

OMB APPROVAL	
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**UNITED STATES
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)

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:

- 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).

CUSIP No. 528872104

1. Names of Reporting Persons.

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

Invus Public Equities, L.P. 98-0420215

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a) (b)

3. SEC Use Only

4. Citizenship or Place of Organization

Bermuda

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH:	5. Sole Voting Power 0
	6. Shared Voting Power 4,687,200
	7. Sole Dispositive Power 0
	8. Shared Dispositive Power 4,687,200

9. Aggregate Amount Beneficially Owned by Each Reporting Person

4,687,200

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

6.01%

12. Type of Reporting Person (See Instructions)

PN

CUSIP No. 528872104

1. Names of Reporting Persons.

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

Invus Public Equities Advisors, L.L.C. 98-0420201

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a) (b)

3. SEC Use Only

4. Citizenship or Place of Organization

Delaware

5. Sole Voting Power

0

6. Shared Voting Power

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH:

4,687,200

7. Sole Dispositive Power

0

8. Shared Dispositive Power

4,687,200

9. Aggregate Amount Beneficially Owned by Each Reporting Person

4,687,200

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

6.01%

12. Type of Reporting Person (See Instructions)

00

CUSIP No. 528872104

1. Names of Reporting Persons.

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

Ulys, L.L.C. 83-0359139

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a) (b)

3. SEC Use Only

4. Citizenship or Place of Organization

Delaware

NUMBER OF
SHARES
BENEFICIALLY
OWNED BY
EACH
REPORTING
PERSON
WITH:

5. Sole Voting Power
06. Shared Voting Power
4,687,2007. Sole Dispositive Power
08. Shared Dispositive Power
4,687,200

9. Aggregate Amount Beneficially Owned by Each Reporting Person

4,687,200

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

6.01%

12. Type of Reporting Person (See Instructions)

OO

CUSIP No. 528872104

1. Names of Reporting Persons.

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

Raymond Debbane

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a) (b)

3. SEC Use Only

4. Citizenship or Place of Organization

Panama

5. Sole Voting Power

0

6. Shared Voting Power

4,687,200

7. Sole Dispositive Power

0

8. Shared Dispositive Power

4,687,200

IN

9. Aggregate Amount Beneficially Owned by Each Reporting Person

4,687,200

10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)

11. Percent of Class Represented by Amount in Row (9)

6.01%

12. Type of Reporting Person (See Instructions)

IN

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, Texas 77381

Item 2 (a). Name of Person Filing:**Item 2 (b). Address of Principal Business Office or, if none, Residence:****Item 2 (c). Citizenship:**

Invus Public Equities, L.P.
750 Lexington Avenue
30th Floor
New York, New York 10022
Bermuda

Invus Public Equities Advisors, L.L.C.
750 Lexington Avenue
30th Floor
New York, New York 10022
Delaware

Ulys, LLC
750 Lexington Avenue
30th Floor
New York, New York 10022
Delaware

Raymond Debbane
c/o Ulys, L.L.C.
750 Lexington Avenue
30th Floor
New York, New York 10022
Panama

Item 2 (d). Title of Class of Securities:

Common Stock, \$0.001 par value per share

Item 2 (e). CUSIP Number:

528872104

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), 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) An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) A savings associations 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 (15 U.S.C. 80a-3);
- (j) Group, in accordance with §240.13d-1(b)(1)(ii)(J).

Item 4. Ownership.

- (a) Amount beneficially owned: 4,687,200 common shares
- (b) Percent of class: 6.01%
- (c) Number of shares as to which each person has:
 - (i) Sole power to vote or to direct the vote
 - (ii) Shared power to vote or to direct the vote 4,687,200 common shares.
 - (iii) Sole power to dispose or to direct the disposition of
 - (iv) Shared power to dispose or to direct the disposition of 4,687,200 common shares.

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.

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.

INVUS PUBLIC EQUITIES, L.P.

By: Invus Public Equities Advisors, L.L.C.,
As General Partner

By: /s/ Raymond Debbane
Raymond Debbane, President

INVUS PUBLIC EQUITIES ADVISORS, L.L.C.

By: /s/ Raymond Debbane
Raymond Debbane, President

ULYS, L.L.C.

By: /s/ Raymond Debbane
Raymond Debbane, President

RAYMOND DEBBANE

By: /s/ Raymond Debbane
Raymond Debbane, President

Exhibit A
JOINT FILING AGREEMENT

JOINT FILING AGREEMENT, dated as of the 15th day of March, 2007, among INVUS PUBLIC EQUITIES, L.P., INVUS PUBLIC EQUITIES ADVISORS, LLC, ULYS, LLC, and FAYMOND DEBBANE (COLLECTIVELY, THE "JOINT FILERS").

WHEREAS, pursuant to Rule 13d-1(b)(1)(ii)(K) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the parties hereto desire to satisfy any filing obligation under Section 13(g) of the Exchange Act by a single joint filing;

NOW, THEREFORE, in consideration of the premises and the mutual covenants herein contained, the Joint Filers hereby agree and represent as follows:

1. Exhibit A to the Schedule 13G Amendment No. 1 with respect to the Common Stock, par value \$0.001 per share, of Lexicon Genetics Incorporated (to which this Joint Filing Agreement is an exhibit) is filed on behalf of each of the Joint Filers.
2. Each of the Joint filers is eligible to use Schedule 13G for the filing of information therein.
3. Each of the Joint Filers is responsible for the timely filing of Schedule 13G and any amendments thereto, and for the completeness and accuracy of the information concerning such person contained therein, provided that each such person is not responsible for the completeness or accuracy of the information concerning the other persons making the filing, unless such person knows or has reason to believe that such information is inaccurate.

[SIGNATURES APPEAR ON FOLLOWING PAGE]

IN WITNESS WHEREOF, each of the undersigned has caused this Joint Filing Agreement to be duly executed and delivered as of the date first above written.

Dated: March 15, 2007

INVUS PUBLIC EQUITIES, L.P.

By: Invus Public Equities Advisors, L.L.C.,
As General Partner

By: /s/ Raymond Debbane
Raymond Debbane, President

INVUS PUBLIC EQUITIES ADVISORS, L.L.C.

By: /s/ Raymond Debbane
Raymond Debbane, President

ULYS, L.L.C.

By: /s/ Raymond Debbane
Raymond Debbane, President

RAYMOND DEBBANE

By: /s/ Raymond Debbane
Raymond Debbane