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 June 30, 2006

or

o **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 Genetics Incorporated
(Exact Name of Registrant as Specified in its Charter)

Delaware	**76-0474169**
(State or Other Jurisdiction of Incorporation or Organization)	**(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 o

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

Large accelerated filer o Accelerated filer ☑ Non-accelerated filer o

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

Yes o No ☑

As of August 2, 2006, 64,663,415 shares of the registrant's common stock, par value $0.001 per share, were outstanding.

Lexicon Genetics Incorporated

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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 Genetics Incorporated

Consolidated Balance Sheets
(In thousands, except par value)

	As of June 30, 2006 (unaudited)	As of December 31, 2005
Assets		
Current assets:		
Cash and cash equivalents	$ 14,542	$ 21,970
Short-term investments, including restricted investments of $430	50,785	77,725
Accounts receivable, net of allowance for doubtful accounts of $45	4,896	2,586
Other receivables	—	22
Prepaid expenses and other current assets	3,639	3,744
Total current assets	73,862	106,047
Property and equipment, net of accumulated depreciation and amortization of $51,704 and $47,926, respectively	82,174	85,265
Goodwill	25,798	25,798
Intangible assets, net of amortization of $5,960 and $5,360, respectively	40	640
Other assets	797	964
Total assets	$ 182,671	$ 218,714
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 4,326	$ 6,883
Accrued liabilities	8,054	6,787
Current portion of deferred revenue	37,328	39,042
Current portion of long-term debt	4,783	4,751
Total current liabilities	54,491	57,463
Deferred revenue, net of current portion	33,810	42,540
Long-term debt	31,785	32,189
Other long-term liabilities	730	720
Total liabilities	120,816	132,912
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $.01 par value; 5,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $.001 par value; 120,000 shares authorized; 64,639 and 64,554 shares issued and outstanding	65	64
Additional paid-in capital	386,995	383,222
Deferred stock compensation	—	(2)
Accumulated deficit	(325,163)	(297,430)
Accumulated other comprehensive loss	(42)	(52)
Total stockholders' equity	61,855	85,802
Total liabilities and stockholders' equity	$ 182,671	$ 218,714

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

Lexicon Genetics Incorporated

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2006	2005	2006	2005
Revenues:				
Collaborative research	$ 15,351	$ 13,771	$ 34,657	$ 22,654
Subscription and license fees	813	127	2,462	5,169
Total revenues	16,164	13,898	37,119	27,823
Operating expenses:				
Research and development, including stock-based compensation of $1,105, $(9), $2,254 and $(20), respectively	27,433	23,667	54,105	46,427
General and administrative, including stock-based compensation of $659, $0, $1,351 and $0 , respectively	5,664	4,750	10,967	9,182
Total operating expenses	33,097	28,417	65,072	55,609
Loss from operations	(16,933)	(14,519)	(27,953)	(27,786)
Interest income	900	506	1,903	997
Interest expense	(813)	(827)	(1,620)	(1,632)
Other income, net	(56)	(2)	(63)	313
Net loss	$ (16,902)	$ (14,842)	$ (27,733)	$ (28,108)
Net loss per common share, basic and diluted	$ (0.26)	$ (0.23)	$ (0.43)	$ (0.44)
Shares used in computing net loss per common share, basic and diluted	64,627	63,636	64,597	63,581

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

Lexicon Genetics Incorporated

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

	Six Months Ended June 30,	
	2006	2005
Cash flows from operating activities:		
Net loss	$ (27,733)	$ (28,108)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	5,341	5,207
Amortization of intangible assets, other than goodwill	600	600
Stock-based compensation	3,607	(20)
Loss on disposal of property and equipment	35	10
Changes in operating assets and liabilities:		
(Increase) decrease in accounts receivable	(2,288)	4,608
Decrease in prepaid expenses and other current assets	105	1,260
Decrease in other assets	167	75
Decrease in accounts payable and other liabilities	(1,280)	(4,367)
Increase (decrease) in deferred revenue	(10,444)	12,570
Net cash used in operating activities	(31,890)	(8,165)
Cash flows from investing activities:		
Purchases of property and equipment	(2,341)	(6,780)
Proceeds from disposal of property and equipment	56	85
Purchases of investments	(36,813)	(67,200)
Maturities of investments	63,763	79,823
Net cash provided by investing activities	24,665	5,928
Cash flows from financing activities:		
Proceeds from issuance of common stock	169	457
Repayment of debt borrowings	(372)	(342)
Net cash provided by (used in) financing activities	(203)	115
Net decrease in cash and cash equivalents	(7,428)	(2,122)
Cash and cash equivalents at beginning of period	21,970	14,612
Cash and cash equivalents at end of period	$ 14,542	$ 12,490
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 1,369	$ 1,395
Supplemental disclosure of non-cash investing and financing activities:		
Unrealized gain (loss) on investments	$ 10	$ (21)
Reversal of deferred stock compensation, in connection with stock options	$ —	$ 35
Retirement of property and equipment	$ 1,654	$ 3,100

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

Lexicon Genetics Incorporated

Notes to Consolidated Financial Statements
(Unaudited)

1. Basis of Presentation

The accompanying unaudited consolidated financial statements of Lexicon Genetics Incorporated (Lexicon or the Company) have been prepared in accordance with accounting principles generally accepted in the United States 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 accounting principles generally accepted in the United States 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 six-month period ended June 30, 2006 are not necessarily indicative of the results that may be expected for the year ended December 31, 2006.

The accompanying consolidated financial statements include the accounts of Lexicon and its subsidiaries. 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, 2005, 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

On January 1, 2006, Lexicon adopted Statement of Financial Accounting Standards Board No. 123 (Revised), "Share-Based Payment," SFAS No. 123(R). This statement requires companies to recognize compensation expense in the statement of operations for share-based payments, including stock options issued to employees, based on their fair values on the date of the grant, with the compensation expense recognized over the period in which an employee is required to provide service in exchange for the stock award. The Company adopted this statement using the modified prospective transition method, which applies the compensation expense recognition provisions to new awards and to any awards modified, repurchased or canceled after the January 1, 2006 adoption date. Additionally, for any unvested awards outstanding at the adoption date, the Company will recognize compensation expense over the remaining vesting period. Stock-based compensation expense is recognized on a straight-line basis. The adoption of SFAS No. 123(R) resulted in stock-based compensation expense of $1.8 million and $3.6 million for the three and six month periods ended June 30, 2006, respectively, or $0.03 per share and $0.06 per share, respectively. There is no impact on cash flows from operating activities or financing activities. As of June 30, 2006, stock-based compensation cost for all outstanding unvested options was $15.3 million, which is expected to be recognized over a weighted-average period of 1.4 years.

