

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

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the Quarterly Period Ended March 31, 2008

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934

For the Transition Period from _____ to _____

Commission File Number: 000-30111

Lexicon Pharmaceuticals, Inc.
(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

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)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes No

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

Large accelerated filer Accelerated filer Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

As of April 28, 2008, 136,795,546 shares of the registrant's common stock, par value \$0.001 per share, were outstanding.

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Factors Affecting Forward Looking Statements

This quarterly report on Form 10-Q contains forward-looking statements. These statements relate to future events or our future financial performance. We have attempted to identify forward-looking statements by terminology including “anticipate,” “believe,” “can,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “should” or “will” or the negative of these terms or other comparable terminology. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks outlined under “Part II, Item 1A. – Risk Factors,” that may cause our or our industry’s actual results, levels of activity, performance or achievements to be materially different from any future results, levels or activity, performance or achievements expressed or implied by these forward-looking statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. We are not under any duty to update any of the forward-looking statements after the date of this quarterly report on Form 10-Q to conform these statements to actual results, unless required by law.

Part I – Financial Information**Item 1. Financial Statements****Lexicon Pharmaceuticals, Inc.****Consolidated Balance Sheets**
(In thousands, except par value)

Assets	As of March 31, 2008 (unaudited)	As of December 31, 2007
Current assets:		
Cash and cash equivalents	\$ 59,457	\$ 22,938
Short-term investments, including restricted investments of \$430	76,630	199,171
Short-term investments held by Symphony Icon, Inc.	33,421	36,666
Accounts receivable, net of allowances of \$35	1,244	1,763
Prepaid expenses and other current assets	3,623	4,112
Total current assets	174,375	264,650
Long-term investments	59,288	—
Property and equipment, net of accumulated depreciation and amortization of \$66,774 and \$65,004, respectively	69,650	70,829
Goodwill	25,798	25,798
Other assets	7,462	8,019
Total assets	<u>\$ 336,573</u>	<u>\$ 369,296</u>
Liabilities, Noncontrolling Interest and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 4,252	\$ 7,344
Accrued liabilities	9,393	9,093
Current portion of deferred revenue	13,141	18,030
Current portion of long-term debt	905	880
Total current liabilities	27,691	35,347
Deferred revenue, net of current portion	14,719	16,126
Long-term debt	30,251	30,493
Other long-term liabilities	764	759
Total liabilities	73,425	82,725
Noncontrolling interest in Symphony Icon, Inc.	25,347	30,271
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$.01 par value; 5,000 shares authorized; no shares issued and outstanding	—	—
Common stock, \$.001 par value; 300,000 shares authorized; 136,796 and 136,795 shares issued and outstanding, respectively	137	137
Additional paid-in capital	668,481	666,702
Accumulated deficit	(428,485)	(410,535)
Accumulated other comprehensive loss	(2,332)	(4)
Total stockholders' equity	237,801	256,300
Total liabilities and stockholders' equity	<u>\$ 336,573</u>	<u>\$ 396,296</u>

The accompanying notes are an integral part of these consolidated financial statements.

Lexicon Pharmaceuticals, Inc.

Consolidated Statements of Operations
(In thousands, except per share amounts)
(Unaudited)

	Three Months Ended March 31,	
	2008	2007
Revenues:		
Collaborative research	\$ 7,634	\$ 12,271
Subscription and license fees	1,259	1,224
Total revenues	8,893	13,495
Operating expenses:		
Research and development, including stock-based compensation of \$1,127 and \$991, respectively	27,802	27,290
General and administrative, including stock-based compensation of \$652 and \$568, respectively	5,529	5,300
Total operating expenses	33,331	32,590
Loss from operations	(24,438)	(19,095)
Interest income	2,781	880
Interest expense	(670)	(688)
Other expense, net	(547)	(12)
Loss before noncontrolling interest in Symphony Icon, Inc.	(22,874)	(18,915)
Loss attributable to noncontrolling interest in Symphony Icon, Inc.	4,924	—
Net loss	\$ (17,950)	\$ (18,915)
Net loss per common share, basic and diluted	\$ (0.13)	\$ (0.24)
Shares used in computing net loss per common share, basic and diluted	136,795	77,938

The accompanying notes are an integral part of these consolidated financial statements.

Lexicon Pharmaceuticals, Inc.

Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Three Months Ended March 31,	
	2008	2007
Cash flows from operating activities:		
Net loss	\$ (17,950)	\$ (18,915)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	2,058	2,468
Amortization of Symphony Icon, Inc. purchase option	535	—
Loss attributable to noncontrolling interest	(4,924)	—
Stock-based compensation	1,779	1,559
Changes in operating assets and liabilities:		
(Increase) decrease in accounts receivable	519	(536)
Decrease in prepaid expenses and other current assets	489	830
(Increase) decrease in other assets	22	(28)
Decrease in accounts payable and other liabilities	(2,787)	(2,695)
Decrease in deferred revenue	(6,296)	(3,500)
Net cash used in operating activities	(26,555)	(20,817)
Cash flows from investing activities:		
Purchases of property and equipment	(879)	(318)
Maturities of investments held by Symphony Icon, Inc.	3,245	—
Purchases of short-term investments	(39,848)	(5,692)
Maturities of short-term investments	100,773	15,564
Net cash provided by investing activities	63,291	9,554
Cash flows from financing activities:		
Proceeds from issuance of common stock	—	851
Repayment of debt borrowings	(217)	(206)
Net cash provided by (used in) financing activities	(217)	645
Net increase (decrease) in cash and cash equivalents	36,519	(10,618)
Cash and cash equivalents at beginning of period	22,938	30,226
Cash and cash equivalents at end of period	\$ 59,457	\$ 19,608
Supplemental disclosure of cash flow information:		
Cash paid for interest	\$ 656	\$ 662
Supplemental disclosure of non-cash investing and financing activities:		
Unrealized loss on investments	\$ (2,328)	\$ 9
Retirement of property and equipment	\$ 288	\$ 219

The accompanying notes are an integral part of these consolidated financial statements.

Lexicon Pharmaceuticals, Inc.**Notes to Consolidated Financial Statements
(Unaudited)****1. Basis of Presentation**

The accompanying unaudited consolidated financial statements of Lexicon Pharmaceuticals, Inc. (“Lexicon” or the “Company”) have been prepared in accordance with generally accepted accounting principles for interim financial information and pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”). Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements.

