Lender may extend the time for payment or otherwise modify the terms of payment or any part of the whole of the debt evidenced by this Note, at the request of any person liable hereon, and such consent shall not alter nor diminish the liability of any person. Borrower hereby waives the defense of the statute of limitations in any action on this Note to the extent permitted by law. Time is of the essence of this Note, the Loan Documents and any other document executed by Borrower in connection therewith. Liability hereunder shall be joint and several among Borrower and all other persons and entities now or hereafter liable for all or any part of the Loan.

13. ACKNOWLEDGEMENT BY BORROWER: THIS NOTE, THE LOAN AGREEMENT, THE STOCK PLEDGE AGREEMENT, AND ALL RELATED DOCUMENTATION ARE EXECUTED VOLUNTARILY AND WITHOUT ANY DURESS OR UNDUE INFLUENCE ON THE PART OF OR ON BEHALF OF THE BORROWER, WITH THE FULL INTENT OF CREATING THE OBLIGATIONS AND SECURITY INTERESTS DESCRIBED HEREIN AND THEREIN. BORROWER ACKNOWLEDGES THAT: (a) BORROWER HAS READ SUCH DOCUMENTATION; (b) BORROWER HAS BEEN REPRESENTED IN THE PREPARATION, NEGOTIATION AND EXECUTION OF SUCH DOCUMENTATION BY LEGAL COUNSEL OF BORROWER'S OWN CHOICE (OR HAS KNOWINGLY AND VOLUNTARILY CHOSEN NOT TO SEEK SUCH REPRESENTATION);

(c) BORROWER UNDERSTANDS THE TERMS AND CONSEQUENCES OF THIS NOTE, THE EMPLOYEE LOAN AGREEMENT, THE STOCK PLEDGE AGREEMENT, AND ALL RELATED AGREEMENTS AND DOCUMENTATION AND THE OBLIGATIONS THEY CREATE; AND (d) BORROWER IS FULLY AWARE OF THE LEGAL AND BINDING EFFECT OF THIS NOTE, THE EMPLOYEE LOAN AGREEMENT, THE STOCK PLEDGE AGREEMENT AND THE OTHER DOCUMENTS CONTEMPLATED BY OR ENTERED INTO IN CONNECTION WITH THIS NOTE.

IN WITNESS WHEREOF, Borrower has executed this Note as of the day and year first above written.

/s/ /Gajus V. Worthington
Gajus V. Worthington

[Signature Page to Secured Promissory Note]

EXHIBIT B

FORM OF STOCK PLEDGE AGREEMENT

STOCK PLEDGE AGREEMENT

This **STOCK PLEDGE AGREEMENT**, dated as of January 20, 2004 (this "Pledge Agreement"), is executed by Gajus V. Worthington, ("Debtor"), in favor of Fluidigm Corporation, a California corporation ("Secured Party").

RECITALS

A. Debtor and Secured Party are parties to an Employee Loan Agreement (the "Loan Agreement"), and Debtor has executed a Secured Promissory Note dated as of the date hereof (the "Note"), in favor of the Secured Party in the principal amount of \$250,000.00.

B. In order to induce the Secured Party to extend the credit evidenced by the Note, Debtor has agreed to enter into this Pledge Agreement and to pledge and grant to Secured Party the security interest in the Pledged Collateral described below.

PLEDGE AGREEMENT

NOW, THEREFORE, in consideration of the above recitals and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, Debtor hereby agrees with Secured Party as follows:

1. Definitions and Interpretation. Unless otherwise defined herein, all other capitalized terms used herein and defined in the Note shall have the respective meanings given to those terms in the Note, and all terms defined in the California Uniform Commercial Code (the "UCC") shall have the respective meanings given to those terms in the UCC.
2. The Pledge. To secure the Obligations as defined in Section 3 hereof, Debtor hereby pledges to Secured Party, and grants to Secured Party a security interest in, all of Debtor's right, title and interest, whether now existing or hereafter arising in all instruments, certificated and uncertificated securities, money and general intangibles of, relating to or arising from the following property (the "Pledged Collateral"):
 - (a) The shares of stock of the Company more particularly described on Schedule A attached hereto (the "Pledged Shares");
 - (b) All dividends (including cash dividends), other distributions (including stock redemption proceeds), or other property, securities or instruments in respect of or in exchange for the Pledged Shares, whether by way of dividends, stock dividends, recapitalizations, mergers, consolidations, split-ups, combinations or exchanges of shares or otherwise; and
 - (c) All proceeds of the foregoing ("Proceeds").
3. Security for Obligations. The obligations secured by this Pledge Agreement (the "Obligations") shall mean and include all loans, advances, debts, liabilities and obligations, howsoever arising, owed by Debtor to the Secured Party of every kind and description (whether or

not evidenced by any note or instrument and whether or not for the payment of money), now existing or hereafter arising under or pursuant to the terms of the Note, including, all interest, fees, charges, expenses, attorneys' fees and costs and accountants' fees and costs chargeable to and payable by Debtor hereunder and thereunder and under the Loan Agreement, in each case, whether direct or indirect, absolute or contingent, due or to become due, and whether or not arising after the commencement of a proceeding under Title 11 of the United States Code (11 U.S.C. Section 101 et seq.), as amended from time to time (including post-petition interest) and whether or not allowed or allowable as a claim in any such proceeding.

4. Delivery of Pledged Collateral. All certificates or instruments representing or evidencing the Pledged Collateral shall be delivered to Secured Party and shall be in suitable form for transfer by delivery, or shall be accompanied by duly executed instruments of transfer or assignment in blank, all in form and substance satisfactory to Secured Party.

5. Representations and Covenants. Debtor hereby represents and warrants as follows:

(a) Issuance of Pledged Shares, Etc. The Pledged Shares have been duly authorized and are validly issued and are fully paid and non-assessable, and the Pledged Shares are owned by Debtor free and clear of any and all liens, pledges, encumbrances or charges (other than the lien created in favor of Secured Party by this Pledge Agreement and a right of first refusal and certain repurchase rights granted to the Secured Party in connection with Debtor's purchase of the Shares), and Debtor has not optioned or otherwise agreed to sell, hypothecate, pledge, or otherwise encumber or dispose of the Pledged Shares. The Pledged Shares are fully vested.

(b) Security Interest. The pledge of the Pledged Collateral creates a valid security interest in the Pledged Collateral, which security interest is a perfected and first priority security interest, securing the payment of the Obligations and the obligations hereunder.

(c) Restatement of Representations and Warranties. On and as of the date any property becomes Pledged Collateral, the foregoing representations and warranties shall apply to such additional Pledged Collateral.

6. Further Assurances.

(a) Further Instruments and Documents; Action. Debtor agrees that at any time and from time to time, at Debtor's expense, Debtor will promptly execute and deliver all further instruments and documents, including without limitation all additional Pledged Collateral, and take all further action, that may be necessary or desirable, or that Secured Party may reasonably request, in order to perfect and protect any security interest granted or purported to be granted hereby or to enable Secured Party to exercise and enforce its rights and remedies hereunder with respect to any Pledged Collateral.

(b) Margin Regulations. In the event that Secured Party's Common Stock is now or later classified as "margin stock" as such term is defined under Regulation U of the Board of Governors of the Federal Reserve System ("Regulation U") and Secured Party is classified as a "lender" within the meaning of Regulation U, Debtor agrees to cooperate with Secured Party in

making any amendments to the Note (and related agreements) or providing any additional collateral as may be necessary to comply with such regulations.

(c) Liens on Pledged Collateral. Debtor agrees not to create, incur, assume or suffer to exist any lien or security interest of any kind upon the Pledged Collateral.

7. Voting Rights; Dividends; Etc.

(a) Rights Prior to an Event of Default. So long as no Event of Default shall have occurred and be continuing:

(i) Debtor shall be entitled to exercise any and all voting and other consensual rights pertaining to the Pledged Collateral (including the Pledged Shares) or any part thereof for any purpose not inconsistent with the terms of this Pledge Agreement.