Prior to the adoption of SFAS No. 123(R), Lexicon's stock-based compensation plans were accounted for under the recognition and measurement provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees, and Related Interpretations," APB No. 25. Under the intrinsic value method described in APB No. 25, no compensation expense was recorded because the exercise price of the employee stock options equaled the market price of the underlying stock on the date of grant.

Lexicon records expense for options issued to non-employee consultants at fair value and re-measures the fair value at each reporting date. Lexicon reversed stock-based compensation expense of $9,000 and $20,000 related to non-employee consultants during the three and six-month periods ended June 30, 2005.

The following table illustrates the effect on net loss and net loss per share if the fair value recognition provisions of SFAS No. 123, "Accounting for Stock Based Compensation," had been applied to all outstanding and unvested awards in the period:

	Three Months Ended June 30, 2005	Six Months Ended June 30, 2005
Net loss, as reported:	$ (14,842)	$ (28,108)
Add: Stock-based compensation expense included in reported net loss	(9)	(20)
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards	(3,127)	(6,257)
Pro forma net loss	$ (17,978)	$ (34,385)
Net loss per common share, basic and diluted		
As reported	$ (0.23)	$ (0.44)
Pro forma	$ (0.28)	$ (0.54)

Valuation Assumptions

The fair value of stock options is estimated at the date of grant using the Black-Scholes method. The Black-Scholes option-pricing model requires the input of subjective assumptions. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options. For purposes of determining the fair value of stock options granted subsequent to the adoption of SFAS No. 123(R), the Company segregated its options into two homogeneous groups, based on exercise and post-vesting employment termination behaviors, resulting in a change in the assumptions used for expected option lives and forfeitures. Expected volatility is based on the historical volatility in the Company's stock price. The following weighted-average assumptions were used for options granted in the six-month periods ended June 30, 2006 and 2005, respectively:

	Expected Volatility	Risk-free Interest Rate	Expected Term	Estimated Forfeitures	Dividend Rate
June 30, 2006:					
Employees	69%	4.6%	7	18%	0%
Officers and non-employee directors	69%	4.7%	9	3%	0%
June 30, 2005:					
Employees, officers and non-employee directors	72%	4.2%	7	3%	0%

Stock Option Plans

2000 Equity Incentive Plan: In September 1995, Lexicon adopted the 1995 Stock Option Plan, which was subsequently amended and restated in February 2000 as the 2000 Equity Incentive Plan (the "Equity Incentive Plan"). The Equity Incentive Plan provides for the grant of incentive stock options to employees and nonstatutory stock options to employees, directors and consultants of the Company. The Equity Incentive Plan also permits the grant of stock bonuses and restricted stock purchase awards. Incentive stock options have an exercise price of 100% or more of the fair market value of our common stock on the date of grant. Nonstatutory stock options may have an exercise price as low as 85% of fair market value on the date of grant. The purchase price of other stock awards may not be less than 85% of fair market value. However, the plan administrator may award bonuses in consideration of past services without a purchase payment. Shares may be subject to a repurchase option in the discretion of the plan administrator. Generally, stock options have a maximum term of 10 years, and options vest in increments over four years from the date of grant, although options may be granted with different vesting terms from time to time. Upon employee termination, unexercised options will expire at the end of three months. As of June 30, 2006, an aggregate of 20,500,000 shares of common stock had been reserved for issuance, options to purchase 15,664,263 shares were outstanding, and 3,602,244 shares had been issued upon the exercise of stock options issued under the Equity Incentive Plan.

2000 Non-Employee Directors' Stock Option Plan: In February 2000, Lexicon adopted the 2000 Non-Employee Directors' Stock Option Plan (the "Directors' Plan") to provide for the automatic grant of options to purchase shares of common stock to non-employee directors of the Company. Under the Directors' Plan, non-employee directors first elected after the closing of the Company's initial public offering receive an initial option to purchase 30,000 shares of common stock. In addition, on the day following each of the Company's annual meetings of stockholders, beginning with the annual meeting in 2001, each non-employee director who has been a director for at least six months was automatically granted an option to purchase 6,000 shares of common stock. Beginning with the annual meeting in 2005, the annual grant was increased to an option to purchase 10,000 shares of common stock. Initial option grants become vested and exercisable over a period of five years and annual option grants become vested over a period of 12 months from the date of grant. Options granted under the Directors' Plan have an exercise price equal to the fair market value of the Company's common stock on the date of grant and term of ten years from the date of grant. As of June 30, 2006, an aggregate of 600,000 shares of common stock had been reserved for issuance, options to purchase 338,000 shares were outstanding, and no options had been exercised under the Directors' Plan.

Coelacanth Corporation 1999 Stock Option Plan: Lexicon assumed the Coelacanth Corporation 1999 Stock Option Plan (the "Coelacanth Plan") and the outstanding stock options under the plan in connection with our July 2001 acquisition of Coelacanth Corporation. The Company will not grant any further options under the Coelacanth Plan. As outstanding options under the plan expire or terminate, the number of shares authorized for issuance under the Coelacanth Plan will be correspondingly reduced. As of June 30, 2006, an aggregate of 122,649 shares of common stock had been reserved for issuance, options to purchase 73,271 shares of common stock were outstanding, and 27,045 shares of common stock had been issued upon the exercise of stock options issued under the Coelacanth Plan.

Stock Option Activity

The following is a summary of option activity under Lexicon's stock option plans for the first six months of 2006:

	Options (in thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2005	13,802	$6.36		
Granted	2,585	4.07		
Exercised	(84)	2.43		
Canceled	(227)	7.25		
Outstanding at June 30, 2006	16,076	6.00	5.9	$10,957
Exercisable at June 30, 2006	11,199	$6.44	4.7	$ 9,888

The weighted-average grant date fair value of options granted during the six-month periods ended June 30, 2006 and 2005 was $2.99 and $4.00, respectively. The total intrinsic value of options exercised during the six-month periods ended June 30, 2006 and 2005 were $213,000 and $758,000, respectively. As of June 30, 2006, 1,495,493 shares of common stock were available for grant under Lexicon's stock option plans.

