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): March 8, 2017

XENON PHARMACEUTICALS INC.

(Exact name of Registrant as Specified in Its Charter)

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

200-3650 Gilmore Way
Burnaby, British Columbia V5G 4W8
Canada
(Address of principal executive offices including zip code)

(604) 484-3300
(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 (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))

Item 2.02 Results of Operations and Financial Condition

On March 8, 2017, Xenon Pharmaceuticals Inc. (the "Company") announced via press release the Company's financial results for the year ended December 31, 2016. A copy of the Company's press release is attached hereto as Exhibit 99.1. The information in this Form 8-K and the attached exhibit are furnished to, but not filed with, the Securities and Exchange Commission.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

Pursuant to the rules and regulations of the Securities and Exchange Commission, the attached exhibit is deemed to have been furnished to, but not filed with, the Securities and Exchange Commission:

Exhibit Number	**Description**
99.1	Press Release issued by Xenon Pharmaceuticals Inc. dated March 8, 2017.

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.

Date: March 8, 2017

By: /s/ *Ian Mortimer*

Ian Mortimer

Chief Financial Officer& Chief Operating Officer

EXHIBIT INDEX

Exhibit Number	Description
99.1	Press Release issued by Xenon Pharmaceuticals Inc. dated March 8, 2017.

XENON

NEWS RELEASE

Xenon Pharmaceuticals Reports 2016 Financial Results and Provides Corporate Update

BURNABY, British Columbia, March 8, 2017 -- Xenon Pharmaceuticals Inc. (Nasdaq:XENE), a clinical-stage biopharmaceutical company, today reported its financial results for the year ended December 31, 2016, and provided a corporate update for 2017.

Dr. Simon Pimstone, Xenon's President and Chief Executive Officer, said, “Our continued progress in 2016 to advance our proprietary pipeline and partnerships has led us to this important inflection point for our company. Over the next few quarters, we expect to reach a number of key milestone events. The most imminent event is the topline data read-out from our XEN801 Phase 2 clinical trial in patients with moderate to severe acne, which is expected later this month. We also look forward to the topline data from the Phase 2 clinical trial of TV-45070 in post-herpetic neuralgia being conducted by Teva expected by mid-year. In addition, we anticipate Genentech advancing GDC-0310 into a Phase 2 clinical trial later this year, as well as our filing of an IND, or IND equivalent, in the fourth quarter for XEN901, a selective inhibitor of Nav1.6 for the treatment of epilepsy disorders.”

Achievements and Anticipated Milestones

Proprietary Pipeline

- XEN801 is a topical stearoyl Co-A desaturase-1, or SCD1 inhibitor, being developed for the treatment of moderate to severe acne. By targeting a reduction in the size and number of sebaceous glands, thereby reducing sebum production, Xenon believes XEN801 is a promising, novel treatment for acne, which could be better tolerated and without the serious side effects that often limit the use of currently approved retinoid treatments.

  Enrollment of 165 subjects is now complete in the XEN801 Phase 2 clinical trial, which is a randomized, double-blind, multi-center, vehicle-controlled, parallel-group study designed to evaluate the efficacy, safety, tolerability and systemic exposure of XEN801 for the treatment of moderate to severe facial acne. Patients apply a gel formulation of XEN801 (or vehicle placebo) topically to their face once daily in the evening for 12 weeks with a 4-week follow up. The primary efficacy endpoint is the percent change in total (inflammatory and non-inflammatory) lesion count from baseline to week 12. Secondary endpoints include separate efficacy assessments of inflammatory lesion counts, non-inflammatory lesion counts, and Investigator's Global Assessment (IGA) measures. Topline results from the XEN801 Phase 2 clinical trial are expected in the latter part of March.

- XEN901 is a potent, selective Nav1.6 inhibitor for the treatment of rare infantile epileptic encephalopathies and other forms of epilepsy. XEN901 has demonstrated efficacy against seizures in an animal model of Nav1.6 gain-of-function SCN8A epilepsy as well as models that support the treatment of adult partial onset epilepsy. Xenon expects to file an investigational new drug (IND), or IND equivalent, application in the fourth quarter of 2017.