In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation have been included. Operating results for the three-month period ended March 31, 2008 are not necessarily indicative of the results that may be expected for the year ended December 31, 2008.

The accompanying consolidated financial statements include the accounts of Lexicon and its wholly-owned subsidiaries, as well as one variable interest entity, Symphony Icon, Inc. (“Symphony Icon”), for which the Company is the primary beneficiary as defined by the Financial Accounting Standards Board (“FASB”) Interpretation No. 46 (revised 2003), “Consolidation of Variable Interest Entities” (“FIN 46R”). Intercompany transactions and balances are eliminated in consolidation.

For further information, refer to the financial statements and footnotes thereto included in Lexicon’s annual report on Form 10-K for the year ended December 31, 2007, as filed with the SEC.

2. Net Loss Per Share

Net loss per share is computed using the weighted average number of shares of common stock outstanding during the applicable period. Shares associated with stock options and warrants are not included because they are antidilutive. There are no differences between basic and diluted net loss per share for all periods presented.

3. Stock-Based Compensation

Under the provisions of Statement of Financial Accounting Standards (“SFAS”) No. 123 (Revised), “Share-Based Payment,” the Company recorded \$1.8 million and \$1.6 million of stock-based compensation expense for the three months ended March 31, 2008 and 2007, respectively. The Company utilized the Black-Scholes valuation model for estimating the fair value of the stock compensation granted, with the following weighted-average assumptions for options granted in the three months ended March 31, 2008 and 2007, respectively.

	<u>Expected Volatility</u>	<u>Risk-free Interest Rate</u>	<u>Expected Term</u>	<u>Estimated Forfeitures</u>	<u>Dividend Rate</u>
March 31, 2008:					
Employees	66%	2.9%	6	20%	0%
Officers and non-employee directors	66%	3.8%	9	4%	0%
March 31, 2007:					
Employees	67%	4.5%	6	20%	0%
Officers and non-employee directors	67%	4.6 %	9	4%	0 %

The following is a summary of option activity under Lexicon's stock option plans for the three months ended March 31, 2008:

	<u>Options</u>		<u>Weighted Average Exercise Price</u>
	(in thousands)		
Outstanding at December 31, 2007	16,351	\$	5.65
Granted	3,859		2.08
Exercised	—		1.67
Canceled	(191)		5.28
Outstanding at March 31, 2008	<u>20,019</u>		4.96
Exercisable at March 31, 2008	<u>12,644</u>	\$	6.09

4. Recent Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, "Fair Value Measurements." The statement defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. This statement applies under other accounting pronouncements that require or permit fair value measurements, the FASB having previously concluded in those accounting pronouncements that fair value is the relevant measurement attribute. Accordingly, this statement does not require any new fair value measurements. More specifically, SFAS No. 157 emphasizes that fair value is a market-based measurement, not an entity-specific measurement, and sets out a fair value hierarchy, which ranks the quality and reliability of the information used to determine fair values. SFAS No. 157 was effective January 1, 2008 for financial assets and liabilities and will be effective January 1, 2009 for non-financial assets and liabilities. The adoption of SFAS No. 157 for financial assets and liabilities did not have an effect on the Company's financial condition or results of operations. The Company is currently evaluating the effect, if any, of the adoption of this statement for non-financial assets and liabilities on its financial condition and results of operations.

In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities - including an amendment of FASB Statement No. 115," which provides a fair value option election that permits entities to irrevocably elect to measure many financial instruments and certain other items at fair value, with changes in fair value recognized in earnings as they occur. SFAS No. 159 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. SFAS No. 159 does not affect any existing accounting literature that requires certain assets and liabilities to be carried at fair value. SFAS No. 159 is effective as of the beginning of an entity's first fiscal year that begins after November 15, 2007. The Company's adoption of SFAS No. 159 on January 1, 2008 did not materially affect its financial position or results of operations.

In December 2007, the FASB issued SFAS No. 141(Revised), "Business Combinations," which replaces SFAS No. 141, "Business Combinations," and requires an acquirer to recognize the assets acquired, the liabilities assumed, and any non-controlling interest in the acquiree at the acquisition date, measured at their fair values as of that date, with limited exceptions. This statement also requires the acquirer in a business combination achieved in stages to recognize the identifiable assets and liabilities, as well as the non-controlling interest in the acquiree, at the full amounts of their fair values. SFAS No. 141(R) makes various other amendments to authoritative literature intended to provide additional guidance or to confirm the guidance in that literature to that provided in this statement. This statement applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. The Company expects to adopt this statement on January 1, 2009. SFAS No. 141(R)'s impact on accounting for business combinations is dependent upon acquisitions, if any, made on or after that time.

In December 2007, the FASB issued SFAS No. 160, “Noncontrolling Interests in Consolidated Financial Statements,” which amends Accounting Research Bulletin No. 51, “Consolidated Financial Statements,” to improve the relevance, comparability, and transparency of the financial information that a reporting entity provides in its consolidated financial statements. SFAS No. 160 establishes accounting and reporting standards that require the ownership interests in subsidiaries not held by the parent to be clearly identified, labeled and presented in the consolidated statement of financial position within equity, but separate from the parent’s equity. This statement also requires the amount of consolidated net income attributable to the parent and to the non-controlling interest to be clearly identified and presented on the face of the consolidated statement of income. Changes in a parent’s ownership interest while the parent retains its controlling financial interest must be accounted for consistently, and when a subsidiary is deconsolidated, any retained non-controlling equity investment in the former subsidiary must be initially measured at fair value. The gain or loss on the deconsolidation of the subsidiary is measured using the fair value of any non-controlling equity investment. The statement also requires entities to provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the non-controlling owners. This statement applies prospectively to all entities that prepare consolidated financial statements and applies prospectively for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008. The Company is currently evaluating the effect, if any, of this statement on its financial condition and results of operations.

