

# FORM 4

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

OMB APPROVAL	
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## 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

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

(Print or Type Responses)

1. Name and Address of Reporting Person * <b>GOLDBERG DAVID C</b>		2. Issuer Name and Ticker or Trading Symbol <b>ENZO BIOCHEM INC [ENZ]</b>		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) Vice President, Bus. Dev.	
(Last)	(First)	(Middle)	3. Date of Earliest Transaction (Month/Day/Year) <b>08/10/2004</b>		
C/O ENZO BIOCHEM INC, 527 MADISON AVE			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
(Street) <b>NEW YORK, NY 10022</b>					
(City)	(State)	(Zip)	<b>Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned</b>		

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	08/10/2004		M		3,350	A	\$ 7.276	73,628 (2)	D	

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 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)
						Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Incentive Stock Option	\$ 7.276	08/10/2004		M	3,350	08/17/1994 (1)	08/16/2004 (1)	Common Stock	3,350	\$ 0	73,628 (2)	D	

## Reporting Owners

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

## Signatures

/s/David C. Goldberg	08/13/2004
<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) The options vested as to 25% of the shares on the one (1) year anniversary of the date of grant (5/5/94) and 25% on each one year anniversary thereafter.

As of the date hereof, the Reporting Person directly beneficially owns 15,209 shares of Common Stock, 2,164 shares of Common Stock in Enzo Biochem's 401K plan and 55,322 options to (2) purchase Common Stock, par value \$.01 per share which are currently exercisable. The Reporting Person also has an indirect beneficial interest in 933 shares as custodian for certain of his children.

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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