LEXICON GENETICS INC/TX

Form SC 13G January 23, 2007

SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Schedule 13G

Under the Securities Exchange Act of 1934 (New)

LEXICON GENETICS INC (Name of Issuer)

Common Stock
(Title of Class of Securities)

528872104 (CUSIP Number)

December 31, 2006 (Date of Event Which Requires Filing of this Statement)

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

[X] Rule 13d-1(b)

*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 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).

CUSIP No. 528872104

(1) Names of Reporting Persons.

I.R.S. Identification Nos. of above persons (entities only).

BARCLAYS GLOBAL INVESTORS, NA., 943112180

- (2) Check the appropriate box if a member of a $Group^*$
- (a) / /
- (b) /X/

(3) SEC Use Only

(4) Citizenship or Place of Organization U.S.A.

Beneficially Owned	(5) Sole Voting Power 3,349,935	
by Each Reporting Person With	(6) Shared Voting Power	
	(7) Sole Dispositive Power 3,651,367	
	(8) Shared Dispositive Power	
(9) Aggregate Amount Beneficially Owned by 3,651,367	Each Reporting Person	
(10) Check Box if the Aggregate Amount in	Row (9) Excludes Certain Shares*	
(11) Percent of Class Represented by Amoun 4.79%	t in Row (9)	
(12) Type of Reporting Person* BK		
CUSIP No. 528872104		
(1) Names of Reporting Persons. I.R.S. Identification Nos. of above	e persons (entities only).	
	e persons (entities only).	
I.R.S. Identification Nos. of above BARCLAYS GLOBAL FUND ADVISORS (2) Check the appropriate box if a member of (a) / /		
I.R.S. Identification Nos. of above BARCLAYS GLOBAL FUND ADVISORS (2) Check the appropriate box if a member of (a) // (b) /X/		
I.R.S. Identification Nos. of above BARCLAYS GLOBAL FUND ADVISORS (2) Check the appropriate box if a member of the control o		
I.R.S. Identification Nos. of above BARCLAYS GLOBAL FUND ADVISORS (2) Check the appropriate box if a member of (a) / / (b) /X/ (3) SEC Use Only (4) Citizenship or Place of Organization U.S.A. Number of Shares Beneficially Owned		
I.R.S. Identification Nos. of above BARCLAYS GLOBAL FUND ADVISORS (2) Check the appropriate box if a member of (a) / / (b) /X/ (3) SEC Use Only (4) Citizenship or Place of Organization U.S.A. Sumber of Shares Beneficially Owned by Each Reporting	of a Group* (5) Sole Voting Power	
I.R.S. Identification Nos. of above BARCLAYS GLOBAL FUND ADVISORS (2) Check the appropriate box if a member of (a) / / (b) /X/ (3) SEC Use Only (4) Citizenship or Place of Organization U.S.A. Number of Shares Beneficially Owned by Each Reporting	of a Group* (5) Sole Voting Power 1,855,310	
I.R.S. Identification Nos. of above BARCLAYS GLOBAL FUND ADVISORS (2) Check the appropriate box if a member of (a) / / (b) /X/ (3) SEC Use Only (4) Citizenship or Place of Organization	(5) Sole Voting Power 1,855,310 (6) Shared Voting Power (7) Sole Dispositive Power	

(11) Percent of Class Represented by Amount : 2.43%	in Row (9)
(12) Type of Reporting Person* IA	
CUSIP No. 528872104	
(1) Names of Reporting Persons. I.R.S. Identification Nos. of above p	persons (entities only).
BARCLAYS GLOBAL INVESTORS, LTD	
(2) Check the appropriate box if a member of (a) $\ /\ /$ (b) $\ /X/$	a Group*
(3) SEC Use Only	
(4) Citizenship or Place of Organization England	
Number of Shares Beneficially Owned by Each Reporting	(5) Sole Voting Power -
Person With	(6) Shared Voting Power
	(7) Sole Dispositive Power
	(8) Shared Dispositive Power
(9) Aggregate	
(10) Check Box if the Aggregate Amount in Rot	w (9) Excludes Certain Shares*
(11) Percent of Class Represented by Amount : 0.00%	in Row (9)
(12) Type of Reporting Person* BK	
CUSIP No. 528872104	
(1) Names of Reporting Persons. I.R.S. Identification Nos. of above p	persons (entities only).