5. Cash and Cash Equivalents and Investments

The fair value of cash and cash equivalents and investments held at March 31, 2008 and December 31, 2007 are as follows:

	As of March 31, 2008			Estimated Fair Value
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	
	(In thousands)			
Cash and cash equivalents	\$ 59,457	\$ —	\$ —	\$ 59,457
Securities maturing within one year:				
Certificates of deposit	2,210	3	—	2,213
Corporate debt securities	30,520	116	(5)	30,631
Commercial paper	43,695	91	—	43,786
Total short-term investments	\$ 76,425	\$ 210	\$ (5)	\$ 76,630
Short-term investments held by Symphony Icon, Inc.:				
Cash and cash equivalents	33,421	—	—	33,421
Total short-term investments held by Symphony Icon, Inc.	\$ 33,421	\$ —	\$ —	\$ 33,421
Securities maturing after ten years:				
Auction rate securities	61,825	—	(2,537)	59,288
Total long-term investments	\$ 61,825	\$ —	\$ (2,537)	\$ 59,288
Total cash and cash equivalents and investments	\$ 231,128	\$ 210	\$ (2,542)	\$ 228,796

	As of December 31, 2007			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
	(In thousands)			
Cash and cash equivalents	\$ 22,950	\$ —	\$ (12)	\$ 22,938
Securities maturing within one year:				
Certificates of deposit	6,312	—	(3)	6,309
Corporate debt securities	41,162	12	(51)	41,123
Commercial paper	71,214	47	—	71,261
U.S. government agencies securities	2,500	3	—	2,503
Total securities maturing within one year	121,188	62	(54)	121,196
Securities maturing after ten years:				
Auction rate securities	77,975	—	—	77,975
Total available-for-sale investments	\$ 199,163	\$ 62	\$ (54)	\$ 199,171
Short-term investments held by Symphony Icon, Inc.:				
Cash and cash equivalents	36,666	—	—	36,666
Total short-term investments held by Symphony Icon, Inc.	\$ 36,666	\$ —	\$ —	\$ 36,666
Total cash and cash equivalents and investments	\$ 258,779	\$ 62	\$ (66)	\$ 258,775

There were \$31,000 of realized gains for the three months ended March 31, 2008. There were no realized gains or losses for the three months ended March 31, 2007.

At March 31, 2008, Lexicon held \$61.8 million (par value), with an estimated fair value of \$59.3 million, of triple-A rated municipal note investments with an auction interest rate reset feature, known as auction rate securities. These notes are issued by various state and local municipal entities for the purpose of financing student loans, public projects and other activities. The securities have historically traded at par and are redeemable at par plus accrued interest at the option of the issuer. Interest is typically paid at the end of each auction period or semiannually. Until February 2008, the market for Lexicon's auction rate securities was highly liquid. Starting in February 2008, a substantial number of auctions "failed," meaning that there was not enough demand to sell all of the securities that holders desired to sell at auction. The immediate effect of a failed auction is that such holders cannot sell the securities at auction and the interest rate on the security generally resets to a maximum interest rate. In the case of funds invested by Lexicon in auction rate securities which are the subject of a failed auction, Lexicon may not be able to access the funds without a loss of principal, unless a future auction on these investments is successful or the issuer redeems the security. As of March 31, 2008, Lexicon reclassified the entire auction rate security investment balance from short-term investments to long-term investments on its consolidated balance sheet because of the Company's inability to determine when its investments in auction rate securities would be sold. Lexicon has also modified its current investment strategy and increased its investments in more liquid money market investments.

At March 31, 2008, observable auction rate securities market information was not available to determine the fair value of Lexicon's investments. Therefore, Lexicon estimated fair value using a discounted cash flow model incorporating assumptions that market participants would use in their estimates of fair value. Some of these assumptions include estimates for interest rates, timing and amount of cash flows and expected holding periods of the auction rate securities. Based on this assessment of fair value, as of March 31, 2008, Lexicon determined there was a temporary decline in the fair value of its auction rate securities of \$2.5 million. If the current market conditions deteriorate further, or a recovery in market values does not occur, Lexicon may be required to record additional unrealized or realized losses in future quarters.

Excluding auction rate securities, at March 31, 2008, Lexicon had approximately \$169.5 million in cash and cash equivalents and short-term investments, including \$33.4 million in investments held by Symphony Icon. Management believes that the working capital available to Lexicon excluding the funds held in auction rate securities will be sufficient to meet its cash requirements for at least the next 12 months.

6. Fair Value of Financial Instruments

The Company uses various inputs in determining the fair value of its investments and measures these assets on a quarterly basis. Financial assets recorded at fair value in the consolidated balance sheet are categorized by the level of objectivity associated with the inputs used to measure their fair value. SFAS No. 157 defines the following levels directly related to the amount of subjectivity associated with the inputs to fair valuation of these financial assets:

- Level 1 – quoted prices in active markets for identical investments
- Level 2 – other significant observable inputs (including quoted prices for similar investments, market corroborated inputs, etc.)
- Level 3 – significant unobservable inputs (including the Company’s own assumptions in determining the fair value of investments)

The inputs or methodology used for valuing securities are not necessarily an indication of the credit risk associated with investing in those securities. Based on market conditions and the unavailability of Level 1 inputs, during the three months ended March 31, 2008, the Company adopted a discounted cash flow valuation methodology for its auction rate securities. Accordingly, the investments in auction rate securities changed from Level 1 to Level 3 within SFAS No. 157’s valuation levels since the Company’s initial adoption of SFAS No. 157 on January 1, 2008. The following table provides the fair value measurements of applicable Company financial assets according to the fair value levels defined by SFAS No. 157 as of March 31, 2008.

	Financial Assets at Fair Value as of March 31, 2008		
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
	(in thousands)		
Cash and cash equivalents	\$ 59,457	\$ -	\$ -
Short-term investments	76,630	-	-
Short-term investments held by Symphony Icon, Inc.	33,421	-	-
Long-term investments	-	-	59,288
Total cash and cash equivalents and investments	<u>\$ 169,508</u>	<u>\$ -</u>	<u>\$ 59,288</u>

	Financial Assets at Fair Value as of December 31, 2007		
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
	(in thousands)		
Cash and cash equivalents	\$ 22,938	\$ -	\$ -
Short-term investments	199,171	-	-
Short-term investments held by Symphony Icon, Inc.	36,666	-	-
Total cash and cash equivalents and investments	<u>\$ 258,775</u>	<u>\$ -</u>	<u>\$ -</u>

The table presented below summarizes the change in consolidated balance sheet carrying value associated with Level 3 financial assets for the three months ended March 31, 2008.

