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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): JULY 15, 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))
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ITEM 1.01 ENTRY INTO A MATERIAL DEFINITIVE AGREEMENT

On July 15, 2005, we entered into an Economic Development Agreement (the "Economic Development Agreement") with the State of Texas and the Texas A&M University System ("TAMUS") and a Collaboration and License Agreement with TAMUS and the Texas Institute for Genomic Medicine ("TIGM").

Under the Economic Development Agreement, we will receive \$35 million from the Texas Enterprise Fund for the creation of a knockout mouse embryonic stem cell library containing 350,000 cell lines using our proprietary gene trapping technology. The library will be created for TIGM, a newly formed non-profit institute whose founding members are Texas A&M University, the Texas A&M Health Science Center and us. TIGM researchers may also access specific cells from our current gene trap library of 270,000 mouse embryonic stem cell lines and will have certain rights to utilize our patented gene targeting technologies. In addition, we will equip TIGM with the bioinformatics software required for the management and analysis of data relating to the library. The Texas Enterprise Fund has also awarded \$15 million to TAMUS for the creation of facilities and infrastructure to house the library.

Under the Economic Development Agreement, we are responsible for the creation of a specified number of jobs, reaching an aggregate of 1,616 new jobs in Texas by December 31, 2015. Certain offsets for surplus jobs created and credits for funding received by TIGM and certain related parties from sources other than the State will reduce our jobs responsibility. If we fail to reach such specified job levels, the State may require us to repay \$2,415 for each job we fall short. Our maximum aggregate exposure for such payments, if we fail to create any new jobs, is approximately \$14.4 million. TAMUS, together with TIGM, has independent job creation obligations under the Economic Development Agreement and is obligated for an additional period to maintain an aggregate of 5,000 jobs, inclusive of those we create.

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: July 18, 2005

By: /s/ JEFFREY L. WADE

Jeffrey L. Wade
Executive Vice President and
General Counsel