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

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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).

## 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 Typ	e Response	s)												
1. Name and Address of Reporting Person * Crescenzo Andrew R.				2. Issuer Name and Ticker or Trading Symbol ENZO BIOCHEM INC [ENZ]						5. Relationship of Reporting Person(s) to Issuer (Check all applicable)Director 10% Owner				
(Last) (First) (Middle) C/O ENZO BIOCHEM, 527 MADISON AVENUE				3. Date of Earliest Transaction (Month/Day/Year) 01/29/2010					X Officer (give title below) Other (specify below)  Senior VP of Finance					
(Street) NEW YORK, NY 10022			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					
(City) (State) (Zip) Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned						Owned								
1.Title of Security (Instr. 3)		2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	f Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D (Instr. 3, 4 and 5)		f (D)			ollowing	Ownership Form:	7. Nature of Indirect Beneficial Ownership	
				Code	V A	Amount	(A) or (D)	Price	(msu. 3 ai	5 dia 4)			(Instr. 4)	
Common \$0.01	Stock, pa	r value	01/29/2010		A	1	12,000	A	(1)	36,110	<u>2)</u>		D	
					ies Acquire	ed, Disp	osed of	, or Bene	ficiall	·	OMB cont	rol numbe	r.	
1. Title of 2. 3. Transaction Date Execution On the Conversion Date (Month/Day/Year) any			on 3A. Deemed Execution Da any	e.g., puts, calls, wa 4. te, if Transaction Code Year) (Instr. 8)	ies Acquire arrants, op 5.	contained in this form are the form displays a curre ed, Disposed of, or Beneficia tions, convertible securities)  6. Date Exercisable and Expiration Date (Month/Day/Year)  (Month/Day/Year)  Contained in this form are the form			ficiallities) 7. Ti Amo	Title and ount of Derivative derlying urities tr. 3 and S. Price of Derivative Security (Instr. 5) Beneficial Owned		9. Number of Derivative Securities Beneficially	of 10. 11. Natur Ownership Form of Beneficia	11. Nature of Indirect Beneficial Ownership (Instr. 4)
	Security				(A) or Disposed of (D) (Instr. 3, 4, and 5)	4)		7)			Reported Transaction(s (Instr. 4)	or Indire	/	
				Code V	(A) (D)	Date Exerci		xpiration Pate	Title	Amount or Number of Shares				
Repor	ting O	wners												
Dono	ting Owner	Nama /		Relationships										
Reporting Owner Name /			100/											

D ( O N /	Relationships					
Reporting Owner Name / Address	Director	rector 10% Officer Owner		Other		
Crescenzo Andrew R. C/O ENZO BIOCHEM 527 MADISON AVENUE NEW YORK, NY 10022			Senior VP of Finance			

# **Signatures**

/s/ Andrew R. Crescenzo	02/02/2010
**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) Reporting Person was granted 12,000 shares of restricted common stock, par value \$0.01 per share ("Common Stock"), of the Company on January 29, 2010 in connection with his service as an officer of the Company. The shares will vest in three equal annual installments, beginning on January 29, 2011.
- (2) Includes 3,110 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.