
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):

October 7, 2009

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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Item 1.01

Entry into a Material Definitive Agreement

On October 7, 2009, we entered into an amendment to our securities purchase agreement, dated June 17, 2007, with Invus, L.P., under which Invus made an initial investment of \$205.4 million to purchase 50,824,986 shares of our common stock in August 2007 and has the right to require us to initiate up to two pro rata rights offerings to our stockholders, which would provide all stockholders with non-transferable rights to acquire shares of our common stock, in an aggregate amount of up to \$344.5 million, less the proceeds of any “qualified offerings” that we may complete in the interim involving the sale of our common stock at prices above \$4.50 per share.

The amendment, which was entered into in connection with a proposed public offering of our common stock and will become effective upon (and subject to) the completion of such offering and Invus’ grant of consent with respect thereto, includes the following modifications to the original terms of the securities purchase agreement:

- Prior to giving effect to the amendment, Invus could exercise its right to require us to conduct the first rights offering by giving us notice within a period of 90 days beginning on November 28, 2009 (which we refer to as the first rights offering trigger date), although we and Invus could agree to change the first rights offering trigger date with the approval of the members of our board of directors who are not affiliated with Invus. In the amendment, we have agreed to extend by nine months the period during which Invus may exercise its right to require us to conduct the first rights offering, resulting in Invus having such right for a period of one year beginning on the first rights offering trigger date.
 - Prior to giving effect to the amendment, Invus could exercise its right to require us to conduct a second rights offering by giving us notice within a period of 90 days beginning on the date that is 12 months after Invus’ exercise of its right to require us to conduct the first rights offering or, if Invus does not exercise its right to require us to conduct the first rights offering, within a period of 90 days beginning on the first anniversary of the first rights offering trigger date. In the amendment, we have agreed to modify the timing of this right to permit Invus to exercise its right to require us to conduct the second rights offering by giving us notice within a period of one year beginning on the date (which we refer to as the first rights offering trigger date) that is 90 days after Invus’ exercise of its right to require us to conduct the first rights offering or, if Invus does not exercise its right to require us to conduct the first rights offering, within a period of one year beginning on the first anniversary of the first rights offering trigger date.
 - Prior to giving effect to the amendment, if Invus elected to exercise its rights to require us to initiate a rights offering, Invus was required to purchase its pro rata portion of the offering, and to commit to purchase the entire portion of the offering not subscribed for by other stockholders. In the amendment, we have agreed to modify these obligations such that, if Invus elects to exercise its rights to require us to initiate a rights offering, Invus will be required to purchase only its pro rata portion of the rights offering, and will not be obligated to purchase the entire portion of the offering not subscribed for by other stockholders.
 - Upon effectiveness of the amendment, the amended securities purchase agreement provides that, if we notify Invus of a proposed public offering for an offering above \$4.50 per share during the period in which Invus may initiate a rights offering, Invus will have a period of 10 business days in which to exercise its right to require us to conduct a rights offering, in which case we would be required to forego the proposed public offering and proceed with the rights offering. In the event that Invus does not exercise its right to require us to conduct a rights offering within such period, we will have the right to conduct the proposed public offering, and Invus will not initiate a rights offering (a) for an initial period of 30 days and (b) so long as the offering occurs within that 30-day period, and if requested by the underwriters for the public offering, for an additional period of 90 days, provided that we may exercise this “blackout right” only once in any 12-month period. In such event, the one-year period in which Invus may initiate a rights offering (and, if the blackout period occurs during the period in which Invus may initiate the first rights offering, the second rights offering trigger date) will be tolled by a number of days equal to the aggregate number of days the blackout period is in effect.
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- The amended securities purchase agreement will permit us, at our option, to file and use a shelf registration statement for purposes of any rights offerings rather than filing a new registration statement after receiving a rights offering notice.
- The amended securities purchase agreement will change the timing of the pricing of a rights offering from the time of delivery of notice by Invus of its exercise of its right to require us to conduct such rights offering to the time the record date for the distribution of the rights to our stockholders is established by our board of directors.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

Exhibit No.

Description

10.1	—Amendment, dated October 7, 2009, to Securities Purchase Agreement, dated June 17, 2007, with Invus, L.P.
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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: October 7, 2009

By: /s/ Jeffrey L. Wade
Jeffrey L. Wade
*Executive Vice President and
General Counsel*

**AMENDMENT TO
SECURITIES PURCHASE AGREEMENT**

This Amendment to Securities Purchase Agreement (this "Amendment") is entered into as of October 7, 2009 by and between Invus, L.P., a Bermuda limited partnership (the "Investor"), and Lexicon Pharmaceuticals, Inc., a Delaware corporation (the "Company"). Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Securities Purchase Agreement (as defined below).

