

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): JUNE 9, 2006

ENZO BIOCHEM, INC.

(Exact Name of Registrant as Specified in Its Charter)

NEW YORK

(State or Other Jurisdiction of Incorporation)

001-09974

13-2866202

(Commission File Number)

(IRS Employer Identification No.)

60 EXECUTIVE BOULEVARD
FARMINGDALE, NEW YORK

11735

(Address of Principal Executive Offices)

(Zip Code)

(631) 755-5500

(Registrant's Telephone Number, Including Area Code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (SEE General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

ITEM 2.02. RESULTS OF OPERATIONS AND FINANCIAL CONDITION.

(a) The following information, including the Exhibit attached hereto, is being furnished pursuant to this Item 2.02 and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filing.

On June 9, 2006, Enzo Biochem, Inc., a New York corporation (the "Company"), issued a press release discussing its financial results for its third fiscal quarter ended April 30, 2006. A copy of the press release is furnished as Exhibit 99.1 to this report.

ITEM 9.01. FINANCIAL STATEMENTS AND EXHIBITS.

(c) Exhibits.

Exhibit No. Description

99.1 Press Release of Enzo Biochem, Inc., dated June 9, 2006, discussing financial results for third fiscal quarter ended April 30, 2006.

SIGNATURES

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

ENZO BIOCHEM, INC.

Date: June 9, 2006

By: /s/ Barry Weiner

Barry Weiner
President and Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
- - - - -	- - - - -
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[ENZO LOGO]

NEWS
 RELEASE

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

FOR IMMEDIATE RELEASE

ENZO BIOCHEM REPORTS RESULTS
 FOR THIRD FISCAL QUARTER

FARMINGDALE, NY, June 9, 2006 -- 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 fiscal three and nine months ended April 30, 2006.

"While we continue to make progress at Enzo Therapeutics and in the growth of our intellectual property base, price competition and continuing litigation expenses impacted operating results during the third quarter," said Barry Weiner, President. "Our focus remains on growing the Company, and broadening our operating scope with new products.

The recent addition of new, highly experienced executives at Enzo Life Sciences and in the Finance Group underscores our commitment to our Company's broad-based strategic direction, as has the acquisition of a license for the production and marketing of single copy DNA probes that will facilitate our entry into the growing cytogenetics market. We are pleased with the issuance during the quarter of a key new patent covering nucleic acid labeling molecules that are attached through the phosphate portion of the nucleic acid, either directly or indirectly. This patent issuance is another key component of our extensive intellectual property base in the area of genetic labeling. This technology can be applied to a range of commercial products, some of which are currently being used for both diagnostics and research. Molecular testing is a rapidly growing area of medicine, and it has applications in both predictive diagnostics and personalized medicine. It is estimated that the current annual market for gene-based testing ranges from \$500 million to as high as \$1 billion. Enzo Clinical Labs continues not only to add new tests, but has recently broadened its participation with third-party providers. Our strong balance sheet continues to provide the wherewithal for Enzo to realize its many opportunities.

For the three months ended April 30, 2006, total revenues amounted to \$9.6 million, compared with \$11.0 million in the corresponding year-ago period, primarily reflecting recent price competition at Life Sciences in the genomics market and at the Clinical Lab where net revenue per accession declined due to the competitive reimbursement environment. Although research and development expenses declined 14%, to \$1.9 million, selling, general and administrative expenses increased 13%, to \$6.2 million. The latter was due principally to increased outlays for corporate governance charges and other professional fees and stock compensation expense as a result of adoption of SFAS 123 (R). In addition, our continued investment in our intellectual property portfolio contributed to a 24% increase in our legal expenses to \$1.7 million. The net loss for the quarter amounted to \$3.4 million, or (\$0.11) per

fully diluted share, compared with a year-ago net loss of \$1.5 million, or (\$0.05) per fully diluted share.

For the nine months ended April 30, 2006, total revenues amounted to \$29.9 million, compared with \$32.5 million in the corresponding year-ago quarter. Net loss for the nine months totaled \$11.2 million, or (\$0.35) per fully diluted share, compared to a year-ago profit of \$5.0 million, or \$0.15 per fully diluted share, which included the initial gain of \$14 million stemming from the Digene Corp. patent suit settlement.