	Long-term Investments (in thousands)
Balance at December 31, 2007	\$ —
Total unrealized losses included in other comprehensive loss	(2,537)
Net sales and settlements	(16,225)
Transfers into Level 3	78,050
Balance at March 31, 2008	<u>\$ 59,288</u>

7. Debt Obligations

In April 2004, Lexicon obtained a \$34.0 million mortgage on its facilities in The Woodlands, Texas. The mortgage loan has a ten-year term with a 20-year amortization and bears interest at a fixed rate of 8.23%.

8. Commitments and Contingencies

A Lexicon subsidiary leases laboratory and office space in Hopewell, New Jersey under an agreement which expires in June 2013. The lease provides for two five-year renewal options at 95% of the fair market rent and includes escalating lease payments. Rent expense is recognized on a straight-line basis over the original lease term. Lexicon is the guarantor of the obligations of its subsidiary under this lease. The Company is required to maintain restricted investments to collateralize a standby letter of credit for this lease. The Company had \$0.4 million in restricted investments as collateral as of March 31, 2008 and December 31, 2007.

9. Comprehensive Loss

Comprehensive loss consists of:

	Three Months Ended March 31,	
	2008	2007
	(in thousands)	
Net loss	\$ (17,950)	\$ (18,915)
Unrealized gain on short-term investments	209	9
Unrealized loss on long-term investments	(2,537)	—
Net comprehensive loss	<u>\$ (20,278)</u>	<u>\$ (18,906)</u>

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Overview

We are a biopharmaceutical company focused on discovering and developing breakthrough treatments for human disease. We use our proprietary gene knockout technology to knock out, or disrupt, the function of genes in mice and then employ an integrated platform of advanced medical technologies to systematically discover the physiological and behavioral functions of the genes we have knocked out and assess the utility of the proteins encoded by the corresponding human genes as potential drug targets. For targets that we believe have high pharmaceutical value, we engage in programs for the discovery and development of potential small molecule, antibody and protein drugs. We have advanced four drug candidates into human clinical trials, with one additional drug candidate in preclinical development and compounds from a number of additional programs in various stages of preclinical research. We believe that our systematic, target biology-driven approach to drug discovery will enable us to substantially expand our clinical pipeline, and we are engaged in efforts that we refer to as our 10_{TO}10 program with the goal of advancing ten drug candidates into human clinical trials by the end of 2010.

We are working both independently and through strategic collaborations and alliances to capitalize on our technology and drug target discoveries and to develop and commercialize drug candidates emerging from our drug discovery and development programs. We have established alliances with Bristol-Myers Squibb Company to discover and develop novel small molecule drugs in the neuroscience field; with Genentech, Inc. for the discovery of therapeutic proteins and antibody targets and the development of antibody and protein drugs based on those targets; and with N.V. Organon for the discovery of another group of therapeutic proteins and antibody targets and the development and commercialization of antibody and protein drugs based on those targets. In addition, we have established collaborations and license agreements with other leading pharmaceutical and biotechnology companies, research institutes and academic institutions under which we receive fees and, in some cases, are eligible to receive milestone and royalty payments, in return for granting access to some of our technologies and discoveries for use in the other organization's own drug discovery efforts. Finally, we have established a product development financing collaboration with Symphony Icon, Inc. under which we have licensed to Symphony Icon our intellectual property rights to our drug candidates LX6171, LX1031 and LX1032, subject to our exclusive option to reacquire all rights to those drug candidates. We are consolidating the financial condition and results of operations of Symphony Icon in accordance with Financial Accounting Standards Board, or FASB, Interpretation No. 46.

We derive substantially all of our revenues from drug discovery and development alliances, target validation collaborations for the development and, in some cases, analysis of the physiological effects of genes altered in knockout mice, academic, non-profit and government arrangements, and technology licenses. To date, we have generated a substantial portion of our revenues from a limited number of sources.

Our operating results and, in particular, our ability to generate additional revenues are dependent on many factors, including our success in establishing collaborations, alliances and technology licenses, expirations of our collaborations and alliances, the success rate of our discovery and development efforts leading to opportunities for new collaborations, alliances and licenses, as well as milestone payments and royalties, the timing and willingness of collaborators to commercialize products which may result in royalties, and general and industry-specific economic conditions which may affect research and development expenditures. Our future revenues from collaborations, alliances and academic, non-profit and government arrangements are uncertain because our existing agreements have fixed terms or relate to specific projects of limited duration. Our future revenues from technology licenses are uncertain because they depend, in large part, on securing new agreements. Our ability to secure future revenue-generating agreements will depend upon our ability to address the needs of our potential future collaborators, granting agencies and licensees, and to negotiate agreements that we believe are in our long-term best interests. We may determine that our interests are better served by retaining rights to our discoveries and advancing our therapeutic programs to a later stage, which could limit our near-term revenues. Because of these and other factors, our operating results have fluctuated in the past and are likely to do so in the future, and we do not believe that period-to-period comparisons of our operating results are a good indication of our future performance.

Since our inception, we have incurred significant losses and, as of March 31, 2008, we had an accumulated deficit of \$428.5 million. Our losses have resulted principally from costs incurred in research and development, general and administrative costs associated with our operations, and non-cash stock-based compensation expenses associated with stock options granted to employees and consultants. Research and development expenses consist primarily of salaries and related personnel costs, external research costs related to our preclinical and clinical efforts, material costs, facility costs, depreciation on property and equipment, legal expenses resulting from intellectual property prosecution and other expenses related to our drug discovery and development programs, the development and analysis of knockout mice and our other target validation research efforts, and the development of compound libraries. General and administrative expenses consist primarily of salaries and related expenses for executive and administrative personnel, professional fees and other corporate expenses including information technology, facilities costs and general legal activities. In connection with the expansion of our drug discovery and development programs and our ongoing target validation research efforts, we expect to incur increasing research and development and general and administrative costs. As a result, we will need to generate significantly higher revenues to achieve profitability.

Critical Accounting Policies

The preparation of financial statements in conformity with generally accepted accounting principles requires us to make judgments, estimates and assumptions in the preparation of our consolidated financial statements and accompanying notes. Actual results could differ from those estimates. We believe there have been no significant changes in our critical accounting policies as discussed in our Annual Report on Form 10-K for the year ended December 31, 2007.

