

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

FORM 8-K

**CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported): March 15, 2010

Lexicon Pharmaceuticals, Inc.

(Exact name of registrant as specified in its charter)

**Delaware
(State or other jurisdiction of
incorporation or organization)**

**000-30111
(Commission File Number)**

**76-0474169
(I.R.S. Employer
Identification Number)**

**8800 Technology Forest Place
The Woodlands, Texas 77381
(Address of principal executive
offices and Zip Code)**

**(281) 863-3000
(Registrant's telephone number,
including area code)**

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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TABLE OF CONTENTS

[Item 1.01 Entry into a Material Definitive Agreement](#)

[Item 3.02 Unregistered Sales of Equity Securities](#)

[Item 9.01 Financial Statements and Exhibits](#)

[Signatures](#)

[Index to Exhibits](#)

[EX-1.1](#)

[EX-5.1](#)

[EX-10.1](#)

[EX-99.1](#)

[Table of Contents](#)

Item 1.01 Entry into a Material Definitive Agreement

On March 15, 2010, Lexicon Pharmaceuticals, Inc. (the “Company”) entered into an Underwriting Agreement with Morgan Stanley & Co. Incorporated, J.P. Morgan Securities Inc., Cowen and Company, LLC and Thomas Weisel Partners LLC for the public offering, issuance and sale of 87,717,391 shares of the Company’s common stock, par value \$0.001 per share (the “Common Stock”) for aggregate proceeds to the Company of \$100.9 million, plus an additional 8,804,348 shares of Common Stock solely to cover over-allotments, if any. An affiliate of Invus, L.P. (“Invus”), the Company’s largest stockholder, has agreed to purchase from the underwriters 29,021,739 of such shares.

On March 15, 2010, the Company also entered into a Purchase Agreement with Invus for the purchase of 59,296,749 shares of Common Stock in a concurrent private placement for aggregate proceeds to the Company of approximately \$68.2 million. These shares were issued to Invus in reliance upon the exemptions from the registration requirements under the Securities Act of 1933, as amended, pursuant to Section 4(2) thereof and Regulation D thereunder. In issuing the shares of Common Stock to Invus, the Company relied upon the representations and warranties of Invus in support of the satisfaction of the conditions contained in Section 4(2) and Regulation D.

On March 16, 2010, the Company issued a press release announcing the public offering and the concurrent private placement.

The Underwriting Agreement, Purchase Agreement, and press release are filed as Exhibits 1.1, 10.1 and 99.1 to this report, respectively, and are each incorporated herein by reference.

The Company and Invus are also parties to a Securities Purchase Agreement, dated June 17, 2007 and amended October 7, 2009 and March 15, 2010, a Registration Rights Agreement, dated June 17, 2007, and amended March 15, 2010, and a Stockholders’ Agreement dated June 17, 2007.

Item 3.02 Unregistered Sales of Equity Securities

The information set forth in Item 1.01 is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
1.1	— Underwriting Agreement with Morgan Stanley & Co. Incorporated, J.P. Morgan Securities Inc., Cowen and Company, LLC and Thomas Weisel Partners LLC dated March 15, 2010
5.1	— Opinion of Vinson & Elkins L.L.P.
10.1	— Purchase Agreement with Invus, L.P. dated March 15, 2010
23.1	— Consent of Vinson & Elkins L.L.P. (included in Exhibit 5.1)
99.1	— Press Release dated March 16, 2010

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Lexicon Pharmaceuticals, Inc.

Date: March 16, 2010

By: /s/ JEFFREY L. WADE

Jeffrey L. Wade
*Executive Vice President and
General Counsel*

Index to Exhibits

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87,717,391 Shares
LEXICON PHARMACEUTICALS, INC.
COMMON STOCK, PAR VALUE \$0.001 PER SHARE
UNDERWRITING AGREEMENT

March 15, 2010

March 15, 2010

To the Managers named in Schedule I hereto
for the Underwriters named in Schedule II hereto

Ladies and Gentlemen:

Lexicon Pharmaceuticals, Inc., a Delaware corporation (the “**Company**”), proposes to issue and sell to the several underwriters named in Schedule II hereto (the “**Underwriters**”), for whom you are acting as managers (the “**Managers**”), the number of shares of its Common Stock, par value \$0.001 per share set forth in Schedule I hereto (the “**Firm Shares**”). The Firm Shares includes shares of Common Stock, par value \$0.001 per share set forth in Schedule I hereto that may be offered and sold by and on behalf of the Underwriters to certain existing stockholders and their affiliated entities (the “**Stockholder Shares**”). The Company also proposes to issue and sell to the several Underwriters not more than the number of additional shares of its Common Stock, par value \$0.001 per share set forth in Schedule I hereto (the “**Additional Shares**”) if and to the extent that you, as Managers of the offering, shall have determined to exercise, on behalf of the Underwriters, the right to purchase such shares of common stock granted to the Underwriters in Section 2 hereof. The Firm Shares and the Additional Shares are hereinafter collectively referred to as the “**Shares.**” The shares of Common Stock, par value \$0.001 per share of the Company to be outstanding after giving effect to the sales contemplated hereby are hereinafter referred to as the “**Common Stock.**” If the firm or firms listed in Schedule II hereto include only the Managers listed in Schedule I hereto, then the terms “Underwriters” and “Managers” as used herein shall each be deemed to refer to such firm or firms.

The Company has filed with the Securities and Exchange Commission (the “**Commission**”) a registration statement, including a prospectus, (the file number of which is set forth in Schedule I hereto) on Form S-3, relating to the securities (the “**Shelf Securities**”), including the Shares, to be issued from time to time by the Company. The registration statement as amended to the date of this Agreement, including the information (if any) deemed to be part of the registration statement at the time of effectiveness pursuant to Rule 430A or Rule 430B under the Securities Act of 1933, as amended (the “**Securities Act**”), is hereinafter referred to as the “**Registration Statement**”, and the related prospectus covering the Shelf Securities dated September 18, 2009 in the form first used to confirm sales of the Shares (or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act) is hereinafter referred to as the “**Basic Prospectus.**”

The Basic Prospectus, as supplemented by the prospectus supplement specifically relating to the Shares in the form first used to confirm sales of the Shares (or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act) is hereinafter referred to as the “**Prospectus**,” and the term “**preliminary prospectus**” means any preliminary form of the Prospectus. For purposes of this Agreement, “**free writing prospectus**” has the meaning set forth in Rule 405 under the Securities Act, “**Time of Sale Prospectus**” means the preliminary prospectus together with the free writing prospectuses, if any, each identified in Schedule I hereto, and “**broadly available road show**” means a “bona fide electronic road show” as defined in Rule 433(h)(5) under the Securities Act that has been made available without restriction to any person. As used herein, the terms “Registration Statement,” “Basic Prospectus,” “preliminary prospectus,” “Time of Sale Prospectus” and “Prospectus” shall include the documents, if any, incorporated by reference therein. The terms “**supplement**,” “**amendment**,” and “**amend**” as used herein with respect to the Registration Statement, the Basic Prospectus, the Time of Sale Prospectus, any preliminary prospectus or free writing prospectus shall include all documents subsequently filed by the Company with the Commission pursuant to the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), that are deemed to be incorporated by reference therein.

1. *Representations and Warranties.* The Company represents and warrants to and agrees with each of the Underwriters that:

(a) The Registration Statement has become effective; no stop order suspending the effectiveness of the Registration Statement is in effect, and no proceedings for such purpose are pending before or threatened by the Commission.

(b) (i) Each document, if any, filed or to be filed pursuant to the Exchange Act and incorporated by reference in the Time of Sale Prospectus or the Prospectus complied or will comply when so filed in all material respects with the Exchange Act and the applicable rules and regulations of the Commission thereunder, (ii) each part of the Registration Statement, when such part became effective, did not contain, and each such part, as amended or supplemented, if applicable, will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, (iii) the Registration Statement as of the date hereof does not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading, the Registration Statement and the Prospectus comply, and as amended or supplemented, if applicable, will comply in all material respects with the Securities Act and the applicable rules and regulations of the Commission thereunder, (iv) the Time of Sale Prospectus does not, and at the time of each sale of the Shares in connection with the offering when the Prospectus is not yet

available to prospective purchasers and at the Closing Date (as defined in Section 4), the Time of Sale Prospectus, as then amended or supplemented by the Company, if applicable, will not, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading and (v) the Prospectus does not contain and, as amended or supplemented, if applicable, will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, except that the representations and warranties set forth in this paragraph do not apply to statements or omissions in the Registration Statement, the Time of Sale Prospectus or the Prospectus based upon information relating to any Underwriter furnished to the Company in writing by such Underwriter through the Managers expressly for use therein.

(c) The Company is not an “ineligible issuer” in connection with the offering pursuant to Rules 164, 405 and 433 under the Securities Act. Any free writing prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act and the applicable rules and regulations of the Commission thereunder. Each free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of the Securities Act and the applicable rules and regulations of the Commission thereunder. Except for the free writing prospectuses, if any, identified in Schedule I hereto forming part of the Time of Sale Prospectus, and electronic road shows, if any, each furnished to you before first use, the Company has not prepared, used or referred to, and will not, without your prior consent, prepare, use or refer to, any free writing prospectus.

(d) The Company has been duly incorporated, is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation, has the corporate power and authority to own its property and to conduct its business as described in the Time of Sale Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of property requires such qualification, except to the extent that the failure to be so qualified or be in good standing would not have a material adverse effect on the Company and its subsidiaries, taken as a whole (a “**Material Adverse Effect**”).

