

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

-----  
FORM 8-K

CURRENT REPORT  
Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): December 15, 2003

ENZO BIOCHEM, INC.  
(Exact Name of Registrant as Specified in Charter)

New York (State or Other Jurisdiction of Incorporation or Organization)	001-09974 (Commission File Number)	13-2866202 (I.R.S. Employer Identification No.)
---	---------------------------------------	---

60 Executive Boulevard, Farmingdale, New York (Address of Principal Executive Offices)	11735 (Zip Code)
---	---------------------

Registrant's telephone number, including area code: (631) 755-5500

NOT APPLICABLE  
-----  
(Former name or former address, if changed since last report)

-----  
ITEM 12. RESULTS OF OPERATIONS AND FINANCIAL CONDITION.

On December 15, 2003, the Registrant issued a press release announcing its operating results for the fiscal quarter ended October 31, 2003. A copy of the press release is furnished as Exhibit 99.1 to this Current Report.

The information in this Current Report and the exhibits attached hereto are being "furnished" hereunder and shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), nor shall they be deemed incorporated by reference into any filings made by the Registrant with the Securities and Exchange Commission under the Exchange Act or the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filings.

2

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: December 15, 2003

Enzo Biochem, Inc.

By: /s/ Barry Weiner

-----  
Name: Barry Weiner  
Title: Chief Financial Officer

3

EXHIBIT INDEX

EXHIBIT -----	DESCRIPTION -----
------------------	----------------------

99.1

Registrant's press release dated December  
15, 2003 announcing operating results  
for the fiscal quarter ended October 31, 2003.\*

\* Furnished herewith.

[ENZO LOGO OMITTED]

NEWS RELEASE  
 ENZO BIOCHEM, INC.  
 527 MADISON AVENUE  
 NEW YORK, NY 10022

FOR IMMEDIATE RELEASE  
 CONTACT: STEVE ANREDER  
 (212) 532-3232

ENZO BIOCHEM REPORTS OPERATING RESULTS  
 FOR FISCAL 2004 FIRST QUARTER

-----

FARMINGDALE, NY, December 15, 2003 - Enzo Biochem, Inc. (NYSE:ENZ), a leading biotechnology company specializing in gene identification and genetic and immune regulation technologies for diagnostic and therapeutic applications, today reported operating results for the first fiscal quarter ended October 31, 2003.

For the three month period, total revenues amounted to \$10.3 million, compared with \$17.4 million in the corresponding year-earlier period. Gross profit margin was 73.7%, compared with 80.5% a year ago. The net loss for the first fiscal quarter amounted to \$0.3 million, or (\$0.01) per share, fully diluted, compared to net income of \$3.7 million, or \$0.12 per share, fully diluted, in the corresponding year-ago period. The results reflect primarily the absence of shipments of research products by Enzo Life Sciences to a single customer that accounted for an unusually strong order flow in the year-ago first fiscal quarter.

Cash flow for the quarter remained positive. Working capital as of October 31, 2003, amounted to \$97.6 million, and cash, cash equivalents and marketable securities totaled \$78.6 million.

First fiscal quarter research and development expenses increased slightly, to \$1.9 million, reflecting clinical trial activities and other research projects. Selling, general and administrative expenses declined slightly to \$3.4 million, from \$3.5 million in the corresponding year-ago period, while legal expenses increased \$0.2 million, to \$1.0 million.

Revenues at Enzo Clinical Labs in the fiscal first quarter increased 8.2%, to \$7.5 million, compared with \$6.9 million in the corresponding year-earlier period. Gross profit margin of 69% was comparable to the year-ago first quarter, while pre-tax income amounted to \$0.7 million. Enzo Clinical Labs is benefiting from continued focus on its core office-based physician clientele. The Clinical Labs has added personnel to its marketing staff, and is targeting additional service centers and expansion into nearby markets not now served.

Enzo Life Sciences has moved forward with an aggressive marketing program designed to more directly service its end users, while simultaneously positioning the Company for upcoming product line expansion. The program involves continued increases of the direct field sales force, a comprehensive advertising campaign, increased attendance at top industry trade meetings, and publications in leading scientific journals. This effort is directed towards accelerating the revenue growth in subsequent quarters, while at the same time, bringing the Company into more direct contact with its customer base.

- more -

Enzo Biochem, Inc. - Page 2

Enzo Therapeutics last month received the final clearance to proceed with a Phase I/II clinical trial of its Stealth Vector(R) HGTV43(TM) gene construct for HIV infection. This study, to be conducted at the New York Presbyterian Hospital-Weill-Medical College of Cornell University, in New York City, is expected to begin early in calendar year 2004. Enrollment in the Phase II randomized double blind clinical trial of Enzo's study drug for the management of Crohn's Disease has been completed. Preparations for a Phase II double-blind clinical trial for EHT899, the Company's medicine for hepatitis B virus-associated chronic hepatitis, are proceeding. In addition, an application has been filed to initiate a new clinical trial for the treatment of hepatitis C virus infection utilizing the Company's novel small molecule immune modulation platform.

