

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

SCHEDULE 13G
Under the Securities Exchange Act of 1934
(Amendment No. _____)*

(Name of Issuer)

LEXICON GENETICS, INC.

(Title of Class of Securities)

COMMON STOCK

(CUSIP Number)

528872104

(Date of Event which Requires Filing of this Statement)

DECEMBER 31, 2000

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1(b)
 Rule 13d-1(c)
 Rule 13d-1(d)

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* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1 NAME OF REPORTING PERSON
S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON

PATRICOF & CO. VENTURES, INC. 13-2647531

2 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

(a)
(b)

3 SEC USE ONLY

4 CITIZENSHIP OR PLACE OF ORGANIZATION

New York

5 SOLE VOTING POWER

-0-

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH

6 SHARED VOTING POWER

2,757,510

7 SOLE DISPOSITIVE POWER

-0-

8 SHARED DISPOSITIVE POWER

2,757,510

9 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

2,757,510

10 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES*

11 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

5.73%

12 TYPE OF REPORTING PERSON*

*SEE INSTRUCTIONS BEFORE FILLING OUT

- Item 1. (a) Name of Issuer: LEXICON GENETICS, INC.
- (b) Address of Issuer's Principal Executive Offices:
4000 RESEARCH FOREST DRIVE,
THE WOODLANDS, TX 77381-4287
- Item 2. (a) Name of Person Filing:
PATRICOF & CO. VENTURES, INC.
- (b) Address of Principal Business Office or, if none, Residence:
445 PARK AVENUE, NEW YORK, NY 10022
- (c) Citizenship: NEW YORK
- (d) Title of Class of Securities: COMMON STOCK
- (e) CUSIP Number: 528872104
- Item 3. If this statement is filed pursuant to Rule 13d-1(b) or Rule 3d-2(b) or (c), check whether the person filing is a:
- (a) Broker or dealer registered under Section 15 of the Act.
- (b) Bank as defined in Section 3(a)(6) of the Act.
- (c) Insurance company as defined in Section 3(a)(19) of the Act.
- (d) Investment company registered under Section 8 of the Investment Company Act of 1940.
- (e) An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E).
- (f) An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F).
- (g) A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G).
- (h) A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act.
- (i) A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act of 1940.
- (j) Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

Item 4. Ownership.

- (a) Amount beneficially owned: 2,757,510
- (b) Percent of class: 5.73%
- (c) Number of shares such person has:
 - (i) Sole power to vote or to direct the vote -0-
 - (ii) Shared power to vote or to direct the vote 2,757,510*
 - (iii) Sole power to dispose or to direct the disposition of -0-
 - (iv) Shared power to dispose or to direct the disposition of 2,757,510*

*SEE RIDER A ATTACHED

Item 5. Ownership of Five Percent or Less of a Class.

Not applicable

Item 6. Ownership of More than Five Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

Not applicable.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

- (a) The following certification shall be included if the statement is filed pursuant to Rule 13d-1(b):

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

- (b) The following certification shall be included if the statement is filed pursuant to Rule 13d-1(c):

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

February 14, 2001

/s/ Alan J. Patricof

Alan J. Patricof

Chairman

The original statement shall be signed by each person on whose behalf the statement is filed or his authorized representative. If the statement is signed on behalf of a person by his authorized representative (other than an executive officer or general partner of the filing person), evidence of the representative's authority to sign on behalf of such person shall be filed with the statement, provided, however, that a power of attorney for this purpose which is already on file with the Commission may be incorporated by reference. The name and any title of each person who signs the statement shall be typed or printed beneath his signature.

NOTE: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7 for other parties for whom copies are to be sent.

Attention: Intentional misstatements or omissions of fact constitute Federal criminal violations (See 18 U.S.C. 1001)

Rider A

As of December 31, 2000, Patricof & Co. Ventures, Inc. ("Patricof") may be deemed to be the beneficial owner of 1,906,957 shares of common stock (3.96%) owned by APA Excelsior IV, L.P., a Delaware Limited Partnership ("Excelsior IV"), 336,463 shares of common stock (0.7%) owned APA Excelsior IV/Offshore, L.P., a Cayman Islands Limited Partnership ("Offshore"), 477,804 shares of common stock (1%) owned by the P/A Fund III, L.P., a Pennsylvania Limited Partnership ("P/A") and 36,286 shares of common stock (0.07%) owned by Patricof Private Placement Club, L.P., a Delaware Limited Partnership each of such entities is managed or advised by Patricof and as such, Patricof may be deemed to have shared voting and dispositive power with the General Partners of each Partnership with respect to 2,757,510 shares of common stock.