WITNESSETH:

WHEREAS, the Investor and the Company entered into that certain Securities Purchase Agreement, dated as of June 17, 2007 (the "Securities Purchase Agreement"), and that certain Stockholders' Agreement, made as of June 17, 2007 (the "Stockholders' Agreement");

WHEREAS, the Company desires to issue and sell shares of Company Common Stock in an underwritten offering registered under the Securities Act (the "Offering"), which Offering requires the consent of the Investor under the Securities Purchase Agreement; and

WHEREAS, in connection with the Offering, the Investor and the Company desire to amend the Securities Purchase Agreement as set forth below to (a) modify the definition of Second Rights Offering Trigger Date, (b) extend the period during which the Investor may deliver the First Rights Offering Notice and Second Rights Offering Notice from ninety (90) days to one (1) year after the First Rights Offering Trigger Date and Second Rights Offering Trigger Date, respectively, (c) eliminate the Investor's obligation to purchase unsubscribed Rights Shares at the expiration of a Rights Offering, and (d) make certain other amendments to the terms thereof.

NOW, THEREFORE, intending to be legally bound hereby, the parties hereto hereby agree as follows:

Section 1. Amendment to Section 1.01 of the Securities Purchase Agreement

The definition of "Oversubscription Pro Rata Number" in Section 1.01 of the Securities Purchase Agreement is hereby amended and restated in its entirety to read as follows:

"Oversubscription Pro Rata Number" shall mean, for each holder of a Right exercising Rights Offering Oversubscription rights, a fraction the numerator of which is the total number of shares of Company Common Stock owned by such holder and the denominator of which is the total number of outstanding shares of Company Common Stock held by all holders of Rights who have validly exercised Rights Offering Oversubscription rights in the relevant Rights Offering (it being understood that no shares shall be deemed owned by more than one holder for purposes hereof); *provided* that, to the extent any holders validly exercising Rights Offering Oversubscription rights exercise such rights with respect to less than their entire respective Oversubscription Pro Rata Numbers of Oversubscription Shares (with the unsubscribed-for Oversubscription Shares being referred to as "Excess Oversubscription Shares"), the Oversubscription Pro Rata Numbers of all other holders validly exercising Rights Offering Oversubscription rights in full shall be increased proportionately up to the maximum number of Oversubscription Shares such holders elect to purchase (it being the intent of this provision that the Oversubscription Pro Rata Numbers be established such that any such Excess Oversubscription Shares be allocated among holders exercising Rights Offering Oversubscription rights in full on a pro rata basis based on the number of Oversubscription Shares allocated to such holders, up to the total number of Excess Oversubscription Shares such holders elect to purchase); *provided further*, with the written consent of both the Investor and the Company, the determination of the Oversubscription Pro Rata Number may be based on another customary proration method.

Section 1.01 of the Securities Purchase Agreement is hereby amended by adding the following definition of “Oversubscription Shares” immediately after the definition of “Oversubscription Pro Rata Number” therein as follows:

“Oversubscription Shares” shall mean First Rights Offering Oversubscription Shares in the First Rights Offering or Second Rights Offering Oversubscription Shares in the Second Rights Offering, as applicable.

The definition of “Second Rights Offering Trigger Date” in Section 1.01 of the Securities Purchase Agreement is hereby amended and restated in its entirety to read as follows:

“Second Rights Offering Trigger Date” means the date that is (i) ninety (90) days after the delivery of the First Rights Offering Notice or (ii) if such notice is not delivered, the date of the expiration of the period (as it may be extended by any Rights Offering Notice Blackout Period) in which the Investor may give notice to require the Company to conduct the First Rights Offering pursuant to Section 3.01(a).