(ii) Debtor shall be entitled to receive and retain free and clear of the security interest of Secured Party hereunder any and all dividends and interest paid in respect of the Pledged Shares, provided, however, that any and all (A) dividends and interest paid or payable other than in cash in respect of, and instruments and other property received, receivable or otherwise distributed in respect of, or in exchange for any Pledged Shares, (B) dividends and other distributions paid or payable in cash in respect of any Pledged Shares in connection with a partial or total liquidation or dissolution or in connection with a reduction of capital, capital surplus or paid-in-surplus, and (C) cash paid, payable or otherwise distributed in respect of principal of, or in redemption of, or in exchange for, any Pledged Shares, shall be, and shall be forthwith delivered to Secured Party to hold as, Pledged Collateral and shall, if received by Debtor, be received in trust for the benefit of Secured Party, be segregated from the other property or funds of Debtor and be forthwith delivered to Secured Party as Pledged Collateral in the same form as so received (with any necessary endorsement) to be held as part of the Pledged Collateral.

(b) Rights Following an Event of Default. Upon the occurrence and during the continuance of an Event of Default:

(i) All rights of Debtor to exercise the voting and other consensual rights which it would otherwise be entitled to exercise pursuant to Section 7(a)(i) and to receive the dividends and interest payments which it would otherwise be authorized to receive and retain pursuant to Section 7(a)(ii) shall cease and all such rights shall thereupon become vested in Secured Party which shall thereupon have the sole right, but not the obligation, to exercise such voting and other consensual rights and to receive and hold as Pledged Collateral such dividends and interest payments.

(ii) All dividends and interest payments which are received by Debtor contrary to the provisions of subparagraph (i) of this Section 7(b) shall be received in trust for the benefit of Secured Party, shall be segregated from other funds of Debtor and shall be forthwith delivered to Secured Party as Pledged Collateral in the same form as so received (with any necessary endorsement).

8. Events of Default.

(a) Event of Default. An “Event of Default” shall mean the occurrence of one or more of the following described events:

(i) Debtor shall default in the payment of principal or interest on the Note when the same is due, or default in the payment of any expense or other amount payable under the Loan Agreement, the Note or under this Pledge Agreement; or

(ii) Debtor shall breach the provisions of Section 6(c) of this Pledge Agreement; or

(iii) Debtor shall default in the performance of, or there shall be a breach of, any term, provision, representation, warranty, covenant, agreement or obligation (other than a covenant, agreement or obligation referred to in Section 8(a)(i) or Section 8(a)(ii) of this Pledge Agreement) contained in the Loan Agreement, Note or this Pledge Agreement and Debtor shall fail to cure such default within ten (10) days after written notice thereof from Secured Party.

(b) Rights Under the UCC. In addition to all other rights granted hereby, by the Note, by the Loan Agreement and by law, Secured Party shall have, with respect to the Pledged Collateral, the rights and obligations of a secured party under the UCC.

(c) Sale of Pledged Collateral. Debtor acknowledges and recognizes that Secured Party may be unable to effect a public sale of all or a part of the Pledged Collateral (including the Pledged Shares) and may be compelled to resort to one or more private sales to a restricted group of purchasers who will be obligated to agree, among other things, to acquire the Pledged Collateral for their own account, for investment and not with a view to the distribution or resale thereof. Debtor acknowledges that any such private sales may be at prices and on terms less favorable to Secured Party than those of public sales, and agrees that so long as such sales are made in good faith such private sales shall be deemed to have been made in a commercially reasonable manner and that Secured Party has no obligation to delay sale of any Pledged Collateral to permit the issuer thereof to register it for public sale under the Securities Act of 1933, as amended or under any state securities law.

(d) Notice, Etc. In any case where notice of sale is required, ten (10) days' notice shall be deemed reasonable notice. Secured Party may have resort to the Pledged Collateral or any portion thereof with no requirement on the part of Secured Party to proceed first against any other person, entity or property.

