

FORM 4

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

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| 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).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

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

(Print or Type Responses)

| | | | | | | | | |
|--|--|--|---|--|--|--|--|--|
| 1. Name and Address of Reporting Person * RABBANI ELAZAR | | | 2. Issuer Name and Ticker or Trading Symbol ENZO BIOCHEM INC [ENZ] | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) CEO and Secretary | | |
| (Last) (First) (Middle) C/O ENZO BIOCHEM, INC., 527 MADISON AVENUE | | | 3. Date of Earliest Transaction (Month/Day/Year) 11/16/2011 | | | | | |
| (Street) NEW YORK,, NY 10022 | | | 4. If Amendment, Date Original Filed(Month/Day/Year) | | | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> 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 (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, par value \$0.01 per share | 11/16/2011 | | P | | 600 | A | \$ 2.275 | 2,100,889 (1) | D | |
| Common Stock, par value \$0.01 per share | 11/16/2011 | | P | | 6,600 | A | \$ 2.28 | 2,107,489 (1) | D | |
| Common Stock, par value \$0.01 per share | 11/16/2011 | | P | | 5,700 | A | \$ 2.285 | 2,113,189 (1) | D | |
| Common Stock, par value \$0.01 per share | 11/16/2011 | | P | | 3,600 | A | \$ 2.29 | 2,116,789 (1) | D | |
| Common Stock, par value \$0.01 per share | 11/16/2011 | | P | | 2,800 | A | \$ 2.295 | 2,119,589 (1) | D | |
| Common Stock, par value \$0.01 per share | 11/16/2011 | | P | | 100 | A | \$ 2.2968 | 2,119,689 (1) | D | |
| Common Stock, par value \$0.01 per share | 11/16/2011 | | P | | 600 | A | \$ 2.3 | 2,120,289 (1) | D | |

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

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 control number. SEC 1474 (9-02)

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 Underlying Securities (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 of Derivative Security: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
|--|--|--------------------------------------|--|--------------------------------|---|---|-----|--|-----------------|---|--|--|--|--|
| | | | | Code | V | (A) | (D) | Date Exercisable | Expiration Date | | | | | |

Reporting Owners

Relationships

| Reporting Owner Name / Address | Director | 10% Owner | Officer | Other |
|---|----------|-----------|-------------------|-------|
| RABBANI ELAZAR C/O ENZO BIOCHEM, INC. 527 MADISON AVENUE NEW YORK,, NY 10022 | X | | CEO and Secretary | |

Signatures

| | | |
|--|--|---------------------|
| /s/ Elazar Rabbani | | 11/18/2011 |
| <small>**Signature of Reporting Person</small> | | <small>Date</small> |

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) Includes (i) 239,000 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, (ii) 5,547 shares of Common Stock held in the name of the Reporting Person as custodian for certain of his children, (iii) 22,115 shares of Common Stock held in the name of the Reporting Person's wife as custodian for certain of their children, (iv) an aggregate of 5,100 shares of Common Stock held in the name of the Reporting Person's children and (v) 12,502 shares of Common Stock held in the Company's 401(k) plan.

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

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