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

OMB APPR	ROVAL					
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longer subject to Section 16. Form 4 or Form 5 obligations may continue. See

## 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,	5 Dala	ntionshim	of Papartin	a Darson(s) to	Issuer	
	2. Issuer Name and Ticker or Trading Symbol ENZO BIOCHEM INC [ENZ]						(Check all applicable)								
	3. Date of Earliest Transaction (Month/Day/Year) 12/18/2007						X Officer (give title below) Other (specify below)  VP, Corporate Development								
	4. If Amendment, Date Original Filed(Month/Day/Year)					6. Individual or Joint/Group Filing(Check Applicable Line) X_Form filed by One Reporting PersonForm filed by More than One Reporting Person									
(Zip)				Table	I - Non-F	)erivs	tive Se	ecurities	Acquir	red D	isnosed (	of or Renef	icially Owner	d	
2. Transaction Date (Month/Day/Year	ar) any		Oate, i	3. Ti Code (Inst	ransaction	nsaction 4. Securities Acc (A) or Disposed		es Acqui	uired 5. Amount of Owned Follo Transaction(		ount of S d Followi action(s)	f Securities Beneficially wing Reported		6. Ownership Form:	Beneficial
	(Month	/Day	y/Yea		ode V	An	nount	(A) or (D)	Price	(Instr. 3 and 4)		(	Direct (D) Ownersh or Indirect (Instr. 4) (Instr. 4)		
12/18/2007					С	1,1 (1)	18	A	(1)	55,55	50 <u>(2)</u>		]	D	
any	if Transaction of Deriv Secur (Instr. 8) Acqu (A) o Dispc of (D		Expiration Date (Month/Day/Ye rities bired or osed 0)			te	of User)		Underlying curities			Derivative Securities Beneficially Owned Following Reported Transaction(s	Ownersh Form of Derivativ Security: Direct (D or Indirect)	(Instr. 4)	
	Code	V	and	5)	Date Exercisal	ble	Expira Date	ation	Title		of		(III3u. 4)	(msu. 4)	
	Code	Ť	(11)	(D)			10/16	8/2007	Comr	mon	6,381	\$ 0	46,697 (2		
	(Middle) MADISON  (Zip)  2. Transaction Date (Month/Day/Year  12/18/2007  class of securities b  Table II -	(Middle) MADISON  3. Date of 12/18/2  4. If Ame  (Zip)  2. Transaction Date (Month/Day/Year)  12/18/2007  2. Table II - Derivation (e.g., pure description of the Execution Date (and the Execution Date)  Table II - Derivation (e.g., pure description of the Execution Date, if Transac Code	ENZO BIC  (Middle)  MADISON  3. Date of Ear 12/18/2007  4. If Amendm  (Zip)  2. Transaction Date (Month/Day/Year)  12/18/2007  Class of securities beneficially ow  Table II - Derivative S (e.g., puts, can be put) (Month/Day/Year)  3. Deemed Execution Date, if only (Month/Day/Year)  (Month/Day/Year)  (Instr. 8)	ENZO BIOCHI  (Middle) MADISON  3. Date of Earliest 12/18/2007  4. If Amendment, I  (Zip)  2. Transaction Date (Month/Day/Year)  (Month/Day/Year)  2. Table II - Derivative Securice, ye, yets, calls, very calls,	ENZO BIOCHEM IN  (Middle) MADISON  3. Date of Earliest Transact 12/18/2007  4. If Amendment, Date Or  (Zip)  Table  2. Transaction Date (Month/Day/Year)  (Month/Day/Year)  Code (Instr. 8)  Table II - Derivative Securities Acquired Execution Date, if Only (Month/Day/Year)  3. Transaction Date, if Code (Instr. 8)  5. Number Transaction of Code (Month/Day/Year)  (Instr. 8)  Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	ENZO BIOCHEM INC [ENZ  (Middle) MADISON  3. Date of Earliest Transaction (Mon 12/18/2007  4. If Amendment, Date Original Filed Execution Date of Execution Date, if any (Month/Day/Year)  2. Transaction Date (Execution Date, if any (Month/Day/Year)  Code  12/18/2007  Code  Table II - Derivative Securities Acquired, Disposed of (D) (Instr. 