Partnered Programs

- TV-45070 is a topical sodium channel inhibitor being developed in collaboration with Xenon’s partner, Teva Pharmaceutical Industries Ltd., for the treatment of neuropathic pain. Teva is currently conducting a randomized, double-blind, placebo-controlled Phase 2b clinical trial of TV-45070 in patients with post-herpetic neuralgia, with topline results expected in mid-2017.
- Xenon's collaborator Genentech, a member of the Roche Group, has completed two Phase 1 clinical trials for GDC-0276 and GDC-0310, which are both oral, selective Nav1.7 small-molecule inhibitors. Genentech has indicated that it intends to focus its ongoing development efforts on GDC-0310. Pending a full assessment of the Phase 1 clinical results and ongoing *in vivo* studies, Genentech anticipates initiating a Phase 2 clinical trial in 2017 for the potential treatment of pain.

2016 Financial Results

Cash and cash equivalents and marketable securities as of December 31, 2016 were $64.1 million, compared to $58.7 million as of December 31, 2015. There were 17,930,590 common shares outstanding as of December 31, 2016.

For the year ended December 31, 2016, Xenon reported total revenue of $1.8 million, compared to $15.6 million for the same period in 2015. Revenue in both periods was primarily derived from Xenon's collaboration agreements with Teva and Genentech. The decrease of $13.8 million was primarily attributable to revenue recognized related to the upfront payment from the collaborative development and license agreement with Teva which was fully recognized by December 2015, as well as revenue related to the upfront payment from the March 2014 genetics collaborative agreement with Genentech which was fully recognized by March 2016. The remaining decrease was due to less full time equivalent funding from Genentech as resources were shifted from supporting collaborations to Xenon’s proprietary programs.

Research and development expenses for the year ended December 31, 2016 were $19.8 million, compared to $15.2 million for the same period in 2015. The increase of $4.7 million was primarily attributable to an increase in spending on the XEN901, Nav1.6 sodium channel inhibitor program, as well as XEN801 which entered Phase 2 clinical development in February 2016, partially offset by a decrease in Genentech collaboration expenses.

General and administrative expenses for the year ended December 31, 2016 were $6.8 million, compared to $9.8 million in 2015. During 2015, a $1.7 million expense was recognized due to a fair value adjustment upon the reclassification of stock option awards granted to directors and certain consultants to liability classification. The remaining decrease is due to one-time severance cost resulting from an internal reorganization and acceleration of stock-based compensation expense for certain consultants that occurred in 2015.

Other income for the year ended December 31, 2016 was $1.8 million, compared to other expense of $6.4 million for the same period in 2015. The change of $8.2 million was primarily driven by unrealized foreign exchange gains in 2016 arising from the translation of Canadian denominated balances to U.S. dollars as compared to unrealized foreign exchange losses for the same period in 2015.

Net loss for the year ended December 31, 2016 was $23.0 million, compared to $15.8 million for the same period in 2015. The change was primarily attributable to lower revenue and higher research and development expenses, partially offset by lower general and administrative expenses and the change in unrealized foreign exchange gain (loss).

Conference Call Information

Xenon will host a conference call and live audio webcast today at 4:30 p.m. Eastern Time (1:30 p.m. Pacific Time) to discuss its 2016 financial results and to provide a business update. To participate in the call, please dial (855) 779-9075, or (631) 485-4866 for international callers, and provide conference ID number 78824693. The webcast will be broadcast live on the “Investors” section of Xenon's website at www.xenon-pharma.com and will be available for replay following the call for 30 days.

About Xenon Pharmaceuticals Inc.

