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

June 13, 2014

Date of Report (Date of earliest event reported)

Discovery Laboratories, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation)

000-26422

(Commission File Number)

94-3171943

(IRS Employer Identification Number)

2600 Kelly Road, Suite 100 Warrington, Pennsylvania 18976 (Address of principal executive offices)

(215) 488-9300

(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

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

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

Item 8.01. Other Events.

On June 17, 2014, the Company issued a press release announcing that it has been awarded the final \$1.9 million of a \$2.4 million Fast Track Small Business Innovation Research (SBIR) Grant from the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health (NIH). On June 13, 2014, the Company received from NHLBI a notice of award in the amount of \$1,880,292. Under the terms of the grant, the funds are currently available for draw and will remain available through May 30, 2015. The Company expects to draw substantially all of the funds under the grant in 2014 to support the ongoing phase 2a clinical trial for AEROSURF®.

On December 16, 2010, Discovery Labs announced that it had been awarded Phase I of the SBIR from the NIH to support the development of the Company's program for aerosolizing KL4 surfactant for neonatal respiratory distress syndrome (RDS). The Company had submitted a proposal, with a total budget of \$2.4 million, for the development of the Company's proprietary capillary aerosol generating (CAG) device technology to be followed by a Phase 2a clinical trial of aerosolized KL4 surfactant in preterm infants with or at risk for RDS, and had at that time received the initial amount of \$580,000 to support certain development activities related to its capillary aerosol generator technology.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

99.1 Press release dated June 17, 2014

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 hereunto duly authorized.

Discovery Laboratories, Inc.

By /s/ John G. Cooper

Name: John G. Cooper

Title: President and Chief Executive Officer

Date: June 17, 2014



Discovery Labs Receives \$1.9 Million Fast Track SBIR Grant from the National Institutes of Health (NIH) to Support AEROSURF® Phase 2a Clinical Study

Warrington, PA, June 17, 2014 — Discovery Laboratories, Inc. (NASDAQ: DSCO) today announced that it has been awarded the final \$1.9 million of a \$2.4 million Fast Track Small Business Innovation Research (SBIR) Grant from the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health (NIH). This award will provide support for the ongoing phase 2a clinical trial for AEROSURF®, Discovery Labs' investigational combination drug/device product. AEROSURF is in development to provide KL4 surfactant therapy through nasal continuous positive airway pressure (nCPAP) for respiratory distress syndrome (RDS) in premature infants. Discovery Labs was notified in 2010 that it was eligible for consideration under this grant program, and previously received \$580,000 to support development activities related to its capillary aerosol generator technology. The company expects to utilize the \$1.9 million during 2014.

AEROSURF could potentially allow for the administration of KL₄ surfactant to premature infants without invasive endotracheal intubation, and may enable the treatment of a significantly greater number of premature infants who could benefit from surfactant therapy but are currently not treated.

Discovery Labs is enrolling patients into a phase 2a clinical study to evaluate the safety and tolerability of aerosolized KL4 surfactant administered to premature infants 29 to 32 weeks gestational age who are receiving nCPAP for respiratory distress syndrome (RDS), compared to infants receiving nCPAP alone. This study is as an escalating dose study evaluating three dose levels of aerosolized KL4 surfactant and is expected to be completed in the third quarter of 2014.

About Discovery Labs

Discovery Laboratories, Inc. is a specialty biotechnology company focused on advancing a new standard in respiratory critical care. Discovery Labs' technology platforms include a novel proprietary KL4 surfactant, a synthetic, peptide-containing surfactant that is structurally similar to pulmonary surfactant, and proprietary drug delivery technologies being developed to enable efficient delivery of aerosolized KL4 surfactant. Discovery Labs' strategy is initially focused on neonatology and improving the management of respiratory distress syndrome (RDS) in premature infants. Discovery Labs believes that its RDS product portfolio has the potential to become the new standard of care for RDS and, over time, to enable the treatment of a significantly greater number of premature infants who could benefit from surfactant therapy but are currently not treated.

Forward-Looking Statements

Securities Litigation Reform Act of 1995. These forward-looking statements are subject to risks and uncertainties that could cause actual results to differ materially from the statements made. Examples of such risks and uncertainties, including those affecting Discovery Labs' ability successfully to complete its development programs and realize the potential benefits of its RDS product portfolio, are described in Discovery Labs' filings with the Securities and Exchange Commission, including the most recent reports on Forms 10-K, 10-Q and 8-K, and any amendments thereto. Any forward-looking statement in this release speaks only as of the date on which it is made. Discovery Labs assumes no obligation to update or revise any forward-looking statements.

Contact Information:

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