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): April 15, 2014

LIXTE BIOTECHNOLOGY HOLDINGS, INC.

DELAWARE (State or other jurisdiction of incorporation) 000-51436 (Commission File Number) 20-2903526 (IRS Employer Identification No.)

248 Route 25A, No. 2 East Setauket, New York 11733 (Address of principal executive offices)

Registrant's telephone number, including area code: 631 942 7959

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 (See General Instruction A.2. below):

- □ Written communications pursuant to Rule 425 under the Securities Act of 1933 (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(e) under the Exchange Act (17 CFR 240.13e-4(c))

Item 3.02 Unregistered Sales of Equity Securities

Effective April 15, 2014, Lixte Biotechnology Holdings, Inc. (the "Company") received notices from certain of its warrant holders of the exercise of warrants (the "Warrants") to purchase an aggregate of 3,900,000 shares of the Company's common stock (the "Shares") at exercise prices of \$0.25-\$0.375. In connection with such exercises, the Company received or will receive an aggregate amount of \$1,412,500. No commissions were paid to any party.

The Shares, when issued, will not be registered under the Securities Act of 1933, as amended (the "Act") in reliance upon the exemption from registration contained in Section 4(a)(2) of the Act and Regulation D promulgated thereunder. The Shares may not be reoffered or sold in the United States by the holders in the absence of an effective registration statement or exemption from the registration requirements of the Act.

The Company intends to use the proceeds from the exercise of the Warrants to pay for its ongoing clinical trial, maintenance of its patient portfolio and for general corporate purposes.

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Effective April 16, 2014, Dr. Mel Sorenson resigned from the Company's Board of Directors.

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.

Date: April 17, 2014

LIXTE BIOTECHNOLOGY HOLDINGS, INC.

By: /s/ John S. Kovach John S. Kovach, Chief Executive Officer