(e) Each subsidiary of the Company has been duly incorporated, is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation, has the corporate power and authority to own its property and to conduct its business as described in the Time of Sale Prospectus and is duly qualified to transact business and is in good standing in each jurisdiction in which the conduct of its business or its ownership or leasing of

property requires such qualification, except to the extent that the failure to be so qualified or be in good standing would not have a Material Adverse Effect; all of the issued shares of capital stock of each subsidiary of the Company have been duly and validly authorized and issued, are fully paid and non-assessable and are owned directly by the Company, free and clear of all liens, encumbrances, equities or claims.

(f) This Agreement has been duly authorized, executed and delivered by the Company.

(g) The authorized capital stock of the Company is as set forth in, and conforms as to legal matters to the description thereof contained in, each of the Time of Sale Prospectus and the Prospectus.

(h) The shares of Common Stock outstanding prior to the issuance of the Shares have been duly authorized and are validly issued, fully paid and non-assessable.

(i) The Shares have been duly authorized and, when issued, delivered and paid for in accordance with the terms of this Agreement, will be validly issued, fully paid and non-assessable, and the issuance of such Shares will not be subject to any preemptive or similar rights except as described in the Time of Sale Prospectus.

(j) The execution and delivery by the Company of, and the performance by the Company of its obligations under, this Agreement will not contravene (i) any provision of applicable law, (ii) the certificate of incorporation or by-laws of the Company, (iii) any agreement or other instrument binding upon the Company or any of its subsidiaries that is material to the Company and its subsidiaries, taken as a whole, or (iv) any judgment, order or decree of any governmental body, agency or court having jurisdiction over the Company or any subsidiary, except with respect to clauses (i), (iii) and (iv), for any contraventions that would not, singly or in the aggregate, have a Material Adverse Effect. No consent, approval, authorization or order of, or qualification with, any governmental body or agency is required for the performance by the Company of its obligations under this Agreement, except such (i) as have been obtained under the Securities Act, (ii) as may be required by the securities or Blue Sky laws of the various states in connection with the offer and sale of the Shares and (iii) as may be required by the rules and regulations of the Financial Industry Regulatory Authority (“**FINRA**”).

(k) There has not occurred any material adverse change, or any development involving a prospective material adverse change, in the condition, financial or otherwise, or in the earnings, business or operations of the Company and its subsidiaries, taken as a whole, from that set forth in the Time of Sale Prospectus.

(l) There are no legal or governmental proceedings pending or, to the knowledge of the Company, threatened to which the Company or any of its subsidiaries is a party or to which any of the properties of the Company or any of its subsidiaries is subject (i) other than proceedings accurately described in all material respects in the Time of Sale Prospectus and proceedings that would not reasonably be expected to have a Material Adverse Effect, or on the power or ability of the Company to perform its obligations under this Agreement or to consummate the transactions contemplated by the Time of Sale Prospectus or (ii) that are required to be described in the Registration Statement or the Prospectus and are not so described; and there are no statutes, regulations, contracts or other documents that are required to be described in the Registration Statement or the Prospectus or to be filed as exhibits to the Registration Statement that are not described or filed as required.

(m) Each preliminary prospectus filed as part of the registration statement as originally filed or as part of any amendment thereto, or filed pursuant to Rule 424 under the Securities Act, complied when so filed in all material respects with the Securities Act and the applicable rules and regulations of the Commission thereunder, except that the representation and warranty set forth in this paragraph does not apply to statements or omissions in the preliminary prospectus based upon information relating to any Underwriter furnished to the Company in writing by such Underwriter through you expressly for use therein.

(n) The Company is not, and after giving effect to the offering and sale of the Shares and the application of the proceeds thereof as described in the Prospectus will not be, required to register as an "investment company" as such term is defined in the Investment Company Act of 1940, as amended.

(o) The Company and its subsidiaries (i) are in compliance with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, the environment or hazardous or toxic substances or wastes, pollutants or contaminants ("**Environmental Laws**"), (ii) have received all permits, licenses or other approvals required of them under applicable Environmental Laws to conduct their respective businesses and (iii) are in compliance with all terms and conditions of any such permit, license or approval, except where such noncompliance with Environmental Laws, failure to receive required permits, licenses or other approvals or failure to comply with the terms and conditions of such permits, licenses or approvals would not, singly or in the aggregate, have a Material Adverse Effect.

(p) There are no costs or liabilities associated with Environmental Laws (including, without limitation, any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or any permit, license or approval, any related constraints on operating activities and any potential liabilities to third parties) which would, singly or in the aggregate, have a Material Adverse Effect.

(q) Except as described in the Prospectus, there are no contracts, agreements or understandings between the Company and any person granting such person the right to require the Company to file a registration statement under the Securities Act with respect to any securities of the Company or to require the Company to include such securities with the Shares registered pursuant to the Registration Statement. All of such rights have been waived with respect to the Registration Statement and the transactions contemplated hereunder.

(r) There are no contracts, other documents or other agreements required to be described in the Registration Statement or to be filed as exhibits to the Registration Statement by the Securities Act or by the rules and regulations thereunder which have not been described or filed as required.

(s) Neither the Company nor any of its subsidiaries, nor any director or officer, nor, to the Company's knowledge, any affiliate, employee, agent or representative of the Company or of any of its subsidiaries or affiliates, has taken or will take any action in furtherance of an offer, payment, promise to pay, or authorization or approval of the payment or giving of money, property, gifts or anything else of value, directly or indirectly, to any "government official" (including any officer or employee of a government or government-owned or controlled entity or of a public international organization, or any person acting in an official capacity for or on behalf of any of the foregoing, or any political party or party official or candidate for political office) to influence official action or secure an improper advantage; and the Company and its subsidiaries and affiliates have conducted their businesses in compliance with applicable anti-corruption laws and have instituted and maintain and will continue to maintain policies and procedures designed to promote and achieve compliance with such laws and with the representation and warranty contained herein.

(t) The Company has good and marketable title in fee simple to all real property and good and marketable title to all personal property owned by it which is material to the business of the Company, in each case free and clear of all liens, encumbrances and defects except such as are described in the Time of Sale Prospectus or such as do not materially affect the value of such property and do not interfere in any material respect with the use made and currently proposed to be made of such property by the Company; and any real property and buildings held under lease by the Company or of its subsidiaries are held by them under valid, subsisting and enforceable leases with such exceptions as are not material and do not interfere in any material respect with the use made and currently proposed to be made of such property and buildings by the Company, in each case except as described in the Time of Sale Prospectus.

(u) Except as described in the Time of Sale Prospectus, (i) the Company and its subsidiaries own, possess, or have valid, binding and enforceable licenses or other rights to use the patents, patent rights and patent applications, copyrights, trademarks, service marks, trade names, Internet domain

names, technology, confidential information, software, know-how, (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures) and other intellectual property and proprietary rights necessary or used in connection with the conduct of their business in the manner in which it is presently being conducted and in the manner set forth in the Time of Sale Prospectus (collectively, the “**Company Intellectual Property**”), except as would not reasonably be expected to result in a Material Adverse Effect, and to the extent that the Company Intellectual Property is not sufficient to so conduct their business, including with respect to any products described in the Time of Sale Prospectus as being under development, the Company believes it can acquire such rights on reasonable terms; (ii) to the knowledge of the Company, (A) none of the patents and patent applications set forth on Appendix A (collectively, the “**Company Patents**”) owned by the Company or its subsidiaries is invalid or unenforceable and neither the Company nor any of its subsidiaries has received any challenge (including without limitation, notices of expiration) to the validity or enforceability of Company Patents from any third party or governmental authority and the Company and its subsidiaries have made all filings and paid all fees necessary to maintain any Company Patents owned by any of them, and (B) none of the Company Intellectual Property owned by the Company or its subsidiaries is invalid or unenforceable and neither the Company nor any of its subsidiaries has received any challenge (including without limitation, notices of expiration) to the validity or enforceability of Company Intellectual Property from any third party or governmental authority and the Company and its subsidiaries have made all filings and paid all fees necessary to maintain any Company Intellectual Property owned by any of them, except as would not reasonably be expected to result in a Material Adverse Effect for Company Intellectual Property other than Company Patents; (iii) the Company and its subsidiaries have taken reasonable measures necessary to secure their interests in Company Intellectual Property, including the confidentiality of all trade secrets and confidential information which constitutes Company Intellectual Property, and to secure assignment of Company Intellectual Property from its employees and contractors; (iv) the Company is not aware of any Company Intellectual Property required to be described in the Time of Sale Prospectus; (v) neither the Company nor any of its subsidiaries has received any claim of infringement or misappropriation of (and the Company does not know of any infringement or misappropriation of) intellectual property rights of others by the Company or any of its subsidiaries (A) with respect to the Company Patents or (B) with respect to the Company Intellectual Property, except as would not reasonably be expected to result in a Material Adverse Effect for Company Intellectual Property other than Company Patents; (vi) the Company and its subsidiaries are not in breach of, and have complied with all terms of, any license or other agreement relating to any Company Intellectual Property, and no party to any such agreement has given the Company or its subsidiaries notice of its intention to cancel, terminate, alter the scope of rights under or fail to renew any such agreement, except as would not reasonably be expected to result in a

Material Adverse Effect; and (vii) no suit or other proceeding is pending against the Company or any of its subsidiaries concerning any agreement concerning the Company Intellectual Property, including any proceeding concerning a claim that the Company or its subsidiaries or another person has breached any such agreement.