Stock Options Outstanding

The following table summarizes information about stock options outstanding at June 30, 2006:

	Options Outstanding			Options Exercisable	
Range of Exercise Price	Outstanding as of June 30, 2006 (In thousands)	Weighted Average Remaining Contractual Life (In Years)	Weighted Average Exercise Price	Exercisable as of June 30, 2006 (In thousands)	Weighted Average Exercise Price
$ 1.67 — 2.50	4,709	2.8	$ 2.41	4,709	$ 2.41
3.16 — 4.72	3,907	8.6	4.00	1,137	3.97
4.76 — 7.12	2,651	8.2	5.77	1,112	5.83
7.15 — 10.55	2,967	6.4	8.55	2,399	8.78
10.87 — 16.00	1,356	4.7	12.64	1,356	12.64
16.63 — 22.06	357	3.8	19.69	357	19.69
25.25 — 31.63	28	4.3	26.23	28	26.23
38.00 — 38.50	101	4.2	38.49	101	38.49
	16,076	5.9	$ 6.00	11,199	$ 6.44

4. Debt Obligations

Genentech Loan: On December 31, 2002, Lexicon borrowed $4.0 million under a note agreement with Genentech, Inc. The proceeds of the loan are to be used to fund research efforts under the alliance agreement with Genentech. On November 30, 2005, the note agreement was amended to extend the maturity date of the loan by one year to December 31, 2006. No other terms of the note agreement were changed. The Company may repay the note, at any time up to the maturity date, at its option, in cash, in shares of common stock valued at the then-current market price, or in a combination of cash and shares, subject to certain limitations. The note accrues interest at an annual rate of 8%, compounded quarterly. The $4.0 million note has been classified as a current liability on the accompanying consolidated balance sheets as of December 31, 2005 and June 30, 2006.

Mortgage Loan: In April 2004, Lexicon purchased its facilities in The Woodlands, Texas that were previously subject to a synthetic lease. The Company repaid the $54.8 million funded under the synthetic lease with proceeds from a $34.0 million third-party mortgage financing and $20.8 million in cash. The mortgage loan has a ten-year term with a 20-year amortization and bears interest at a fixed rate of 8.23%. As a result of the refinancing, all restrictions on the cash and investments that had secured the obligations under the synthetic lease were eliminated.

5. Commitments and Contingencies

In May 2002, Lexicon's subsidiary Lexicon Pharmaceuticals (New Jersey), Inc. leased a 76,000 square-foot laboratory and office space in Hopewell, New Jersey under an agreement which expires in June 2013. The lease provides for an escalating yearly 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. Lexicon is the guarantor of the obligations of its subsidiary under the lease. The Company is required to maintain restricted investments to collateralize the Hopewell lease. As of June 30, 2006, the Company had $430,000 in restricted investments to collateralize a standby letter of credit for this lease.

6. Agreement Extension

On May 30, 2006, Lexicon entered into an amendment to the Collaboration and License Agreement dated as of December 17, 2003 with Bristol-Myers Squibb Company relating to the discovery, development and commercialization of small molecule drugs in the neuroscience field. By way of the amendment, Bristol-Myers Squibb exercised its option under the original agreement to extend the target discovery portion of the alliance for an additional two years. Bristol-Myers Squibb will provide Lexicon with $20 million in additional research funding over the two-year extension, which begins in January 2007. The extension of the target discovery program term provides for further advanced research on selected targets.

7. Equity Financing Commitment

In June 2006, Lexicon entered into an agreement with Azimuth Opportunity Ltd. under which Lexicon may offer and sell, and Azimuth is committed to purchase, up to $75 million of Lexicon's common stock, or the number of shares which is one less than twenty percent of the issued and outstanding shares of Lexicon's common stock as of the effective date of the agreement, whichever is fewer. At Lexicon's sole discretion, Lexicon may initiate up to 24 draw downs during the approximately 18-month term of the agreement by delivering notice to Azimuth. Each draw down notice will specify (a) the aggregate dollar amount of Lexicon's common stock, not to exceed $6,000,000, to be sold to Azimuth during such draw down and (b) the minimum threshold price at which Lexicon will sell such shares, which will not be less than $3.00 per share. Azimuth will be required to purchase a pro rata portion of the shares for each trading day during a pricing period of 10 consecutive trading days on which the daily volume weighted average price for Lexicon's common stock exceeds the minimum threshold price. The per share purchase price for these shares will equal the daily volume weighted average price of Lexicon's common stock on such date, less a discount ranging from 3.75% to 5.5%, depending on the minimum threshold price. In connection with any such draw down, at Lexicon's sole discretion, Lexicon may also grant Azimuth the right, during the relevant draw down pricing period, to purchase additional shares of Lexicon's common stock by specifying in the draw down notice an optional aggregate dollar amount and a minimum threshold price for such optional shares. The per share purchase price for these optional shares will equal the greater of the daily volume weighted average price of Lexicon's common stock on the day Azimuth notifies Lexicon of its election to exercise such right or the minimum threshold price for such optional shares, less a discount ranging from 3.75% to 5.5%. Upon each sale of common stock to

Azimuth, Lexicon will pay to Reedland Capital Partners, an Institutional Division of Financial West Group, a placement fee equal to one percent of the aggregate dollar amount received by Lexicon from such sale.

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 are using gene knockout technology to systematically discover the physiological functions of genes in living mammals, or *in vivo*. We generate our gene function discoveries using knockout mice — mice whose DNA has been altered to disrupt, or "knock out," the function of the altered gene. Our patented gene trapping and gene targeting technologies enable us to rapidly generate these knockout mice by altering the DNA of genes in a special variety of mouse cells, called embryonic stem cells, which can be cloned and used to generate mice with the altered gene. We employ an integrated platform of advanced medical technologies to systematically discover and validate which genes, when knocked out, result in a favorable medical profile with pharmaceutical utility. We then pursue those genes and the proteins they encode as potential targets for therapeutic intervention in our drug discovery programs.

We employ internal resources and drug discovery alliances to discover potential small molecule, antibody and protein drugs for *in vivo*-validated drug targets that we consider to have high pharmaceutical value. We use our own sophisticated libraries of drug-like chemical compounds and an industrialized medicinal chemistry platform to identify small molecule drug candidates for our *in vivo*-validated drug targets. 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; 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; and with Takeda Pharmaceutical Company Limited to discover new drugs for the treatment of high blood pressure. In addition, we have established collaborations and license agreements with other leading pharmaceutical and biotechnology companies under which we receive fees and, in some cases, are eligible to receive milestone and royalty payments, for access to some of our technologies and discoveries for use in their own drug discovery efforts.