8)  A Deemed Execution Date, if Code (Month/Day/Year)  3. Transaction Code (Instr. 8)  Code  Persin the acution Date, if Code (Month/Day/Year)  (Month/Day/Year)  A S. Number Expiration (Month/Day/Year)  Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)  Date Exercisal	ENZO BIOCHEM INC [ENZ]  3. Date of Earliest Transaction (Month/Day 12/18/2007  4. If Amendment, Date Original Filed(Mont 12/18/2007  2. Transaction Date (Month/Day/Year)  2. Transaction Execution Date, if (any (Month/Day/Year)  2. Transaction Date, if (A) (Instr. 8)  Code V And 12/18/2007  Code V And 12/18/2007  Code V And 12/18/2007  Code V And 13/10 (Instr. 8)  Table II - Derivative Securities Acquired, Dispose (e.g., puts, calls, warrants, options, consist this foliant (Month/Day/Year)  3. Transaction Code (Instr. 8)  Persons in this foliant this foliant (Month/Day/Year)  3. Number of Execution Date, if Transaction Of Code (A) or Disposed of (D) (Instr. 3, 4, and 5)  Date Exercisable	ENZO BIOCHEM INC [ENZ]  3. Date of Earliest Transaction (Month/Day/Year)  4. If Amendment, Date Original Filed(Month/Day/Year)  2. Transaction Date (Month/Day/Year)  2. Transaction Date (Month/Day/Year)  2. Transaction Date, if (Month/Day/Year)  2. Transaction Date, if (Instr. 8)  Code V Amount  12/18/2007  Code V Amount  12/18/2007  Code V Amount  12/18/2007  Code V Amount  12/18/2007  Code V Amount  13. Transaction (Instr. 3, 4)  Code V Amount  13. Transaction (Instr. 8)  Code V Amount  14. Securities  Code V Amount  15. Number of Code (e.g., puts, calls, warrants, options, convertible)  3. Deemed Execution Date, if Order (Instr. 8)  Expiration Date (Month/Day/Year)  (Month/Day/Year)  15. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)  Date Exercisable Expiration Date (Month/Day/Year)  Date Exercisable Expiration Date (Expiration Date (Month/Day/Year) Date (Month/Day/Year)	ENZO BIOCHEM INC [ENZ]  3. Date of Earliest Transaction (Month/Day/Year)  4. If Amendment, Date Original Filed(Month/Day/Year)  2. Transaction Date (Month/Day/Year)  2. Transaction Execution Date, if (Month/Day/Year)  2. Transaction Date (Instr. 8)  2. Transaction Execution Date, if (Month/Day/Year)  2. Transaction Execution Date, if (Month/Day/Year)  2. Transaction Date (Instr. 8)  3. Transaction Code (Instr. 8)  4. Securities Acquired, Original Filed(Month/Day/Year)  Code V Amount (D)  Code V Amount (D)  12/18/2007  Code V Amount (D)  Persons who respond in this form are not rear currently valid OMB  Table II - Derivative Securities Acquired, Disposed of, or Benefice. Derivative Securities Acquired (A) or Disposed of (D) (Instr. 8)  3. Transaction Code (Instr. 8)  Persons who respond in this form are not rear currently valid OMB  Table II - Derivative Securities Acquired, Disposed of, or Benefice. Derivative Securities Acquired (A) or Disposed of (D) (Instr. 8)  Date Exercisable and Expiration Date (Month/Day/Year)  Date Exercisable Expiration Date (Exercisable Expiration Date (Instr. 3, 4, and 5)	ENZO BIOCHEM INC [ENZ]  (Middle) MADISON  3. Date of Earliest Transaction (Month/Day/Year)  4. If Amendment, Date Original Filed(Month/Day/Year)  4. If Amendment, Date Original Filed(Month/Day/Year)  2. Transaction Date (Execution Date, if (any) (Month/Day/Year)  3. Transaction Code (Instr. 8)  4. Securities Acquired (A) or (D) Price  12/18/2007  Code  1,118 A (I)  Persons who respond to the in this form are not required a currently valid OMB control  Table II - Derivative Securities Acquired, Disposed of, or Beneficially (e.g., puts, calls, warrants, options, convertible securities)  3. Number Code (Instr. 