"Enzo Biochem continues to make significant progress," said Barry Weiner, President. "Our program for expanding Life Sciences' direct sales efforts is a very positive step for the Company as we move towards a more centralized marketing approach for our proprietary products. Enzo Clinical Labs is strongly positioned to continue its growth, and the Company's therapeutic pipeline is growing and offers important new potential treatments for a variety of medical conditions. Enzo Biochem, Inc. enjoys a strong financial position and continues to be cash positive. We remain excited and confident regarding the

outlook."

ABOUT ENZO

Enzo Biochem is engaged in the research, development and manufacture of innovative health care products based on molecular biology and genetic engineering techniques, and in providing diagnostic services to the medical community. The Company's proprietary labeling and detection products for gene sequencing and genetic analysis, with approximately 200 patents worldwide, are sold to the life sciences market throughout the world. The Company's therapeutic division is in various stages of clinical evaluation of its proprietary gene medicine for HIV-1 infection and its proprietary immune regulation medicines for hepatitis B and hepatitis C infection and for Crohn's Disease. The Company also holds a patent covering a method and materials for correcting point mutations or small insertions or deletions of genetic material that would allow for editing and correcting certain abnormalities in genes. For more information visit our website [www.enzo.com](http://www.enzo.com).

-----

EXCEPT FOR HISTORICAL INFORMATION, THE MATTERS DISCUSSED IN THIS NEWS RELEASE MAY BE CONSIDERED "FORWARD-LOOKING" STATEMENTS WITHIN THE MEANING OF SECTION 27A OF THE SECURITIES ACT OF 1933, AS AMENDED AND SECTION 21E OF THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED. SUCH STATEMENTS INCLUDE DECLARATIONS REGARDING THE INTENT, BELIEF OR CURRENT EXPECTATIONS OF THE COMPANY AND ITS MANAGEMENT. INVESTORS ARE CAUTIONED THAT ANY SUCH FORWARD-LOOKING STATEMENTS ARE NOT GUARANTEES OF FUTURE PERFORMANCE AND INVOLVE A NUMBER OF RISKS AND UNCERTAINTIES THAT COULD MATERIALLY AFFECT ACTUAL RESULTS. THE COMPANY DISCLAIMS ANY OBLIGATIONS TO UPDATE ANY FORWARD-LOOKING STATEMENT AS A RESULT OF DEVELOPMENTS OCCURRING AFTER THE DATE OF THIS PRESS RELEASE.

A CONFERENCE CALL CONDUCTED BY ENZO BIOCHEM, INC. MANAGEMENT WILL TAKE PLACE ON TUESDAY, DECEMBER 16, 2003 AT 8:30 A.M. (ET). IT CAN BE ACCESSED BY DIALING 888-338-6461, INTERNATIONAL CALLERS CAN DIAL 973-935-8509. YOU MAY ALSO LISTEN OVER THE INTERNET AT [WWW.VCALL.COM](http://WWW.VCALL.COM). TO LISTEN TO THE LIVE CALL ON THE INTERNET, PLEASE GO TO THE WEB SITE AT LEAST FIFTEEN MINUTES EARLY TO REGISTER, DOWNLOAD AND INSTALL ANY NECESSARY AUDIO SOFTWARE. FOR THOSE WHO CANNOT LISTEN TO THE LIVE BROADCAST, A REPLAY WILL BE AVAILABLE THROUGH MIDNIGHT DECEMBER 28, 2003, SHORTLY FOLLOWING THE LIVE CALL. FOR REPLAY, DIAL 877-519-4471 (973-341-3080 INTERNATIONALLY). YOU WILL BE PROMPTED FOR PIN NUMBER 4368231.

- Table follows -

Enzo Biochem, Inc. - Page 3

ENZO BIOCHEM, INC.  
SELECTED STATEMENT OF OPERATIONS DATA

	Three Months Ended October 31,	
	2003	2002
	-----	-----
	(In thousands, except per Share data) (unaudited)	
Operating revenues	\$10,273	\$17,356
Income (loss) before (provision) benefit for income taxes	(\$816)	\$6,047
(Provision) benefit for income taxes	\$493	(\$2,359)
	-----	-----
Net income (loss)	(\$323)	\$3,688
	=====	=====
Basic earnings (loss) per share	(\$0.01)	\$0.12
	-----	-----
Diluted earnings (loss) per share	(\$0.01)	\$0.12
	-----	-----
Common share - basic	30,006	29,885
Common share - diluted	30,006	30,492

SELECTED BALANCE SHEET DATA

	October 31, 2003	July 31, 2003
	(unaudited)	(audited)
	(in thousands)	
Cash and Marketable Securities	\$78,625	\$78,422
Working Capital	\$97,596	\$97,724
Stockholders' Equity	\$109,294	\$109,381
Total Assets	\$115,545	\$115,878