Section 2. Amendments to Section 3.01 of the Securities Purchase Agreement

The first sentence of Section 3.01(a) of the Securities Purchase Agreement is hereby amended and restated in its entirety to read as follows:

Subject to Section 3.03(e), for a period of one (1) year following the First Rights Offering Trigger Date, the Investor shall have the right, but not the obligation, exercisable by a written notice (the “First Rights Offering Notice”) to the Company in accordance with Section 10.02, to require the Company to make a pro rata offering (the “First Rights Offering”) to all holders of Company Common Stock (including the Investor and its affiliates) of non-transferable subscription rights (the “First Rights”) entitling the holders thereof to purchase shares of Company Common Stock, on the terms set forth herein, (i) in an aggregate amount equal to the First Rights Offering Amount, and (ii) at a price per share (the “First Rights Offering Price”) to be designated by the Investor at any time on or after delivery of the First Rights Offering Notice and before the establishment of the record date for the distribution of the First Rights to the Company’s stockholders (provided that the establishment of such record date shall not be prior to the time the First Rights Offering Registration Statement shall have been declared effective by the SEC) by written notice (the “First Rights Offering Pricing Notice”) to the Company in accordance with Section 10.02; *provided* that the First Rights Offering Price shall be any price (A) at or above the lower of \$4.50 (as adjusted for any stock splits, reverse splits, stock dividends, combinations or similar transactions occurring after the date hereof and prior to the First Rights Offering) and the average of the volume weighted average trading prices of the Company Common Stock on the Nasdaq Stock Market for the ten (10) full trading days immediately prior to the date of the First Rights Offering Pricing Notice (the “First Rights Offering Market Price”) and (B) at or below the higher of \$4.50 (as adjusted for any stock splits, reverse splits, stock dividends, combinations or similar transactions occurring after the date hereof and prior to the First Rights Offering) and the First Rights Offering Market Price.

Section 3.01(b) of the Securities Purchase Agreement is hereby amended and restated in its entirety to read as follows:

(b) In connection with the First Rights Offering, upon the terms and subject to the conditions of this Agreement, the Investor shall be required to subscribe for and purchase a number of First Rights Shares that is not less than its Pro Rata Number of First Rights Shares.

Section 3. Amendments to Section 3.02 of the Securities Purchase Agreement

The first sentence of Section 3.02(a) of the Securities Purchase Agreement is hereby amended and restated in its entirety to read as follows:

Subject to Section 3.03(e), for a period of one (1) year following the Second Rights Offering Trigger Date, the Investor shall have the right, but not the obligation, exercisable by written notice (the "Second Rights Offering Notice" and, together with the First Rights Offering notice, the "Rights Offering Notices") to the Company in accordance with Section 10.02, to require the Company to make a pro rata offering (the "Second Rights Offering" and, together with the First Rights Offering, the "Rights Offerings") to all holders of Company Common Stock (including the Investor and its affiliates) of non-transferable subscription rights (the "Second Rights" and, together with the First Rights, the "Rights") entitling the holders thereof to purchase shares of Company Common Stock, on the terms set forth herein, (i) in an aggregate amount equal to the Second Rights Offering Amount, and (ii) at a price per share (the "Second Rights Offering Price") to be designated by the Investor at any time on or after delivery of the Second Rights Offering Notice and before the establishment of the record date for the distribution of the Second Rights to the Company's stockholders (provided that the establishment of such record date shall not be prior to the time the Second Rights Offering Registration Statement shall have been declared effective by the SEC) by written notice (the "Second Rights Offering Pricing Notice") to the Company in accordance with Section 10.02; *provided* that the Second Rights Offering Price shall be any price (A) at or above the lower of \$4.50 (as adjusted for any stock splits, reverse splits, stock dividends, combinations or similar transactions occurring after the date hereof and prior to the Second Rights Offering) and the average of the volume weighted average trading prices of the Company Common Stock on the Nasdaq Stock Market for the ten (10) full trading days immediately prior to the date of the Second Rights Offering Pricing Notice (the "Second Rights Offering Market Price") and (B) at or below the higher of \$4.50 (as adjusted for any stock splits, reverse splits, stock dividends, combinations or similar transactions occurring after the date hereof and prior to the Second Rights Offering) and the Second Rights Offering Market Price.

Section 3.02(b) of the Securities Purchase Agreement is hereby amended and restated in its entirety to read as follows:

(b) In connection with the Second Rights Offering, upon the terms and subject to the conditions of this Agreement, the Investor shall be required to subscribe for and purchase a number of Second Rights Shares that is not less than its Pro Rata Number of Second Rights Shares.

