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

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**FORM 8-K**

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**CURRENT REPORT**

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

Date of Report (Date of earliest event reported):

February 25, 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 2.02 Results of Operations and Financial Condition**

On February 25, 2009, we issued a press release to report our financial results for the quarter and year ended December 31, 2008. A copy of the press release is attached to this current report on Form 8-K as Exhibit 99.1.

The information in this Form 8-K and the Exhibit attached to this Form 8-K shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934 (the “Exchange Act”) or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such a filing.

## **Item 9.01 Financial Statements and Exhibits**

(d) Exhibits

| <b>Exhibit No.</b> | <b>Description</b>   |
|--------------------|--|
| 99.1               | — Press Release of Lexicon Pharmaceuticals, Inc. dated February 25, 2009 |

## 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: February 25, 2009

By: /s/ Jeffrey L. Wade

Jeffrey L. Wade

*Executive Vice President and*

*General Counsel*

## Index to Exhibits

| Exhibit No. |  | Description |
|-------------|--|-------------|
|-------------|--|-------------|

|      |   |  |
|------|---|--|
| 99.1 | — | Press Release of Lexicon Pharmaceuticals, Inc. dated February 25, 2009 |
|------|---|--|

**LEXICON PHARMACEUTICALS REPORTS 2008 FOURTH QUARTER  
AND FULL YEAR FINANCIAL RESULTS**

*Conference Call and Webcast at 11:00 a.m. Eastern Time*

**The Woodlands, Texas, February 25, 2009** – Lexicon Pharmaceuticals, Inc. (Nasdaq: LXRX), a biopharmaceutical company focused on discovering and developing breakthrough treatments for human disease, today updated its drug development progress and reported financial results for the three months and year ended December 31, 2008.

“In 2008, the company made significant progress in moving multiple drug development programs forward,” said Dr. Arthur T. Sands, president and chief executive officer of Lexicon. “As part of our focus on the development of our pipeline, we streamlined operations and concentrated our resources on our most promising programs. We look forward to reporting data from several of our programs as they progress through clinical trials this year for irritable bowel syndrome, carcinoid syndrome, rheumatoid arthritis, and diabetes.”

**Key Developments of 2008**

- § Lexicon initiated a Phase 2a clinical trial of its LX1031 drug candidate for non-constipating irritable bowel syndrome (IBS) in December 2008. The trial is designed as a double-blind, randomized, placebo-controlled study to evaluate the safety and tolerability of LX1031 and its effects on symptoms associated with IBS. In trials completed to date, all dose levels and dosing regimes were well tolerated with infrequent adverse events observed.
  - § Lexicon completed dosing in a Phase 2a clinical trial of its LX6171 drug candidate for cognitive disorders. Although the compound was well tolerated, there was no clear demonstration of activity for the various cognitive domains evaluated. The target of LX6171 continues to be of interest, as this pathway has recently been associated with schizophrenia in human genetic studies. While the company does not intend to pursue further development at this time, it plans to evaluate interest from third parties in the compound and its target for other neurobehavioral indications.
  - § Lexicon completed dosing in a Phase 1b clinical trial of its LX1032 drug candidate for carcinoid syndrome. LX1032 was well tolerated at all doses and demonstrated a potent reduction in both blood serotonin levels and urinary 5-HIAA, a marker of serotonin biosynthesis. Based on the results from this study, Lexicon is planning to initiate a Phase 2 study in patients with carcinoid syndrome in the first quarter of 2009. In June 2008, Lexicon received Fast Track designation from the U.S. Food and Drug Administration (FDA) for development of LX1032.
  - § Lexicon completed a Phase 1b clinical trial of its LX2931 drug candidate for autoimmune disorders. In the trial, LX2931 was well tolerated at all doses tested. A dose-dependent reduction in circulating lymphocytes was observed, confirming the mechanism of action of LX2931 in regulating lymphocyte trafficking. Lexicon initiated a drug-drug interaction study with methotrexate in patients with rheumatoid arthritis in the first quarter of 2009.
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- § Lexicon filed an investigational new drug (IND) application with the FDA for LX4211, an oral small molecule drug candidate for diabetes. The company initiated a Phase 1 clinical trial of LX4211 in January 2009. The trial is planned as a double-blind, randomized, placebo-controlled, ascending single- and multiple-dose study to evaluate the safety, tolerability, and pharmacokinetics of LX4211 in healthy volunteers.
- § Lexicon initiated formal preclinical development of LX7101, a new drug candidate for glaucoma, in preparation for the planned filing of an IND application with the FDA. LX7101 is a small molecule compound that may have application in treating glaucoma by lowering intraocular pressure through a new mechanism of action that enhances the eye's fluid outflow facility. Impairment of fluid outflow is thought to be a major contributing factor to the higher incidence of glaucoma that is observed as people age.
- § Lexicon implemented reorganizations that reduced personnel and related expenditures in 2008 and early 2009. These reorganizations were designed to focus Lexicon's resources on its most advanced drug discovery and development programs. As a result of the May 2008 reorganization, Lexicon reduced its expenses by approximately \$10 million on an annualized basis. As part of the January 2009 reorganization, Lexicon expects to reduce its expenses by an additional approximately \$8 million, net of severance costs, for the balance of 2009 and approximately \$11 million on an annualized basis.