We derive substantially all of our revenues from drug discovery alliances, target validation collaborations for the development and, in some cases, analysis of the physiological effects of genes altered in knockout mice, government grants and contracts, 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 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 government grants and contracts 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. Subject to limited exceptions, we do not intend to offer subscriptions to our databases or make our compound libraries available for purchase in the future. 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 June 30, 2006, we had an accumulated deficit of $325.2 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, material costs, facility costs, depreciation on property and equipment, legal expenses resulting from intellectual property prosecution and other expenses related to our drug discovery 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 programs and our 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

Revenue Recognition

We recognize revenues when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the price is fixed or determinable, and collectibility is reasonably assured. Payments received in advance under these arrangements are recorded as deferred revenue until earned.

Upfront fees under our drug discovery alliances are recognized as revenue on a straight-line basis over the estimated period of service, generally the contractual research term, to the extent they are non-refundable. Research funding under these alliances is recognized as services are performed to the extent they are non-refundable, either on a straight-line basis over the estimated service period, generally the contractual research term, or as contract research costs are incurred. Milestone-based fees are recognized upon completion of specified milestones according to contract terms. Fees for access to our databases and other target validation resources are recognized ratably over the subscription or access period. Payments received under target validation collaborations and government grants and contracts are recognized as revenue as we perform our obligations related to such research to the extent such fees are non-refundable. Non-refundable technology license fees are recognized as revenue upon the grant of the license, when performance is complete and there is no continuing involvement.

Revenues recognized from multiple element contracts are allocated to each element of the arrangement based on the relative fair value of the elements. The determination of fair value of each element is based on objective evidence. When revenues for an element are specifically tied to a separate earnings process, revenue is recognized when the specific performance obligation associated with the element is completed. When revenues for an element are not specifically tied to a separate earnings process, they are recognized ratably over the term of the agreement.

A change in our revenue recognition policy or changes in the terms of contracts under which we recognize revenues could have an impact on the amount and timing of our recognition of revenues.

Research and Development Expenses

Research and development expenses consist of costs incurred for company-sponsored as well as collaborative research and development activities. These costs include direct and research-related overhead expenses and are expensed as incurred. Patent costs and technology license fees for technologies that are utilized in research and development and have no alternative future use are expensed when incurred.

We have made the required regulatory filings for the commencement of clinical trials for our lead drug discovery program, LX-6171, and have advanced another of our drug discovery programs, LX-1031, into preclinical development in preparation for regulatory filings for the commencement of clinical trials. For any potential drug, the drug development process takes many years to complete. The cost and length of time varies due to many factors, including the type, complexity and intended use of the product candidate. We estimate that drug development activities are typically completed over the following periods:

Phase	Estimated Completion Period
Preclinical development	1-2 years
Phase 1 clinical trials	1-2 years
Phase 2 clinical trials	1-2 years
Phase 3 clinical trials	2-4 years

We expect research and development costs to increase in the future as our drug discovery programs advance in preclinical development and clinical trials. Due to the variability in the length of time necessary for drug development, the uncertainties related to the cost of these activities and ultimate ability to obtain governmental approval for commercialization, accurate and meaningful estimates of the ultimate costs to bring our potential product candidates to market are not available.

We record our research and development costs by type or category, rather than by project. Significant categories of costs include personnel, facilities and equipment costs, laboratory supplies and third-party and other services. In addition, a significant portion of our research and development expenses is not tracked by project as it benefits multiple projects. Consequently, fully-loaded research and development cost summaries by project are not available.

Stock-based Compensation Expense

On January 1, 2006, we adopted Statement of Financial Accounting Standards Board No. 123 (Revised), “Share-Based Payment,” or SFAS No. 123(R). This statement requires companies to recognize compensation expense in the statement of operations for share-based payments, including stock options issued to employees, based on their fair values on the date of the grant, with the compensation expense recognized over the period in which an employee is required to provide service in exchange for the stock award. We adopted this statement using the modified prospective transition method, which applies the compensation expense recognition provisions to new awards and to any awards modified, repurchased or canceled after the January 1, 2006 adoption date. Additionally, for any unvested awards outstanding at the adoption date, we will recognize compensation expense over the remaining vesting period. Stock-based compensation expense is recognized on a straight-line basis. The adoption of SFAS No. 123(R) resulted in stock-based compensation expense of $1.8 million and $3.6 million for the three and six month periods ended June 30, 2006, respectively, or $0.03 per share and $0.06 per share, respectively. There is no impact on cash flows from operating activities or financing activities. As of June 30, 2006, stock-based compensation cost for all outstanding unvested options was $15.3 million, which is expected to be recognized over a weighted-average period of 1.4 years.

Prior to the adoption of SFAS No. 123(R), our stock-based compensation plans were accounted for under the recognition and measurement provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees, and Related Interpretations," APB No. 25. Under the intrinsic value method described in APB No. 25, no compensation expense was recorded because the exercise price of the employee stock options equaled the market price of the underlying stock on the date of grant.

We record expense for options issued to non-employee consultants at fair-value and re-measure the fair value at each reporting date. We reversed stock-based compensation expense of $9,000 and $20,000 related to non-employee consultants during the three and six-month periods ended June 30, 2005.

The fair value of stock options is estimated at the date of grant using the Black-Scholes option-pricing model. For purposes of determining the fair value of stock options granted subsequent to the adoption of SFAS No. 123(R), the Company segregated its options into two homogeneous groups, based on exercise and post-vesting employment termination behaviors, resulting in a change in the assumptions used for expected option lives and forfeitures. Expected volatility is based on the historical volatility in our stock price. The following weighted-average assumptions were used for options granted in the six-month periods ended June 30, 2006 and 2005, respectively:

	Expected Volatility	Risk-free Interest Rate	Expected Term	Estimated Forfeitures	Dividend Rate
June 30, 2006:					
Employees	69%	4.6%	7	18%	0%
Officers and non-employee directors	69%	4.7%	9	3%	0%
June 30, 2005:					
Employees, officers and non-employee directors	72%	4.2%	7	3%	0%

Goodwill Impairment

Goodwill is not amortized, but is tested at least annually for impairment at the reporting unit level. We have determined that the reporting unit is the single operating segment disclosed in our current financial statements. Impairment is the condition that exists when the carrying amount of goodwill exceeds its implied fair value. The first step in the impairment process is to determine the fair value of the reporting unit and then compare it to the carrying value, including goodwill. We determined that the market capitalization approach is the most appropriate method of measuring fair value of the reporting unit. Under this approach, fair value is calculated as the average closing price of our common stock for the 30 days preceding the date that the annual impairment test is performed, multiplied by the number of outstanding shares on that date. A control premium, which is representative of premiums paid in the marketplace to acquire a controlling interest in a company, is then added to the market capitalization to determine the fair value of the reporting unit. If the fair value exceeds the carrying value, no further action is required and no impairment loss is recognized. Additional impairment assessments may be performed on an interim basis if we encounter events or changes in circumstances that would indicate that, more likely than not, the carrying value of goodwill has been impaired.