(v) All patent applications owned by the Company and filed with the PTO or any foreign or international patent authority (the “Company Patent Applications”) have been duly and properly filed; the Company has complied with its duty of candor and disclosure to the PTO for the Company Patent Applications; the Company is not aware of any facts required to be disclosed to the PTO that were not disclosed to the PTO and which would preclude the grant of a patent for the Company Patent Applications; and the Company has no knowledge of any facts which would preclude it from having clear title to the Company Patent Applications that have been identified by the Company as being exclusively owned by the Company.

(w) No material labor dispute with the employees of the Company exists, except as described in the Time of Sale Prospectus, or, to the knowledge of the Company, is imminent; and the Company is not aware of any existing, threatened or imminent labor disturbance by the employees of any of its principal suppliers, manufacturers or contractors that could have a Material Adverse Effect.

(x) The Company is insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary in the businesses in which it is engaged. The Company has no reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or obtain similar coverage from similar insurers as may be necessary to continue its business at a cost that would not have a Material Adverse Effect, except as described in the Time of Sale Prospectus.

(y) The Company possesses all certificates, authorizations and permits issued by the appropriate federal, state or foreign regulatory authorities necessary to conduct its business as presently conducted and in the manner set forth in the Time of Sale Prospectus, including without limitation all such certificates, authorizations and permits required by the United States Food and Drug Administration (the “FDA”) or any other federal, state or foreign agencies or bodies engaged in the regulation of pharmaceuticals or biohazardous materials, except as would not reasonably be expected to result in a Material Adverse Effect, and the Company has not received any notice of proceedings relating to the revocation or modification of any such certificate, authorization or permit which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, would have a Material Adverse Effect, except as described in the Time of Sale Prospectus.

(z) The studies, tests and preclinical and clinical trials conducted by or on behalf of the Company that are described in the Registration Statement and the Prospectus were and, if still pending, are, to the Company's knowledge, being conducted in all material respects in accordance with experimental protocols, procedures and controls pursuant to, where applicable, accepted professional and scientific standards for products or product candidates comparable to those being developed by the Company; the descriptions of the results of such studies, tests and trials contained in the Registration Statement and the Prospectus do not contain any misstatement of a material fact or omit to state a material fact necessary to make such statements not misleading; the Company has no knowledge of any studies, tests or trials not described in the Registration Statement and the Prospectus the results of which reasonably call into question in any material respect the results of the studies, tests and trials described in the Registration Statement or Prospectus; and the Company has not received any notices or correspondence from the FDA or any foreign, state or local governmental body exercising comparable authority or any Institutional Review Board or comparable authority requiring the termination, suspension or material modification of any studies, tests or preclinical or clinical trials conducted by or on behalf of the Company which termination, suspension or material modification would reasonably be expected to have a Material Adverse Effect.

(aa) Except as described in the Time of Sale Prospectus, the Company and its subsidiaries are in compliance with, and conduct their respective businesses in conformity with, all applicable federal, state and local laws and regulations, except where the failure to so comply or conform would not reasonably be expected to have a Material Adverse Effect.

(bb) Ernst & Young LLP, who have certified certain financial statements of the Company and its subsidiaries, are independent public accountants as required by the Securities Act and the rules and regulations of the Commission thereunder.

(cc) The Company maintains a system of internal accounting controls sufficient to provide reasonable assurance that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain asset accountability; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with the existing assets at reasonable intervals and appropriate action is taken with respect to any differences. Except as described in the Time of Sale Prospectus, since the end of the Company's most recent audited fiscal year, there has been (i) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (ii) no change in the Company's internal control over financial reporting that

has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(dd) Except as described in the Time of Sale Prospectus, the Company has not sold, issued or distributed any shares of Common Stock during the six-month period preceding the date hereof, including any sales pursuant to Rule 144A under, or Regulation D or S of, the Securities Act, other than (i) shares of Common Stock issued pursuant to the Underwriting Agreement, dated October 8, 2009, between the Company and Morgan Stanley & Co. Incorporated and Thomas Weisel Partners LLC, (ii) shares of Common Stock issued pursuant to a Purchase Agreement, dated October 8, 2009, and Purchase Agreement Supplement, dated October 14, 2009, between the Company and Invus, L.P., a Bermuda limited partnership ("**Invus, L.P.**"), and (iii) shares issued pursuant to employee benefit plans, qualified stock option plans or other employee compensation plans or pursuant to outstanding options, rights or warrants.

(ee) Each material contract, agreement and license to which the Company is bound is valid, binding, enforceable, and in full force and effect against the Company, and to the knowledge of the Company, each other party thereto, except as enforceability may be limited by bankruptcy and other similar laws affecting the rights of creditors generally and general principles of equity. Neither the Company nor, to the Company's knowledge, any other party is in breach or default in any material respect with respect to any such contract, agreement and license, and, to the Company's knowledge, no event has occurred which with notice or lapse of time would constitute a material breach or default, or permit termination, modification, or acceleration, under any such contract, agreement or license. To the knowledge of the Company, no party has repudiated any material provision of any such contract, agreement or license.

(ff) The operations of the Company and its subsidiaries are and have been conducted at all times in material compliance with all applicable financial recordkeeping and reporting requirements, including those of the Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of jurisdictions where the Company and its subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the "**Anti-Money Laundering Laws**"), and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Anti-Money Laundering Laws is pending or, to the best knowledge of the Company, threatened.

(gg) (i) The Company represents that neither the Company nor any of its subsidiaries (collectively, the "**Entity**") or , to the knowledge of the Entity, any

director, officer, employee, agent, affiliate or representative of the Entity, is an individual or entity (“**Person**”) that is, or is owned or controlled by a Person that is:

(A) the subject of any sanctions administered or enforced by the U.S. Department of Treasury’s Office of Foreign Assets Control (“**OFAC**”), the United Nations Security Council (“**UNSC**”), the European Union (“**EU**”), Her Majesty’s Treasury (“**HMT**”), or other relevant sanctions authority (collectively, “**Sanctions**”), nor

(B) located, organized or resident in a country or territory that is the subject of Sanctions (including, without limitation, Burma/Myanmar, Cuba, Iran, North Korea, Sudan and Syria).

(ii) The Entity represents and covenants that it will not, directly or indirectly, use the proceeds of the offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, joint venture partner or other Person:

(A) to fund or facilitate any activities or business of or with any Person or in any country or territory that, at the time of such funding or facilitation, is the subject of Sanctions; or

(B) in any other manner that will result in a violation of Sanctions by any Person (including any Person participating in the offering, whether as underwriter, advisor, investor or otherwise).

(iii) The Entity represents and covenants that for the past 5 years, it has not knowingly engaged in, is not now knowingly engaged in, and will not engage in, any dealings or transactions with any Person, or in any country or territory, that at the time of the dealing or transaction is or was the subject of Sanctions.

(hh) The offer and sale of shares of Common Stock to Invus, L.P. pursuant to the Purchase Agreement, dated March 15, 2010, between the Company and Invus, L.P., will be a valid private placement within the meaning of Section 4(2) of the Securities Act and will not require registration under the Securities Act.

2. *Agreements to Sell and Purchase.* The Company hereby agrees to sell to the several Underwriters, and each Underwriter, upon the basis of the representations and warranties herein contained, but subject to the conditions hereinafter stated, agrees, severally and not jointly, to purchase from the Company the respective numbers of Firm Shares set forth in Schedule II hereto opposite its name at the purchase price set forth in Schedule I hereto (the “**Purchase Price**”), provided, that with respect to the Stockholder Shares, the

purchase price shall be the price set forth in Schedule I hereto as the “**Stockholder Shares Purchase Price.**”

On the basis of the representations and warranties contained in this Agreement, and subject to its terms and conditions, the Company agrees to sell to the Underwriters the Additional Shares, and the Underwriters shall have the right to purchase, severally and not jointly, up to the number of Additional Shares set forth in Schedule I hereto at the Purchase Price, provided, however, that the amount paid by the Underwriters for any Additional Shares shall be reduced by an amount per share equal to any dividends declared by the Company and payable on the Firm Shares but not payable on such Additional Shares. You may exercise this right on behalf of the Underwriters in whole or from time to time in part by giving written notice of each election to exercise the option not later than 30 days after the date of the Prospectus. Any exercise notice shall specify the number of Additional Shares to be purchased by the Underwriters and the date on which such shares are to be purchased. Each purchase date must be at least one business day after the written notice is given and may not be earlier than the closing date for the Firm Shares nor later than ten business days after the date of such notice. Additional Shares may be purchased as provided in Section 4 hereof solely for the purpose of covering over-allotments made in connection with the offering of the Firm Shares. On each day, if any, that Additional Shares are to be purchased (an “**Option Closing Date**”), each Underwriter agrees, severally and not jointly, to purchase the number of Additional Shares (subject to such adjustments to eliminate fractional shares as you may determine) that bears the same proportion to the total number of Additional Shares to be purchased on such Option Closing Date as the number of Firm Shares set forth in Schedule II hereto opposite the name of such Underwriter bears to the total number of Firm Shares.

3. *Public Offering.* The Company is advised by you that the Underwriters propose to make a public offering of their respective portions of the Shares as soon after the Registration Statement and this Agreement have become effective as in your judgment is advisable. The Company is further advised by you that the Shares are to be offered to the public upon the terms set forth in the Prospectus.

4. *Payment and Delivery.* Payment for the Firm Shares shall be made to the Company by wire transfer of immediately available funds on the closing date and time set forth in Schedule I hereto, or at such other time on the same or such other date, not later than the fifth business day thereafter, as may be designated in writing by you. The time and date of such payment are hereinafter referred to as the “**Closing Date.**”

Payment for any Additional Shares shall be made to the Company in Federal or other funds immediately available by wire transfer of immediately available funds on the date specified in the corresponding notice described in Section 2 or at such other time on the same or on such other date, in any event not

later than the tenth business day thereafter, as may be designated in writing by you.