Section 4. Amendment to Section 3.03 of the Securities Purchase Agreement

Section 3.03 of the Securities Purchase Agreement is hereby amended by adding new Section 3.03(e) at the end thereof as follows:

(e) In the event that the Company delivers a bona fide Notice of Issuance in connection with a Marketed Offering (in each case, as such terms are defined and contemplated by Section 4.02 of the Stockholders' Agreement) to the Investor during the period in which the Investor may deliver any Rights Offering Notice under Section 3.01(a) or Section 3.02(a), the Investor shall have the right, for a period of ten (10) business days from the date of receipt of such Notice of Issuance, to deliver a Rights Offering Notice to the Company, in which case the Company shall retract the Notice of Issuance, proceed with the Rights Offering contemplated by the Investor's notice, and forego the Marketed Offering contemplated thereby until such Rights Offering is completed or, with the consent of the Investor, terminated. In the event that the Investor does not deliver such Rights Offering Notice to the Company upon the expiration of such ten (10) business day period, the Company shall have the right to conduct the Marketed Offering contemplated by the Notice of Issuance, and the Investor shall not deliver a Rights Offering Notice to the Company (i) for a period of thirty (30) days from the date of delivery by the Company of the Notice of Issuance (the "Initial Rights Offering Notice Blackout Period") and (ii) so long as the offering of New Securities (as defined in the Stockholders' Agreement) described in such Notice of Issuance occurs within the Initial Rights Offering Notice Blackout Period, and only if requested in writing by the underwriters for the Marketed Offering contemplated by such Notice of Issuance, for a period of ninety (90) days from the date of issuance of the New Securities contemplated by such Notice of Issuance (such period, together with the Initial Rights Offering Notice Blackout Period, the "Rights Offering Notice Blackout Periods"). Notwithstanding anything to the contrary in the foregoing, the Company may exercise its right to cause Rights Offering Notice Blackout Periods under this Section 3.03(e) only once in any twelve (12) month period; *provided* that, for such purposes, the Company shall not be deemed to have exercised such right if, following the Company's delivery of a Notice of Issuance in connection with a Marketed Offering, the Investor shall have delivered a Rights Offering Notice to the Company and the Company shall have retracted such Notice of Issuance in accordance with this Section 3.03(e); and *provided, further*, that nothing in this Section 3.03(e) shall prohibit the Company from conducting a Marketed Offering without exercising its right to cause a Rights Offering Notice Blackout Period under this Section 3.03(e). The running of the period in which the Investor may deliver any Rights Offering Notice under Section 3.01(a) or Section 3.02(a), as applicable, shall be tolled while any Rights Offering Notice Blackout Period is in effect.

The Securities Purchase Agreement is hereby amended by adding new Section 3.04:

SECTION 3.04.

Shelf Registration.

(a) So long as it would not reasonably be expected to materially delay the applicable Rights Offering, (i) the Company may, at its option, file with the SEC one or more shelf registration statements on Form S-3 (or, if Form S-3 is not then available to the Company, on such form of registration statement as is then available to effect a registration of securities), in form and substance reasonably satisfactory to the Investor, covering the issuance of Rights and Rights Shares, together with such other securities as the Company may elect (together with the prospectus relating thereto and any prospectus supplement and offering documents, a "Shelf Registration Statement") and (ii) in the event the Company has in effect, at the time of the Investor's delivery of a Rights Offering Notice, an effective Shelf Registration Statement sufficient to cover the issuance of the Rights and the Rights Shares to be offered in such Rights Offering, then rather than filing a Rights Offering Registration Statement pursuant to Section 3.01(c) or 3.02(c), as applicable, the Company shall be entitled to employ such Shelf Registration Statement as the relevant Rights Offering Registration Statement for purposes of such Rights Offering. Any such Shelf Registration Statement (and each amendment or supplement thereto, and each request for acceleration of effectiveness thereof) will be provided to the Investor prior to its filing with or other submission to the SEC. The Company shall not include any other securities in the prospectus supplement relating to any Rights Offering. Any such Shelf Registration Statement employed as a Rights Offering Registration Statement will comply in all material respects with the requirements of the Securities Act and the rules and regulations thereunder and other applicable Laws. The Company promptly will correct any information included in any Shelf Registration Statement employed as a Rights Offering Registration Statement if, and to the extent that, such information becomes false or misleading in any material respect, and the Company will take all steps necessary to cause the applicable prospectus (including any applicable prospectus supplement) contained in such Shelf Registration Statement employed as a Rights Offering Registration Statement, as so corrected, to be filed with the SEC and to be disseminated to the distributees of Rights, in each case as and to the extent required by applicable federal securities laws. The Investor will be given a reasonable opportunity to review and comment upon any Shelf Registration Statement in each instance before it is filed with the SEC. In addition, the Company will provide the Investor with any written comments or other written communications that the Company receives from time to time from the SEC or its staff with respect to any Shelf Registration Statement promptly after the receipt of such comments or other communications.

