

SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 1)

LEXICON GENETICS INCORPORATED  
(Name of Issuer)

COMMON STOCK \$0.001 PAR VALUE PER SHARE  
(Title of Class of Securities)

528872 10 4  
(CUSIP Number)

DECEMBER 31, 2001  
(Date of Event Which Requires Filing of this Statement)

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)

\*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 in 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).

NAMES OF REPORTING PERSONS  
 I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)

Gordon A. Cain

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (A)

(B)

SEC USE ONLY

CITIZENSHIP OR PLACE OF ORGANIZATION

United States of America

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

5

SOLE VOTING POWER

10,991,000

6

SHARED VOTING POWER

2,000,000

7

SOLE DISPOSITIVE POWER

10,991,000

8

SHARED DISPOSITIVE POWER

2,000,000

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

12,991,000

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

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

25.0%

TYPE OF REPORTING PERSON\*

IN

SCHEDULE 13G

Introductory Note: All information with respect to Lexicon Genetics Incorporated is to the best knowledge and belief of the Reporting Person, as defined herein.

ITEM 1.

- (a) NAME OF ISSUER. The name of the issuer is Lexicon Genetics Incorporated (the "Issuer").
- (b) ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES. The address of the Issuer's Principal Executive Offices is 4000 Research Forest Drive, The Woodlands, Texas 77381.

ITEM 2.

- (a) NAME OF PERSON FILING. The name of the person filing this Schedule 13G is Gordon A. Cain (the "Reporting Person").
- (b) ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE. The address of the Reporting Person is 8 Greenway Plaza, Suite 702, Houston, Texas 77046.
- (c) CITIZENSHIP. The reporting person is a citizen of the United States.
- (d) TITLE OF CLASS OF SECURITIES. The class of securities of the Issuer owned beneficially by the Reporting Person is common stock, \$0.001 par value (the "Common Stock").
- (e) CUSIP NUMBER. The CUSIP Number for the Common Stock is 528872 10 4.

ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO SECTIONS 240.13d-1(b) OR 240.13d-2(b) OR (c), CHECK WHETHER THE FILING PERSON IS:

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under section 8 of the Investment Company Act of 1950 (15 U.S.C. 80a-8).
- (e)  An investment adviser in accordance with Section 240.13d-(b)(1)(ii)(E);
- (f)  An employee benefit plan of endowment fund in accordance with Section 240.13d(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with Section 240.13d-1(b)(1)(ii)(G);
- (h)  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (!2 U.S.C. 1813);
- (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 (15 U.S.C. 80a-3);
- (j)  Group, in accordance with Section 240.13d-(b)(1)(ii)(J).

ITEM 4. OWNERSHIP.

- (a) AMOUNT BENEFICIALLY OWNED. The amount of securities beneficially owned by the Reporting Person is 12,991,000 shares of Common Stock.
- (B) PERCENT OF CLASS. The percent of the class of Common Stock beneficially owned by the Reporting Person is 25.0%.
- (C) NUMBER OF SHARES AS TO WHICH THE PERSON HAS:
  - (i) SOLE POWER TO VOTE OR TO DIRECT THE VOTE: 10,991,000
  - (ii) SHARED POWER TO VOTE OR TO DIRECT THE VOTE: 2,000,000\*
  - (iii) SOLE POWER TO DISPOSE OR TO DIRECT THE DISPOSITION OF: 10,991,000
  - (iv) SHARED POWER TO DISPOSE OR TO DIRECT THE DISPOSITION OF: 2,000,000\*

\* These shares are owned by the Gordon and Mary Cain Foundation, of which Gordon A. Cain is the chairman and a trustee.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following: [ ]

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 OR CONTROL PERSON.

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.

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.

Date: February 11, 2002

/s/ JOHN M. SULLIVAN

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John M. Sullivan

Signed pursuant to a  
Durable Power of Attorney  
Dated February 8, 2002  
(attached hereto as  
Exhibit 1)

INDEX TO EXHIBITS

EXHIBIT  
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99.1            Statutory Durable Power of Attorney

STATUTORY DURABLE POWER OF ATTORNEY  
EFFECTIVE UPON EXECUTION

NOTICE: THE POWERS GRANTED BY THIS DOCUMENT ARE BROAD AND SWEEPING. THEY ARE EXPLAINED IN THE DURABLE POWER OF ATTORNEY ACT, CHAPTER XII, TEXAS PROBATE CODE. THIS DOCUMENT DOES NOT AUTHORIZE ANYONE TO MAKE MEDICAL AND OTHER HEALTH CARE DECISIONS FOR THE PRINCIPAL. THIS POWER OF ATTORNEY MAY BE REVOKED AT ANY TIME.