The Firm Shares and the Additional Shares shall be registered in such names and in such denominations as you shall request in writing not later than one full business day prior to the Closing Date or the applicable Option Closing Date, as the case may be, for the respective accounts of the several Underwriters, with any transfer taxes payable in connection with the transfer of the Shares to the Underwriters duly paid, against payment of the Purchase Price or the Stockholder Shares Purchase Price, as the case may be, therefor.

5. *Conditions to the Underwriters' Obligations.* The several obligations of the Underwriters are subject to the following conditions:

(a) Subsequent to the execution and delivery of this Agreement and prior to the Closing Date, there shall not have occurred any change, or any development involving a prospective change, in the condition, financial or otherwise, or in the earnings, business or operations of the Company and its subsidiaries, taken as a whole, from that set forth in the Time of Sale Prospectus as of the date of this Agreement that, in your judgment, is material and adverse and that makes it, in your judgment, impracticable to market the Shares on the terms and in the manner contemplated in the Time of Sale Prospectus.

(b) The Underwriters shall have received on the Closing Date a certificate, dated the Closing Date and signed by an executive officer of the Company, to the effect that the representations and warranties of the Company contained in this Agreement are true and correct as of the Closing Date and that the Company has complied with all of the agreements and satisfied all of the conditions on its part to be performed or satisfied hereunder on or before the Closing Date.

The officer signing and delivering such certificate may rely upon the best of his or her knowledge as to proceedings threatened.

(c) The Underwriters shall have received on the Closing Date an opinion of Vinson & Elkins, L.L.P., outside counsel for the Company, dated the Closing Date, in form and substance acceptable to the Underwriters.

(d) The Underwriters shall have received on the Closing Date an opinion of Jeffrey L. Wade, Executive Vice President and General Counsel of the Company, dated the Closing Date, in form and substance acceptable to the Underwriters.

(e) The Underwriters shall have received on the Closing Date an opinion of Max Bachrach, Ph.D., Associate General Counsel, Patents, of the

Company, dated the Closing Date, in form and substance acceptable to the Underwriters.

(f) The Underwriters shall have received on the Closing Date an opinion of Ropes & Gray LLP, counsel for the Underwriters, dated the Closing Date, in form and substance acceptable to the Underwriters.

(g) The Underwriters shall have received, on each of the date hereof and the Closing Date, a letter dated the date hereof or the Closing Date, as the case may be, in form and substance satisfactory to the Underwriters, from Ernst & Young LLP, independent public accountants, containing statements and information of the type ordinarily included in accountants' "comfort letters" to underwriters with respect to the financial statements and certain financial information contained in, or incorporated by reference into, the Registration Statement, the Time of Sale Prospectus and the Prospectus; *provided* that the letter delivered on the Closing Date shall use a "cut-off date" not earlier than the date hereof.

(h) At the Closing Date, the Company shall have used its best efforts to list the Shares on the NASDAQ Global Market.

(i) Payment for 59,296,749 shares of Common Stock offered and sold by the Company to Invus, L.P., at the price to the public, as described in the Time of Sale Prospectus, shall have been received by the Company, and such shares shall have been registered in the name of Invus, L.P.

(j) The "lock-up" agreements, each substantially in the form of Exhibit A hereto, between you and certain shareholders, officers and directors of the Company relating to sales and certain other dispositions of shares of Common Stock or certain other securities, delivered to you on or before the date hereof, shall be in full force and effect on the Closing Date.

The several obligations of the Underwriters to purchase Additional Shares hereunder are subject to the delivery to you on the applicable Option Closing Date of such documents as you may reasonably request with respect to the good standing of the Company, the due authorization and issuance of the Additional Shares to be sold on such Option Closing Date and other matters related to the issuance of such Additional Shares.

6. *Covenants of the Company.* The Company covenants with each Underwriter as follows:

(a) To furnish to you, without charge, a signed copy of the Registration Statement (including exhibits thereto and documents incorporated by reference therein) and to deliver to each of the Underwriters during the period mentioned in Section 6(e) or 6(f) below, as many copies of the Time of Sale

Prospectus, the Prospectus, any documents incorporated by reference therein and any supplements and amendments thereto or to the Registration Statement as you may reasonably request.

(b) Before amending or supplementing the Registration Statement, the Time of Sale Prospectus or the Prospectus, to furnish to you a copy of each such proposed amendment or supplement and not to file any such proposed amendment or supplement to which you reasonably object unless advised in writing by outside counsel reasonably acceptable to you that the filing of such amendment or supplement is required by law, and to file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(c) To furnish to you a copy of each proposed free writing prospectus to be prepared by or on behalf of, used by, or referred to by the Company and not to use or refer to any proposed free writing prospectus to which you reasonably object.

(d) Not to take, without the prior written consent of the Underwriters, which consent will not be unreasonably withheld, any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of the Underwriter that the Underwriter otherwise would not have been required to file thereunder.

(e) If the Time of Sale Prospectus is being used to solicit offers to buy the Shares at a time when the Prospectus is not yet available to prospective purchasers and any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Time of Sale Prospectus in order to make the statements therein, in the light of the circumstances, not misleading, or if any event shall occur or condition exist as a result of which the Time of Sale Prospectus conflicts with the information contained in the Registration Statement then on file, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Time of Sale Prospectus to comply with applicable law, forthwith to prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, either amendments or supplements to the Time of Sale Prospectus so that the statements in the Time of Sale Prospectus as so amended or supplemented will not, in the light of the circumstances when the Time of Sale Prospectus is delivered to a prospective purchaser, be misleading or so that the Time of Sale Prospectus, as amended or supplemented, will no longer conflict with the Registration Statement, or so that the Time of Sale Prospectus, as amended or supplemented, will comply with applicable law.

(f) If, during such period after the first date of the public offering of the Shares as in the opinion of counsel for the Underwriters the Prospectus (or in

lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is required by law to be delivered in connection with sales by an Underwriter or dealer, any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus in order to make the statements therein, in the light of the circumstances when the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is delivered to a purchaser, not misleading, or if, in the opinion of counsel for the Underwriters, it is necessary to amend or supplement the Prospectus to comply with applicable law, forthwith to prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to the dealers (whose names and addresses you will furnish to the Company) to which Shares may have been sold by you on behalf of the Underwriters and to any other dealers upon request, either amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not, in the light of the circumstances when the Prospectus (or in lieu thereof the notice referred to in Rule 173(a) of the Securities Act) is delivered to a purchaser, be misleading or so that the Prospectus, as amended or supplemented, will comply with applicable law.

(g) To endeavor to qualify the Shares for offer and sale under the securities or Blue Sky laws of such jurisdictions as you shall reasonably request.

(h) To make generally available to the Company's security holders and to you as soon as practicable an earning statement covering a period of at least twelve months beginning with the first fiscal quarter of the Company occurring after the date of this Agreement which shall satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder.

(i) Whether or not the transactions contemplated in this Agreement are consummated or this Agreement is terminated, to pay or cause to be paid all expenses incident to the performance of its obligations under this Agreement, including: (i) the fees, disbursements and expenses of the Company's counsel and the Company's accountants in connection with the registration and delivery of the Shares under the Securities Act and all other fees or expenses in connection with the preparation and filing of the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, the Prospectus, any free writing prospectus prepared by or on behalf of, used by, or referred to by the Company and amendments and supplements to any of the foregoing, including the filing fees payable to the Commission relating to the Shares (within the time required by Rule 456 (b)(1), if applicable), all printing costs associated therewith, and the mailing and delivering of copies thereof to the Underwriters and dealers, in the quantities hereinabove specified, (ii) all costs and expenses related to the transfer and delivery of the Shares to the Underwriters, including any transfer or other taxes payable thereon, (iii) the cost of printing or producing any Blue Sky or Legal Investment memorandum in connection with the offer and sale of the Shares under state securities laws and all expenses in connection with the

qualification of the Shares for offer and sale under state securities laws as provided in Section 6(g) hereof, including filing fees and the reasonable fees and disbursements of counsel for the Underwriters in connection with such qualification and in connection with the Blue Sky or Legal Investment memorandum, (iv) all filing fees and the reasonable fees and disbursements of counsel to the Underwriters incurred in connection with the review and qualification of the offering of the Shares by FINRA, all costs and expenses incident to listing the Shares on the NASDAQ Global Market, (v) the cost of printing certificates representing the Shares, (vi) the costs and charges of any transfer agent, registrar or depository, (vii) the costs and expenses of the Company relating to investor presentations on any "road show" undertaken in connection with the marketing of the offering of the Shares, including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, travel and lodging expenses of the representatives and officers of the Company and any such consultants, and the cost of any aircraft chartered in connection with the road show, (viii) the document production charges and expenses associated with printing this Agreement and (ix) all other costs and expenses incident to the performance of the obligations of the Company hereunder for which provision is not otherwise made in this Section. It is understood, however, that except as provided in this Section, Section 8 entitled "Indemnity and Contribution" and the last paragraph of Section 10 below, the Underwriters will pay all of their costs and expenses, including fees and disbursements of their counsel, stock transfer taxes payable on resale of any of the Shares by them and any advertising expenses connected with any offers they may make.

(j) If the third anniversary of the initial effective date of the Registration Statement occurs before all the Shares have been sold by the Underwriters, prior to the third anniversary to file a new shelf registration statement and to take any other action necessary to permit the public offering of the Shares to continue without interruption; references herein to the Registration Statement shall include the new registration statement declared effective by the Commission;

(k) To prepare a final term sheet relating to the offering of the Shares, containing only information that describes the final terms of the offering in a form consented to by the Managers, and to file such final term sheet within the period required by Rule 433(d)(5)(ii) under the Securities Act following the date the final terms have been established for the offering of the Shares.