Results of Operations

Three Months Ended June 30, 2006 and 2005

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 June 30,	
	2006	2005
Total revenues	$16.2	$13.9
Dollar increase	$ 2.3	
Percentage increase	16%	

- *Collaborative research* — Revenue from collaborative research increased 11% to $15.4 million, primarily due to the recognition of revenues under our award from the Texas Enterprise Fund, our contract with the National Institutes of Health and our alliance with Genentech, Inc. This is offset in part by lower revenues recognized under our alliance with N.V. Organon.
- *Subscription and license fees* — Revenue from subscriptions and license fees increased 540% to $0.8 million, primarily due to higher royalties received under a technology license held by 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 June 30,	
	2006	2005
Total research and development expense	$27.4	$23.7
Dollar increase	$ 3.7	
Percentage increase	16%	

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 increased 10% to $13.0 million, primarily due to increased personnel for the expansion of our drug discovery programs and to support the research performed in connection with our award from the Texas Enterprise Fund as well as merit-based pay increases for employees. Salaries, bonuses, employee benefits, payroll taxes, recruiting and relocation costs are included in personnel costs.
- *Facilities and equipment* — Facilities and equipment costs were $5.3 million, consistent with the prior year period.
- *Laboratory supplies* — Laboratory supplies expense increased 29% to $4.2 million, primarily due to research performed in connection with our award from the Texas Enterprise Fund.
- *Third-party and other services* — Third-party and other services increased 23% to $2.4 million, primarily due to an increase in third-party research costs.

- *Stock-based compensation* — Stock-based compensation expense increased by $1.1 million, primarily as a result of our adoption of SFAS No. 123(R), "Share-Based Payment," on January 1, 2006.
- *Other* — Other costs increased by 3% to $1.5 million.

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 June 30,	
	2006	2005
Total general and administrative expense	$5.7	$4.7
Dollar increase	$1.0	
Percentage increase	19%	

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 increased 15% to $3.2 million, primarily due to increased personnel and merit-based pay increases for employees. Salaries, bonuses, employee benefits, payroll taxes, recruiting and relocation costs are included in personnel costs.
- *Facilities and equipment* — Facilities and equipment costs increased 4% to $0.8 million.
- *Professional fees* — Professional fees decreased 22% to $0.4 million.
- *Stock-based compensation* — Stock-based compensation expense increased by $0.7 million as a result of our adoption of SFAS No. 123(R), "Share-Based Payment," on January 1, 2006.
- *Other* — Other costs decreased 11% to $0.6 million.

Interest Income, Interest Expense and Other Income, Net

Interest Income. Interest income increased 78% to $0.9 million in the three months ended June 30, 2006 from $0.5 million in the corresponding period in 2005, due to higher average cash balances and higher interest rates.

Interest Expense. Interest expense was $0.8 million in the three months ended June 30, 2006 and 2005.

Net Loss and Net Loss per Common Share

Net Loss and Net Loss per Common Share. Net loss increased to $16.9 million in the three months ended June 30, 2006 from $14.8 million in the corresponding period in 2005. Net loss per common share increased to $0.26 in the three months ended June 30, 2006 from $0.23 in the corresponding period in 2005.

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.

Six Months Ended June 30, 2006 and 2005

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):

	Six Months Ended June 30,	
	2006	2005
Total revenues	$37.1	$27.8
Dollar increase	$ 9.3	
Percentage increase	33%	

- *Collaborative research* — Revenue from collaborative research increased 53% to $34.6 million, primarily due to the achievement of a performance milestone under our hypertension drug discovery alliance with Takeda, as well as the recognition of revenues under our award from the Texas Enterprise Fund, our alliances with Organon and Genentech and our contract with the National Institutes of Health.
- *Subscription and license fees* — Revenue from subscriptions and license fees decreased 52% to $2.5 million, primarily due to the fact that the prior-year period included a one-time technology license fee from Deltagen, Inc. This is offset in part by higher royalties received under this technology license in the current-year period.

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):

	Six Months Ended June 30,	
	2006	2005
Total research and development expense	$54.1	$46.4
Dollar increase	$ 7.7	
Percentage increase	17%	

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 increased 11% to $26.1 million, primarily due to increased personnel for the expansion of our drug discovery programs and to support the research performed in connection with our award from the Texas Enterprise Fund as well as merit-based pay increases for employees. Salaries, bonuses, employee benefits, payroll taxes, recruiting and relocation costs are included in personnel costs.
- *Facilities and equipment* — Facilities and equipment costs increased 3% to $10.7 million.
- *Laboratory supplies* — Laboratory supplies expense increased 21% to $7.7 million, primarily due to research performed in connection with our award from the Texas Enterprise Fund.
- *Third-party and other services* — Third-party and other services increased 31% to $4.5 million, primarily due to an increase in third-party research costs.

- *Stock-based compensation* — Stock-based compensation expense increased by $2.3 million, primarily as a result of our adoption of SFAS No. 123(R), "Share-Based Payment," on January 1, 2006.
- *Other* — Other costs increased by 6% to $2.9 million.

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):

	Six Months Ended June 30,	
	2006	2005
Total general and administrative expense	$11.0	$9.2
Dollar increase	$ 1.8	
Percentage increase	19%	

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 increased 14% to $6.2 million, primarily due to increased personnel and merit-based pay increases for employees. Salaries, bonuses, employee benefits, payroll taxes, recruiting and relocation costs are included in personnel costs.
- *Facilities and equipment* — Facilities and equipment costs increased 2% to $1.6 million.
- *Professional fees* — Professional fees decreased 21% to $0.8 million.
- *Stock-based compensation* — Stock-based compensation expense increased by $1.4 million as a result of our adoption of SFAS No. 123(R), "Share-Based Payment," on January 1, 2006.
- *Other* — Other costs decreased 12% to $1.1 million, primarily due to decreased computer related expenses.