BARCLAYS GLOBAL INVESTORS JAPAN	N TRUST AND BANKING COMPANY LIMITED
(2) Check the appropriate box if a member (a) // (b) /X/	ber of a Group*
(3) SEC Use Only	
(4) Citizenship or Place of Organization	on
Number of Shares Beneficially Owned by Each Reporting Person With	(5) Sole Voting Power -
	(6) Shared Voting Power -
	(7) Sole Dispositive Power
	(8) Shared Dispositive Power
(9) Aggregate	
(10) Check Box if the Aggregate Amount	in Row (9) Excludes Certain Shares*
(11) Percent of Class Represented by An 0.00%	mount in Row (9)
(12) Type of Reporting Person*	
CUSIP No. 528872104	
(1) Names of Reporting Persons. I.R.S. Identification Nos. of	above persons (entities only).
BARCLAYS GLOBAL INVESTORS JAPAN	N LIMITED
(2) Check the appropriate box if a member (a) // (b) /X/	ber of a Group*
(3) SEC Use Only	
(4) Citizenship or Place of Organization	on
Number of Shares Beneficially Owned by Each Reporting	(5) Sole Voting Power
Person With	(6) Shared Voting Power

		(7) Sole Dispositive Power
		(8) Shared Dispositive Power
 (9) Aggregate -		
(10) Check Box	x if the Aggregate Amount in Row ((9) Excludes Certain Shares*
(11) Percent c	of Class Represented by Amount in	Row (9)
(12) Type of R	Reporting Person*	
ITEM 1(A).	NAME OF ISSUER LEXICON GENETICS INC	
TEM 1(B).	ADDRESS OF ISSUER'S PRINCIPAL E 8800 Technology Forest Place The Woodlands Tx 77381	EXECUTIVE OFFICES
TEM 2(A).	NAME OF PERSON(S) FILING BARCLAYS GLOBAL INVESTO	DRS, NA
ITEM 2(B).	ADDRESS OF PRINCIPAL BUSINESS OF Fremont Street San Francisco,	
ITEM 2(C).	CITIZENSHIP U.S.A	
ITEM 2(D).	TITLE OF CLASS OF SECURITIES Common Stock	
ITEM 2(E).	CUSIP NUMBER 528872104	
(a) // Broker	IF THIS STATEMENT IS FILED PURSCHECK WHETHER THE PERSON FILING IS or Dealer registered under Sections.C. 780).	5 A
(b) /X/ Bank a (c) // Insura	as defined in section 3(a) (6) of ance Company as defined in section	
(d) // Invest	S.C. 78c). The third company registered under second and company registered under second and company	ction 8 of the Investment
(e) // Invest	ny Act of 1940 (15 U.S.C. 80a-8).	
240.13	yee Benefit Plan or endowment func $3d-1(b)(1)(ii)(F)$.	
-	Holding Company or control personal $(3d-1)$ (b) (1) (ii) (G) .	on in accordance with section
	ings association as defined in sec	ction 3(b) of the Federal Depo

Insurance Act (12 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 (15U.S.C. 80a-3). (i) // Group, in accordance with section 240.13d-1(b)(1)(ii)(J) NAME OF ISSUER ITEM 1(A). LEXICON GENETICS INC ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES ITEM 1(B). 8800 Technology Forest Place The Woodlands Tx 77381 ITEM 2(A). NAME OF PERSON(S) FILING BARCLAYS GLOBAL FUND ADVISORS ITEM 2(B). ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE 45 Fremont Street San Francisco, CA 94105 ITEM 2(C). CITIZENSHIP U.S.A ITEM 2(D). TITLE OF CLASS OF SECURITIES Common Stock ______ TTEM 2(E). CUSIP NUMBER 528872104 ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO RULES 13D-1(B), OR 13D-2(B), CHECK WHETHER THE PERSON FILING IS A (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 1940 (15 U.S.C. 80a-8). (e) /X/ Investment Adviser in accordance with section 240.13d(b)(1)(ii)(E). (f) // Employee Benefit Plan or endowment fund in accordance with section 240.13d-1(b)(1)(ii)(F). (g) // Parent Holding Company or control person in accordance with section 240.13d-1(b)(1)(ii)(G). (h) // A savings association as defined in section 3(b) of the Federal Deposit Insurance Act (12 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 (15U.S.C. 80a-3). (j) // Group, in accordance with section 240.13d-1(b)(1)(ii)(J) NAME OF ISSUER LEXICON GENETICS INC ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES TTEM 1(B). 8800 Technology Forest Place The Woodlands Tx 77381 ITEM 2(A). NAME OF PERSON(S) FILING BARCLAYS GLOBAL INVESTORS, LTD