(b) Notwithstanding the provisions of Section 3.01(d) or 3.02(d), as applicable, in the event the Company employs a Shelf Registration Statement as the relevant Rights Offering Registration Statement for purposes of a Rights Offering, the Company will commence such Rights Offering as soon as reasonably practicable following its receipt of the Rights Offering Notice relating thereto.

Section 6. Amendment to Section 6.02(a) of the Securities Purchase Agreement

Section 6.02(a) of the Securities Purchase Agreement is hereby amended and restated in its entirety to read as follows:

(a) Until (i) the completion of the Second Rights Offering as contemplated by Section 3.02 or (ii) the expiration of the period following the Second Rights Offering Trigger Date during which the Investor may exercise its right to require the Company to conduct the Second Rights Offering (as such period may be extended), if the Investor does not exercise such right within such period, the prior written consent of the Investor shall be required for the issuance by the Company of any shares of Company Common Stock for a per share price of less than \$4.50 (as adjusted for any stock splits, reverse splits, stock dividends, combinations or similar transactions occurring after the date hereof and prior to the Second Rights Offering); *provided* that the provisions of this Section 6.02 shall not apply to the issuance of Company Common Stock (A) pursuant to employee or director stock option, incentive compensation or similar plans approved by the Board or a duly authorized committee thereof or such committee, (B) to persons involved in the pharmaceutical industry in connection with simultaneous strategic transactions involving such persons in the ordinary course or (C) in connection with the exercise, on or after February 27, 2011, of the Company's option to acquire Symphony Icon, Inc. in accordance with the terms of its Purchase Option Agreement among the Company, Symphony Icon Holdings LLC and Symphony Icon, Inc., as such agreement is in effect on October 6, 2009.

Section 7.**Consent to Further Amendments; Further Assurances**

The parties hereto hereby consent to such other amendments and changes to the Securities Purchase Agreement and Ancillary Agreements as necessary to give effect to the intent of this Amendment and shall execute and deliver or cause to be executed and delivered any additional documents, certificates, consents, waivers and instruments and perform any additional acts that may be reasonably necessary or appropriate to effectuate and perform the provisions of this Amendment and those transactions contemplated herein.

Section 8.**Consent to Waiver of Investor Election Period in Sections 4.02(b) and 4.02(c) of the Stockholders' Agreement; Rights****Offering Blackout**

(a) With respect to the Offering (including any related overallotment option), the Company and the Investor hereby waive any applicability to the Offering of the notice provisions contained in Sections 4.02(b) and (c) of the Stockholders' Agreement and agree that notice will be delivered as follows: the Company shall deliver a Notice of Issuance specifying the price to public and number of shares to be sold to public in the Offering on the date the underwriting agreement is expected to be signed by the Company in connection with the Offering and, upon receipt of such notice by the Investor, the Investor (i) shall exercise its rights under Section 4.02 with respect to the Offering by delivering notice of such exercise substantially concurrently with the signing by the Company of the underwriting agreement with respect thereto, and (ii) shall retain the right to make an election whether to exercise its rights under Section 4.02 with respect to any additional New Securities issued upon the exercise by the underwriters of their overallotment option in connection with such Offering by delivering notice of such exercise as promptly as practicable following the Company's notice to the Investor of the underwriters' exercise of such option. For the avoidance of doubt, with respect to the Offering, the Investor waives its right to deliver notice of its intent to participate in the Offering ten (10) business days following receipt of the Notice of Issuance related thereto.

(b) The Investor agrees not to exercise its right to cause the Company to conduct a Rights Offering during the ninety (90) day period following the delivery of the Offering Consent (as defined in Section 9 hereof). Notwithstanding the amendments to Section 3.03 of the Securities Purchase Agreement effected hereby, the periods in which the Investor may deliver any Rights Offering Notice under Section 3.01(a) and Section 3.02(a) shall not be extended by such ninety (90) day period, and shall not be deemed to be an exercise of the Company's right to cause Rights Offering Notice Blackout Periods under Section 3.03(e).

