
**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): February 21, 2007

Lexicon Genetics Incorporated
(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 21, 2007, we issued a press release to report our financial results for the quarter and year ended December 31, 2006. 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

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release of Lexicon Genetics Incorporated dated February 21, 2007

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 Genetics Incorporated

Date: February 21, 2007

By: /s/ JEFFREY L. WADE

Jeffrey L. Wade

Executive Vice President and

General Counsel

Index to Exhibits

Exhibit No.

99.1

Description

Press Release of Lexicon Genetics Incorporated dated February 21, 2007

**LEXICON GENETICS REPORTS 2006 FOURTH QUARTER
AND FULL YEAR FINANCIAL RESULTS**

The Woodlands, Texas, February 21, 2007 — Lexicon Genetics Incorporated (Nasdaq: LEXG), a biopharmaceutical company focused on discovering and developing breakthrough treatments for human disease, today reported financial results for the three months and year ended December 31, 2006.

“Lexicon has now advanced two drug candidates into human clinical development and has two additional candidates in IND-enabling studies,” said Arthur T. Sands, M.D., Ph.D., Lexicon’s president and chief executive officer. “We believe we are on track to achieve our 10T010 goal of moving ten drug candidates into human clinical development through 2010 and look forward to sharing results from our clinical trials with you during 2007.”

Revenues: Lexicon’s revenues for the three months ended December 31, 2006 decreased 53 percent to \$16.1 million from \$33.9 million for the corresponding period in 2005. Revenue in the fourth quarter of 2005 included \$20.0 million in payments received from Genentech, Inc. for Lexicon’s achievement of two performance milestones during the period, one relating to the completion of work contemplated by the parties’ initial alliance and the second relating to a milestone achieved under the expanded alliance. Excluding these performance milestone payments, revenue for the three months ended December 31, 2006 increased 16 percent from the corresponding period in 2005. The increase was attributable primarily to increased revenue recognized under Lexicon’s alliance with Organon. For the year ended December 31, 2006, revenues decreased four percent to \$72.8 million from \$75.7 million in 2005.

Research and Development Expenses: Research and development expenses for the three months ended December 31, 2006 increased seven percent to \$25.6 million from \$23.9 million for the corresponding period in 2005. The increase was primarily due to non-cash, stock-based compensation expense of \$1.0 million resulting from Lexicon’s adoption of SFAS No. 123(R) on January 1, 2006, external preclinical and clinical costs related to Lexicon’s drug development programs, and increased personnel costs. For the year ended December 31, 2006, research and development expenses increased 14 percent to \$106.7 million, including \$4.4 million in non-cash, stock-based compensation expense, from \$93.6 million in 2005.

General and Administrative Expenses: General and administrative expenses for the three months ended December 31, 2006 increased 17 percent to \$5.1 million from \$4.3 million for the corresponding period in 2005. The increase was primarily due to non-cash, stock-based compensation expense of \$0.6 million resulting from Lexicon’s adoption of SFAS No. 123(R) on January 1, 2006. For the year ended December 31, 2006, general and administrative expenses increased 17 percent to \$21.3 million, including \$2.6 million in non-cash, stock-based compensation expense, from \$18.2 million in 2005.

Net Loss: Net loss for the three months ended December 31, 2006 was \$13.8 million, or \$0.19 per share, compared to net income of \$5.9 million, or \$0.09 per share, in the corresponding period in 2005. Lexicon had net income in the 2005 period principally because of the payments received from Genentech for achieving performance milestones during the period. For the three months ended December 31, 2006, net loss included non-cash, stock-based compensation expense of \$1.6 million, or \$0.02 per share. Net loss for the year ended December 31, 2006 was \$54.3 million, or \$0.81 per share, compared to a net loss of \$36.3 million, or \$0.57 per share, in 2005. For the year ended December 31, 2006, net loss included non-cash, stock-based compensation expense of \$7.0 million, or \$0.11 per share.

Cash and Investments: As of December 31, 2006, Lexicon had \$80.0 million in cash and investments, including restricted cash and investments, as compared to \$53.0 million as of September 30, 2006 and \$99.7 million as of December 31, 2005. In October 2006, Lexicon raised \$37.5 million in net proceeds through the sale of 10,582,011 shares of its common stock in a direct equity placement.

“By refocusing our operations on drug discovery and development activities, we will be able to maximize the financial resources and personnel dedicated to our 10T010 Program, while keeping strict control of our expenses,” said Julia P. Gregory, Lexicon’s executive vice president, corporate development and chief financial officer.

Recent Events

10T010 Program Emphasizes Drug Development: In January 2007, Lexicon announced that it is focusing its operations on drug discovery and development activities related to its 10T010 Program. The 10T010 Program is an ongoing company initiative with the goal of advancing ten drug candidates into human clinical trials by 2010. Lexicon expects the 10T010 clinical development programs to result from its internal drug discovery efforts as well as from efforts with collaborators.

Lexicon’s operational realignment is made possible by the scheduled completion of its Genome5000™ program. Lexicon is reducing the financial and human resources applied to its genetic research efforts and will reallocate those resources to its novel drug development programs. To reflect its refocused business model, Lexicon is changing its name to Lexicon Pharmaceuticals, Inc. Lexicon’s planned name change will be submitted for shareholder approval at its upcoming annual shareholder meeting.

LX6171 for Cognitive Disorders Begins Phase 1b Clinical Trial: In January 2007, Lexicon initiated a Phase 1b clinical trial of LX6171, its oral drug candidate for the treatment of cognitive impairment associated with disorders such as Alzheimer’s disease, schizophrenia and vascular dementia. The Phase 1b trial is a randomized, double-blind, placebo-controlled, multiple ascending-dose study to further evaluate LX6171’s safety, tolerability and pharmacokinetics. LX6171 will be studied in approximately 40 normal healthy volunteers, including a cohort of elderly subjects. Lexicon expects results from this trial in mid-2007. In an initial Phase 1 trial, LX6171 was well tolerated at all dose levels studied, with no clinically significant changes noted.