Recent Accounting Pronouncements

In September 2006, the FASB issued Statement of Financial Accounting Standards, or SFAS, No. 157, "Fair Value Measurements." The statement defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements. This statement applies under other accounting pronouncements that require or permit fair value measurements, the FASB having previously concluded in those accounting pronouncements that fair value is the relevant measurement attribute. Accordingly, this statement does not require any new fair value measurements. More specifically, SFAS No. 157 emphasizes that fair value is a market-based measurement, not an entity-specific measurement, and sets out a fair value hierarchy, which ranks the quality and reliability of the information used to determine fair value. SFAS No. 157 was effective January 1, 2008 for financial assets and liabilities and will be effective January 1, 2009 for non-financial assets and liabilities. The adoption of SFAS No. 157 for financial assets and liabilities did not have an effect on our financial condition or results of operations. We are currently evaluating the effect, if any, of the adoption of this statement for non-financial assets and liabilities on our financial condition and results of operations.

In February 2007, the FASB issued SFAS No. 159, “The Fair Value Option for Financial Assets and Financial Liabilities - including an amendment of FASB Statement No. 115,” which provides a fair value option election that permits entities to irrevocably elect to measure many financial instruments and certain other items at fair value, with changes in fair value recognized in earnings as they occur. SFAS No. 159 also establishes presentation and disclosure requirements designed to facilitate comparisons between entities that choose different measurement attributes for similar types of assets and liabilities. SFAS No. 159 does not affect any existing accounting literature that requires certain assets and liabilities to be carried at fair value. SFAS No. 159 is effective as of the beginning of an entity’s first fiscal year that begins after November 15, 2007. Our adoption of SFAS No. 159 on January 1, 2008 did not materially affect our financial position or results of operations.

In December 2007, the FASB issued SFAS No. 141(Revised), “Business Combinations,” which replaces SFAS No. 141, “Business Combinations,” and requires an acquirer to recognize the assets acquired, the liabilities assumed, and any noncontrolling interest in the acquiree at the acquisition date, measured at their fair values as of that date, with limited exceptions. This statement also requires the acquirer in a business combination achieved in stages to recognize the identifiable assets and liabilities, as well as the noncontrolling interest in the acquiree, at the full amounts of their fair values. SFAS No. 141(R) makes various other amendments to authoritative literature intended to provide additional guidance or to confirm the guidance in that literature to that provided in this statement. This statement applies prospectively to business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after December 15, 2008. We expect to adopt this statement on January 1, 2009. SFAS No. 141(R)’s impact on accounting for business combinations is dependent upon acquisitions, if any, made on or after that time.

In December 2007, the FASB issued SFAS No. 160, “Noncontrolling Interests in Consolidated Financial Statements,” which amends Accounting Research Bulletin No. 51, “Consolidated Financial Statements,” to improve the relevance, comparability, and transparency of the financial information that a reporting entity provides in its consolidated financial statements. SFAS No. 160 establishes accounting and reporting standards that require the ownership interests in subsidiaries not held by the parent to be clearly identified, labeled and presented in the consolidated statement of financial position within equity, but separate from the parent’s equity. This statement also requires the amount of consolidated net income attributable to the parent and to the noncontrolling interest to be clearly identified and presented on the face of the consolidated statement of income. Changes in a parent’s ownership interest while the parent retains its controlling financial interest must be accounted for consistently, and when a subsidiary is deconsolidated, any retained noncontrolling equity investment in the former subsidiary must be initially measured at fair value. The gain or loss on the deconsolidation of the subsidiary is measured using the fair value of any noncontrolling equity investment. The statement also requires entities to provide sufficient disclosures that clearly identify and distinguish between the interests of the parent and the interests of the noncontrolling owners. This statement applies prospectively to all entities that prepare consolidated financial statements and applies prospectively for fiscal years, and interim periods within those fiscal years, beginning on or after December 15, 2008. We are currently evaluating the effect, if any, of this statement on our financial condition and results of operations.

Results of Operations

Three Months Ended March 31, 2008 and 2007

Revenues

Total revenues and dollar and percentage changes as compared to the corresponding period in the prior year are as follows (dollar amounts are presented in millions):

	Three Months Ended March 31,	
	2008	2007
Total revenues	\$ 8.9	\$ 13.5
Dollar decrease	\$ 4.6	
Percentage decrease	34%	

- *Collaborative research* – Revenue from collaborative research decreased 38% to \$7.6 million, primarily due to the completion in 2007 of the project funded by our award from the Texas Enterprise Fund, reduced revenues in the three months ended March 31, 2008 under our alliance with N.V. Organon due to our progress towards completing the target discovery portion of the alliance, and the completion in 2007 of the target discovery portion of our alliance with Takeda Pharmaceutical Company Limited.
- *Subscription and license fees* – Revenue from subscriptions and license fees increased 3% to \$1.3 million, primarily due to higher royalties received under a technology license agreement with Deltagen, Inc.

Research and Development Expenses

Research and development expenses and dollar and percentage changes as compared to the corresponding period in the prior year are as follows (dollar amounts are presented in millions):

	Three Months Ended March 31,	
	2008	2007
Total research and development expense	\$ 27.8	\$ 27.3
Dollar increase	\$ 0.5	
Percentage increase	2%	

Research and development expenses consist primarily of salaries and other personnel-related expenses, facility and equipment costs, laboratory supplies, third-party and other services and stock-based compensation expenses.

- *Personnel* – Personnel costs decreased 7% to \$11.9 million, primarily due to severance costs in the prior-year period associated with a reduction in our personnel in January 2007. Salaries, bonuses, employee benefits, payroll taxes, recruiting and relocation costs are included in personnel costs.
- *Facilities and equipment* – Facilities and equipment costs decreased 11% to \$4.7 million, primarily due to a decrease in depreciation expense.
- *Laboratory supplies* – Laboratory supplies expense decreased 18% to \$2.6 million, primarily due to reallocating resources from genetic research to drug development.
- *Third-party and other services* – Third-party and other services increased 59% to \$6.4 million, primarily due to an increase in external preclinical and clinical research and development costs.
- *Stock-based compensation* – Stock-based compensation expense increased 14% to \$1.1 million.
- *Other* – Other costs were \$1.1 million, consistent with the prior year.

General and Administrative Expenses

General and administrative expenses and dollar and percentage changes as compared to the corresponding period in the prior year are as follows (dollar amounts are presented in millions):

	Three Months Ended March 31,	
	2008	2007
Total general and administrative expense	\$ 5.5	\$ 5.3
Dollar increase	\$ 0.2	
Percentage increase	4%	

General and administrative expenses consist primarily of personnel costs to support our research activities, facility and equipment costs, professional fees such as legal fees, and stock-based compensation expenses.