(c) The Investor expressly acknowledges and agrees that the provisions of Sections 4.02(b) and 4.02(c) of the Stockholders' Agreement relating to the free transferability of shares to be received in the Offering shall not affect its obligations under its "lock-up" agreement dated October 5, 2009 with the underwriters, which restricts the transferability of New Securities to be issued by the Company in connection with the Offering.

Section 9.**Effectiveness; Termination**

This Amendment shall become effective only upon delivery by the Investor to the Company, pursuant to Section 6.02(a) of the Securities Purchase Agreement, of the Investor's written consent to the Offering substantially in the form of Exhibit A hereto (the "Offering Consent"). Notwithstanding any such delivery, in the event that the underwriting agreement relating to the Offering is not executed on or before October 13, 2009, (i) this Amendment shall terminate and cease to have any force or effect and (ii) the Offering Consent shall be of no force or effect.

Section 10.**Ratification and Confirmation**

The Securities Purchase Agreement and Stockholders' Agreement, as hereby amended or supplemented, are hereby ratified and confirmed in all respects. This Amendment shall be interpreted and construed together with, and as a part of, the Securities Purchase Agreement or Stockholders' Agreement, as applicable. Any reference in any other document to the Securities Purchase Agreement or Stockholders' Agreement shall be deemed to refer to the Securities Purchase Agreement or Stockholders' Agreement, as applicable, as modified by this Amendment. The execution, delivery and effectiveness of this Amendment shall not constitute a modification or waiver of any provision of the Securities Purchase Agreement or Stockholders' Agreement except as expressly provided herein.

Section 11.**Governing Law**

This Amendment shall be governed by, and construed in accordance with, the laws of the State of New York. All actions and proceedings arising out of or relating to this Amendment shall be heard and determined exclusively in any New York state or federal court, in each case sitting in the Borough of Manhattan. The parties hereto hereby (a) submit to the exclusive jurisdiction of any New York state or federal court, in each case sitting in the Borough of Manhattan, for the purpose of any Action arising out of or relating to this Amendment brought by any party hereto, and (b) irrevocably waive, and agree not to assert by way of motion, defense, or otherwise, in any such Action, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the Action is brought in an inconvenient forum, that the venue of the Action is improper, or that this Amendment may not be enforced in or by any of the above-named courts.

Section 12.**Counterparts**

This Amendment may be executed and delivered (including by facsimile transmission) in one or more counterparts, and by the different parties hereto in separate counterparts, each of which when executed and delivered shall be deemed to be an original but all of which taken together shall constitute one and the same agreement.

[Signature Page Follows]

IN WITNESS WHEREOF, the Investor and the Company have caused this Amendment to be executed as of the date first written above by their respective officers thereunto duly authorized.

INVESTOR:

INVUS, L.P.
a Bermuda limited partnership

By: /s/ Raymond Debbane
Name: Raymond Debbane
Title: President, Invus Advisors, L.L.C.

COMPANY

Lexicon Pharmaceuticals, Inc.,
a Delaware corporation

By: /s/ Jeffrey L. Wade
Name: Jeffrey L. Wade
Title: Executive Vice President and
General Counsel

NOTICE OF
CONSENT TO OFFERING

October __, 2009

Invus, L.P.
c/o The Invus Group, L.L.C.
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 that certain Securities Purchase Agreement, dated as of June 17, 2007 (as amended, the "Securities Purchase Agreement"), by and between Invus, L.P. (the "Investor") and Lexicon Pharmaceuticals, Inc. (the "Company") and to that certain Amendment to Securities Purchase Agreement, dated as of October [__], 2009, by and between the Investor and the Company. Capitalized terms used but not otherwise defined herein shall have the meanings ascribed to them in the Securities Purchase Agreement.

Pursuant to Section 6.02(a) of the Securities Purchase Agreement, the Investor hereby consents to an underwritten offering by the Company of Company Common Stock on the following terms:

Issuer: Lexicon Pharmaceuticals, Inc.

Offering: ____ shares of Company Common Stock (the "Firm Shares"), and up to _____ additional shares to cover over allotments by the underwriters in such offering as provided in the underwriting agreement to be executed in connection with such offering (the "Underwriting Agreement")

Size: \$ ____ at a \$ ____ per share purchase price to the public.

Timing: pricing to occur on or before ____, 2009 with closing within T+3 (subject to extension as provided in the Underwriting Agreement).

INVUS, L.P.
a Bermuda limited partnership

By: _____
Name:
Title: