

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): October 14, 2008

Enzo Biochem, Inc.

(Exact Name of Registrant as Specified in Its Charter)

New York

(State or Other Jurisdiction of Incorporation)

001-09974

(Commission File Number)

13-2866202

(IRS Employer Identification No.)

527 Madison Avenue
New York, New York

(Address of Principal Executive Offices)

10022

(Zip Code)

(212) 583-0100

(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 October 14, 2008, Enzo Biochem, Inc., a New York corporation, issued a press release discussing its financial results for its fourth fiscal quarter ended July 31, 2008 and its fiscal year ended July 31, 2008. A copy of the press release is furnished as Exhibit 99.1 to this report.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release of Enzo Biochem, Inc., dated October 14, 2008, discussing financial results for the fourth fiscal quarter ended July 31, 2008 and the fiscal year ended July 31, 2008.

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: October 15, 2008

By: /s/ Barry Weiner

Barry Weiner
President, Chief Financial Officer and
Director

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release of Enzo Biochem, Inc., dated October 14, 2008, discussing financial results for the fourth fiscal quarter ended July 31, 2008 and the fiscal year ended July 31, 2008.

Tuesday, October 14, 2008

ENZO BIOCHEM REPORTS RECORD REVENUES

Enzo Biochem, Inc.
527 Madison Avenue
New York, NY 10022

FOR IMMEDIATE RELEASE

**ENZO BIOCHEM REPORTS RECORD REVENUES
AND SIGNIFICANTLY IMPROVED OPERATING RESULTS FOR FISCAL 2008**

NEW YORK, NY, October 14, 2008 -- Enzo Biochem, Inc. (NYSE:ENZ), a leading biotechnology company and a growing global supplier of reagents for a wide range of advanced research applications, today reported record revenues and significantly improved operating results for the fiscal year ended July 31, 2008.

“Our Company made strong operating gains last year, particularly in Life Sciences, licensing, and in royalty fee income, while effectively controlling costs,” said Barry Weiner, President. “What’s more, despite cash outlays for two major Life Sciences acquisitions in the past 18 months, Enzo remains in a highly liquid position, with no debt and with substantial cash. Enzo is strongly positioned to be opportunistic to add to our growing market strengths. We are highly encouraged regarding the outlook.”

For fiscal 2008, total revenues advanced 47%, to an all-time high of \$77.8 million, from \$52.9 million, reflecting both organic growth and the benefits of recent Life Science acquisitions – specifically, Axxora in May 2007 and Biomol in May 2008 -- along with a 31% increase in royalty and licensing fee income. Gross profit advanced 27%, to \$37.6 million, after being impacted by a \$2.0 million pre-tax non-cash accounting charge relating to inventory fair value adjustments in connection with recent acquisitions. Selling, general and administrative (SG&A) expenses, as a percentage of revenues, declined to 44.3%, from 50% last year, despite increased costs related largely to expanded Life Science activities.

Legal expenses were lower at \$5.6 million, compared with \$10.3 million last year, the provision for uncollectibles declined to \$3.7 million, from \$4.7 million, and research and development expenses were slightly lower than last year. Reflecting lower rates and the use of approximately \$16 million for acquisitions in fiscal 2008, interest income fell 27%, to \$3.7 million. The net loss for fiscal 2008 totaled \$10.7 million or \$0.29 per

share, inclusive of the \$1.6 million after-tax non-cash accounting charge for the inventory fair value adjustment mentioned above, which compared with a net loss of \$13.3 million, or \$0.38 per share last year, when results benefited from \$2.7 million in gains from a legal settlement with Sigma and a one-time payment from a former distributor, Perkin-Elmer.

At year-end, working capital totaled \$92.4 million, and cash and investments amounted to \$78.3 million. Enzo has no debt.

Fourth fiscal quarter total revenues rose 18%, to \$21.2 million from \$17.9 million in the corresponding year-earlier period, while the provision for uncollectible account receivables declined 45%, to \$0.7 million and legal expenses, due to the timing of litigation activities, dropped 64%, to \$1.1 million. The net loss for both the fiscal 2008 fourth quarter and the year ago period equaled \$3.3 million, or \$0.09 per share. Both quarters were affected by an after-tax charge of \$0.5 million for the previously mentioned inventory fair value adjustment.