ITEM 2(B).	ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE Murray House 1 Royal Mint Court LONDON, EC3N 4HH
ITEM 2(C).	CITIZENSHIP England
ITEM 2(D).	TITLE OF CLASS OF SECURITIES Common Stock
ITEM 2(E).	CUSIP NUMBER 528872104
OR 13D-2(B), CHE (a) // Broker of (15 U.S.	IF THIS STATEMENT IS FILED PURSUANT TO RULES 13D-1(B), ECK WHETHER THE PERSON FILING IS A per Dealer registered under Section 15 of the Act C. 78o).
(c) // Insuranc	defined in section 3(a) (6) of the Act (15 U.S.C. 78c). ce Company as defined in section 3(a) (19) of the Act .C. 78c).
	ent Company registered under section 8 of the Investment Act of 1940 (15 U.S.C. 80a-8).
(e) // Investme (f) // Employee	ent Adviser in accordance with section 240.13d(b)(1)(ii)(E). Benefit Plan or endowment fund in accordance with section -1(b)(1)(ii)(F).
(g) // Parent H	Holding Company or control person in accordance with section -1(b)(1)(ii)(G).
(h) // A saving	gs association as defined in section 3(b) of the Federal Deposit
(i) // A church company	ce Act (12 U.S.C. 1813). In plan that is excluded from the definition of an investment under section 3(c)(14) of the Investment Company Act of 1940 C. 80a-3).
	in accordance with section 240.13d-1(b)(1)(ii)(J)
, ,	NAME OF ISSUER LEXICON GENETICS INC
ITEM 1(B).	ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES 8800 Technology Forest Place The Woodlands Tx 77381
	NAME OF PERSON(S) FILING GLOBAL INVESTORS JAPAN TRUST AND BANKING COMPANY LIMITED
ITEM 2(B).	ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE Ebisu Prime Square Tower 8th Floor 1-1-39 Hiroo Shibuya-Ku Tokyo 150-0012 Japan
ITEM 2(C).	CITIZENSHIP Japan
ITEM 2(D).	TITLE OF CLASS OF SECURITIES Common Stock
ITEM 2(E).	
OR 13D-2(B), CHE	IF THIS STATEMENT IS FILED PURSUANT TO RULES 13D-1(B), ECK WHETHER THE PERSON FILING IS A or Dealer registered under Section 15 of the Act

(15 U.S.C. 78o).

- (b) /X/ 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 1940 (15 U.S.C. 80a-8).
- (e) // Investment Adviser in accordance with section 240.13d(b)(1)(ii)(E).
- (f) // Employee Benefit Plan or endowment fund in accordance with section 240.13d-1 (b) (1) (ii) (F).
- (g) // Parent Holding Company or control person in accordance with section 240.13d-1(b)(1)(ii)(G).
- (h) // A savings association as defined in section 3(b) of the Federal Deposit Insurance Act (12 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 (15U.S.C. 80a-3).
- (j) // Group, in accordance with section 240.13d-1(b)(1)(ii)(J)
- ITEM 1(A). NAME OF ISSUER LEXICON GENETICS INC

ITEM 1(B). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES 8800 Technology Forest Place
The Woodlands Tx 77381

ITEM 2(A). NAME OF PERSON(S) FILING
BARCLAYS GLOBAL INVESTORS JAPAN LIMITED

ITEM 2(B). ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE

Ebisu Prime Square Tower 8th Floor

1-1-39 Hiroo Shibuya-Ku Tokyo 150-8402 Japan

ITEM 2(C). CITIZENSHIP Japan

ITEM 2(D). TITLE OF CLASS OF SECURITIES

Common Stock

ITEM 2(E). CUSIP NUMBER 528872104

- ITEM 3. IF THIS STATEMENT IS FILED PURSUANT TO RULES 13D-1(B), OR 13D-2(B), CHECK WHETHER THE PERSON FILING IS A
- (a) // Broker or Dealer registered under Section 15 of the Act (15 U.S.C. 780).
- (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 1940 (15 U.S.C. 80a-8).
- (e) /X/ Investment Adviser in accordance with section 240.13d(b)(1)(ii)(E).
- (f) // Employee Benefit Plan or endowment fund in accordance with section 240.13d-1(b)(1)(ii)(F).
- (g) // Parent Holding Company or control person in accordance with section 240.13d-1(b)(1)(ii)(G).
- (h) // A savings association as defined in section 3(b) of the Federal Deposit Insurance Act (12 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 (15U.S.C. 80a-3).
- (j) // Group, in accordance with section 240.13d-1(b)(1)(ii)(J)

ITEM 4. OWNERSHIP

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount Beneficially Owned:

5,506,677

(b) Percent of Class:

7.22%

- (c) Number of shares as to which such person has:
 - (i) sole power to vote or to direct the vote 5,205,245

shared power to vote or to direct the vote

(iii) sole power to dispose or to direct the disposition of 5,506,677

(iv) shared power to dispose or to direct the disposition of

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 The shares reported are held by the company in trust accounts for the economic benefit of the beneficiaries of those accounts. See also Items 2(a) above.

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 section 240.13d-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 section 240.13d-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.

 January 31, 2007
Date
 Signature
Robert J. Kamai Principal
 Name/Title