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 3, 2018

XENON PHARMACEUTICALS INC.

(Exact name of Registrant as Specified in Its Charter)

Canada (State or Other Jurisdiction of Incorporation) 001-36687 (Commission File Number) 98-0661854 (IRS Employer Identification No.)

200-3650 Gilmore Way Burnaby, British Columbia, Canada (Address of Principal Executive Offices)

V5G 4W8 (Zip Code)

Registrant's Telephone Number, Including Area Code: (604) 484-3300

Not Applicable

(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 (see General Instructions A.2. below):

□ 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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company \boxtimes

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 8.01 Other Events

On May 8, 2018, Xenon Pharmaceuticals Inc. (the "Company") entered into an at-the-market equity offering sales agreement (the "Sales Agreement") with Stifel, Nicolaus & Company, Incorporated ("Stifel") to sell common shares of the Company having aggregate sales proceeds of up to \$30.0 million, from time to time, through an "at the market" equity offering program under which Stifel will act as sales agent. As of July 3, 2018, the Company has sold 3,440,000 common shares for proceeds of approximately \$29.2 million, net of commissions paid.

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.

Xenon Pharmaceuticals Inc.

By: _____

Date: July 3, 2018

/s/ Ian Mortimer

Ian Mortimer President & Chief Financial Officer