Interest Income, Interest Expense and Other Income, Net

Interest Income. Interest income increased 91% to $1.9 million in the six months ended June 30, 2006 from $1.0 million in the corresponding period in 2005, due to higher average cash balances and higher interest rates.

Interest Expense. Interest expense was $1.6 million in the six months ended June 30, 2006 and 2005.

Other Income, Net. Other income, net decreased 120% to expense of $63,000 in the six months ended June 30, 2006 from income of $0.3 million in the corresponding period in 2005. Other income in 2005 included a settlement with a vendor.

Net Loss and Net Loss per Common Share

Net Loss and Net Loss per Common Share. Net loss decreased to $27.7 million in the six months ended June 30, 2006 from $28.1 million in the corresponding period in 2005. Net loss per common share decreased to $0.43 in the six months ended June 30, 2006 from $0.44 in the corresponding period in 2005.

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 June 30, 2006, we had received net proceeds of $295.6 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 and $50.1 million from our July 2003 common stock offering. In addition, from our inception through June 30, 2006, we received $371.8 million in cash payments from drug discovery alliances, target validation collaborations, database subscription and technology license fees, sales of compound libraries and reagents, and government grants and contracts, of which $305.9 million had been recognized as revenues through June 30, 2006.

As of June 30, 2006, we had $65.3 million in cash, cash equivalents and short-term investments (including $0.4 million of restricted investments), as compared to $99.7 million (including $0.4 million of restricted investments) as of December 31, 2005. Cash of $31.9 million was used in operations in the six months ended June 30, 2006. This consisted primarily of the net loss for the period of $27.7 million offset by non-cash charges of $5.3 million related to depreciation expense, $3.6 million related to stock-based compensation expense and $0.6 million related to amortization of intangible assets other than goodwill; a $10.4 million decrease in deferred revenue; and changes in other operating assets and liabilities of $3.3 million. Investing activities provided cash of $24.7 million in the six months ended June 30, 2006, primarily due to net maturities of short-term investments of $27.0 million. This was offset by purchases of property and equipment of $2.3 million. We used cash of $0.2 million in financing activities. This consisted of principal repayments of $0.4 million on the mortgage loan, offset by cash proceeds of $0.2 million from stock option exercises.

In June 2006, we entered into an agreement with Azimuth Opportunity Ltd. under which we may offer and sell, and Azimuth is committed to purchase, up to $75 million of our common stock, or the number of shares which is one less than twenty percent of the issued and outstanding shares of our common stock as of the effective date of the agreement, whichever is fewer. At our sole discretion, we may initiate up to 24 draw downs during the approximately 18-month term of the agreement by delivering notice to Azimuth. Each draw down notice will specify (a) the aggregate dollar amount of our common stock, not to exceed $6,000,000, to be sold to Azimuth during such draw down and (b) the minimum threshold price at which we will sell such shares, which will not be less than $3.00 per share. Azimuth will be required to purchase a pro rata portion of the shares for each trading day during a pricing period of 10 consecutive trading days on which the daily volume weighted average price for our common stock exceeds the minimum threshold price. The per share purchase price for these shares will equal the daily volume weighted average price of our common stock on such date, less a discount ranging from 3.75% to 5.5%, depending on the minimum threshold price. In connection with any such draw down, at our sole discretion, we may also grant Azimuth the right, during the relevant draw down pricing period, to purchase additional shares of our common stock by specifying in the draw down notice an optional aggregate dollar amount and a minimum threshold price for such optional shares. The per share purchase price for these optional shares will equal the greater of the daily volume weighted average price of our common stock on the day Azimuth notifies us of its election to exercise such right or the minimum threshold price for such optional shares, less a discount ranging from 3.75% to 5.5%. Upon each sale of common stock to Azimuth, we will pay to Reedland Capital Partners, an Institutional Division of Financial West Group, a placement fee equal to one percent of the aggregate dollar amount received by us from such sale.

In May 2006, we entered into an amendment to our Collaboration and License Agreement dated as of December 17, 2003 with Bristol-Myers Squibb Company relating to the discovery, development and

commercialization of small molecule drugs in the neuroscience field. By way of the amendment, Bristol-Myers Squibb exercised its option under the original agreement to extend the target discovery portion of the alliance for an additional two years. Bristol-Myers Squibb will provide us with $20 million in additional research funding over the two-year extension, which begins in January 2007. The extension of the target discovery program term provides for further advanced research on selected targets.

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. signed a ten-year lease for a 76,000 square-foot facility 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.

In December 2002, we borrowed $4.0 million under a note agreement with Genentech. The proceeds of the loan are to be used to fund research efforts under our alliance with Genentech for the discovery of therapeutic proteins and antibody targets. On November 30, 2005, the note agreement was amended to extend the maturity date of the loan by one year to December 31, 2006. No other terms of the note agreement were changed. We may repay the note, at any time up to the maturity date, at our option, in cash, in shares of our common stock valued at the then-current market value, or in a combination of cash and shares, subject to certain limitations. The note accrues interest at an annual rate of 8%, compounded quarterly.

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 alliances, target validation collaborations, government grants and contracts, and technology licenses will be sufficient to fund our operations for approximately the next eighteen 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, corporate debt securities and certificates of deposit that mature within twelve months and auction rate securities that mature greater than twelve months from the time of purchase, which we believe are subject to limited market and credit risk. We currently do not hedge interest rate exposure or hold any derivative financial instruments in our investment portfolio.

