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

#### UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

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

### STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Form 5 obligations may continue. See Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Instruction 1(b). Company Act of 1940

| (Print of Type Responses)   |        |  |      |   |                        |     |       |   |  |                         |  |
|---|--------|--|------|---|------------------------|-----|-------|---|--|-------------------------|--|
| 1. Name and Address of Reporting Person <sup>*</sup><br>WEINER BARRY W        |        | 2. Issuer Name <b>and</b> Ticker or Trading Symbol<br>ENZO BIOCHEM INC [ENZ]     |      |   |                        |     |       | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br>_X_Director10% Owner  |  |                         |  |
| (Last) (First)<br>C/O ENZO BIOCHEM, INC., 527 MA<br>AVENUE                    | DICONT | 3. Date of Earliest Transaction (Month/Day/Year)<br>01/03/2019                   |      |   |                        |     |       | X_Officer (give title below) Other (specify below) Pres, CFO Prin Acct Ofcr Treas   |  |                         |  |
| (Street)<br>NEW YORK, NY 10022  | 4      | 4. If Amendment, Date Original Filed(Month/Day/Year)                             |      |   |                        |     |       | 6. Individual or Joint/Group Filing(Check Applicable Line)<br>_X_Form filed by One Reporting Person<br>Form filed by More than One Reporting Person |  |                         |  |
| (City) (State)  | (Zip)  | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned |      |   |                        |     |       |   |  |                         |  |
| 1. Title of Security     2. Transat       (Instr. 3)     Date       (Month/D) |        | Execution Date, if   | Code |   | (A) or Disposed of (D) |     |       | 5. Amount of Securities Beneficially<br>Owned Following Reported<br>Transaction(s)<br>(Instr. 3 and 4)  | 6.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) | Beneficial<br>Ownership |  |
|   |        |  | Code | V | Amount                 | (D) | Price |   | (Instr. 4)   |                         |  |

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

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#### Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned

| (e.g., puts, calls, warrants, options, convertible securities) |             |                  |                    |           |                   |               |                 |                   |               |                  |            |                |              |             |            |
|--|-------------|------------------|--------------------|-----------|-------------------|---------------|-----------------|-------------------|---------------|------------------|------------|----------------|--------------|-------------|------------|
| 1. Title of  | 2.          | 3. Transaction   | 3A. Deemed         | 4.        |                   | 5. Number     | of              | 6. Date Exercisab | le and        | 7. Title and     | Amount     | 8. Price of    | 9. Number of | 10.         | 11. Nature |
| Derivative   | Conversion  | Date             | Execution Date, if | Transact  | action Derivative |               | Expiration Date |                   | of Underlying |                  | Derivative | Derivative     | Ownership    | of Indirect |            |
| Security   | or Exercise | (Month/Day/Year) | any                | Code      |                   | Securities    |                 | (Month/Day/Year)  |               | Securities       |            | Security       | Securities   | Form of     | Beneficial |
| (Instr. 3)   | Price of    |                  | (Month/Day/Year)   | (Instr. 8 | )                 | Acquired (A)  |                 | 1                 |               | (Instr. 3 and 4) |            | (Instr. 5)     | Beneficially | Derivative  | Ownership  |
|  | Derivative  |                  |                    |           |                   | or Dispose    | d of            |                   |               |                  |            |                |              | Security:   |            |
|  | Security    |                  |                    |           |                   | (D)           |                 |                   |               |                  |            |                | 0            | Direct (D)  |            |
|  |             |                  |                    |           |                   | (Instr. 3, 4, |                 |                   |               |                  |            | 1              | or Indirect  |             |            |
|  |             |                  |                    |           |                   | and 5)        |                 |                   |               |                  |            | Transaction(s) | < / <        |             |            |
|  |             |                  |                    |           |                   |               |                 |                   |               |                  | Amount     |                | (Instr. 4)   | (Instr. 4)  |            |
|  |             |                  |                    |           |                   |               |                 |                   | Expiration    | Title            | or         |                |              |             |            |
|  |             |                  |                    | ~ .       |                   |               | -               | Exercisable       | Date          |                  | Number     |                |              |             |            |
|  |             |                  |                    | Code      | V                 | (A)           | (D)             |                   |               |                  | of Shares  |                |              |             |            |
| Stock  |             |                  |                    |           |                   |               |                 |                   |               |                  |            |                |              |             |            |
| Option   |             |                  |                    |           |                   |               |                 |                   |               |                  |            |                |              |             |            |
| (to  |             |                  |                    |           |                   |               |                 |                   |               | Common           |            |                |              |             |            |
|  | \$ 2.8      | 01/03/2019       |                    | Α         |                   | 115,000       |                 | 01/04/2020(1)     | 01/02/2024    | Common<br>Stock  | 115,000    | \$ 0           | 184,794 (2)  | D           |            |
| acquire  |             |                  |                    |           |                   |               |                 |                   |               | Stock            |            |                | ,            |             |            |
| common   |             |                  |                    |           |                   |               |                 |                   |               |                  |            |                |              |             |            |
| stock)   |             |                  |                    |           |                   |               |                 |                   |               |                  |            |                |              |             |            |
| L  |             |                  |                    |           |                   |               |                 |                   |               |                  |            |                |              |             |            |

## **Reporting Owners**

|     |  | Relationships |              |                                |       |  |  |  |  |  |
|-----|--|---------------|--------------|--------------------------------|-------|--|--|--|--|--|
| Rep | Reporting Owner Name / Address   | Director      | 10%<br>Owner | Officer                        | Other |  |  |  |  |  |
|     | WEINER BARRY W<br>C/O ENZO BIOCHEM, INC.<br>527 MADISON AVENUE<br>NEW YORK, NY 10022 | Х             |              | Pres, CFO Prin Acct Ofcr Treas |       |  |  |  |  |  |

### Signatures

 /s/ Barry Weiner
 01/04/2019

 \*\*Signature of Reporting Person
 Date

# **Explanation of Responses:**

\* 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).

(1) The Reporting Person was granted 115,000 stock options. The options have a five-year term and shall vest in two equal annual tranches, beginning January 4, 2020.

(2) Does not include 20,000 Restricted Stock Units granted to the Reporting Person on January 3, 2019, which will vest, if at all, based upon (i) achievement of average revenue growth and adjusted EBITDA growth goals on January 3, 2022, and (ii) the continued service of the Reporting Person through January 3, 2022.

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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