The Company also covenants with each Underwriter that, without the prior written consent of each of the Managers identified in Schedule I with the authorization to release this lock-up on behalf of the Underwriters, it will not, during the restricted period set forth in Schedule I hereto, (1) offer, pledge, sell,

contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise or (3) file any registration statement with the Commission relating to the offering of any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock. The foregoing sentence shall not apply to (a) the Shares to be sold hereunder, (b) the shares of Common Stock to be offered and sold by the Company to Invus, L.P., at the price to the public, as described in the Time of Sale Prospectus, provided, such offer and sale is not for more than Invus, L.P.'s pro rata portion of the public offering as described in the Time of Sale Prospectus, (c) the issuance by the Company of shares of Common Stock upon the exercise of an option or warrant or the conversion of a security outstanding on the date hereof of which the Underwriters have been advised in writing, (d) the grant by the Company of options to purchase shares of Common Stock under the Company's Equity Incentive Plan as in effect on the date hereof or the Company's Non-Employee Directors' Stock Option Plan as in effect on the date hereof, or (e) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of Common Stock, *provided* that such plan does not provide for the transfer of Common Stock during the 90-day restricted period, except as otherwise permitted herein, and no public announcement or filing under the Exchange Act regarding the establishment of such plan shall be required of or voluntarily made by or on behalf of the Company. Notwithstanding the foregoing, if (1) during the last 17 days of the 90-day restricted period the Company issues an earnings release or material news or a material event relating to the Company occurs; or (2) prior to the expiration of the 90-day restricted period, the Company announces that it will release earnings results during the 16-day period beginning on the last day of the 90-day period, the restrictions imposed by this agreement shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event. The Company shall promptly notify the Managers of any earnings release, news or event that may give rise to an extension of the initial 90-day restricted period.

7. *Covenants of the Underwriters.* Each Underwriter severally covenants with the Company not to take any action that would result in the Company being required to file with the Commission under Rule 433(d) a free writing prospectus prepared by or on behalf of such Underwriter that otherwise would not be required to be filed by the Company thereunder, but for the action of the Underwriter.

8. *Indemnity and Contribution.* (a) The Company agrees to indemnify and hold harmless each Underwriter, each person, if any, who controls any Underwriter within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act and each affiliate of any Underwriter within the meaning of Rule 405 under the Securities Act from and against any and all losses, claims, damages and liabilities (including, without limitation, any legal or other expenses reasonably incurred in connection with defending or investigating any such action or claim) caused by any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or any amendment thereof, any preliminary prospectus, the Time of Sale Prospectus, any issuer free writing prospectus as defined in Rule 433(h) under the Securities Act, any Company information that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act, or the Prospectus or any amendment or supplement thereto, or caused by any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, except insofar as such losses, claims, damages or liabilities are caused by any such untrue statement or omission or alleged untrue statement or omission based upon information relating to any Underwriter furnished to the Company in writing by such Underwriter through you expressly for use therein.

(b) Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, its directors, its officers who sign the Registration Statement and each person, if any, who controls the Company within the meaning of either Section 15 of the Securities Act or Section 20 of the Exchange Act to the same extent as the foregoing indemnity from the Company to such Underwriter, but only with reference to information relating to such Underwriter furnished to the Company in writing by such Underwriter through you expressly for use in the Registration Statement, any preliminary prospectus, the Time of Sale Prospectus, any issuer free writing prospectus or the Prospectus or any amendment or supplement thereto.

(c) In case any proceeding (including any governmental investigation) shall be instituted involving any person in respect of which indemnity may be sought pursuant to Section 8(a) or 8(b), such person (the “**indemnified party**”) shall promptly notify the person against whom such indemnity may be sought (the “**indemnifying party**”) in writing and the indemnifying party, upon request of the indemnified party, shall retain counsel reasonably satisfactory to the indemnified party to represent the indemnified party and any others the indemnifying party may designate in such proceeding and shall pay the fees and disbursements of such counsel related to such proceeding. In any such proceeding, any indemnified party shall have the right to retain its own counsel, but the fees and expenses of such counsel shall be at the expense of such indemnified party unless (i) the indemnifying party and the indemnified party shall have mutually agreed to the retention of such counsel or (ii) the named parties to any such proceeding (including any impleaded parties) include both the indemnifying party and the

indemnified party and representation of both parties by the same counsel would be inappropriate due to actual or potential differing interests between them. It is understood that the indemnifying party shall not, in respect of the legal expenses of any indemnified party in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the fees and expenses of more than one separate firm (in addition to any local counsel) for all such indemnified parties and that all such fees and expenses shall be reimbursed as they are incurred. Such firm shall be designated in writing by the Manager authorized to appoint counsel under this Section set forth in Schedule I hereto, in the case of parties indemnified pursuant to Section 8(a), and by the Company, in the case of parties indemnified pursuant to Section 8(b). The indemnifying party shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party from and against any loss or liability by reason of such settlement or judgment. Notwithstanding the foregoing sentence, if at any time an indemnified party shall have requested an indemnifying party to reimburse the indemnified party for fees and expenses of counsel as contemplated by the second and third sentences of this paragraph, the indemnifying party agrees that it shall be liable for any settlement of any proceeding effected without its written consent if (i) such settlement is entered into more than 30 days after receipt by such indemnifying party of the aforesaid request and (ii) such indemnifying party shall not have reimbursed the indemnified party in accordance with such request prior to the date of such settlement. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement of any pending or threatened proceeding in respect of which any indemnified party is or could have been a party and indemnity could have been sought hereunder by such indemnified party, unless such settlement includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such proceeding.

(d) To the extent the indemnification provided for in Section 8(a) or 8(b) is unavailable to an indemnified party or insufficient in respect of any losses, claims, damages or liabilities referred to therein, then each indemnifying party under such paragraph, in lieu of indemnifying such indemnified party thereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such losses, claims, damages or liabilities (i) in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and the Underwriters on the other hand from the offering of the Shares or (ii) if the allocation provided by clause 8(d)(i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause 8(d)(i) above but also the relative fault of the Company on the one hand and of the Underwriters on the other hand in connection with the statements or omissions that resulted in such losses, claims, damages or liabilities, as well as any other relevant equitable considerations. The relative benefits received by the Company on the one hand and the Underwriters

on the other hand in connection with the offering of the Shares shall be deemed to be in the same respective proportions as the net proceeds from the offering of the Shares (before deducting expenses) received by the Company and the total underwriting discounts and commissions received by the Underwriters bear to the aggregate initial public offering price of the Shares set forth in the Prospectus. The relative fault of the Company on the one hand and the Underwriters on the other hand shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information supplied by the Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission. The Underwriters' respective obligations to contribute pursuant to this Section 8 are several in proportion to the respective number of Shares they have purchased hereunder, and not joint.

(e) The Company and the Underwriters agree that it would not be just or equitable if contribution pursuant to this Section 8 were determined by *pro rata* allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation that does not take account of the equitable considerations referred to in Section 8(d). The amount paid or payable by an indemnified party as a result of the losses, claims, damages and liabilities referred to in Section 8(d) shall be deemed to include, subject to the limitations set forth above, any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this Section 8, no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Shares underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages that such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The remedies provided for in this Section 8 are not exclusive and shall not limit any rights or remedies which may otherwise be available to any indemnified party at law or in equity.

(f) The indemnity and contribution provisions contained in this Section 8 and the representations, warranties and other statements of the Company contained in this Agreement shall remain operative and in full force and effect regardless of (i) any termination of this Agreement, (ii) any investigation made by or on behalf of any Underwriter, any person controlling any Underwriter or any affiliate of any Underwriter or by or on behalf of the Company, its officers or directors or any person controlling the Company and (iii) acceptance of and payment for any of the Shares.

9. *Termination.* The Underwriters may terminate this Agreement by notice given by you to the Company, if after the execution and delivery of this Agreement and prior to the Closing Date (i) trading generally shall have been suspended or materially limited on, or by, as the case may be, either of the New York Stock Exchange or the NASDAQ Global Market, (ii) trading of any securities of the Company shall have been suspended on any exchange or in any over-the-counter market, (iii) a material disruption in securities settlement, payment or clearance services in the United States shall have occurred, (iv) any moratorium on commercial banking activities shall have been declared by Federal or New York State authorities or (v) there shall have occurred any outbreak or escalation of hostilities, or any change in financial markets or any calamity or crisis that, in your judgment, is material and adverse and which, singly or together with any other event specified in this clause (v), makes it, in your judgment, impracticable or inadvisable to proceed with the offer, sale or delivery of the Shares on the terms and in the manner contemplated in the Time of Sale Prospectus or the Prospectus.