(e) Other Remedies. Upon the occurrence and during the continuance of an Event of Default, (i) at the request of Secured Party, Debtor shall assemble and make available to Secured Party all records relating to the Pledged Collateral at any place or places specified by Secured Party, together with such other information as Secured Party shall request concerning Debtor's ownership of the Pledged Collateral and relationship to the Company; and (ii) Secured Party or its nominee shall have the right, but shall not be obligated, to vote or give consent with respect to the Pledged Collateral (including the Pledged Shares) or any part thereof.

9. Secured Party Appointed Attorney-in-Fact.

Debtor hereby appoints Secured Party as Debtor's attorney-in-fact, with full authority in the place and stead of Debtor and in the name of Debtor or otherwise, from time to time in Secured Party's discretion and to the full extent permitted by law to take any action and to execute any instrument which Secured Party may deem reasonably necessary or advisable to accomplish the purposes of this Pledge Agreement in accordance with the terms and provisions hereof, including without limitation, to receive, endorse and collect all instruments made payable to Debtor representing any dividend, interest payment or other distribution in respect of the Pledged Collateral or any part thereof and to give full discharge for the same.

Debtor hereby ratifies all reasonable actions that said attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney is a power coupled with an interest and shall be irrevocable. The powers conferred on Secured Party hereunder are solely to protect its interests in the Pledged Collateral and shall not impose any duty upon Secured Party to exercise any such powers. Secured Party shall be accountable only for amounts that it actually receives as a result of the exercise of such powers and in no event shall Secured Party or any of its officers, directors, employees or agents be responsible to Debtor for any act or failure to act, except for gross negligence or willful misconduct.

10. Release of Pledged Collateral.

Subject to any applicable law, rule or regulation to the contrary, upon written request of Debtor no more than once per calendar quarter, Secured Party shall deliver to Debtor a certificate or certificates representing so many full Pledged Shares (or other securities issued in respect thereof) the fair market value of which, as determined by the Board of Directors of the Company in its sole discretion, is greater than the principal amount and interest due under the Note as of the date of such delivery. Upon delivery of the certificate or certificates by Secured Party, such Pledged Shares (or other securities in respect thereof) shall no longer constitute Pledged Collateral.

11. Miscellaneous.

(a) Notices. All notices and other communications required or permitted hereunder shall be in writing and may be given by (a) personal delivery, (b) certified mail, postage prepaid, return-receipt requested, (c) courier service, fully prepaid for next business day delivery, or (d) facsimile. Any such notice shall be properly addressed to the address of the parties set forth on the signature page hereof and shall be deemed to have been given (i) if personally delivered, when delivered, (ii) if by certified mail, return-receipt requested, when delivered or refused, (iii) if by courier service, on the next business day following deposit, cost prepaid, with Federal Express or similar private carrier, or (iv) if by facsimile, instantaneously upon confirmation of receipt of facsimile. The Secured Party or Debtor may change their respective addresses by giving notice of the same in accordance with this paragraph. The term "business day" shall mean a day on which national banks are open for business in San Francisco, California.

(b) Nonwaiver. No failure or delay on Secured Party's part in exercising any right hereunder shall operate as a waiver thereof or of any other right nor shall any single or partial exercise of any such right preclude any other further exercise thereof or of any other right.

(c) Amendments and Waivers. This Pledge Agreement may not be amended or modified, nor may any of its terms be waived, except by written instruments signed by Debtor and Secured Party. Each waiver or consent under any provision hereof shall be effective only in the specific instances for the purpose for which given.

(d) Assignments. Debtor may not assign any of his rights and/or duties under this Agreement without the prior written consent of the Secured Party, which consent may be withheld in the sole discretion of Lender. All of the rights and/or duties of the Secured Party under this Agreement, shall be freely assignable. Subject to the foregoing, the rights and obligations of the Debtor and Secured Party under this Agreement shall be binding upon and shall inure to the benefit of the Debtor and Secured Party and their respective personal representatives, successors, heirs, and permitted assigns.

