

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

☐ Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan for the purchase or sale of equity securities of the issuer that is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c). See Instruction 10.

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>COUCHMAN JONATHAN</u> (Last) (First) (Middle) <u>C/O ENZO BIOCHEM, INC.</u> <u>21 EXECUTIVE BLVD.</u> (Street) <u>FARMINGDALE NY 11735</u> (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol <u>ENZO BIOCHEM INC [ENZB]</u> 3. Date of Earliest Transaction (Month/Day/Year) <u>08/20/2025</u> 4. If Amendment, Date of Original Filed (Month/Day/Year) | 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) 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 |
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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 Stock | 08/20/2025 | | D | | 142,897 ⁽¹⁾⁽²⁾ ₍₃₎ | D | (1)(2) | 0 | D | |
| Common Stock | 08/20/2025 | | D | | 130,000 | D | (1) | 0 | I | By Xstelos Holdings, Inc. ⁽⁴⁾ |
| Common Stock | 08/20/2025 | | D | | 40,000 | D | (1) | 0 | I | By Myrexix, Inc. ⁽⁵⁾ |
| Common Stock | 08/20/2025 | | D | | 15,000 | D | (1) | 0 | I | By Couchman Family Fund ⁽⁶⁾ |
| Common Stock | 08/20/2025 | | D | | 277,237 | D | (1) | 0 | I | In retirement accounts ⁽⁷⁾ |

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 | Title | Amount or Number of Shares | | | | |

Explanation of Responses:

1. The shares were disposed of pursuant to the Agreement and Plan of Merger, dated June 23, 2025 (the "Merger Agreement"), by and among the Issuer, Bethpage Parent, Inc. ("Parent"), and Bethpage Merger Sub, Inc., a wholly-owned subsidiary of Parent ("Merger Sub"). Pursuant to the terms of the Merger Agreement, Merger Sub merged with and into the Issuer (the "Merger"), with the Issuer surviving the Merger as a wholly-owned subsidiary of Parent. At the effective time of the Merger (the "Effective Time"), each share of the Issuer's common stock, par value \$0.01 per share ("Common Stock"), was canceled and automatically converted into the right to receive \$0.70 in cash, without interest and less any applicable withholding taxes (the "Merger Consideration").
2. Pursuant to the Merger Agreement, at the Effective Time, each restricted stock unit ("RSU") that vested solely on the basis of time that was outstanding as of immediately prior to the Effective Time and was held by a member of the Issuer's Board of Directors was canceled and converted into the right to receive an amount in cash obtained by multiplying (A) the total number of shares of Common Stock underlying such RSU, by (B) the Merger Consideration, subject to any required withholding of taxes.
3. Represents 142,897 RSUs.
4. Shares are owned by Xstelos Holdings, Inc., of which the Reporting Person is the sole officer and controlling person. He controls a majority of the shares of Xstelos Holdings, Inc. through shares held in his personal Roth IRA retirement account and through shares held by Couchman Investments LP, a family investment fund, which he controls and which is owned by him and by a trust for the benefit of his children, of which he is the investment manager. The Reporting Person disclaims beneficial ownership of the securities of the Issuer reported herein, except to the extent of his pecuniary interest therein.
5. Shares are owned by Myrexix, Inc., of which the Reporting Person is the sole officer and controlling person. Myrexix, Inc. is controlled by Xstelos Holdings, Inc. The Reporting Person disclaims beneficial ownership of the securities of the Issuer reported herein, except to the extent of his pecuniary interest therein.
6. Shares are owned by the Couchman Family Fund, of which the Reporting Person is the sole officer and controlling person. The Reporting Person disclaims beneficial ownership of the securities of the Issuer reported herein, except to the extent of his pecuniary interest therein.
7. 227,237 shares are held in the Reporting Person's personal SEP-IRA retirement account and 50,000 shares are held in the Reporting Person's personal 401(k) retirement account.

/s/ Jon Couchman

08/20/2025

** Signature of Reporting Person

Date

** 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.