

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-A

For Registration of Certain Classes of Securities  
Pursuant to Section 12(b) or (g) of the  
Securities Exchange Act of 1934

LEXICON GENETICS INCORPORATED  
(Exact name of registrant as specified in its charter)

DELAWARE  
(State of incorporation or organization)

76-0474169  
(I.R.S. Employer Identification No.)

4000 RESEARCH FOREST DRIVE  
THE WOODLANDS, TEXAS  
(address of principal executive offices)

77381  
(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class to be so registered:	Name of each exchange on which each class is to be registered:
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None

If this Form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box. [ ]

If this Form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box. [X]

Securities to be registered pursuant to Section 12(g) of the Act:

Common Stock, par value \$0.001  
per share

## ITEM 1. DESCRIPTION OF REGISTRANT'S SECURITIES TO BE REGISTERED

A description of the common stock, par value \$0.001 per share of Lexicon Genetics Incorporated (the "Registrant"), to be registered hereunder is set forth under the caption "Description of Capital Stock" in the prospectus included in the Registrant's Registration Statement on Form S-1 (No. 333-96469), as filed with the Securities and Exchange Commission on February 9, 2000, under the Securities Act of 1933, as amended, and will be set forth in any prospectus filed in accordance with Rule 424(b) thereunder, which description is incorporated herein by reference.

## ITEM 2. EXHIBITS

The following exhibits to this Registration Statement on Form 8-A are incorporated by reference from the documents specified, which have been filed with the Securities and Exchange Commission.

1. Registrant's Registration Statement on Form S-1 (No. 333-96469), as amended, filed with the Securities and Exchange Commission on February 9, 2000 (the "Registration Statement")(incorporated herein by reference).
2. Certificate of Incorporation of the Registrant (incorporated herein by reference from Exhibit 3.1 to the Registration Statement).
3. Bylaws of the Registrant (incorporated herein by reference from Exhibit 3.2 to the Registration Statement).

SIGNATURE

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized.

Dated: March 27, 2000

LEXICON GENETICS INCORPORATED

By: /s/ ARTHUR T. SANDS

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Name: Arthur T. Sands

Title: President and Chief Executive Officer

## EXHIBIT INDEX

EXHIBIT  
NUMBER

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