Mills Barry Form 4 August 31, 2006

FORM 4

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

Check this box if no longer

subject to Section 16.

Form 4 or Form 5 obligations may continue. See Instruction STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF **SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

1(b).

(Last)

(Print or Type Responses)

1. Name and Address of Reporting Person * Mills Barry

(First) (Middle)

8800 TECHNOLOGY FOREST **PLACE**

(Street)

(State)

(Zin)

2. Issuer Name and Ticker or Trading

Symbol

LEXICON GENETICS INC/TX [LEXG]

3. Date of Earliest Transaction (Month/Day/Year)

4. If Amendment, Date Original

Filed(Month/Day/Year)

08/18/2006

5. Relationship of Reporting Person(s) to

OMB APPROVAL

3235-0287

January 31,

2005

0.5

OMB

Number:

Expires:

response...

Estimated average

burden hours per

Issuer

(Check all applicable)

_X__ Director 10% Owner Officer (give title Other (specify below)

6. Individual or Joint/Group Filing(Check

Applicable Line) _X_ Form filed by One Reporting Person Form filed by More than One Reporting

THE WOODLANDS, TX 773811160

(City)	(State) (A	Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially (
1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. 4. Securities Acquired Transaction(A) or Disposed of (D) Code (Instr. 3, 4 and 5) (Instr. 8)		5. Amount of Securities Beneficially Owned Following	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)		
			Code V	Amount	(A) or (D)	Price	Reported Transaction(s) (Instr. 3 and 4)		
Common Stock	08/18/2006		P	268	A	\$ 3.85	268	D	
Common Stock	08/18/2006		P	1,000	A	\$ 3.86	1,268	D	
Common Stock	08/18/2006		P	100	A	\$ 3.89	1,368	D	
Common Stock	08/18/2006		P	4	A	\$ 3.9	1,372	D	
	08/18/2006		P	500	A		1,872	D	

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Common Stock					\$ 3.91		
Common Stock	08/18/2006	P	1,400	A	\$ 3.93	3,272	D
Common Stock	08/18/2006	P	1,112	A	\$ 3.94	4,384	D
Common Stock	08/18/2006	P	14,000	A	\$ 3.95	18,384	D
Common Stock	08/18/2006	P	3,636	A	\$ 3.96	22,020	D
Common Stock	08/18/2006	P	200	A	\$ 3.97	22,220	D
Common Stock	08/18/2006	P	1,880	A	\$ 3.98	24,100	D
Common Stock	08/18/2006	P	900	A	\$ 3.99	25,000	D

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transactic Code (Instr. 8)	5. onNumber of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		ate	7. Title Amou Under Securi (Instr.	nt of lying	8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Owne Follo Repo Trans (Instr
				Code V		Date Exercisable	Expiration Date	Title	Amount or Number of Shares		

Reporting Owners

Reporting Owner Name / Address Relationships

Director 10% Owner Officer Other

Reporting Owners 2

Mills Barry 8800 TECHNOLOGY FOREST PLACE X THE WOODLANDS, TX 773811160

Signatures

By: /s/ Barry Mills 08/31/2006

**Signature of Date
Reporting Person

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(b)(v).
- ** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

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