

**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): January 20, 2010

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(e))

Item 3.02 Unregistered Sales of Equity Securities

Effective January 20, 2010, Lixte Biotechnology Holdings, Inc. (the “Company”) in a private placement sold to certain of its existing stockholders or their designees, all of whom were accredited investors, an aggregate of 3,575,000 Units, each Unit consisting of (a) one share of its Common Stock (a “Share”), (b) one three year warrant (a “Warrant”) to purchase a Share on a cashless exercise basis at an exercise price of \$0.50 per Share and, (c) one three year Warrant to purchase a Share on a cashless exercise basis at an exercise price of \$0.75 per Share. The purchase price of a Unit was \$0.50 resulting in proceeds of \$1,787,500. No commissions were paid to any third party.

The Company has agreed to include the Shares and the Shares issuable upon exercise of the Warrants requested by the holders to be so included in any registration statement with the SEC permitting the resale of such securities subject to customary cutbacks.

The Units sold were not registered under the Securities Act of 1933, as amended (the “Act”) in reliance upon the exemption from registration contained in Section 4(2) of the Act and Regulation D promulgated thereunder. The Shares, Warrants and Shares issuable upon the exercise of the Warrants 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 to take one of its proprietary compounds into a clinical trial, to continue development of a second compound, to support its ability to maintain and extend its patent positions and for working capital.

SIGNATURE

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: January 21, 2010

LIXTE BIOTECHNOLOGY HOLDINGS, INC.

By: /s/ John S. Kovach

John S. Kovach, Chief Executive Officer