FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL | | | | | | | | | |
|--------------------------|-----|--|--|--|--|--|--|--|--|
| OMB Number: 3235-0287 | | | | | | | | | |
| Estimated average burden | | | | | | | | | |
| hours per response. | 0.5 | | | | | | | | |

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

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

| 1. Name and Address of Reporting Person* <u>Gover Justin D.</u> | | | | 2. Issuer Name and Ticker or Trading Symbol Xenon Pharmaceuticals Inc. [XENE] | | | | | | (Che | eck all applic | cable) | Person(s) to Is: | wner | | |
|--|---|----------------------------|---|--|---|-------------------|---------|--------|--|---|---|---|---|--|--|--|
| (Last) | (First) (Middle) | | | | 3. Date of Earliest Transaction (Month/Day/Year) 06/05/2024 | | | | | | | Officer below) | (give title | Other (below) | specify | |
| 200 - 3650 GILMORE WAY | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) | | | | | | |
| (Street) | DW 7. | | | | | | | | | | | | | , | Reporting Person | |
| BURNA | BY Z | ļ | V5G 4W8 | | | | | | | | | | Person | | | |
| (City) (State) (Zip) | | | | Rule 10b5-1(c) Transaction Indication | | | | | | | | | | | | |
| | | | | | | | | | cate that a tran defense condit | | | | | n or written pla | an that is intende | d to |
| | | Tab | le I - Non-l | Deriva | tive | Sec | urities | Ac | quired, Di | sposed o | f, or Be | neficiall | y Owned | | | |
| 1. Title of Security (Instr. 3) 2. Transat Date (Month/Date) | | | | Execution Date | | Code (Instr. 5) | | | | es Formally (D) (Following (I) (I | 6. Ownership Form: Direct D) or Indirect I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership | | | | |
| | | | | | | | Code V | Amount | (A) or (D) Price | | Reported Transact (Instr. 3 a | ion(s) | | Instr. 4) | | |
| 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 | ise (Month/Day/Year) re | 3A. Deemed Execution Date, if any (Month/Day/Year) | Co | Transaction Code (Instr. | | | | 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) | Ownership Form: Direct (D) or Indirect (I) (Instr. 4 | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | Co | de V | , | (A) | (D) | Date Exercisable | Expiration Date | Title | Amount or Number of Shares | | | | |
| Stock Option (Right to Buy) | \$38.16 | 06/05/2024 | | Α | Λ . | | 15,542 | | (1) | 06/04/2034 | Common Shares | 15,542 | \$0 | 15,542 | D | |

Explanation of Responses:

 $1. \ Vesting \ 100\% \ on \ the \ earlier \ of \ (i) \ June \ 4, 2025 \ or \ (ii) \ the \ day \ before \ the \ date \ of \ the \ issuer's \ 2025 \ annual \ meeting \ of \ shareholders.$

/s/ Nathaniel Adams, Attorneyin-fact 06/05/2024

** 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.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.

POWER OF ATTORNEY

I hereby constitute and appoint each of Sherry Aulin, Andrea DiFabio, Ilona Lo and Nathaniel Adams, signing singly, my true and lawful attorney-in-fact to:

- (1) prepare, execute in my name and on my behalf, and submit to the U.S. Securities and Exchange Commission (the "SEC") a Form ID, including amendments thereto, and any other documents necessary or appropriate to obtain codes and passwords enabling the undersigned to make electronic filings with the SEC of reports required by Section 16(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules thereunder;
- (2) execute for and on my behalf any Form 3, 4 and 5, Schedules 13D and 13G and Forms 144, which I am required to file in my capacity as an officer, director or owner of greater than 10% of the outstanding Common Shares, without par value of Xenon Pharmaceuticals Inc. (the "Company") in accordance with Section 16(a) of the Exchange Act and the rules thereunder or under Rule 144 ("Rule 144") under the Securities Act of 1933, as amended:
- do and perform any and all acts for and on my behalf that may be necessary or desirable to complete and execute any Form 3, 4 and 5, Schedules 13D and 13G and Forms 144, and timely file such report with the SEC and any stock exchange or similar authority; and
- (4) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be to my benefit, in my best interest, or that I am legally required to do, it being understood that the documents executed by such attorney-in-fact on my behalf pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

I hereby grant to each attorney-in-fact hereunder full power and authority to do and perform any and every act and thing whatsoever necessary or desirable to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as I might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this Power of Attorney and the rights and powers herein granted. In furtherance of the foregoing, I hereby revoke any previous power of attorney which I have previously granted in respect of the matters contemplated by this Power of Attorney.

I acknowledge that this Power of Attorney does not relieve me of my responsibilities to comply with Section 13 or Section 16 of the Exchange Act and the attorneys-in-fact, in serving in such capacity at my request, are not assuming, nor is the Company assuming, any of my responsibilities to comply with Section 13 or Section 16 of the Exchange Act.

This Power of Attorney shall remain in full force and effect until I am no longer required to file any Form 3, 4 and 5, Schedules 13D and 13G and Forms 144 with respect to my holdings of and transactions in Company securities, unless I earlier revoke it in a signed writing delivered to the attorneys-in-fact.

IN WITNESS WHEREOF, I have caused this Power of Attorney to be executed as of this 8th day of March, 2024.

By: /s/ Justin Gover

Print Name: Justin Gover