10. *Effectiveness; Defaulting Underwriters.* This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

If, on the Closing Date or an Option Closing Date, as the case may be, any one or more of the Underwriters shall fail or refuse to purchase Shares that it has or they have agreed to purchase hereunder on such date, and the aggregate number of Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase is not more than one-tenth of the aggregate number of the Shares to be purchased on such date, the other Underwriters shall be obligated severally in the proportions that the number of Firm Shares set forth opposite their respective names in Schedule II bears to the aggregate number of Firm Shares set forth opposite the names of all such non-defaulting Underwriters, or in such other proportions as you may specify, to purchase the Shares which such defaulting Underwriter or Underwriters agreed but failed or refused to purchase on such date; *provided* that in no event shall the number of Shares that any Underwriter has agreed to purchase pursuant to this Agreement be increased pursuant to this Section 10 by an amount in excess of one-ninth of such number of Shares without the written consent of such Underwriter. If, on the Closing Date, any Underwriter or Underwriters shall fail or refuse to purchase Firm Shares and the aggregate number of Firm Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Firm Shares to be purchased on such date, and arrangements satisfactory to you and the Company for the purchase of such Firm Shares are not made within 36 hours after such default, this Agreement shall terminate without liability on the part of any non-defaulting Underwriter or the Company. In any such case either you or the Company shall have the right to postpone the Closing Date, but in no event for longer than seven days, in order that the required changes, if any, in the Registration Statement, in the Time of Sale Prospectus, in the Prospectus or in any other documents or arrangements may be effected. If, on an Option Closing Date, any Underwriter or

Underwriters shall fail or refuse to purchase Additional Shares and the aggregate number of Additional Shares with respect to which such default occurs is more than one-tenth of the aggregate number of Additional Shares to be purchased on such Option Closing Date, the non-defaulting Underwriters shall have the option to (i) terminate their obligation hereunder to purchase the Additional Shares to be sold on such Option Closing Date or (ii) purchase not less than the number of Additional Shares that such non-defaulting Underwriters would have been obligated to purchase in the absence of such default. Any action taken under this paragraph shall not relieve any defaulting Underwriter from liability in respect of any default of such Underwriter under this Agreement.

If this Agreement shall be terminated by the Underwriters, or any of them, because of any failure or refusal on the part of the Company to comply with the terms or to fulfill any of the conditions of this Agreement, or if for any reason the Company shall be unable to perform its obligations under this Agreement, the Company will reimburse the Underwriters or such Underwriters as have so terminated this Agreement with respect to themselves, severally, for all out-of-pocket expenses (including the fees and disbursements of their counsel) reasonably incurred by such Underwriters in connection with this Agreement or the offering contemplated hereunder.

11. *Entire Agreement.* (a) This Agreement, together with any contemporaneous written agreements and any prior written agreements (to the extent not superseded by this Agreement) that relate to the offering of the Shares, represents the entire agreement between the Company and the Underwriters with respect to the preparation of any preliminary prospectus, the Time of Sale Prospectus, the Prospectus, the conduct of the offering, and the purchase and sale of the Shares.

(b) The Company acknowledges that in connection with the offering of the Shares: (i) the Underwriters have acted at arms length, are not agents of, and owe no fiduciary duties to, the Company or any other person, (ii) the Underwriters owe the Company only those duties and obligations set forth in this Agreement and prior written agreements (to the extent not superseded by this Agreement), if any, and (iii) the Underwriters may have interests that differ from those of the Company. The Company waives to the full extent permitted by applicable law any claims it may have against the Underwriters arising from an alleged breach of fiduciary duty in connection with the offering of the Shares.

12. *Counterparts.* This Agreement may be signed in two or more counterparts, each of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument.

13. *Applicable Law.* This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York.

14. *Headings.* The headings of the sections of this Agreement have been inserted for convenience of reference only and shall not be deemed a part of this Agreement.

15. *Notices.* All communications hereunder shall be in writing and effective only upon receipt and if to the Underwriters shall be delivered, mailed or sent to you at the address set forth in Schedule I hereto; and if to the Company shall be delivered, mailed or sent to the address set forth in Schedule I hereto.

Very truly yours,

Lexicon Pharmaceuticals, Inc.

By: /s/ Arthur T. Sands

Name:

Title:

Accepted as of the date hereof

Morgan Stanley & Co. Incorporated
J.P. Morgan Securities Inc.

Acting severally on behalf of themselves
and the several Underwriters named
in Schedule II hereto.

By: Morgan Stanley & Co. Incorporated

By: /s/ Ashwin A. Pai

Name: Ashwin A. Pai

Title: Vice President

By: J.P. Morgan Securities Inc.

By: /s/ Victoria Aparece

Name: Victoria Aparece

Title: Vice President

Managers:	
Managers authorized to release lock-up under Section 6:	Morgan Stanley & Co. Incorporated J.P. Morgan Securities Inc.
Manager authorized to appoint counsel under Section 8(c):	Morgan Stanley & Co. Incorporated
Registration Statement File No.:	333-161696
Time of Sale Prospectus	<ol style="list-style-type: none"> 1. Prospectus dated September 18, 2009 relating to the Shelf Shares 2. the preliminary prospectus supplement dated March 8, 2010 relating to the Shares 3. the issuer free writing prospectus attached as Exhibit B
Lock-up Restricted Period:	90 days
Title of Shares to be purchased:	Common Stock, par value \$0.001 per share
Number of Firm Shares (including the Stockholder Shares):	87,717,391
Number of Stockholder Shares:	29,021,739
Number of Additional Shares:	8,804,348
Purchase Price (which shall not apply to the Stockholder Shares):	\$1.08675 a share
Stockholder Shares Purchase Price:	\$1.15 a share
Initial Public Offering Price:	\$1.15 a share
Selling Concession (which shall not apply to the Stockholder Shares):	\$0.03795 a share

Closing Date and Time:

March 19, 2010 10:00 a.m.

Closing Location:

Vinson & Elkins L.L.P.
First City Tower
101 Fannin Street, Suite 2500
Houston, Texas 77002-6760

Address for Notices to Underwriters:

Morgan Stanley & Co. Incorporated
J.P. Morgan Securities Inc.
Thomas Weisel Partners LLC
Cowen and Company, LLC

c/o Morgan Stanley & Co. Incorporated
1585 Broadway
New York, NY 10036

c/o J.P. Morgan Securities Inc.
383 Madison Avenue
New York, NY 10179
Attention: Equity Syndicate
Desk, 4th Floor

With a copy to:

Ropes & Gray LLP
Attention: Patrick O'Brien
One International Place
Boston, MA 02110

Address for Notices to the Company:

Lexicon Pharmaceuticals, Inc.
Attention: Jeff Wade
8800 Technology Forest Place
The Woodlands, TX 77381

SCHEDULE II

Underwriter	Number of Stockholder Shares To Be Purchased	Number of Firm Shares To Be Purchased (excluding Stockholder Shares)	Total Number of Firm Shares
Morgan Stanley & Co. Incorporated	13,059,783	26,413,043	39,472,826
J.P. Morgan Securities Inc.	10,157,609	20,543,478	30,701,087
Thomas Weisel Partners LLC	1,451,087	2,934,783	4,385,870
Cowen and Company, LLC	4,353,260	8,804,348	13,157,608
Total:	<u>29,021,739</u>	<u>58,695,652</u>	<u>87,717,391</u>

LOCK-UP LETTER

March 8, 2010

Morgan Stanley & Co. Incorporated
J.P. Morgan Securities Inc.
As Managers of the
several Underwriters listed
in Schedule II to the Underwriting
Agreement referred to below

c/o Morgan Stanley & Co. Incorporated
1585 Broadway
New York, NY 10036

c/o J.P. Morgan Securities Inc.
383 Madison Avenue
New York, NY 10179

Ladies and Gentlemen:

The undersigned understands that Morgan Stanley & Co. Incorporated (“**Morgan Stanley**”) and J.P. Morgan Securities Inc. (“**J.P. Morgan**”) propose to enter into an Underwriting Agreement (the “**Underwriting Agreement**”) with Lexicon Pharmaceuticals, Inc., a Delaware corporation (the “**Company**”), providing for the public offering (the “**Public Offering**”) by the several Underwriters, including Morgan Stanley and J.P. Morgan (the “**Underwriters**”), of shares (the “**Shares**”) of the common stock, par value \$0.001 per share, of the Company (the “**Common Stock**”).

To induce the Underwriters that may participate in the Public Offering to continue their efforts in connection with the Public Offering, the undersigned hereby agrees that, without the prior written consent of Morgan Stanley and J.P. Morgan on behalf of the Underwriters, it will not, during the period commencing on the date hereof and ending 90 days after the date of the final prospectus supplement relating to the Public Offering (the “**Prospectus**”), (1) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock beneficially owned (as such term is used in Rule 13d-3 of the Securities

Exchange Act of 1934, as amended (the “**Exchange Act**”), by the undersigned or any other securities so owned convertible into or exercisable or exchangeable for Common Stock or (2) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise. The foregoing sentence shall not apply to (a) transactions relating to shares of Common Stock or other securities acquired in open market transactions after the completion of the Public Offering, provided that no filing under Section 16(a) of the Exchange Act, shall be required or shall be voluntarily made in connection with subsequent sales of Common Stock or other securities acquired in such open market transactions, (b) any surrender of shares of Common Stock (or options to purchase shares of Common Stock) to the Company by the undersigned in satisfaction of (i) any federal, state or local taxes required by law to be withheld with respect to the vesting of shares of Common Stock or the exercise of stock options to purchase Common Stock and/or (ii) the exercise price payable to the Company with respect to the exercise of stock options to purchase Common Stock, in each case granted under a stock incentive plan or stock purchase plan of the Company described in the Prospectus or any document incorporated by reference therein and in accordance with the terms of any such instrument as in effect on or before the date hereof, (c) transfers of shares of Common Stock or any security convertible into Common Stock as a bona fide gift, (d) distributions of shares of Common Stock or any security convertible into Common Stock to limited partners or stockholders of the undersigned, (e) transfers to immediate family of the undersigned, to a trust all of the beneficiaries of which are the undersigned and/or members of his or her immediate family or to a corporation, partnership, limited partnership or limited liability company all of the stockholders, partners and members of which are the undersigned and/or members of his or her immediate family, in each case for estate planning purposes; *provided* that (i) in the case of any transfer or distribution pursuant to clause (c) — (e) each donee or distributee shall sign and deliver a lock-up letter substantially in the form of this letter and (ii) in the case of any surrender, transfer or distribution pursuant to clause (b) — (e), no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of Common Stock, shall be required or shall be voluntarily made during the restricted period referred to in the foregoing sentence, or (f) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of Common Stock, *provided* that such plan does not provide for the transfer of Common Stock during the restricted period, except as otherwise permitted herein, and no public announcement or filing under the Exchange Act regarding the establishment of such plan shall be required of or voluntarily made by or on behalf of the undersigned or the Company. For purposes of this agreement, “immediate family” shall mean spouse, lineal descendant, father, mother, brother or sister of the transferor.

