

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, 2009

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))
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Item 2.02. Results of Operations and Financial Condition.

On October 14, 2009, Enzo Biochem, Inc., a New York corporation, (the "Company") issued a press release announcing its operating results for its fourth fiscal quarter ended July 31, 2009 and its fiscal year ended July 31, 2009 and that it will conduct a conference call to discuss the results on Thursday, October 15, 2009 at 8:30 a.m., Eastern time. The details of how to participate in the call are set forth in the press release.

A copy of the press release is furnished as Exhibit 99.1 attached hereto and is incorporated by reference in its entirety into this item 2.02 of this Current Report on Form 8-K.

In accordance with General Instruction B.2. of Form 8-K, the information contained in this Current Report on Form 8-K, including Exhibit 99.1, is being furnished and shall not be deemed to be "filed" for purposes of Section 18 of the Exchange Act or otherwise subject to the liability of that section. Such information shall not be incorporated by reference in any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing, except as otherwise expressly set forth by specific reference in such a filing.

Item 7.01. Regulation FD Disclosure.

The information provided in Item 2.02 of this Current Report on Form 8-K is incorporated herein by reference in its entirety.

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, 2009, discussing financial results for the fourth fiscal quarter ended July 31, 2009 and the fiscal year ended July 31, 2009.

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, 2009

By: /s/ Barry Weiner
Barry Weiner
President, Chief Financial Officer,
Principal Accounting Officer and Director

EXHIBIT INDEX

Exhibit No.

Description

99.1 Press Release of Enzo Biochem, Inc., dated October 14, 2009, discussing financial results for the fourth fiscal quarter ended July 31, 2009 and the fiscal year ended July 31, 2009.



*news
release*

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

FOR IMMEDIATE RELEASE

**ENZO BIOCHEM REPORTS RECORD
FISCAL 2009 AND FOURTH QUARTER REVENUES**

Q4 Revenues Increase 16% as Revenue Increases at Enzo Clinical Labs and Enzo Life

Sciences; Gross Profit Rises 19%

NEW YORK, NY, October 14, 2009-- Enzo Biochem, Inc. (NYSE:ENZ) today reported a 16% increase in total operating revenue, to \$24.5 million, and a 19% increase in gross profit, to \$10.6 million, for the fourth fiscal quarter ended July 31, over the comparable quarter last year. The gains reflected double-digit revenue increases at both its Life Sciences and Clinical Labs divisions. Enzo Biochem is a vertically integrated biotechnology company engaged in the research, development, manufacture, licensing and marketing of innovative health care products, platforms and services based on molecular and cellular technologies.

Fourth quarter revenues rose 16% at Enzo Life Sciences due to greater product sales, as well as acquisitions, and 15% at Enzo Clinical Labs, which benefited from higher testing throughput. Royalty and license fee revenues were up 19%, a new record. The net loss was \$5.3 million or (\$0.14) per share, compared to a year ago net loss of \$3.3 million, or (\$0.09) per share. The quarter's results were impacted by higher selling, general and administrative expenses amounting to 48% of net operating revenues, compared to 42% a year ago. Increases were noted in selling, general and administrative, including expenses from Assay Designs acquired in March 2009, higher level of sales, non-recurring accounting expenses associated with a review of historical financial information in the quarter, the provision for uncollectible accounts

receivable of \$0.6 million, as well as reduced interest income of \$0.4 million. Other non-cash (pre-tax) expenses related to purchase accounting adjustments for inventory amounted to \$0.4 million and depreciation and amortization amounted to \$1.1 million.

The Company's finances remain strong. As of July 31, 2009 working capital was \$60.5 million and cash and short term investments totaled \$50.2 million. There is no debt.

"Fiscal 2009 was a transformational year for Enzo," said Barry Weiner, Enzo's President. This process is continuing, as we move aggressively to benefit from an expanded life sciences platform and broaden our clinical lab activities both from deeper market penetration and new molecular and other higher margin diagnostic capabilities. Integration of recent acquisitions in Life Sciences and the incorporation of new products into our highly effective electronic marketing and distribution platform will result in greater efficiency and higher margins. At Enzo Clinical Labs, a new experienced senior management team, along with upgrades to the main laboratory facility, is allowing us to expand our test menu into new areas, including molecular genetics, specialized endocrine testing and oncology. The result is that we have a highly motivated marketing team that is helping to attract new physician clients in a broader geographic area surrounding metropolitan New York, factors reflected in the increased testing volume experienced in the fourth quarter.

"Enzo Therapeutics' recent cooperative research and development agreement with the National Institutes of Health to conduct a human clinical trial of Optique!™, Enzo's oral, proprietary therapeutic for chronic autoimmune uveitis, is likewise reflective of our strategic direction. We are committed to minimizing internal funding of our various clinical projects and wherever possible venture or partner with others to effectively achieve their realizations. This is an exciting time for Enzo, and we look forward to the new year with great anticipation as we continue to grow our Company."