## Financial Results

**Revenues:** Lexicon's revenues for the three months ended December 31, 2008 decreased 54 percent to \$6.4 million from \$13.8 million for the corresponding period in 2007. The decrease for the three months ended December 31, 2008 was primarily attributable to the completion in 2007 of the project funded by Lexicon's award from the Texas Enterprise Fund, reduced revenues under Lexicon's alliance with N.V. Organon, and reduced revenues under Lexicon's neuroscience alliance with Bristol-Myers Squibb resulting from extending the estimated performance period under the agreement to June 30, 2009. For the year ended December 31, 2008, revenues decreased 36 percent to \$32.3 million from \$50.1 million in 2007.

**Research and Development Expenses:** Research and development expenses for the three months ended December 31, 2008 decreased 15 percent to \$22.8 million from \$26.9 million for the corresponding period in 2007. The decrease was primarily attributable to decreased research expenses as a result of the company reallocating resources from genetics research efforts to drug development. For the year ended December 31, 2008, research and development expenses increased four percent to \$108.6 million from \$104.3 million in 2007.

**General and Administrative Expenses:** General and administrative expenses for the three months ended December 31, 2008 decreased 17 percent to \$4.5 million from \$5.3 million for the corresponding period in 2007. The decrease was primarily attributable to lower salary and benefit costs as well as lower stock-based compensation expense. For the year ended December 31, 2008, general and administrative expenses decreased two percent to \$20.3 million from \$20.7 million in 2007.

**Net Loss:** Net loss for the three months ended December 31, 2008 was \$15.4 million, or \$0.11 per share, compared to a net loss of \$12.2 million, or \$0.09 per share, in the corresponding period in 2007. Net loss for the year ended December 31, 2008 was \$76.9 million, or \$0.56 per share, compared to a net loss of \$58.8 million, or \$0.59 per share, in 2007. For the three months ended December 31, 2008, net loss included non-cash, stock-based compensation expense of \$1.7 million, compared to \$3.1 million in the corresponding period in 2007. For the year ended December 31, 2008, net loss included non-cash, stock-based compensation expense of \$6.5 million, compared to \$7.9 million in 2007.

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**Cash and Investments:** As of December 31, 2008, Lexicon had \$158.8 million in cash and investments, including \$16.6 million in cash and investments held by Symphony Icon, as compared to \$177.3 million as of September 30, 2008 and \$258.8 million as of December 31, 2007.

**Lexicon Conference Call:**

Lexicon management will hold a conference call to discuss its clinical development progress, financial results for 2008 and financial guidance for 2009 at 11:00 a.m. Eastern Time on February 25, 2009. The dial-in number for the conference call is 888-220-1244 (within the US/Canada) or 706-679-5615 (international). The conference ID for all callers is 83223654. Investors can access [www.lexpharma.com](http://www.lexpharma.com) to listen to a live webcast of the call. The webcast will be archived and available for review through March 4, 2009.

**About Lexicon**

Lexicon is a biopharmaceutical company focused on discovering and developing breakthrough treatments for human disease. Lexicon currently has five drug candidates in development for autoimmune disease, carcinoid syndrome, diabetes, glaucoma and irritable bowel syndrome, all of which were discovered by the company's research team. The company has used its proprietary gene knockout technology to identify more than 100 promising drug targets. Lexicon has focused drug discovery efforts on these biologically-validated targets to create its extensive pipeline of clinical and preclinical programs. For additional information about Lexicon and its programs, please visit [www.lexpharma.com](http://www.lexpharma.com).

**Safe Harbor Statement**

*This press release contains "forward-looking statements," including statements relating to Lexicon's clinical development of LX1031, LX1032, LX2931, LX4211, LX6171 and LX7101 and the potential therapeutic and commercial potential of LX1031, LX1032, LX2931, LX4211, LX6171 and LX7101. This press release also contains forward-looking statements relating to Lexicon's growth and future operating results, discovery and development of products, strategic alliances and intellectual property, as well as other matters that are not historical facts or information. All forward-looking statements are based on management's current assumptions and expectations and involve risks, uncertainties and other important factors, specifically including those relating to Lexicon's ability to successfully conduct clinical development of LX1031, LX1032, LX2931, LX4211, LX6171 and LX7101 and preclinical and clinical development of its other potential drug candidates, advance additional candidates into preclinical and clinical development, obtain necessary regulatory approvals, achieve its operational objectives, obtain patent protection for its discoveries and establish strategic alliances, as well as additional factors relating to manufacturing, intellectual property rights, and the therapeutic or commercial value of its drug candidates, that may cause Lexicon's actual results to be materially different from any future results expressed or implied by such forward-looking statements. Information identifying such important factors is contained under "Factors Affecting Forward-Looking Statements" and "Risk Factors" in Lexicon's annual report on Form 10-K for the year ended December 31, 2007, as filed with the Securities and Exchange Commission. 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:**