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 chief executive officer and chief 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 and, if it is not available on reasonable terms, we will be forced to significantly curtail or cease operations or 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
- 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 Our Business

- we are an early-stage company, and we may not successfully develop or commercialize any therapeutics or drug targets that we have identified
- clinical testing of our future 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
- we are dependent 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 business will suffer
- conflicts with our collaborators could jeopardize the success of our collaborative agreements and harm our product development efforts
- if we are unable to internally establish drug development and commercialization capabilities or arrange for the provision of such functions by third parties, our ability to develop and commercialize pharmaceutical products would be significantly impaired
- we lack the capability to manufacture materials for preclinical studies, clinical trials or commercial sales and will rely on third parties to manufacture our potential products, which may harm or delay our product development and commercialization efforts
- we face substantial competition in our drug discovery and product development efforts
- we may engage in future acquisitions, which may be expensive and time consuming and from which we may not realize anticipated benefits
- if we lose our key personnel or are unable to attract and retain additional personnel, we may be unable to successfully develop and commercialize our own products

- 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
- we use hazardous chemicals and radioactive and biological materials in our business; any disputes relating to improper handling, storage or disposal of these materials could be time consuming and costly

Risks Related to Our Industry

- our ability to patent our inventions is uncertain because patent laws and their interpretation are highly uncertain and subject to change
- if we are unable to adequately protect our intellectual property, third parties may be able to use our technology, which could negatively impact 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
- our industry is subject to extensive and uncertain government regulatory requirements, which could significantly hinder our ability, or the ability of our collaborators, to obtain, in a timely manner or at all, regulatory approval of potential therapeutic products, or to commercialize such products
- if our potential products receive regulatory approval, we or our collaborators will remain subject to extensive and rigorous ongoing regulation
- the uncertainty of pharmaceutical pricing and reimbursement may decrease the commercial potential of any products that we or our collaborators may develop and affect our ability to raise capital
- we may be sued for product liability
- public perception of ethical and social issues may limit or discourage the use of our technologies, which could reduce our revenues

For additional discussion of the risks and uncertainties that affect our business, see “Item 1. Business — Risk Factors” included in our annual report on Form 10-K for the year ended December 31, 2005, as filed with the Securities and Exchange Commission.

Item 4. Submission of Matters to a Vote of Security Holders

Our annual meeting of stockholders was held on April 26, 2006 to consider and vote on the following proposals:

(1) The following individuals were nominated and elected as Class III directors, with the following numbers of shares voted for and withheld for such directors:

Name of Director	For	Withheld
Arthur T. Sands, M.D., Ph.D.	54,109,427	1,047,727
Frank P. Palantoni	58,815,550	1,341,604

(2) The following additional matters were considered and approved, with the following numbers of shares voted for, voted against and abstaining with respect to such matters:

Matter	For	Against	Abstain
Ratification and approval of the appointment of Ernst & Young LLP as our independent auditors for the fiscal year ending December 31, 2006	55,067,772	26,909	62,473

Item 6. Exhibits

Exhibit No.		Description
10.1	—	Common Stock Purchase Agreement with Azimuth Opportunity Ltd. dated June 12, 2006 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K dated June 12, 2006 and incorporated by reference herein)
†10.2	—	First Amendment, dated May 30, 2006, to Collaboration and License Agreement, dated December 17, 2003, with Bristol-Myers Squibb Company
31.1	—	Certification of CEO Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	—	Certification of CFO Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	—	Certification of CEO and CFO Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

† Confidential treatment has been requested for a portion of this exhibit. The confidential portions of this exhibit have been omitted and filed separately with the Securities and Exchange Commission.

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: August 4, 2006

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

Date: August 4, 2006

By: /s/ Julia P. Gregory
Julia P. Gregory
Executive Vice President, Corporate Development and Chief Financial Officer

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Index to Exhibits

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† Confidential treatment has been requested for a portion of this exhibit. The confidential portions of this exhibit have been omitted and filed separately with the Securities and Exchange Commission.

Exhibit 10.2

Confidential materials omitted and filed separately with the Securities and Exchange Commission. Asterisks denote omissions.

FIRST AMENDMENT
TO COLLABORATION AND LICENSE AGREEMENT

This First Amendment to Collaboration and License Agreement (the "Amendment") is entered into effective as of the last date set forth on the signature page hereof (the "Effective Date") by and between Lexicon Genetics Incorporated, a Delaware corporation ("Lexicon") and Bristol-Myers Squibb Company, a Delaware corporation ("BMS").

R E C I T A L S

WHEREAS, Lexicon and BMS are parties to that certain Collaboration and License Agreement dated December 17, 2003 (the "Collaboration Agreement");

WHEREAS, BMS desires to exercise its option to extend the Target Discovery Program Term under Section 2.2.2(a) of the Collaboration Agreement; and

WHEREAS, Lexicon and BMS desire to amend the Collaboration Agreement as set forth in this Amendment.

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein, Lexicon and BMS hereby agree as follows:

1. The terms in this Amendment with initial letters capitalized shall have the meaning set forth in this Amendment and if not defined in this Amendment shall have the meaning set forth in the Collaboration Agreement. Unless otherwise expressly stated, the Sections referred to herein refer to the Sections in the Collaboration Agreement.

2. BMS hereby provides notice to Lexicon in accordance with Section 2.2.2 that BMS hereby exercises its option to extend the Target Discovery Program Term under Section 2.2.2 subsection (a) of the Collaboration Agreement.

3. Section 2.2 of the Collaboration Agreement is hereby amended such that the decision to carry out Level 2 Phenotypic Analysis with respect to a Target may be based on information, other than or in addition to Level 1 Phenotypic Analysis, that is suggestive, as determined by [**], of the potential utility of the Target in the CNS Field. Any such determination by [**] with respect to a given Target shall be [**]. In accordance with the foregoing, Sections 2.2.1 and 2.2.2 of the Collaboration Agreement are deleted in their entirety and replaced with the following:

2.2.1 Generation and Analysis of Mutant Mice. In the Target Discovery Program, Lexicon shall complete (a) the development and Level 1 Phenotypic Analysis of [**] lines of Mutant Mice and (b) Level 2 Phenotypic Analysis of such lines of Mutant Mice, from the first [**] lines of Mutant Mice for which Level 1 Phenotypic Analysis was completed, (1) that displayed a phenotype suggestive, as determined by [**], of the potential utility of the corresponding Target in the CNS Field or (2) with respect to which any other information is identified, including but not limited to expression levels in brain tissues, that is suggestive, as determined by [**], of the

potential utility of the corresponding Target in the CNS Field. All lines of Mutant Mice developed by Lexicon [**] shall be [**]. Lexicon shall use Diligent Efforts to complete such work by the end of the third Contract Year of the Research Term and, if necessary, shall continue to use Diligent Efforts thereafter until such work is complete [**]. The Target Discovery Program Term shall continue until such work is complete.