- *Personnel* – Personnel costs decreased 8% to \$2.9 million, primarily due to severance costs in the prior-year period associated with a reduction in our personnel in January 2007. Salaries, bonuses, employee benefits, payroll taxes, recruiting and relocation costs are included in personnel costs.
- *Facilities and equipment* – Facilities and equipment costs decreased 13% to \$0.6 million, primarily due to a decrease in depreciation expense.
- *Professional fees* – Professional fees increased 102% to \$0.8 million, primarily due to increased market research and other consulting costs.
- *Stock-based compensation* – Stock-based compensation expense increased 15% to \$0.7 million.
- *Other* – Other costs increased 12% to \$0.6 million.

Interest Income, Interest Expense and Other Expense, Net

Interest Income. Interest income increased 216% to \$2.8 million in the three months ended March 31, 2008 from \$0.9 million in the corresponding period in 2007, due to higher average cash and investment balances.

Interest Expense. Interest expense was \$0.7 million in the three months ended March 31, 2008, consistent with the prior year.

Other Expense, Net. Other expense, net was \$0.5 million in the three months ended March 31, 2008 primarily due to the amortization of the asset related to the option to purchase the equity of Symphony Icon. We have recorded the value of the purchase option as an asset, and we are amortizing this asset over the four-year option period.

Noncontrolling Interest in Symphony Icon, Inc.

For the three months ended March 31, 2008 and 2007, the losses attributable to the noncontrolling interest holders of Symphony Icon were \$4.9 million and none, respectively.

Net Loss and Net Loss per Common Share

Net Loss and Net Loss per Common Share. Net loss decreased to \$18.0 million in the three months ended March 31, 2008 from \$18.9 million in the corresponding period in 2007. Net loss per common share decreased to \$0.13 in the three months ended March 31, 2008 from \$0.24 in the corresponding period in 2007.

Our quarterly operating results have fluctuated in the past and are likely to do so in the future, and we believe that quarter-to-quarter comparisons of our operating results are not a good indication of our future performance.

Liquidity and Capital Resources

We have financed our operations from inception primarily through sales of common and preferred stock, contract and milestone payments to us under our drug discovery alliance, target validation, database subscription and license agreements, government grants and contracts, and financing obtained under debt and lease arrangements. From our inception through March 31, 2008, we had received net proceeds of \$550.0 million from issuances of common and preferred stock, including \$203.2 million of net proceeds from the initial public offering of our common stock in April 2000, \$50.1 million from our July 2003 common stock offering, \$37.5 million from our October 2006 common stock offering and \$198.0 million from our August 2007 sale of common stock to Invus, L.P. In addition, from our inception through March 31, 2008, we received \$426.9 million in cash payments from drug discovery and development alliances, target validation collaborations, database subscription and technology license fees, sales of compound libraries and reagents, and government grants and contracts, of which \$400.6 million had been recognized as revenues through March 31, 2008.

As of March 31, 2008, we had \$195.4 million in cash, cash equivalents and investments, including \$59.3 million in auction rate securities as discussed below under “Disclosure about Market Risk,” and \$33.4 million in investments held by Symphony Icon. As of December 31, 2007, we had \$222.1 million in cash, cash equivalents and short-term investments, including \$78.0 million in auction rate securities, and \$36.7 million in investments held by Symphony Icon. We used cash of \$26.6 million in operations in the three months ended March 31, 2008. This consisted primarily of the net loss for the period of \$18.0 million, a \$6.3 million decrease in deferred revenue, a \$4.9 million loss attributable to noncontrolling interest and a net increase in other operating assets net of liabilities of \$1.8 million, partially offset by non-cash charges of \$2.1 million related to depreciation expense, \$1.8 million related to stock-based compensation expense and \$0.5 million related to the amortization of the Symphony Icon purchase option. Investing activities provided cash of \$63.3 million in the three months ended March 31, 2008, primarily due to net maturities of short-term investments of \$64.2 million, partially offset by purchases of property and equipment of \$0.9 million. Financing activities used cash of \$0.2 million due to principal repayments of \$0.2 million on the mortgage loan.

In June 2007, we entered into a securities purchase agreement with Invus, L.P, pursuant to which Invus purchased 50,824,986 shares of our common stock for approximately \$205.4 million in August 2007. This purchase resulted in Invus’ ownership of 40% of the post-transaction outstanding shares of our common stock. Pursuant to the securities purchase agreement, Invus, at its option, also 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. Invus may 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 may agree to change the first rights offering trigger date to as early as August 28, 2009 with the approval of the members of our board of directors who are not affiliated with Invus. Invus may exercise its right to require us to conduct the 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. The initial investment and subsequent rights offerings, combined with any qualified offerings, were designed to achieve up to \$550 million in proceeds to us. Invus would participate in each rights offering for up to its pro rata portion of the offering, and would commit to purchase the entire portion of the offering not subscribed for by other stockholders.

In connection with the securities purchase agreement, we entered into a stockholders' agreement with Invus under which Invus (a) has specified rights with respect to designation of directors and participation in future equity issuances by us, (b) is subject to certain standstill restrictions, as well as restrictions on transfer and the voting of the shares of common stock held by it and its affiliates, and (c), as long as Invus holds at least 15% of the total number of outstanding shares of our common stock, is entitled to certain minority protections.

In June 2007, we entered into a series of related agreements providing for the financing of the clinical development of LX6171, LX1031 and LX1032, along with any other pharmaceutical compositions modulating the same targets as those drug candidates. Under the financing arrangement, we licensed to Symphony Icon, a wholly-owned subsidiary of Symphony Icon Holdings LLC, our intellectual property rights related to the programs and Holdings contributed \$45 million to Symphony Icon in order to fund the clinical development of the programs. We also entered into a share purchase agreement with Holdings under which we issued and sold to Holdings 7,650,622 shares of our common stock in exchange for \$15 million and an exclusive option to acquire all of the equity of Symphony Icon, thereby allowing us to reacquire the programs. The purchase option is exercisable by us at any time, in our sole discretion, beginning on June 15, 2008 and ending on June 15, 2011 (subject to an earlier exercise right in limited circumstances) at an exercise price of (a) \$72 million, if the purchase option is exercised on or after June 15, 2008 and before June 15, 2009, (b) \$81 million, if the purchase option is exercised on or after the June 15, 2009 and before June 15, 2010 and (c) \$90 million, if the purchase option is exercised on or after June 15, 2010 and before June 15, 2011. The purchase option exercise price may be paid in cash or a combination of cash and common stock, at our sole discretion, provided that the common stock portion may not exceed 40% of the purchase option exercise price.