Jason Ray  
Manager, Corporate Communications and Community Affairs  
281/863-3225  
[jray@lexpharma.com](mailto:jray@lexpharma.com)

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**Lexicon Pharmaceuticals, Inc.**

**Selected Financial Data**

| <b>Consolidated Statements of Operations Data</b><br>(In thousands, except per share data)                          | <b>Three Months Ended</b> |                    | <b>Year Ended</b>   |                    |
|---|---------------------------|--------------------|---------------------|--------------------|
|   | <b>December 31,</b>       |                    | <b>December 31,</b> |                    |
|   | <b>2008</b>               | <b>2007</b>        | <b>2008</b>         | <b>2007</b>        |
|   | <b>(unaudited)</b>        |                    | <b>(unaudited)</b>  |                    |
| Revenues:   |                           |                    |                     |                    |
| Collaborative research  | \$ 4,388                  | \$ 13,620          | \$ 27,177           | \$ 48,080          |
| Subscription and license fees   | 1,962                     | 188                | 5,144               | 2,038              |
| <b>Total revenues</b>   | <b>6,350</b>              | <b>13,808</b>      | <b>32,321</b>       | <b>50,118</b>      |
| Operating expenses:   |                           |                    |                     |                    |
| Research and development, including stock-based compensation of \$1,028, \$2,150, \$3,941 and \$5,150, respectively | 22,782                    | 26,930             | 108,575             | 104,332            |
| General and administrative, including stock-based compensation of \$691, \$946, \$2,559 and \$2,776, respectively   | 4,457                     | 5,345              | 20,281              | 20,740             |
| <b>Total operating expenses</b>   | <b>27,239</b>             | <b>32,275</b>      | <b>128,856</b>      | <b>125,072</b>     |
| Loss from operations  | (20,889)                  | (18,467)           | (96,535)            | (74,954)           |
| Gain (loss) on long-term investments, net   | 2,008                     | —                  | (1,314)             | —                  |
| Interest income   | 607                       | 3,475              | 5,762               | 7,286              |
| Interest expense  | (671)                     | (694)              | (2,691)             | (2,771)            |
| Other expense, net  | (485)                     | (760)              | (2,106)             | (794)              |
| Loss before noncontrolling interest in Symphony Icon, Inc.  | (19,430)                  | (16,446)           | (96,884)            | (71,233)           |
| Loss attributable to noncontrolling interest in Symphony Icon, Inc.   | 4,013                     | 4,269              | 20,024              | 12,439             |
| <b>Net loss</b>   | <b>\$ (15,417)</b>        | <b>\$ (12,177)</b> | <b>\$ (76,860)</b>  | <b>\$ (58,794)</b> |
| <b>Net loss per common share, basic and diluted</b>   | <b>\$ (0.11)</b>          | <b>\$ (0.09)</b>   | <b>\$ (0.56)</b>    | <b>\$ (0.59)</b>   |
| Shares used in computing net loss per common share, basic and diluted   | 136,797                   | 136,794            | 136,797             | 99,798             |

| <b>Consolidated Balance Sheet Data</b><br>(In thousands)                               | <b>As of December 31,</b> |  | <b>As of December 31,</b> |  |
|--|---------------------------|--|---------------------------|--|
|  | <b>2008</b>               |  | <b>2007</b>               |  |
|  | <b>(unaudited)</b>        |  |                           |  |
| Cash and investments, including cash and investments held by Symphony Icon, Inc. \$430 | \$ 158,798                |  | \$ 258,775                |  |
| Property and equipment, net  | 65,087                    |  | 70,829                    |  |
| Goodwill   | 25,798                    |  | 25,798                    |  |
| <b>Total assets</b>  | <b>261,508</b>            |  | <b>369,296</b>            |  |
| Deferred revenue   | 19,884                    |  | 34,156                    |  |
| Current and long-term debt   | 30,492                    |  | 31,373                    |  |
| Noncontrolling interest in Symphony Icon, Inc.   | 10,247                    |  | 30,271                    |  |
| Accumulated deficit  | (487,395)                 |  | (410,535)                 |  |
| <b>Total stockholders' equity</b>  | <b>185,580</b>            |  | <b>256,300</b>            |  |