

FORM 5

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

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).
- Form 3 Holdings Reported
- Form 4 Transactions Reported

ANNUAL 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

1. Name and Address of Reporting Person* GOLDBERG DAVID C <small>(Last) (First) (Middle)</small>		2. Issuer Name and Ticker or Trading Symbol ENZO BIOCHEM INC [ENZ]		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <small>Director _____ 10% Owner _____ X Officer (give title below) _____ Other (specify below) _____</small> Vice President, Business Devel	
C/O ENZO BIOCHEM, INC., 527 MADISON AVENUE <small>(Street)</small>		3. Statement for Issuer's Fiscal Year Ended (Month/Day/Year) 07/31/2005		6. Individual or Joint/Group Reporting (check applicable line) <input checked="" type="checkbox"/> Form Filed by One Reporting Person <input type="checkbox"/> Form Filed by More than One Reporting Person	
NEW YORK, NY 10022 <small>(City) (State) (Zip)</small>		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 at end of Issuer's Fiscal Year (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
				Amount	(A) or (D)	Price			
Common Stock, par value \$0.01 per share	12/10/2004		M	5,628	A	\$ 7.107	113,031 (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 2270 (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 at End of Issuer's Fiscal Year (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
					(A)	(D)	Date Exercisable	Expiration Date						Title
Employee Stock Option	\$ 7.107	12/10/2004		M		5,628	12/20/1998	12/20/2004	Common Stock par value \$0.01 per share	5,628	\$ 0	77,373 (1)	D	

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
GOLDBERG DAVID C C/O ENZO BIOCHEM, INC. 527 MADISON AVENUE NEW YORK, NY 10022			Vice President, Business Devel	

Signatures

/s/David C. Goldberg	09/12/2005
<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) As of the end of Issuer's Fiscal Year, 07/31/2005, the Reporting Person directly beneficially owned 32,149 shares of Common Stock, 2,576 shares of Common Stock in Enzo Biochem's 401(K) Plan and 52,667 options to purchase Common Stock, par value \$0.01 per share, which are currently exercisable.

Note: File three copies of this Form, one of which must be manually signed. If space provided 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.