

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| OMB APPROVAL | |
|--|-----------|
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

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|--|---------|----------|---|--|--|---|--|--|
| 1. Name and Address of Reporting Person* <u>PIMSTONE SIMON N.</u> | | | 2. Issuer Name and Ticker or Trading Symbol <u>Xenon Pharmaceuticals Inc. [XENE]</u> | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below) | | |
| (Last) | (First) | (Middle) | 3. Date of Earliest Transaction (Month/Day/Year) <u>03/04/2022</u> | | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person | | |
| 200 - 3650 GILMORE WAY | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | |
| (Street) <u>BURNABY A1 V5G 4W8</u> | | | | | | | | |
| (City) (State) (Zip) | | | | | | | | |

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) | | | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|-------------------------|---|--|---|
| | | | Code | V | Amount | (A) or (D) | Price | | | |
| Common Shares | 03/04/2022 | | M | | 10,288 | A | \$3.67 ⁽¹⁾ | 220,474 | D | |
| Common Shares | 03/04/2022 | | F | | 963 | D | \$31.42 ⁽²⁾ | 219,511 | D | |
| Common Shares | 03/04/2022 | | S | | 4,532 | D | \$30.66 ⁽³⁾ | 214,979 | D | |
| Common Shares | 03/04/2022 | | S | | 4,793 | D | \$30.56 ⁽⁴⁾ | 210,186 | D | |
| Common Shares | 03/07/2022 | | M | | 20,576 | A | \$3.67 ⁽¹⁾ | 230,762 | D | |
| Common Shares | 03/07/2022 | | F | | 1,990 | D | \$30.23 ⁽⁵⁾ | 228,772 | D | |
| Common Shares | 03/07/2022 | | S | | 5,037 | D | \$30.6 ⁽⁶⁾ | 223,735 | D | |
| Common Shares | 03/07/2022 | | S | | 4,517 | D | \$30.49 ⁽⁷⁾ | 219,218 | D | |
| Common Shares | 03/07/2022 | | S | | 4,516 | D | \$30.45 ⁽⁸⁾ | 214,702 | D | |
| Common Shares | 03/07/2022 | | S | | 4,516 | D | \$30.44 ⁽⁹⁾ | 210,186 | D | |
| Common Shares | 03/07/2022 | | S | | 2,500 | D | \$30.52 | 207,686 | D | |
| Common Shares | 03/07/2022 | | S | | 7,500 | D | \$30.5 | 200,186 | D | |
| Common Shares | 03/07/2022 | | S | | 2,500 | D | \$30.55 | 197,686 | D | |
| Common Shares | 03/08/2022 | | S | | 2,051 | D | \$30.6 | 195,635 | D | |
| Common Shares | 03/08/2022 | | S | | 2,500 | D | \$3.8 ⁽¹⁰⁾ | 193,135 | D | |
| Common Shares | 03/08/2022 | | S | | 2,500 | D | \$30.1 | 190,635 | D | |
| Common Shares | 03/08/2022 | | S | | 2,500 | D | \$30.2 | 188,135 | D | |
| Common Shares | 03/08/2022 | | S | | 2,500 | D | \$30.55 ⁽¹¹⁾ | 185,635 | D | |
| Common Shares | 03/08/2022 | | S | | 2,500 | D | \$30.5 | 183,135 | D | |

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|--|--|----------------------------|---|-----------------|--|--|---|--|
| | | | | Code | V | | (A) | (D) | Date Exercisable | Expiration Date | | | | |
| Stock Option (Right to Buy) | \$3.67 ⁽¹⁾ | 03/04/2022 | | M | | 10,288 | (12) | 03/10/2022 ⁽¹³⁾ | Common Shares | 10,288 | \$0.00 | 0 | D | |
| Stock Option (Right to Buy) | \$3.67 ⁽¹⁾ | 03/07/2022 | | M | | 20,576 | (12) | 03/10/2022 ⁽¹³⁾ | Common Shares | 20,576 | \$0.00 | 0 | D | |

Explanation of Responses:

- The exercise price was converted to U.S. dollars from \$3.74 CAD using the closing rate of exchange on the Bank of Canada on the date of grant. The actual exercise price is the Canadian dollar amount regardless of the exchange rate on the day of exercise.
- Represents the closing price of the Company's common shares on March 3, 2022, which was converted to a Canadian dollar amount for purposes of net settlement calculations.

3. The "Amount" and "Price" reported in this Column 4 reflect the aggregate number and weighted-average price, respectively, of shares sold. These shares were sold in multiple transactions at prices ranging from \$30.49 to \$30.97, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, full information regarding the number of shares sold at each separate price within the range set forth herein.
4. The "Amount" and "Price" reported in this Column 4 reflect the aggregate number and weighted-average price, respectively, of shares sold. These shares were sold in multiple transactions at prices ranging from \$30.53 to \$30.61, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, full information regarding the number of shares sold at each separate price within the range set forth herein.
5. Represents the closing price of the Company's common shares on March 4, 2022, which was converted to a Canadian dollar amount for purposes of net settlement calculations.
6. The "Amount" and "Price" reported in this Column 4 reflect the aggregate number and weighted-average price, respectively, of shares sold. These shares were sold in multiple transactions at prices ranging from \$30.4865 to \$30.67, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, full information regarding the number of shares sold at each separate price within the range set forth herein.
7. The "Amount" and "Price" reported in this Column 4 reflect the aggregate number and weighted-average price, respectively, of shares sold. These shares were sold in multiple transactions at prices ranging from \$30.480 to \$30.645, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, full information regarding the number of shares sold at each separate price within the range set forth herein.
8. The "Amount" and "Price" reported in this Column 4 reflect the aggregate number and weighted-average price, respectively, of shares sold. These shares were sold in multiple transactions at prices ranging from \$30.4100 to \$30.4750, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, full information regarding the number of shares sold at each separate price within the range set forth herein.
9. The "Amount" and "Price" reported in this Column 4 reflect the aggregate number and weighted-average price, respectively, of shares sold. These shares were sold in multiple transactions at prices ranging from \$30.40 to \$30.50, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, full information regarding the number of shares sold at each separate price within the range set forth herein.
10. The "Amount" and "Price" reported in this Column 4 reflect the aggregate number and weighted-average price, respectively, of shares sold. These shares were sold in multiple transactions at prices ranging from \$30.800 to \$30.880, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, full information regarding the number of shares sold at each separate price within the range set forth herein.
11. The "Amount" and "Price" reported in this Column 4 reflect the aggregate number and weighted-average price, respectively, of shares sold. These shares were sold in multiple transactions at prices ranging from \$30.55 to \$30.65, inclusive. The reporting person undertakes to provide to the issuer, any security holder of the issuer, or the SEC staff, upon request, full information regarding the number of shares sold at each separate price within the range set forth herein.
12. 25% of the shares subject to the Option vested on the one year anniversary of January 1, 2012 (the "2012 Vesting Commencement Date") and thereafter 1/48th of the shares subject to the Option vest on each monthly anniversary of the 2012 Vesting Commencement Date.
13. Expiration date differs from originally reported date due to an automatic extension provided by the option plan as a result of the original expiration date falling during a Company blackout period.

Remarks:

/s/ Cassandra Robinson,
Attorney-in-fact

03/08/2022

** Signature of Reporting Person

Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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