Xenon is a clinical-stage biopharmaceutical company discovering and developing a pipeline of differentiated therapeutics for orphan indications that it intends to commercialize on its own and for larger market indications that the company intends to partner with global pharmaceutical companies. Xenon has built a core enabling discovery platform, referred to as Extreme Genetics, for the discovery of validated drug targets by studying rare human diseases with extreme traits, including diseases caused by mutations in ion channels, known as channelopathies. Xenon's Extreme Genetics platform has yielded the first approved gene therapy product in the European Union and a broad development pipeline and multiple pharmaceutical partnerships, including with Teva and Genentech. For more information, please visit www.xenon-pharma.com.

Safe Harbor Statement

This press release contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and the Private Securities Litigation Reform Act of 1995 and Canadian securities laws. These forward-looking statements are not based on historical fact, and include statements regarding our ability to achieve milestones in both our proprietary and partnered development programs, the anticipated read out of topline results from the Phase 2 clinical trial of XEN801 and the Phase 2b clinical trial of TV-45070, the anticipated timing of IND submissions with regulatory agencies, the initiation of future clinical trials, the timing of and results from our and our collaborators' ongoing clinical trials and pre-clinical development activities, the plans of our collaboration partners and their interactions with regulatory agencies, the potential efficacy, future development plans and commercial potential of our and our collaborators' product candidates and the progress and potential of ongoing development programs. These forward-looking statements are based on current assumptions that involve risks, uncertainties and other factors that may cause the actual results, events or developments to be materially different from those expressed or implied by such forward-looking statements. These risks and uncertainties, many of which are beyond our control, include, but are not limited to: clinical trials may not demonstrate safety and efficacy of any of our or our collaborators' product candidates; our Extreme Genetics discovery platform or ongoing collaborations may not yield additional product candidates; any of our or our collaborators' product candidates may fail in development, may not receive required regulatory approvals, or may be delayed to a point where they are not commercially viable; we may not achieve additional milestones pursuant to our collaboration agreements; the impact of competition; the impact of expanded product development and clinical activities on operating expenses; adverse conditions in the general domestic and global economic markets; as well as the other risks identified in our filings with the Securities and Exchange Commission and the securities commissions in British Columbia, Alberta and Ontario. These forward-looking statements speak only as of the date hereof and we assume no obligation to update these forward-looking statements, and readers are cautioned not to place undue reliance on such forward-looking statements.

XENON PHARMACEUTICALS INC.
Condensed Consolidated Balance Sheets
(Expressed in thousands of U.S. dollars)

	December 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents and marketable securities	$ 64,146	$ 58,651
Other current assets	1,529	2,215
Other assets	1,812	3,083
Total assets	$ 67,487	$ 63,949
Liabilities		
Current liabilities:		
Accounts payable and accrued expenses	3,516	2,625
Deferred revenue	—	157
Non-current liabilities	70	133
Total liabilities	$ 3,586	$ 2,915
Shareholders' equity	$ 63,901	$ 61,034
Total liabilities and shareholders' equity	$ 67,487	$ 63,949

XENON PHARMACEUTICALS INC.
Condensed Consolidated Statements of Operations
(Expressed in thousands of U.S. dollars except share and per share amounts)

	Year Ended December 31,		
	2016	2015	2014
Revenue:			
Collaboration revenue	$ 1,767	$ 15,573	$ 28,366
Royalties	36	4	4
	1,803	15,577	28,370
Operating expenses:			
Research and development	19,828	15,152	11,768
General and administrative	6,792	9,786	5,496
Total operating expenses	26,620	24,938	17,264
Income (loss) from operations	(24,817)	(9,361)	11,106
Other income (expense)	1,820	(6,391)	1,912
Net income (loss)	(22,997)	(15,752)	13,018
Net income (loss) per common share:			
Basic	$ (1.48)	$ (1.10)	$ 4.11
Diluted	$ (1.48)	$ (1.10)	$ 3.28
Weighted-average common shares outstanding:			
Basic	15,493,474	14,281,837	3,165,572
Diluted	15,493,474	14,281,837	3,963,797

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