Upon the recommendation of Symphony Icon's development committee, which is comprised of an equal number of representatives from us and Symphony Icon, Symphony Icon's board of directors may require us to pay Symphony Icon up to \$15 million for Symphony Icon's use in the development of the programs in accordance with the specified development plan and related development budget. The development committee's right to recommend that Symphony Icon's board of directors submit such funding requirement to us will terminate on the one-year anniversary of the expiration of the purchase option, subject to limited exceptions.

In April 2004, we obtained a \$34.0 million mortgage on our facilities in The Woodlands, Texas. The mortgage loan has a ten-year term with a 20-year amortization and bears interest at a fixed rate of 8.23%. In May 2002, our subsidiary Lexicon Pharmaceuticals (New Jersey), Inc. leased a 76,000 square-foot laboratory and office space in Hopewell, New Jersey. The term of the lease extends until June 30, 2013. The lease provides for an escalating yearly base rent payment of \$1.3 million in the first year, \$2.1 million in years two and three, \$2.2 million in years four to six, \$2.3 million in years seven to nine and \$2.4 million in years ten and eleven. We are the guarantor of the obligations of our subsidiary under the lease.

Our future capital requirements will be substantial and will depend on many factors, including our ability to obtain alliance, collaboration and technology license agreements, the amount and timing of payments under such agreements, the level and timing of our research and development expenditures, market acceptance of our products, the resources we devote to developing and supporting our products and other factors. Our capital requirements will also be affected by any expenditures we make in connection with license agreements and acquisitions of and investments in complementary technologies and businesses. We expect to devote substantial capital resources to continue our research and development efforts, to expand our support and product development activities, and for other general corporate activities. We believe that our current unrestricted cash and investment balances and cash and revenues we expect to derive from drug discovery and development alliances, target validation collaborations, government grants and contracts, and technology licenses will be sufficient to fund our operations for at least the next 12 months. During or after this period, if cash generated by operations is insufficient to satisfy our liquidity requirements, we will need to sell additional equity or debt securities or obtain additional credit arrangements. Additional financing may not be available on terms acceptable to us or at all. The sale of additional equity or convertible debt securities may result in additional dilution to our stockholders.

Disclosure about Market Risk

We are exposed to limited market and credit risk on our cash equivalents which have maturities of three months or less at the time of purchase. We maintain a short-term investment portfolio which consists of U.S. government agency debt obligations, investment grade commercial paper and, corporate debt securities and certificates of deposit that mature three to 12 months from the time of purchase and a long-term investment portfolio which consists of auction rate securities that mature greater than 12 months from the time of purchase, which we believe are subject to limited market and credit risk, other than as discussed below. We currently do not hedge interest rate exposure or hold any derivative financial instruments in our investment portfolio.

At March 31, 2008, we held \$61.8 million (par value), with an estimated fair value of \$59.3 million, of triple-A rated municipal note investments with an auction interest rate reset feature, known as auction rate securities. These notes are issued by various state and local municipal entities for the purpose of financing student loans, public projects and other activities. The securities have historically traded at par and are redeemable at par plus accrued interest at the option of the issuer. Interest is typically paid at the end of each auction period or semiannually. Until February 2008, the market for Lexicon's auction rate securities was highly liquid. Starting in February 2008, a substantial number of auctions "failed," meaning that there was not enough demand to sell all of the securities that holders desired to sell at auction. The immediate effect of a failed auction is that such holders cannot sell the securities at auction and the interest rate on the security generally resets to a maximum interest rate. In the case of funds invested by Lexicon in auction rate securities which are the subject of a failed auction, we may not be able to access the funds without a loss of principal, unless a future auction on these investments is successful or the issuer redeems the security. As of March 31, 2008, we reclassified the entire auction rate security investment balance from short-term investments to long-term investments on our consolidated balance sheet because of our inability to determine when our investments in auction rate securities would be sold. We have also modified our current investment strategy and increased our investments in more liquid money market investments.

At March 31, 2008, observable auction rate securities market information was not available to determine the fair value of our investments. Therefore, we estimated fair value using a discounted cash flow model incorporating assumptions that market participants would use in their estimates of fair value. Some of these assumptions include estimates for interest rates, timing and amount of cash flows and expected holding periods of the auction rate securities. Based on this assessment of fair value, as of March 31, 2008 we determined there was a temporary decline in the fair value of our auction rate securities of \$2.5 million. If the current market conditions deteriorate further, or a recovery in market values does not occur, we may be required to record additional unrealized or realized losses in future quarters.

Excluding auction rate securities, at March 31, 2008, we had approximately \$169.5 million in cash and cash equivalents and short-term investments, including \$33.4 million in investments held by Symphony Icon. We believe that the working capital available to us excluding the funds held in auction rate securities will be sufficient to meet our cash requirements for at least the next 12 months.

We have operated primarily in the United States and substantially all sales to date have been made in U.S. dollars. Accordingly, we have not had any material exposure to foreign currency rate fluctuations.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

See “Disclosure about Market Risk” under “Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations” for quantitative and qualitative disclosures about market risk.

Item 4. Controls and Procedures

Our principal executive officer and principal financial officer have concluded that our disclosure controls and procedures (as defined in rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) are sufficiently effective to ensure that the information required to be disclosed by us in the reports we file under the Securities Exchange Act is gathered, analyzed and disclosed with adequate timeliness, accuracy and completeness, based on an evaluation of such controls and procedures as of the end of the period covered by this report.

Subsequent to our evaluation, there were no significant changes in internal controls or other factors that could significantly affect internal controls, including any corrective actions with regard to significant deficiencies and material weaknesses.

Part II Other Information

Item 1A. Risk Factors

The following risks and uncertainties are important factors that could cause actual results or events to differ materially from those indicated by forward-looking statements. The factors described below are not the only ones we face and additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations.