8)  Persons who respond to the in this form are not required a currently valid OMB control  Table II - Derivative Securities Acquired, Disposed of, or Beneficially (Code) (Instr. 8)  Date Execution Date (Month/Day/Year)  Code (Instr. 8)  Date Expiration Date  Title  Code V (A) (D)  Title	ENZO BIOCHEM INC [ENZ]  (Middle) MADISON  3. Date of Earliest Transaction (Month/Day/Year)  4. If Amendment, Date Original Filed(Month/Day/Year)  4. If Amendment, Date Original Filed(Month/Day/Year)  5. Indix I - Non-Derivative Securities Acquired, Date (Month/Day/Year)  2. Transaction Date (Month/Day/Year)  2. Transaction Date (Month/Day/Year)  2. Transaction Date (Month/Day/Year)  2. Transaction Date (Month/Day/Year)  3. Transaction (Code (Instr. 8) (Instr. 3, 4 and 5)  Code V Amount (A) or Disposed of (D) (Instr. 8)  (Instr. 8)  Code V Amount (A) or Price (Instr. 8)  Code V Amount (A) or Price (Instr. 8)  Code In this form are not required to rea currently valid OMB control nur  Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned Execution Date, if any (Month/Day/Year)  3.A. Deemed Execution Date, if any (Month/Day/Year)  4. S. Number (Code Derivative (Month/Day/Year)  4. S. Number (Code Derivative (Month/Day/Year)  3.A. Deemed Execution Date, if any (Month/Day/Year)  4. S. Number (Month/Day/Year)  4. S. Number (Month/Day/Year)  5. Number (Month/Day/Year)  Title and of Underlyin (Month/Day/Year)  Code Derivative (Month/Day/Year)  Title and of Underlyin (Month/Day/Year)  Date Exercisable Expiration Date (Instr. 3 and Securities)  Code V (A) (D)	ENZO BIOCHEM INC [ENZ]   Director   X Officer (give   MADISON   12/18/2007     12/18/2007     4. If Amendment, Date Original Filed(Month/Day/Year)   4. If Amendment, Date Original Filed(Month/Day/Year)   6. Individual or X, Form filed by M, F	ENZO BIOCHEM INC [ENZ]   Check	ENZO BIOCHEM INC [ENZ]  (Middle) (MADISON 12/18/2007   3. Date of Earliest Transaction (Month/Day/Year)   12/18/2007   4. If Amendment, Date Original Filed(Month/Day/Year)   4. If Amendment, Date Original Filed(Month/Day/Year)   4. If Amendment, Date Original Filed(Month/Day/Year)   6. Individual or Joint/Group Filing(Check J. Form filed by One Reporting Person Form filed by More than One Reporting Person World Form filed by More than One Reporting Person Form filed	ENZO BIOCHEM INC [ENZ]   Director   Life (Order (ignet) below)   Life (Ignet) below   Life (Order (ignet) below)   Life (Order (ig

	Relationships					
Reporting Owner Name / Address	Director	10% Owner	Officer	Other		
THALENFELD BARBARA E C/O ENZO BIOCHEM, INC. 527 MADISON AVENUE NEW YORK, NY 10022			VP, Corporate Development			

# Signatures

/s/ Barbara Thalenfeld	12/20/2007				
**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 exercised a stock option to purchase 6,381 shares of Common Stock and paid the exercise price thereof by the surrender of 5,263 shares of Common Stock, for a net gain in outstanding shares of Common Stock of 1,118 shares. The stated exercise price of the stock option was \$10.97.
- (2) As of the date hereof, the Reporting Person directly beneficially owned 9,901 shares of Common Stock, 1,020 shares of Common Stock in Enzo Biochem's 401(K) Plan and 49,887 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 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.