

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934  
(Amendment No.)\*

Xenon Pharmaceuticals, Inc.  
(Name of Issuer)

Common Shares, no par value per share  
(Title of Class of Securities)

98420N105  
(CUSIP Number)

December 31, 2018  
(Date of Event Which Requires Filing of This Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- Rule 13d-1(b)  
 Rule 13d-1(c)  
 Rule 13d-1(d)

(Page 1 of 8 Pages)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

|  |   |                                     |
|--|---|-------------------------------------|
| <b>1</b>   | NAME OF REPORTING PERSON<br>venBio Select Advisor LLC   |                                     |
| <b>2</b>   | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP<br>(a) <input type="checkbox"/><br>(b) <input checked="" type="checkbox"/> |                                     |
| <b>3</b>   | SEC USE ONLY  |                                     |
| <b>4</b>   | CITIZENSHIP OR PLACE OF ORGANIZATION<br>Delaware  |                                     |
| NUMBER OF<br>SHARES<br>BENEFICIALLY<br>OWNED BY<br>EACH<br>REPORTING<br>PERSON WITH: | <b>5</b>  | SOLE VOTING POWER<br>2,400,000      |
|  | <b>6</b>  | SHARED VOTING POWER<br>0            |
|  | <b>7</b>  | SOLE DISPOSITIVE POWER<br>2,400,000 |
|  | <b>8</b>  | SHARED DISPOSITIVE POWER<br>0       |
| <b>9</b>   | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,400,000   |                                     |
| <b>10</b>  | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES<br><input type="checkbox"/>                            |                                     |
| <b>11</b>  | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)<br>9.5%   |                                     |
| <b>12</b>  | TYPE OF REPORTING PERSON<br>OO, IA  |                                     |

|  |   |                                     |
|--|---|-------------------------------------|
| <b>1</b>   | NAME OF REPORTING PERSON<br>Behzad Aghazadeh  |                                     |
| <b>2</b>   | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP<br>(a) <input type="checkbox"/><br>(b) <input checked="" type="checkbox"/> |                                     |
| <b>3</b>   | SEC USE ONLY  |                                     |
| <b>4</b>   | CITIZENSHIP OR PLACE OF ORGANIZATION<br>United States   |                                     |
| NUMBER OF<br>SHARES<br>BENEFICIALLY<br>OWNED BY<br>EACH<br>REPORTING<br>PERSON WITH: | <b>5</b>  | SOLE VOTING POWER<br>2,400,000      |
|  | <b>6</b>  | SHARED VOTING POWER<br>0            |
|  | <b>7</b>  | SOLE DISPOSITIVE POWER<br>2,400,000 |
|  | <b>8</b>  | SHARED DISPOSITIVE POWER<br>0       |
| <b>9</b>   | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON<br>2,400,000   |                                     |
| <b>10</b>  | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES<br><input type="checkbox"/>                            |                                     |
| <b>11</b>  | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)<br>9.5%   |                                     |
| <b>12</b>  | TYPE OF REPORTING PERSON<br>IN  |                                     |

**Item 1(a). NAME OF ISSUER**

Xenon Pharmaceuticals, Inc. (the "Issuer")

**Item 1(b). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES**

200-3650 Gilmore Way, Burnaby, British Columbia, Canada

**Item 2(a). NAME OF PERSON FILING**

This statement is filed by: (i) venBio Select Advisor LLC, a Delaware limited liability company ("venBio"), which provides investment advisory and management services and has acquired the securities of the Issuer solely for investment purposes on behalf of venBio Select Fund LLC, a Delaware limited liability company, and certain managed accounts and (ii) Behzad Aghazadeh ("Dr. Aghazadeh," and together with venBio, the "Reporting Persons"), who serves as the portfolio manager and controlling person of venBio.

The filing of this statement should not be construed as an admission that any Reporting Person is, for purposes of Section 13 of the Act, the beneficial owner of the securities reported herein.

**Item 2(b). ADDRESS OF PRINCIPAL BUSINESS OFFICE OR, IF NONE, RESIDENCE**

The address of the business office of each of the Reporting Persons is 110 Greene Street, Suite 800, New York, NY 10012.

**Item 2(c). CITIZENSHIP**

venBio is a Delaware limited liability company. Dr. Aghazadeh is a United States citizen.

**Item 2(d). TITLE OF CLASS OF SECURITIES**

Common Shares, no par value per share (the "Common Shares")

**Item 2(e). CUSIP NUMBER**

98420N105

**Item 3. IF THIS STATEMENT IS FILED PURSUANT TO Rules 13d-1(b), OR 13d-2(b) OR (c), CHECK WHETHER THE PERSON FILING IS A:**

- (a)  Broker or dealer registered under Section 15 of the Act;
- (b)  Bank as defined in Section 3(a)(6) of the Act;
- (c)  Insurance company as defined in Section 3(a)(19) of the Act;

- (d)  Investment company registered under Section 8 of the Investment Company Act of 1940;
- (e)  An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);
- (h)  A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;
- (i)  A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;
- (j)  A non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J);
- (k)  Group, in accordance with Rule 13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J), please specify the type of institution: \_\_\_\_\_

**Item 4. OWNERSHIP**

The information required by Items 4(a) - (c) is set forth in Rows 5 - 11 of the cover page and is incorporated herein by reference.

The percentage set forth in Row 11 of this Schedule 13G is calculated based upon 25,240,348 Common Shares outstanding as of November 2, 2018, as reported in the Issuer's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2018 filed with the Securities and Exchange Commission on November 6, 2018.

**Item 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS**

Not applicable.

**Item 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON**

See Item 2. venBio Select Fund LLC has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, more than 5% of the Common Shares.

**Item 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY OR CONTROL PERSON**

Not applicable.

**Item 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP**

Not applicable.

**Item 9. NOTICE OF DISSOLUTION OF GROUP**

Not applicable.

**Item 10. CERTIFICATION**

Each Reporting Person hereby makes the following certification:

By signing below the Reporting Person certifies that, to the best of his or its knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.

**SIGNATURES**

After reasonable inquiry and to the best of his or its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

DATE: February 14, 2019

VENBIO SELECT ADVISOR LLC

/s/ Scott Epstein

Name: Scott Epstein  
Title: Chief Financial Officer  
& Chief Compliance Officer

/s/ Behzad Aghazadeh

**BEHZAD AGHAZADEH**

## EXHIBIT 1

**JOINT FILING AGREEMENT  
PURSUANT TO RULE 13d-1(k)**

The undersigned acknowledge and agree that the foregoing statement on Schedule 13G is filed on behalf of each of the undersigned and that all subsequent amendments to this statement on Schedule 13G shall be filed on behalf of each of the undersigned without the necessity of filing additional joint filing agreements. The undersigned acknowledge that each shall be responsible for the timely filing of such amendments, and for the completeness and accuracy of the information concerning him or it contained herein and therein, but shall not be responsible for the completeness and accuracy of the information concerning the others, except to the extent that he or it knows or has reason to believe that such information is inaccurate.

DATE: February 14, 2019

VENBIO SELECT ADVISOR LLC

/s/ Scott Epstein

Name: Scott Epstein

Title: Chief Financial Officer

& Chief Compliance Officer

/s/ Behzad Aghazadeh

**BEHZAD AGHAZADEH**