2.2.2 Target Discovery Program Term. The Target Discovery Program shall continue until the end of the third Contract Year of the Research Program Term (and thereafter until the work set forth in Section 2.2.1 is completed) (the "Target Discovery Program Term"); provided that BMS shall have the option to extend the Target Discovery Program Term for an additional two Contract Years (which two-year period may be further extended as set forth below) on the terms set forth below:

(a) BMS may extend the Target Discovery Program to include the completion by Lexicon in the Target Discovery Program of (i) the development and Level 1 Phenotypic Analysis of [**] lines of Mutant Mice (to the extent not already completed by the end of the third Contract Year of the Research Program Term) and (ii) Level 2 Phenotypic Analysis of such lines of Mutant Mice, from such [**] lines of Mutant Mice, (1) that displayed a phenotype suggestive, as determined by [**], of the potential utility of the corresponding Target in the CNS Field or (2) with respect to which any other information is identified, including but not limited to expression levels in brain tissues, that is suggestive, as determined by [**], of the potential utility of the corresponding Target in the CNS Field. Lexicon shall use Diligent Efforts to complete such work by the end of the fifth Contract Year of the Research Term and, if necessary, shall continue to use Diligent Efforts thereafter until such work is complete [**]. The Target Discovery Program Term shall continue until such work is complete.

(b) BMS may extend the Target Discovery Program to include the completion by Lexicon in the Target Discovery Program of (i) the development and Level 1 Phenotypic Analysis of [**] lines of Mutant Mice and (ii) Level 2 Phenotypic Analysis of such lines of Mutant Mice, from such [**] lines of Mutant Mice, (1) that displayed a phenotype suggestive, as determined by [**], of the potential utility of the corresponding Target in the CNS Field or (2) with respect to which any other information is identified, including but not limited to expression levels in brain tissues, that is suggestive, as determined by [**], of the potential utility of the corresponding Target in the CNS Field. Lexicon shall use Diligent Efforts to complete such work by the end of the fifth Contract Year of the Research Term and, if necessary, shall continue to use Diligent Efforts thereafter until such work is complete [**]. The Target Discovery Program Term shall continue until such work is complete.

BMS may exercise the foregoing option by delivery to Lexicon of written notice of such exercise (specifying the subsection above under which such option is being exercised) no fewer than [**] days before the end of the third Contract Year of the Research Program Term.

4. Section 2.6.2 of the Collaboration Agreement is hereby amended and restated in its entirety as follows:

2.6.2 During the Target Discovery Program Term, Lexicon shall work exclusively with BMS and shall not enter into any discussions or agreements with any Third Party with respect to activities directed to the identification of novel Targets for the identification and development of Small Molecule Compounds for use in the CNS Field, *provided* that Lexicon may pursue discussions and enter agreements with Third Parties with respect to Released Targets and Inactive

Selected Targets that the parties have agreed to out-license. Notwithstanding the foregoing, in the event BMS exercises its option to extend the Target Discovery Program Term under Section 2.2.2(a), at any time following the end of the fourth Contract Year, Lexicon may enter into discussions with Third Parties with respect to Targets other than those corresponding to the lines of Mutant Mice for which Level 1 Phenotypic Analysis and, as applicable, Level 2 Phenotypic Analysis is to be completed in accordance with such extension. During the Target Discovery Program Term, Lexicon shall work exclusively with BMS under the terms of the Agreement with respect to all Targets identified as of the Effective Date by Lexicon [**] as having potential utility in the CNS Field, with the exception of Lexicon's LG617 Target (which is subject to Section 4.4) and Released Targets. Notwithstanding the foregoing, in the event BMS exercises its option to extend the Target Discovery Program Term under Section 2.2.2(a), the foregoing obligation shall not be deemed to restrict Lexicon from working internally with respect to Targets other than those corresponding to the lines of Mutant Mice for which Level 1 Phenotypic Analysis and, as applicable, Level 2 Phenotypic Analysis is to be completed in accordance with such extension; *provided* that (i) during the initial Target Discovery Program Term (*i.e.*, prior to giving effect to any such extension) and continuing until the Joint Scientific Committee determines that Lexicon has completed such Level 1 Phenotypic Analysis for [**] lines of Mutant Mice corresponding to [**] Targets in accordance with Section 2.2, Lexicon shall not knowingly exclude any Targets from being included in such group of [**] Targets in a manner that conflicts with the objectives of the Target Discovery Program to identify Targets having potential utility in the CNS Field and (ii) Lexicon shall not work internally to perform any Level 2 Phenotypic Analysis to identify Targets having potential utility in the CNS Field (other than in support of the Target Discovery Program) to the extent that such activity would limit or otherwise compromise the efforts and resources that Lexicon devotes to performing and completing the Level 2 Phenotypic Analysis in support of the Target Discovery Program.

5. This Amendment shall not amend or modify the covenants, terms, conditions, rights and obligations of the parties under the Collaboration Agreement, except as specifically set forth herein. The Collaboration Agreement shall continue in full force and effect in accordance with its terms as amended by this Amendment. This Amendment shall not amend or modify the covenants, terms, conditions, rights and obligations of the parties under any other agreement between the parties, including, without limitation, the following agreements relating to the Collaboration Agreement, which shall continue in full force and effect in accordance with their terms: (a) [**]; (b) [**]; (c) [**]; (d) [**]; and (e) [**].

6. This Agreement may be executed in counterparts, each of which shall be deemed an original, but both of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have caused their duly authorized representatives to execute and deliver this Agreement as of the Effective Date.

Bristol-Myers Squibb Company

By: _____
(Signature of Authorized Representative)

Printed Name: _____

Title: _____

Date: _____

Lexicon Genetics Incorporated

By: _____
(Signature of Authorized Representative)

Printed Name: _____

Title: _____

Date: _____

Exhibit 31.1

CERTIFICATIONS

I, Arthur T. Sands, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Lexicon Genetics Incorporated;

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: August 4, 2006

/s/ Arthur T. Sands

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

Exhibit 31.2

CERTIFICATIONS

I, Julia P. Gregory, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Lexicon Genetics Incorporated;

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: August 4, 2006

/s/ Julia P. Gregory

Julia P. Gregory
Executive Vice President, Corporate Development
and Chief Financial Officer

Exhibit 32.1

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., Chief Executive Officer of Lexicon Genetics Incorporated ("Lexicon"), and Julia P. Gregory, Chief Financial Officer of Lexicon, each hereby certify that:

1. Lexicon's Quarterly Report on Form 10-Q for the period ended June 30, 2006, 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 4th day of August, 2006.

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

By: /s/ Julia P. Gregory
Julia P. Gregory
Executive Vice President,
Corporate Development and
Chief Financial Officer