In addition, the undersigned agrees that, without the prior written consent of Morgan Stanley and J.P. Morgan on behalf of the Underwriters, it will not, during the period commencing on the date hereof and ending 90 days after the date of the Prospectus, make any demand for or exercise any right with respect to, the registration of any shares of Common Stock or any security convertible into or exercisable or exchangeable for Common Stock. The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the undersigned's shares of Common Stock except in compliance with the foregoing restrictions.

If:

(1) during the last 17 days of the restricted period the Company issues an earnings release or material news or a material event relating to the Company occurs; or

(2) prior to the expiration of the restricted period, the Company announces that it will release earnings results during the 16-day period beginning on the last day of the restricted period;

the restrictions imposed by this agreement shall continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event.

The undersigned shall not engage in any transaction that may be restricted by this agreement during the 34-day period beginning on the last day of the initial restricted period unless the undersigned requests and receives prior written confirmation from the Company or Morgan Stanley and J.P. Morgan that the restrictions imposed by this agreement have expired.

The undersigned understands that the Company and the Underwriters are relying upon this agreement in proceeding toward consummation of the Public Offering. The undersigned further understands that this agreement is irrevocable and shall be binding upon the undersigned's heirs, legal representatives, successors and assigns.

Notwithstanding the foregoing, this agreement shall terminate and have no further force or effect if the Public Offering is not consummated by March 31, 2010.

Whether or not the Public Offering actually occurs depends on a number of factors, including market conditions. Any Public Offering will only be made pursuant to an Underwriting Agreement, the terms of which are subject to negotiation between the Company and the Underwriters.

Very truly yours,

(Name)

(Address)

Lexicon Pharmaceuticals, Inc.
\$100,875,000
87,717,391 Shares of Common Stock

Issuer:	Lexicon Pharmaceuticals, Inc.
Symbol:	LXRX
Size:	\$100,875,000
Total Shares Offered:	87,717,391 Shares of Common Stock
Greenshoe Offered by Issuer:	8,804,348 Shares of Common Stock
Price to Public:	\$1.15 per share
Trade Date:	March 15, 2010
Closing Date:	March 19, 2010
CUSIP No:	528872104
Underwriters:	Morgan Stanley & Co. Incorporated J.P. Morgan Securities Inc. Cowen and Company, LLC Thomas Weisel Partners LLC

Invus Participation

To maintain its pro rata ownership of the common stock of Lexicon Pharmaceuticals, Inc., Invus, L.P., the largest shareholder of Lexicon, has agreed to separately purchase in a concurrent private placement 59,296,749 shares of common stock offered directly from Lexicon at the per share price to the public set forth above for proceeds to Lexicon of \$68,191,261. Additionally, an affiliate of Invus has agreed to purchase from the underwriters 29,021,739 shares of the 87,717,391 shares of common stock offered pursuant to this offering at the per share price to the public set forth above.

To the extent the underwriters exercise their over-allotment option, Invus will have the right to purchase up to an aggregate of 5,951,718 additional shares of common stock pursuant to Invus' right to purchase shares sufficient to maintain its pro rata ownership of Lexicon's common stock.

Following completion of this offering Invus and its affiliated entities will own approximately 49.3% of the outstanding shares of Lexicon's common stock, or 48.9% if the underwriters exercise their over-allotment option in full and Invus exercises its right to purchase additional shares sufficient to maintain its pro rata ownership of Lexicon's common stock.

Net Proceeds

Total net proceeds to Lexicon from this offering and the Invus private placement will be approximately \$164,953,761 following the deduction of underwriting discounts and commissions and estimated expenses payable by Lexicon, or \$181,366,361 if the

underwriters exercise their over-allotment option in full and Invus exercises its right to purchase additional shares sufficient to maintain its pro rata ownership of Lexicon's common stock.

Dilution

New investors purchasing shares of common stock in this offering will experience immediate dilution in net tangible book value of \$0.21 per share.

Supplements to Agreements with Invus

In connection with this offering and the concurrent private placement, Lexicon entered into an agreement with Invus and its affiliate supplementing the terms of the transaction agreements between Lexicon and Invus, including the securities purchase and stockholders' agreements with Invus, dated June 17, 2007, in the case of the securities purchase agreement, as previously amended.

The supplement to these transaction agreements:

- Extends the period during which Invus may exercise its right to require Lexicon to conduct the first rights offering under the securities purchase agreement from one year beginning on November 28, 2009 to fifteen months following November 28, 2009.
- Provides that the 29,021,739 shares of common stock purchased from the underwriters in this offering by Invus and its affiliates will not be restricted shares under the stockholders' agreement. As a result, the shares will not be subject to the voting restrictions in the stockholders agreement and will be included in determining whether Invus exceeds the 50% ownership threshold with respect to our common stock under the stockholders agreement, thereby terminating certain rights thereunder.
- Reduces the maximum amount of the first and second rights offerings under the securities purchase agreement by the net proceeds to Lexicon from this offering and the concurrent private placement, or by approximately \$165.0 million. Pursuant to the securities purchase agreement prior to giving effect to the supplement, Invus had the right to require Lexicon to initiate the first rights offering to all of Lexicon's stockholders in an aggregate amount to be designated by Invus not to exceed approximately \$172.3 million. As a result, after giving effect to the supplement, the maximum amount subject to the first rights offering will not exceed approximately \$7.3 million.

* * * * *

The issuer has filed a registration statement (including a prospectus) with the SEC for the offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and other documents the issuer has filed with the SEC for more complete information about the issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC Web site at www.sec.gov. Alternatively, the issuer, any underwriter or any dealer participating in the offering will arrange to send you the prospectus if you request it by calling toll-free 1-(866) 718-1649, or by emailing prospectus@morganstanley.com.

COMPANY PATENTS

A-1

[Vinson & Elkins L.L.P. Letterhead]

March 15, 2010

Lexicon Pharmaceuticals, Inc.
8800 Technology Forest Place
The Woodlands, Texas 77381

Ladies and Gentlemen:

We have acted as counsel for Lexicon Pharmaceuticals, Inc., a Delaware corporation (the "Company"), in connection with the preparation of the prospectus dated September 18, 2009 (the "Prospectus") and the prospectus supplement dated March 15, 2010 (the "Prospectus Supplement") with respect to the Registration Statement on Form S-3 (Registration No. 333-161696) (the "Registration Statement") filed by the Company with the Securities and Exchange Commission (the "Commission") under the Securities Act of 1933, as amended (the "Securities Act"), relating to the issuance and sale of up to 96,521,739 shares of the Company's common stock, par value \$0.001 per share (the "Shares"). The Shares are being offered, issued and sold pursuant to an Underwriting Agreement, dated March 15, 2010, by and among the Company and the several underwriters named therein (the "Underwriting Agreement").

In our capacity as your counsel for the matter referred to above, we have examined (i) the Registration Statement; (ii) the Prospectus; (iii) the Prospectus Supplement; (iv) the Company's Restated Certificate of Incorporation, dated April 5, 2000, as amended to the date hereof; (v) the Underwriting Agreement; (vi) resolutions of the Board of Directors of the Company dated March 3, 2010 and the pricing committee thereof dated March 15, 2010; and (vii) such statutes, including the Delaware General Corporation Law, corporate records, documents, certificates of public officials and other instruments and documents as we deemed necessary or advisable for purposes of this opinion. In giving such opinions, we have relied upon certificates of officers of the Company with respect to the accuracy of the material factual matters contained in such certificates. In making our examination, we have assumed the authenticity of all documents submitted to us as originals and the conformity with the original documents of all documents submitted to us as copies.

In connection with this opinion, we have assumed that the Shares will be issued and sold in the manner set forth in the Prospectus Supplement and the Underwriting Agreement.

On the basis of the foregoing, and subject to the assumptions, limitations and qualifications set forth herein, we are of the opinion that the Shares, when issued and delivered in accordance with the terms of the Underwriting Agreement, will be validly issued, fully paid and non-assessable.

The opinions expressed herein are limited in all respects to the federal laws of the United States, Constitution of the State of Delaware and the Delaware General Corporation Law, as interpreted by the courts of the State of Delaware and the United States, and we are expressing no opinion as to the effect of the laws of any other jurisdiction, domestic or foreign.

We hereby consent to references to this firm under the caption "Legal Matters" in the Prospectus Supplement and to the filing of this opinion as an exhibit to a Current Report on Form 8-K of the Company. In giving this consent, we do not admit that we are within the category of persons whose consent is required under Section 7 of the Securities Act and the rules and regulations thereunder.

Very truly yours,

/s/ Vinson & Elkins L.L.P.

