

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

FORM 8-K

CURRENT REPORT
PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

DATE OF REPORT (DATE OF EARLIEST EVENT REPORTED): NOVEMBER 30, 2005

LEXICON GENETICS INCORPORATED
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE
(STATE OR OTHER JURISDICTION OF
INCORPORATION OR ORGANIZATION)

000-30111
(COMMISSION FILE NUMBER)

76-0474169
(I.R.S. EMPLOYER
IDENTIFICATION NUMBER)

8800 TECHNOLOGY FOREST PLACE
THE WOODLANDS, TEXAS 77381
(ADDRESS OF PRINCIPAL EXECUTIVE
OFFICES AND ZIP CODE)

(281) 863-3000
(REGISTRANT'S TELEPHONE NUMBER,
INCLUDING AREA CODE)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 1.01 ENTRY INTO A MATERIAL DEFINITIVE AGREEMENT

On November 30, 2005, we entered into a Second Amended and Restated Collaboration and License Agreement (the "Collaboration Agreement") with Genentech, Inc. for the advanced research, development and commercialization of new biologic drugs. In the expanded alliance, we will conduct advanced research on a broad subset of targets included in Genentech's Secreted Protein Discovery Initiative (SPDI) program and validated using our proprietary gene knockout technology. We may develop and commercialize drugs modulating up to six of these targets. Genentech retains an option on the potential development and commercialization of these drugs under a cost and profit sharing arrangement, while we have certain conditional rights to co-promote drugs on a worldwide basis. We retain non-exclusive rights for the development and commercialization of small molecule drugs addressing the targets included in the alliance.

We will receive \$25 million in upfront and milestone payments and research funding from Genentech during the three-year advanced research portion of the expanded alliance and will receive additional payments upon achievement of milestones related to the development and regulatory approval of certain drugs resulting from the alliance that are developed and commercialized by Genentech. We are entitled to receive royalties on net sales of these products, provided they are not included in a cost and profit sharing relationship. Genentech is entitled to receive milestone payments in the event of regulatory approval and royalties on net sales of products commercialized by us outside of a cost and profit sharing arrangement.

In connection with the execution of the Collaboration Agreement, the maturity date of the Note Agreement dated December 17, 2002, under which Genentech loaned to us a principal amount of \$4 million as part of the original alliance, was extended to December 31, 2006.

The Collaboration Agreement amends the Amended and Restated Collaboration and License Agreement with Genentech dated November 19, 2003, which itself amended the Collaboration and License Agreement with Genentech dated December 17, 2002.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

LEXICON GENETICS INCORPORATED

Date: December 2, 2005

By: /s/ JEFFREY L. WADE

Jeffrey L. Wade
Executive Vice President and
General Counsel