Risks Related to Our Need for Additional Financing and Our Financial Results

- we will need additional capital in the future; if it is unavailable, we will be forced to significantly curtail or cease operations and, if it is not available on reasonable terms, we will be forced to obtain funds by entering into financing agreements on unattractive terms
- we have a history of net losses, and we expect to continue to incur net losses and may not achieve or maintain profitability
- we have licensed the intellectual property, including commercialization rights, to our drug candidates LX6171, LX1031 and LX1032 to Symphony Icon and will not receive any future royalties or revenues with respect to these drug candidates unless we exercise our option to purchase Symphony Icon
- at March 31, 2008, we held \$61.8 million (par value), with an estimated fair value of \$59.3 million, of auction rate securities for which auctions have failed and, as a result, we may not be able to access these funds without a loss of principal
- our operating results have been and likely will continue to fluctuate, and we believe that period-to-period comparisons of our operating results are not a good indication of our future performance

Risks Related to Discovery and Development of Our Drug Candidates

- we are an early-stage company, and have not proven our ability to successfully develop and commercialize drug candidates based on our drug target discoveries
- clinical testing of our drug candidates in humans is an inherently risky and time-consuming process that may fail to demonstrate safety and efficacy, which could result in the delay, limitation or prevention of regulatory approval

Risks Related to Our Relationships with Third Parties

- disagreements with Symphony Icon regarding the development of our drug candidates LX6171, LX1031 or LX1032 could negatively affect or delay their development
- we are dependent in many ways upon our collaborations with major pharmaceutical companies, and if we are unable to achieve milestones under those collaborations or if our collaborators' efforts fail to yield pharmaceutical products on a timely basis, our opportunities to generate revenues and earn royalties will be reduced
- conflicts with our collaborators could jeopardize the success of our collaborative agreements and harm our product development efforts

- we lack the capability to manufacture materials for preclinical studies, clinical trials or commercial sales and rely on third parties to manufacture our drug candidates, which may harm or delay our product development and commercialization efforts
- we rely on third parties to carry out drug development activities

Risks Related to Regulatory Approval of Our Drug Candidates

- our drug candidates are subject to a lengthy and uncertain regulatory process that may not result in the necessary regulatory approvals, which could adversely affect our ability to commercialize products
- if our potential products receive regulatory approval, we or our collaborators will remain subject to extensive and rigorous ongoing regulation

Risks Related to Commercialization of Products

- the commercial success of any products that we may develop will depend upon the degree of market acceptance of our products among physicians, patients, health care payors, private health insurers and the medical community
- if we are unable to establish sales and marketing capabilities or enter into agreements with third parties to market and sell our drug candidates, we may be unable to generate product revenues
- if we are unable to obtain adequate coverage and reimbursement from third-party payors for any products that we may develop, our revenues and prospects for profitability will suffer
- our competitors may develop products and technologies that make our products and technologies obsolete
- we may not be able to manufacture our drug candidates in commercial quantities, which would prevent us from commercializing our drug candidates

Risks Related to Our Intellectual Property

- if we are unable to adequately protect our intellectual property, third parties may be able to use our technology, which could adversely affect our ability to compete in the market
- we may be involved in patent litigation and other disputes regarding intellectual property rights and may require licenses from third parties for our discovery and development and planned commercialization activities, and we may not prevail in any such litigation or other dispute or be able to obtain required licenses
- we use intellectual property that we license from third parties, and if we do not comply with these licenses, we could lose our rights under them
- we have not sought patent protection outside of the United States for some of our inventions, and some of our licensed patents only provide coverage in the United States, and as a result, our international competitors could be granted foreign patent protection with respect to our discoveries
- we may be subject to damages resulting from claims that we, our employees or independent contractors have wrongfully used or disclosed alleged trade secrets of their former employers

Risks Related to Employees, Growth and Facilities Operations

- the loss of key personnel or the inability to attract and retain additional personnel could impair our ability to expand our operations
- our collaborations with outside scientists may be subject to restriction and change
- difficulties we may encounter managing our growth may divert resources and limit our ability to successfully expand our operations
- security breaches may disrupt our operations and harm our operating results
- any contamination among our knockout mouse population could negatively affect the reliability of our scientific research or cause us to incur significant remedial costs
- because all of our target validation operations are located at a single facility, the occurrence of a disaster could significantly disrupt our business

Risks Related to Environmental and Product Liability

- we use hazardous chemicals and radioactive and biological materials in our business, and any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly
- we may be sued for product liability

Risks Related to Our Common Stock

- our stock price may be extremely volatile
- we may engage in future acquisitions, which may be expensive and time consuming and from which we may not realize anticipated benefits
- future sales of our common stock may depress our stock price
- Invus' ownership of our common stock and its other rights under the stockholders' agreement we entered into in connection with Invus' \$205.4 million initial investment in our common stock provide Invus with substantial influence over matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, as well as other corporate matters

For additional discussion of the risks and uncertainties that affect our business, see "Item 1A. Risk Factors" included in our annual report on Form 10-K for the year ended December 31, 2007, as filed with the Securities and Exchange Commission.

Item 6. Exhibits

Exhibit No.	Description
31.1	— Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	— Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	— Certification of Principal Executive and Principal Financial Officers Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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: April 30, 2008

By: /s/ Arthur T. Sands
Arthur T. Sands, M.D., Ph.D.
President and Chief Executive Officer

Date: April 30, 2008

By: /s/ James F. Tessmer
James F. Tessmer
Vice President, Finance and Accounting

Index to Exhibits

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CERTIFICATIONS

I, Arthur T. Sands, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Lexicon Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 30, 2008

/s/ Arthur T. Sands

Arthur T. Sands, M.D., Ph.D.
President and Chief Executive Officer

CERTIFICATIONS

I, James F. Tessmer, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Lexicon Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: April 30, 2008

/s/ James F. Tessmer

James F. Tessmer

Vice President, Finance and Accounting

CERTIFICATION

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. 1350, as adopted), Arthur T. Sands, M.D., Ph.D., Principal Executive Officer of Lexicon Pharmaceuticals, Inc. ("Lexicon"), and James F. Tessmer, Principal Financial Officer of Lexicon, each hereby certify that:

1. Lexicon's Quarterly Report on Form 10-Q for the period ended March 31, 2008, and to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of section 13(a) or section 15(d) of the Securities Exchange Act of 1934, and
2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of Lexicon.

IN WITNESS WHEREOF, the undersigned have set their hands hereto as of the 30th day of April, 2008.

By: /s/ Arthur T. Sands

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

President and Chief Executive Officer

By: /s/ James F. Tessmer

James F. Tessmer

Vice President, Finance and Accounting