PURCHASE AGREEMENT

March 15, 2010

Invus, L.P.
c/o The Invus Group, LLC
750 Lexington Avenue (30th Floor)
New York, New York 10022

Lexicon Pharmaceuticals, Inc.
8800 Technology Forest Place
The Woodlands, Texas 77381
Attn: President and Chief Executive Officer

Ladies and Gentlemen:

Reference is made to (a) the Stockholders' Agreement, dated as of June 17, 2007 (as amended, supplemented or otherwise modified, the "Stockholders' Agreement"), by and between Invus, L.P. (the "Investor") and Lexicon Pharmaceuticals, Inc. (the "Company"), (b) the Supplement to Transaction Agreements, dated as of March 15, 2010 (the "Supplement"), amending and/or supplementing the Stockholders' Agreement, the Securities Purchase Agreement, dated as of June 17, 2007, by and between the Investor and the Company (as amended, supplemented or otherwise modified, the "Securities Purchase Agreement") and the Registration Rights Agreement, dated as of June 17, 2007, by and between the Investor and the Company, and (c) that certain Underwriting Agreement being entered into by the Company with the representatives of the underwriters concurrently with this Purchase Agreement (the "Underwriting Agreement") providing for the issuance by the Company to the underwriters of 87,717,391 shares of Company Common Stock (the "Firm Shares"), without giving effect to any exercise of the underwriters' over-allotment option, for sale in a public offering at a price to the public of \$1.15 per share (the "Price to Public"). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Stockholders' Agreement.

Pursuant to Section 4.02 of the Stockholders' Agreement and Section 5 of the Supplement, on the terms and subject to the conditions set forth herein, the Investor hereby agrees to purchase from the Company the number of shares specified below (collectively, the "Invus Shares") of Company Common Stock at a price per share equal to the Price to Public, for the total purchase price specified below:

Number of shares to be purchased by the Investor: 59,296,749 shares of Company Common Stock

Total Purchase Price: \$ 68,191,261.35

The Company hereby represents and warrants to and agrees with the Investor to all the same representations and warranties contained in Section 1 and the covenants contained in

Section 6 (other than the last paragraph thereof) of the Underwriting Agreement mutatis mutandis to the same extent as if such representations and warranties and covenants were set forth herein for the benefit of the Investor instead of the underwriters party to the Underwriting Agreement (except that references to the Underwriting Agreement therein shall be references to this Agreement and references to the Shares thereunder shall be references to the Invus Shares). The obligation of the Investor to purchase the Invus Shares from the Company, and of the Company to sell the Invus Shares to the Investor, will be subject to (i) the satisfaction of the conditions set forth in Section 5 of the Underwriting Agreement (other than clauses (i) and (j) thereunder) and the concurrent closing of the sale of the Firm Shares under the terms set forth in the Underwriting Agreement, (ii) the delivery to the Investor of opinions of counsel to the Company by the same counsel as set forth in Sections 5(c), (d) and (e) of the Underwriting Agreement in the form and substance acceptable to the Investor and (iii) the delivery to the Investor of the officer's certificate contemplated by Section 5(b) of the Underwriting Agreement, and such obligations shall terminate in the event the Underwriting Agreement is terminated. The Company shall use its best efforts to cause the Invus Shares to be listed on the NASDAQ Global Market.

The Investor hereby represents and warrants to the Company that the Investor (i) is acquiring the Invus Shares for its own account solely for the purpose of investment and not with a view to, or for resale in connection with, any distribution of such Invus Shares or any interest therein, (ii) is an "accredited investor" as defined in Rule 501 of Regulation D promulgated under the Securities Act, a sophisticated investor and, by virtue of its business or financial experience, is capable of evaluating the merits and risks of the investment in the Invus Shares and (iii) has been provided an opportunity to ask questions of and receive answers from representatives of the Company concerning the terms and conditions of this Agreement and the purchase of the Invus Shares contemplated hereby.

The closing of the sale of the Invus Shares shall take place concurrently with the closing of the sale of the Firm Shares under the Underwriting Agreement, (i) with payment for the Invus Shares to be made to the Company by wire transfer of immediately available funds on the closing date and (ii) with delivery of the Invus Shares registered, as applicable, in the name of the Investor or its respective designees and free and clear of all liens (other than those under applicable law, the Stockholders Agreement and the "lock-up" agreement entered into between the Investor and the underwriters party to the Underwriting Agreement), with any transfer or stamp taxes duly paid, to the Investor.

This Agreement shall be deemed to satisfy the Company's obligations under the Stockholders' Agreement with respect to the delivery of a Notice of Issuance with respect to the Firm Shares and shall constitute the Investor's notice of exercise pursuant to Section 5(a)(i) of the Supplement.

This Agreement shall automatically terminate upon any termination of the Underwriting Agreement. The provisions of Sections 9.03 and 9.04 and Article X of the Securities Purchase Agreement are incorporated herein by reference and shall apply to this Agreement mutatis mutandis.

[Signature Page Follows]

Sincerely,

INVUS, L.P.,
a Bermuda limited partnership

By: Invus Advisors, L.L.C., its general partner

By: /s/ Raymond Debbane

Name: Raymond Debbane

Title: President

Accepted and agreed to:

LEXICON PHARMACEUTICALS, INC.,
a Delaware corporation

By: /s/ Arthur T. Sands

Name: Arthur T. Sands, M.D., Ph.D.

Title: President and Chief Executive Officer

[Signature Page to Purchase Agreement]

**LEXICON ANNOUNCES PRICING OF COMMON STOCK
IN PUBLIC OFFERING**

The Woodlands, Texas, March 16, 2010 — Lexicon Pharmaceuticals, Inc. (Nasdaq: LXX) today announced the pricing of a public offering and concurrent private placement of its common stock in which the aggregate net proceeds to Lexicon will be approximately \$165.0 million. The public offering consists of 87,717,391 shares of its common stock at a public offering price of \$1.15 per share. In connection with the public offering, Lexicon agreed to sell an additional 59,296,749 shares of its common stock at the public offering price to Invus, L.P., Lexicon's largest stockholder, in a concurrent private placement upon Invus' exercise of its right to purchase shares sufficient to maintain its pro rata ownership of Lexicon's common stock.

All of the shares subject to the public offering are being offered by Lexicon pursuant to an effective shelf registration statement previously filed with the Securities and Exchange Commission. Lexicon has also granted the underwriters a 30-day option to purchase up to an aggregate of 8,804,348 additional shares of common stock to cover over-allotments, if any. To the extent the underwriters exercise their over-allotment option, Invus may purchase up to an aggregate of 5,951,718 additional shares of common stock in a private placement pursuant to its right to purchase shares sufficient to maintain its pro rata ownership of Lexicon's common stock. Morgan Stanley & Co. Incorporated and J.P. Morgan Securities Inc. are acting as joint book-runners for the public offering, with Cowen and Company, LLC and Thomas Weisel Partners LLC acting as co-managers.

This press release does not constitute an offer to sell, or the solicitation of an offer to buy, these securities, nor will there be any sale of these securities in any state or jurisdiction in which such offer, solicitation or sale is not permitted. The offering of the securities in the public offering will be made only by means of a final prospectus supplement and accompanying prospectus, copies of which may be obtained from Morgan Stanley & Co. Incorporated, Attn: Prospectus Department, 180 Varick Street, 2nd Floor, New York, New York 10014, telephone: (866) 718-1649, or by emailing prospectus@morganstanley.com, or from J.P. Morgan Securities, Inc., Attention: Broadridge Financial Solutions at 1155 Long Island Avenue, Edgewood, New York 11717, or by telephone at (866) 803-9204.

The issuer has filed a registration statement (including a base prospectus) with the Securities and Exchange Commission, or SEC, for an offering to which this communication relates. Before you invest, you should read the prospectus in that registration statement and related prospectus supplements and other documents that the issuer has filed or will file with the SEC for more complete information about the issuer and this offering. You may get these documents for free by visiting EDGAR on the SEC website at www.sec.gov. Alternatively, you may obtain a final prospectus supplement and accompanying prospectus as indicated above.

The shares to be sold to Invus in the private placement have not been, and will not be, registered under the Securities Act of 1933, as amended, or any state securities laws and may not be offered or sold in the United States absent registration or applicable exemption from the registration requirement of such Act and applicable state securities laws.

About Lexicon

Lexicon is a biopharmaceutical company focused on discovering breakthrough treatments for human disease. Lexicon currently has four drug candidates in mid-stage development for

diabetes, irritable bowel syndrome, carcinoid syndrome, and rheumatoid arthritis, all of which were discovered by the company's research team.

Safe Harbor Statement

This press release contains "forward-looking" statements, including statements related to Lexicon's expectations regarding the completion, timing and size of the public offering and concurrent private placement. Any statements contained in this press release that are not statements of historical fact may be deemed to be forward-looking statements. Words such as "anticipated," "will," "proposed," and similar expressions are intended to identify these forward-looking statements. There are a number of important factors that could cause Lexicon's results to differ materially from those indicated by these forward-looking statements, including risks and uncertainties related to market conditions and the satisfaction of customary closing conditions related to the public offering and concurrent private placement. There can be no assurance that Lexicon will be able to complete the public offering or concurrent private placement on the anticipated terms, or at all. Additional risks and uncertainties relating to the public offering and concurrent private placement, Lexicon and its business can be found under the headings "Factors Affecting Forward-Looking Statements" and "Risk Factors" in Lexicon's annual report on Form 10-K for the year ended December 31, 2009, as filed with the Securities and Exchange Commission and under the heading "Risk Factors" in the final prospectus supplement related to the public offering to be filed with the Securities and Exchange Commission. Unless required by applicable law, Lexicon undertakes no obligation to update or revise any such forward-looking statements, whether as a result of new information, future events or otherwise.

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Contact for Lexicon:

D. Wade Walke
Senior Director, Corporate Communications
281/863-3046
wwalke@lexpharma.com