Enzo Life Sciences, benefiting from the May 2008 acquisition of Biomol in the fourth quarter, experienced a 132% increase in product sales, in addition to a 5% increase in royalty and license fee income, for total revenues of \$11.4 million, up 89% from the prior year's \$6.0 million. Cost of product sales rose to \$6.1 million from \$3.3 million a year ago, due to expanded sales volume. Gross profit margin for the quarter was essentially flat at 47% and 48%, respectively, for the fiscal 2008 and fiscal 2007 fourth quarters. Both quarters were impacted by the aforementioned pre-tax inventory fair value charges. Operating income more than doubled, to \$1.1 million, up from \$0.5 million a year ago.

Fiscal 2008 revenues for Life Sciences, including a full year results from Axxora, totaled \$35.7 million, up from \$12.5 million a year earlier, a gain of 186%. Gross profit margin advanced 117%, to \$10.6 million, and SG&A as a percentage of product revenues improved to 35%, from 45% in the previous year. The year-ago results included the aforementioned gains of \$2.7 million from the Sigma settlement and Perkin Elmer payment. Fiscal 2008's operating income amounted to \$3.4 million, up from \$1.3 million, a gain of 157%.

At Enzo Clinical Labs, competitive pricing and reduced third party billing adversely affected fourth quarter revenues, which declined to \$9.8 million, from \$11.9 million. Gross profit for the quarter amounted to \$4.0 million, compared with the year ago \$6.5 million, generating margins of 41% and 55%, respectively. Despite a reduced provision for uncollectible billing to \$0.7 million from \$1.2 million, which is the result of continuing administrative and billing efficiencies, the operating loss of \$0.4 million compared with a year-earlier operating income of \$1.6 million.

For the year, Enzo Clinical Labs revenues increased to \$42.1 million from \$40.4 million last year, although higher costs, both for increased staffing and materials, resulted

in a 5% decline in gross profit, to \$21.0 million. Operating income for the division was \$2.0 million, compared to \$3.3 million in fiscal 2007.

Mr. Weiner noted that while Enzo Clinical Labs provided as much as 80% of revenues in fiscal 2006 and 76% in fiscal 2007, its share was approximately 54% in fiscal 2008. The growth of Enzo Life Sciences resulted in its accounting for a 46% share of revenues, up from 24% in fiscal 2007.

“Enzo Clinical Labs remains an important segment of our activities, as well as a strong cash provider. Recent acquisitions in the Life Sciences division have resulted in broadly expanded product offerings through both internal manufacturing and distribution, and increases in geographic distribution. In addition, our intellectual property estate benefited during fiscal 2008 with seven new patent awards, including three in the U.S.,” said Mr. Weiner.

Mr. Weiner also reported that Enzo Therapeutics has been focusing its efforts on two main projects. The Company currently anticipates concluding the trial by the end of calendar 2008 of its Phase IIb trial for Alequel™, Enzo’s autologous individualized therapy for the treatment of Crohn’s disease. Additionally, the Company is working to file an IND to begin US-based trials of Optique™, its proprietary product for the treatment of autoimmune uveitis.

In addition, a number of therapeutic products based on Enzo’s proprietary cell signaling, immune regulation, and gene therapy technologies are in various stages of development. These include new compounds currently in the preclinical stage that could provide therapy for treating bone disorders, and investigation of biochemical pathways in glucose homeostasis, which will be tested in standard animal models of diabetes.

Conference Call

A conference call conducted by Enzo Biochem, Inc. management will take place on Wednesday, October 15, 2008 at 8:30 AM E.T. It can be accessed by dialing 1-888-562-3356. International callers can dial 1-973-582-2700. Please reference PIN number 67678973. 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 October 29, 2008. The replay of the conference call can be accessed by dialing 1-800-642-1687, and, when prompted, use PIN number 67678973. International callers can dial 1-706-645-9291, using the same PIN number.

About Enzo

Enzo Biochem is engaged in the research, development, manufacture and licensing of innovative health care products and technologies based on molecular biology

and genetic engineering techniques, and in providing diagnostic services to the medical community. Enzo's Life Sciences division develops, produces and markets proprietary labeling and detection products for gene sequencing, genetic analysis and immunological research among others. Its catalog of over 25,000 products serves the molecular biology, drug discovery and pathology research markets. 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 uveitis, Crohn's Disease, and NASH (non-alcoholic steatohepatitis), and conducts pre-clinical research 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. Enzo's Clinical Labs division provides routine and esoteric reference laboratory services for physicians in the New York Metropolitan and New Jersey areas. Underpinning the Company's technology and operations is an extensive intellectual property estate in which Enzo owns or licenses over 230 patents worldwide, and has pending applications for over 200 more. 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.

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