On April 30, 2006, working capital amounted to \$87.3 million, and cash and cash equivalents totaled \$75.9 million.

At Enzo Clinical Labs for the third quarter of fiscal 2006, a competitive reimbursement environment chiefly accounted for the decline in revenues to \$7.7 million, from \$8.6 million a year ago. Operating income totaled \$0.2 million, compared with \$0.9 million. Heightened effectiveness in the processing and collection of third party claims resulted in a reduction in the provision for uncollectible accounts receivable, to \$0.5 million, from approximately \$1.0 million a year ago. Enzo Clinical Labs was also recently designated for use by participants in a major health care insurer serving the New York metropolitan area.

At Enzo Life Sciences, lower unit pricing for products for the genomics

market were reflected in reduced third quarter revenues to \$1.9 million, from \$2.4 million. In addition, the previously announced acquisition of a license from Children's Mercy Hospitals & Clinics for the production of their newly patented single copy DNA probes will enable Life Sciences to enter the growing cytogenetics market. These probes are capable of identifying the minutest strands of DNA, opening the door to more effective treatment of genetic diseases and other cancers. Their effectiveness is expected to be enhanced by combining the probes with Enzo's proprietary signal amplification technologies. The appointment of Carl W. Balezentis, Ph.D., a highly experienced executive in the industry, as President of Enzo Life Sciences, represents a major step in the Company's worldwide program to expand the subsidiary's market representation and results.

Enzo also announced recently the appointment of Andrew R. Crescenzo, CPA, as Senior Vice President of Finance. The addition of Mr. Crescenzo is a move to broaden the Company's executive team. "With these recent hires and realigning of managerial responsibilities, we believe that we have created a much stronger organization, not only in terms of operations but in planning for the near term growth of Enzo Biochem," said Mr. Weiner. "With our focus on expanding the Company's strategic capabilities, these changes will be valuable as we pursue both organic and outside avenues of expansion."

Enzo Therapeutics continues to expand both the breadth and depth of its therapeutic pipeline. Enrollment of patients in the Phase II clinical trials of both EGS21 and Alequel(TM), both treatments aimed at the management of Crohn's Disease, continue to move forward. Site selection for expanding these trials is actively underway. The Phase I-II clinical trial of the Company's Stealth Vector HGTV43(TM) genetic construct for HIV-1 is progressing, with patient enrollment anticipated shortly. The Company is awaiting the regulatory approval to initiate a Phase II clinical trial to study the effect of its EGS21 candidate drug on NASH (non-alcoholic steatohepatitis) and its associated metabolic syndrome. A clinical trial to determine the efficacy of B27PD, Enzo's candidate drug for the treatment of autoimmune uveitis is planned for later this year. Additionally, animal studies are continuing at multiple sites for the evaluation of candidate compounds for the treatment of bone disorders.

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 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, uveitis, and for Crohn's Disease. Pre-clinical research is being conducted on several candidate compounds aimed at producing new mineral and organic bone, including technology that could provide therapy for osteoporosis and fractures, among other applications. 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. The Company owns or licenses over 200 patents worldwide. For more information visit our website 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.

AN INFORMATIONAL CALL CONDUCTED BY ENZO BIOCHEM, INC. MANAGEMENT WILL TAKE PLACE ON MONDAY JUNE 12, 2006 AT 8:30 AM E.T. IT CAN BE ACCESSED BY DIALING 1-877-692-2086. INTERNATIONAL CALLERS CAN DIAL 1-973-582-2734. PLEASE REFERENCE PIN NUMBER 7487781. INTERESTED PARTIES MAY ALSO LISTEN OVER THE INTERNET AT WWW.INVESTORCALENDAR.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 APPROXIMATELY TWO HOURS AFTER THE END OF THE LIVE CALL, THROUGH MIDNIGHT (ET) ON JUNE 26, 2006. THE REPLAY OF THE CONFERENCE CALL CAN BE ACCESSED BY DIALING 1-877-519-4471, AND, WHEN PROMPTED, USE PIN NUMBER 7487781. INTERNATIONAL CALLERS CAN DIAL 1-973-341-3080, USING THE SAME PIN NUMBER.

- Table Follows -

ENZO BIOCHEM, INC.

