FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| | OMB APPROVAL | | | | | | | | |
|---|--------------------------|-----------|--|--|--|--|--|--|--|
| | OMB Number: | 3235-0287 | | | | | | | |
| ı | Estimated average burden | | | | | | | | |
| | hours per response: | 0.5 | | | | | | | |

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| 1. Name and Address of Reporting Person* ISHIMOTO LANCE K | | | | | 2. Issuer Name and Ticker or Trading Symbol LEXICON GENETICS INC/TX [LEXG] | | | | | | | | (Chec | k all applic Directo | | | son(s) to Iss 10% Ov Other (s | vner | |
|--|--|--|--|------------------------------|---|----------|--------------------------------------|---|------------------------------|---------------------|------------------------------|--------------------------------|-----------------------------------|---|---|---|--|--|--|
| | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 02/18/2005 | | | | | | | | X | below) | | | below) | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| (Street) THE WOODL | Succes | | | 4. | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | 6. Indi Line) X | -7 | | | | | | |
| (City) | (S | tate) | (Zip) | | | | | | | | | | | | | | | | |
| | | Tab | le I - Non-De | rivativ | e Se | curities | s Ac | quired, | Dis | posed o | f, or Be | nefic | ially | Owned | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Da | | | | • | Execution Date, | | Transaction Disposed Code (Instr. 5) | | ties Acquir I Of (D) (Ins | ed (A) str. 3, 4 | 4 and Securitie Beneficia | | es Formally (D) (Following (I) (I | | : Direct r Indirect str. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | | |
| | | | | | | | | Code | v | Amount | nt (A) or (D) | | ce | Transact (Instr. 3 a | tion(s) | | | (111501.4) | |
| | 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. Transa Code (8) | | | | 6. Date Exercisa Expiration Date (Month/Day/Yea | | of Securities | | ties ig e Secui | [| 8. Price of Derivative Security (Instr. 5) | 9. Number derivative Securities Beneficial Owned Following Reported Transactic (Instr. 4) | s S Illy | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | Code | v | (A) | (D) | Date Exercisab | | Expiration Date | Title | Amo or Num of Shar | ber | | | | | | |
| Stock Option (right to buy) | \$5.76 | 02/18/2005 | | A | | 35,000 | | (1) | 0 | 2/18/2015 | Common Stock | 35,0 | 000 | \$0 | 35,000 | 0 | D | | |

Explanation of Responses:

1. Option vests with respect to 25% of the shares subject to the option on the first anniversary of grant (2/18/2006) and vests 1/48th per month for each month of service thereafter.

Remarks:

<u>/s/ Ishimoto, Lance K.</u> 02/23/2005

** Signature of Reporting Person

Date

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

- * 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.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.