I, GORDON A. CAIN, live at 2121 Kirby Drive, #9E, Houston, Texas 77019. I appoint JOHN M. SULLIVAN as my agent (attorney-in-fact) to act for me in any lawful way with respect to all of the following powers, except for any I have crossed out below.

Real Property Transactions;  
Tangible Personal Property Transactions;  
Stock and Bond Transactions;  
Commodity and Option Transactions;  
Banking and Other Financial Institution Transactions;  
Business Operating Transactions;  
Insurance and Annuity Transactions;  
Estate, Trust, and Other Beneficiary Transactions;  
Claims and Litigation;  
Personal and Family Maintenance;  
Benefits from Social Security, Medicare, Medicaid, or Other  
Governmental Programs or Civil or Military Services;  
Retirement Plan Transactions; and  
Tax Matters.

IF NO POWER LISTED ABOVE IS CROSSED OUT, THIS DOCUMENT SHALL BE CONSTRUED AND INTERPRETED AS A GENERAL POWER OF ATTORNEY AND MY AGENT (ATTORNEY-IN-FACT) SHALL HAVE THE POWER AND AUTHORITY TO PERFORM OR UNDERTAKE ANY ACTION I COULD PERFORM OR UNDERTAKE IF I WERE PERSONALLY PRESENT.

I. ADDITIONAL SPECIFIC POWERS.

A. Insurance and Retirement Plans. My agent shall have the power to designate or change the beneficiary of an insurance contract, annuity contract or retirement plan, except that an attorney in fact or agent may be a named beneficiary of the contract or plan or an extension, renewal, or substitute for the contract or plan only to the extent the attorney in fact or agent was a beneficiary named under a contract or plan before this Power of Attorney became effective.

B. Ratification and General Grant of Power. I hereby ratify and confirm all that my agent may do pursuant to this Power of Attorney. I recognize that powers of attorney are sometimes strictly construed and it is not my intention by listing the above-enumerated powers to limit the

power and authority of my agent. In addition to the above-enumerated powers, except as specifically provided above, my agent is authorized and empowered, for me and in my name, to do any and every act and exercise any and every power that I might or could do or exercise through any other person and that my agent shall deem proper or advisable. I intend to vest in my agent a full and universal power of attorney.

II. OTHER POWERS OF ATTORNEY. The validity of this Power of Attorney shall not be affected in any manner by reason of the execution, at any time, of powers of attorney by me in favor of persons other than those named herein.

III. RELIANCE ON AFFIDAVIT OF LACK OF KNOWLEDGE OF TERMINATION OF POWER. My agent may execute an affidavit stating that he did not have actual knowledge of revocation of this Power of Attorney by reason of my death, the qualification of a guardian of my estate, divorce, marriage annulment, or pursuant to the following Paragraph at the time he exercised this Power of Attorney, and such affidavit shall be conclusive proof as between my agent and another person (other than me or my personal representative) of my agent's lack of actual knowledge of the revocation of this Power of Attorney.

IV. REVOCATION. I agree and represent to those dealing with my agent that this Power of Attorney may be voluntarily revoked only by written revocation recorded in the Official Public Records of Real Property (Deed Records) of Harris County, Texas. Revocation of this Power of Attorney is not effective as to a third party until the third party receives actual notice of the revocation.

V. AGREEMENT AS TO THIRD PARTY RELIANCE. I agree that any third party who receives a copy of this Power of Attorney may act under it.

VI. INDEMNITIES. I agree to indemnify the third party for any claims that arise against the third party because of reliance on this Power of Attorney. I authorize my agent to indemnify and hold harmless any third party who accepts and acts under this Power of Attorney.

VII. EFFECTIVE DATE. This Power of Attorney shall be effective immediately. It is not affected by my subsequent disability or incapacity and shall remain effective in the event of my disability or incapacity.

Signed this 8th day of February, 2002.

/s/ GORDON A. CAIN  
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Gordon A. Cain



STATE OF TEXAS

COUNTY OF HARRIS

BEFORE ME, the undersigned authority, on this day personally appeared Gordon A. Cain, known to me to be the person whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this, the 8th day of February, 2002.

[SEAL]

/s/ PAMELA LYNN HENTHORNE

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Notary Public in and for the  
State of Texas

THE ATTORNEY-IN-FACT OR AGENT, BY ACCEPTING OR ACTING UNDER THIS POWER OF ATTORNEY, ASSUMES THE FIDUCIARY AND OTHER LEGAL RESPONSIBILITIES OF AN AGENT.