LX1031 for Irritable Bowel Syndrome Begins Phase 1 Clinical Trials: In January 2007, Lexicon initiated Phase 1 clinical trials of LX1031, its oral drug candidate for irritable bowel syndrome and other gastrointestinal disorders. The Phase 1 clinical trial of LX1031 is a randomized, double-blind, ascending single dose study that will evaluate LX1031’s safety, tolerability and pharmacokinetics in approximately 40 normal healthy volunteers. This trial is expected to be followed by a randomized, double-blind, ascending multiple dose study of similar size. Lexicon expects results from both of these trials in 2007.

IND-enabling Studies Underway for LX2931 for Autoimmune Disease and LX1032 for Gastrointestinal Disorders: Lexicon has commenced formal preclinical development for LX2931 and LX1032 in preparation for Investigational New Drug (IND) applications. LX2931 is an orally-available small molecule compound with potential application in the treatment of autoimmune diseases such as multiple sclerosis and rheumatoid arthritis. LX1032 is an orally-available small molecule compound with potential for utility in a range of gastrointestinal disorders and selected non-GI indications such as pulmonary arterial hypertension and carcinoid syndrome.

Lexicon Conference Call:

Lexicon management will hold a conference call to discuss the company's results and provide financial guidance for 2007 at 11:00 a.m. Eastern Time on February 21, 2007. The dial-in number for the conference call is 800-458-9009 (within the United States) or 719-457-2623 (international). The pass code for all callers is 7415325. Investors can access www.lexicon-genetics.com to listen to a live webcast of the call. The webcast will be archived and available for review through February 26, 2007.

About Lexicon

Lexicon is a biopharmaceutical company focused on the discovery and development of breakthrough treatments for human disease. Lexicon currently has clinical programs underway for such areas of major unmet medical need as irritable bowel syndrome and cognitive disorders. The company has used its proprietary gene knockout technology to discover more than 100 promising drug targets and create an extensive pipeline of clinical and preclinical programs in the therapeutic areas of diabetes and obesity, cardiovascular disease, psychiatric and neurological disorders, cancer, immune system disorders and ophthalmic disease. To advance the development and commercialization of its programs, Lexicon is working both independently and through collaborators which include Bristol-Myers Squibb Company, Genentech, Inc., N.V. Organon and Takeda Pharmaceutical Company Limited. For additional information about Lexicon and its programs, please visit www.lexicon-genetics.com.

Safe Harbor Statement

This press release contains "forward-looking statements," including statements relating to Lexicon's plans regarding regulatory filings and clinical development programs for LX6171, LX1031, LX2931 and LX1032 and the potential therapeutic and commercial potential of LX6171, LX1031, LX2931, LX1032 and other potential drug candidates in Lexicon's preclinical pipeline. 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 LX6171 and LX1031 and preclinical development of LX2931, LX1032 and 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 "Business — Risk Factors" in Lexicon's annual report on Form 10-K for the year ended December 31, 2005, 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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Lexicon Genetics Incorporated

Selected Financial Data

Consolidated Statements of Operations Data (In thousands, except per share data)	Three Months Ended December 31,		Year Ended December 31,	
	2006	2005	2006	2005
	(unaudited)		(unaudited)	
Revenues:				
Collaborative research	\$ 14,946	\$ 33,393	\$ 68,373	\$ 69,567
Subscription and license fees	1,120	501	4,425	6,113
Total revenues	<u>16,066</u>	<u>33,894</u>	<u>72,798</u>	<u>75,680</u>
Operating expenses:				
Research and development, including stock-based compensation of \$1,039, (\$1), \$4,394 and (\$21), respectively	25,580	23,854	106,695	93,625
General and administrative, including stock-based compensation of \$625, \$0, \$2,636 and \$0, respectively	5,058	4,318	21,334	18,174
Total operating expenses	<u>30,638</u>	<u>28,172</u>	<u>128,029</u>	<u>111,799</u>
Income (loss) from operations	(14,572)	5,722	(55,231)	(36,119)
Interest income	976	881	3,653	2,645
Interest expense	(816)	(815)	(3,253)	(3,280)
Other income	470	245	401	558
Income (loss) before income taxes	(13,942)	6,033	(54,430)	(36,196)
Income tax provision	119	(119)	119	(119)
Net income (loss)	<u>\$ (13,823)</u>	<u>\$ 5,914</u>	<u>\$ (54,311)</u>	<u>\$ (36,315)</u>
Net income (loss) per common share, basic and diluted	<u>\$ (0.19)</u>	<u>\$ 0.09</u>	<u>\$ (0.81)</u>	<u>\$ (0.57)</u>
Shares used in computing net income (loss) per common share, basic	73,405	64,539	66,876	63,962
Shares used in computing net income (loss) per common share, diluted	73,405	67,317	66,876	63,962
Consolidated Balance Sheet Data (In thousands)				
		<u>As of December 31,</u> <u>2006</u>		<u>As of December 31,</u> <u>2005</u>
		(unaudited)		
Cash and investments, including restricted cash and investments of \$430		\$ 79,999		\$ 99,695
Property and equipment, net		78,192		85,265
Goodwill		25,798		25,798
Intangible assets other than goodwill, net		—		640
Total assets		190,266		218,714
Deferred revenue		58,000		81,582
Current and long-term debt		32,188		36,940
Accumulated deficit		(351,741)		(297,430)
Total stockholders' equity		85,501		85,802