Segment Analysis

Fourth quarter revenues at Enzo Life Sciences increased 16% to \$13.2 million compared to \$11.4 million in the year-earlier period. Product revenues rose 16% to \$10.6 million, including results of the March 2009 acquisition of Assay Designs, as well as organic growth. Royalty and licensing income totaled \$2.6 million, a 19% increase year over year compared to the preceding fourth fiscal 2008 quarter. Gross profit for the fourth fiscal quarter at Life Sciences

was \$6.7 million, a 26% increase compared to \$5.3 million a year ago with the gross profit margin increasing to 50%, from 47% a year ago. Research and development costs doubled in the current quarter, reflecting the increased activity in building the product pipeline at Enzo Life Sciences and the inclusion of Assay Designs. Operating income was affected by non-cash charges of \$1.2 million related to purchase accounting inventory adjustments of \$0.4 million and depreciation and amortization of \$0.8 million. More effective utilization of the Life Science marketing and distribution platform continues to benefit results in terms of both market activity and margins. Furthermore, Life Sciences is widening new product introductions as the synergistic benefits of acquisitions, and selective cooperative activities with other companies having complementary products, pay off. The operating income was \$0.2 million, compared to \$1.1 million a year-ago.

Enzo Clinical Labs revenues for the fourth fiscal quarter increased to \$11.3 million, from \$9.8 million a year ago, reflecting greater service volume. Gross profit advanced 9%, to \$4.1 million for the current quarter compared to \$3.8 million in the year-earlier period. Results were favorably impacted by an increased number of tests, partially offset by an increased cost of services. A new management team is effecting operating and marketing changes to gain greater efficiency, while also pursuing new diagnostic opportunities that could enhance margins. The provision for uncollectible accounts as well as selling, general and administrative expenses increased in the fourth quarter, but as a percentage of revenues, selling, general and administrative was down slightly. A shift in the payer mix was responsible for the increase in the provision for uncollectible accounts receivable. The operating loss was \$1.2 million, compared to an operating loss of \$0.4 million a year-ago.

Full Year Results

For the fiscal year ended July 31, 2009, revenues increased 15%, to \$89.6 million, compared to \$77.8 million in fiscal 2008. Gross profit of \$36.5 million was essentially flat with the year ago. Including a sharp decline in interest income of \$3.1 million, the fiscal 2009 net loss totaled \$23.6 million, or (\$0.63) per share, compared to a net loss of \$10.7 million, or (\$0.29) per share in fiscal 2008.

Conference Call

The Company will conduct a conference call on October 15, 2009 at 8:30 AM EDT. The call can be accessed by dialing 1-888-459-5609. International callers can dial 1-973-321-1024. Please reference PIN number 33365308. Interested parties may also listen over the Internet at <http://www.wsw.com/webcast/cc/enz3>. 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, 2009. The replay of the conference call can be accessed by dialing 1-800-642-1687, and when prompted, use PIN number 33365308. 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 40,000 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 immune regulation medicines for uveitis and Crohn's disease 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 the Company's 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.

Contact:

For: Enzo Biochem, Inc.
Steven Anreder, 212-532-3232 Or Michael Wachs, CEOcast, Inc., 212-732-4300

ENZO BIOCHEM, INC
(in thousands, except per share data)

Selected operations data:

	Three months ended			Fiscal Year End		
	July 31, 2009			July 31, 2009		
	2009	Notes	2008	2009	Notes	2008
Product revenues	\$ 10,639		\$ 9,201	\$ 40,592		\$ 28,087
Royalty and license fee income	2,593		2,171	9,376		7,630
Clinical laboratory services	11,298		9,804	39,604		42,078
Total revenues	\$ 24,530	A	\$ 21,176	\$ 89,572	D	\$ 77,795
Gross profit	10,630	B	8,918	36,511	E	36,427
Loss before income tax provision	(5,451)		(3,592)	(23,477)		(10,892)
(Provision) benefit for income taxes	174	C	333	(87)	C	239
Net loss	(\$5,277)		(\$3,259)	(\$23,564)		(\$10,653)
Basic and diluted loss per share	(\$0.14)		(\$0.09)	(\$0.63)		(\$0.29)
Weighted average shares - basic and diluted	37,776		37,219	37,511		36,883

A- 2009 includes \$2.6 million in products revenues from acquisition on March 12, 2009.

B- 2009 and 2008 include \$0.4 million and \$0.7 million, respectively for inventory fair value adjustments relating to acquisitions.

C- All periods reflect effective tax rates below the statutory rate due to limitation on recording future tax benefits.

D- 2009 includes \$12.8 million in products revenues from acquisition on March 12, 2009 and the effect from Fiscal 2008 acquisitions.

E- 2009 and 2008 include \$2.2 million and \$2.0 million, respectively for inventory fair value adjustments relating to acquisitions.

Selected balance sheet data:

	July 31, 2009	July 31, 2008
Cash and cash equivalents and short term investments	\$ 50,235	\$ 78,322
Working capital	\$ 60,518	\$ 92,392
Stockholders' equity	\$ 116,781	\$ 138,289
Total assets	\$ 133,128	\$ 154,522