(e) Cumulative Rights, etc. The rights, powers and remedies of Secured Party under this Pledge Agreement shall be in addition to all rights, powers and remedies given to Secured Party by virtue of any applicable law, rule or regulation of any governmental authority, the Note or any other agreement, all of which rights, powers, and remedies shall be cumulative and may be exercised successively or concurrently without impairing Secured Party's rights hereunder. Debtor waives any right to require Secured Party to proceed against any person or entity or to exhaust any Pledged Collateral or to pursue any remedy in Secured Party's power.

(f) Partial Invalidity. If any time any provision of this Pledge Agreement is or becomes illegal, invalid or unenforceable in any respect under the law or any jurisdiction, neither the legality, validity or enforceability of the remaining provisions of this Pledge Agreement nor the legality, validity or enforceability of such provision under the law of any other jurisdiction shall in any way be affected or impaired thereby.

(g) Expenses. Each of Debtor and Secured Party shall bear its own costs in connection with the preparation, execution and delivery of, and the exercise of its duties under, this Pledge Agreement.

(h) Governing Law. This Pledge Agreement shall be governed by and construed in accordance with the laws of the State of California without reference to conflicts of law rules (except to the extent governed by the UCC).

[Remainder of page intentionally left blank]

IN WITNESS WHEREOF, Debtor has caused this Pledge Agreement to be executed as of the day and year first above written.

/s/ Gajus V. Worthington
Gajus V. Worthington

Address:

Telephone: _____

Facsimile: _____

ACKNOWLEDGED:

FLUIDIGM CORPORATION

By: /s/ Erik T. Engelson

Name: Erik T. Engelson

Title: CFO

Address: 7100 Shoreline Court
South San Francisco, California 94080

Telephone: (650) 266-6000

Facsimile: (650) 871-7152

SCHEDULE A

TO STOCK PLEDGE AGREEMENT

SHARES

<u>Issuer</u>	<u>Certificate Number(s)</u>	<u>Certificate Date(s)</u>	<u>Registered Holder</u>	<u>Number of Shares</u>
Fluidigm Corporation	226	01/15/04	Gajus V. Worthington	500,000 (Common Stock)
Fluidigm Corporation	224	01/15/04	Gajus V. Worthington	333,334 (Common Stock)

STOCK POWER AND ASSIGNMENT

SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED and pursuant to that certain Stock Pledge Agreement dated as of January 20, 2004 by and between Gajus V. Worthington and Fluidigm Corporation, a California corporation, the undersigned hereby sells, assigns and transfers unto ____, ____ (____) shares of Common Stock of Fluidigm Corporation, a California corporation, standing in the undersigned's name on the books of said corporation represented by certificate number ____ delivered herewith, and does hereby irrevocably constitute and appoint ____ as attorney-in-fact, with full power of substitution, to transfer said stock on the books of said corporation.

Dated:

/s/ Gajus Worthington
(Signature)

Gajus Worthington
(Please Print Name)

/s/ Jami Worthington
(Spouse's Signature, if any)

Jami Worthington
(Please Print Name)

This Assignment Separate From Certificate was executed in conjunction with the terms of a Stock Pledge Agreement between the above assignor and Fluidigm Corporation, dated as of January 20, 2004.

Instruction: Please do not fill in any blanks other than the signature and name lines.

EXHIBIT C

SPOUSAL CONSENT

I acknowledge that I have read the foregoing Employee Loan Agreement by and between Gajus V. Worthington (“Borrower”) and Fluidigm Corporation (the “Agreement”), the Secured Promissory Note (the “Note”) and the Stock Pledge Agreement (the “Stock Pledge Agreement”, and together with the Agreement and the Note, the “Loan Documents”) and that I know their contents. I hereby consent to and approve all of the provisions of the Loan Documents, and agree that any interest I may have in or to the Pledged Collateral (as defined in the Stock Pledge Agreement) is subject to all the provisions of the Loan Documents. I will take no action at any time to hinder operation of the Loan Documents or any interest I may have in or to them.

/s/ Jami Worthington _____
Signature of Borrower’s Spouse

Date: _____

Jami Worthington _____
Spouse’s Name — Typed or Printed