

December 10, 2009



Enzo Biochem Reports Sharply Improved First Quarter Results

Company Reports Record Revenues and Gross Profit

NEW YORK--(BUSINESS WIRE)-- Enzo Biochem, Inc. (NYSE:ENZ), 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, today reported for the fiscal first quarter ended October 31, 2009, record operating revenues and sharply improved operating results.

- Total operating revenues increased 19% year-over-year, to a record \$25.2 million.
- Gross profit advanced 63%, to a record \$13.3 million.
- Royalty and licensing fee income increased 14% over the year ago quarter.
- Organic Core Product Sales Growth at Enzo Life Sciences topped 26%.
- Enzo Clinical Labs posted a 36% gain in revenues, and improved gross profit margins
- Net loss was reduced by more than 70%.
- Enzo Life Sciences formed a strategic collaboration with a key equipment manufacturer to provide innovative systems for the study of live cells
- Agreements have been signed at Enzo Clinical Labs for new molecular diagnostic tests, including a proprietary blood test for colorectal cancer and cervical cancer.

"Fiscal 2010 is off to a good start, as a result of the significant changes that have taken place and implemented across our business units, said Barry Weiner, Enzo President. "Expanded management, enhancements to infrastructure, focused performance driven goals and objectives, and adoption of strategies that are aligned with the company's core competencies and assets, have resulted in sharply improved operating results. They also are contributing to a new promising chapter for the Company based on our long established gene-related activities and intellectual properties. Integration of recent acquisitions at Enzo Life Sciences is progressing well resulting in a shift to higher margin products which have benefited results. Additionally, at Enzo Clinical Labs we have seen increases in our test volume resulting from the expansion of our marketing efforts, our updated billing capabilities and from adding new esoteric testing. At Enzo Therapeutics, plans for the clinical trial of Optiquel(TM) in conjunction with the National Eye Institute are moving forward, as is our program to develop partnerships and joint ventures related to several other proprietary modalities that we believe have advanced medical and commercial applications. We are very encouraged regarding the Company's outlook."

Operating Results

The gain in revenues was across-the-board, with double-digit growth being recorded by Clinical Labs and royalty and license fee income at Life Sciences. A solid 8% product revenue increase at Life Sciences reflected a favorable shift in product revenues from lower margin to higher margin core products. Total revenues for the quarter were \$25.2 million. Gross profit was up 63%, to \$13.3 million, from \$8.2 million a year ago, and gross profit margins advanced to 53%, from 39%. The net loss for the quarter was \$1.8 million, or (\$0.05) per share, basic and diluted. The net loss for the quarter was 72% below the year ago's net loss of \$6.4 million, or (\$0.17) per share, basic and diluted. EBITDA (earnings before interest, taxes, depreciation and amortization), a non-GAAP measure, for the quarter was a loss of \$960,000, an improvement of nearly \$5 million compared to an EBITDA loss of \$5.9 million in the 2009 first fiscal quarter. On a sequential basis, EBITDA improved by \$3.4 million from the fiscal 2009 fourth quarter.

On October 31, 2009, working capital amounted to \$59.2 million, and cash and cash equivalents and short-term investments approximated \$46.4 million. Cash and cash equivalents decline was just (\$0.9) million for the 2010 period. Stockholders' equity totaled \$131.7 million. There was no debt.

Segment Analysis

At Enzo Life Sciences, product revenues for the segment increased overall by 8% or \$0.8 million in 2009 as compared to the 2008 period. Core product revenues demonstrated strong organic growth of 26% or \$1.0 million and revenues from the May 2009 acquisition of Assay Designs, Inc. contributed \$2.7 million. This overall growth was partially offset by declines in lower margin third-party distribution business of \$2.9 million. The shift to higher margin products was reflected in a 26% reduction in cost of products, to \$5.1 million, from last year's \$6.8 million. Gross profit, including both product and royalty income, amounted to \$9.0 million, a 48% gain. Gross margin was 64%, up from 47% a year ago. Segment operating income advanced 77%, to \$2.0 million.

At Enzo Clinical Labs, service revenues totaled \$11.1 million, up 36%, reflecting both the increased service volume and the fact that year-ago revenues reflected downward contractual adjustments of \$2.2 million. However, reflecting greater billing efficiency, the provision for uncollectible accounts receivable declined to \$0.9 million, from \$1.9 million a year ago and \$1.2 million in the preceding fourth quarter of fiscal 2009. Gross profit increased to \$4.3 million with an improved gross profit margin of 39% on a sequential basis, 300 basis points higher than in the preceding fourth quarter of fiscal 2009. As a result, the operating loss declined sharply, to \$0.8 million, from \$3.4 million in the year ago first quarter and from \$1.2 million in the preceding fourth quarter of fiscal 2009.

Other Events

In line with the Company's accelerating program to make available to physician clients in its marketing territories more molecular diagnostic and other esoteric testing, Enzo Life Sciences recently announced an agreement with publicly-owned GeneNews Limited, of Toronto, Canada, for exclusive rights to market its ColonSentry(TM), a proprietary blood test for colorectal cancer. The test offers a novel, non-invasive option for determining an individual's current risk for colorectal cancer and is designed to facilitate a decision to undergo colonoscopy as well as help prioritize patients at greater risk for the disease. Enzo will undertake to validate and seek approval of the ColonSentry test pursuant to New York,

New Jersey and CLIA requirements, in addition to marketing, and securing third party reimbursement for the test. Subject to regulatory and reimbursement approval, among others, its plans are to make the test available in the second half of calendar 2010.

In addition, the division this week announced an initial exclusive marketing partnership with privately-owned Ikonisys, Inc., of New Haven, CT, relating to Ikonisys' proprietary oncoFish(R) cervical test, a molecular diagnostic tool for cancer detection. Enzo Clinical Labs will make the test available to medical practitioners requesting advanced analysis of specimens from routine tests that are not definitive as to the existence of cervical cancer, with Ikonisys conducting the definitive evaluation of the specimen. The novel test is a cost-effective supplement for those pap smears in which the results are not entirely certain, and importantly do not involve patients having to provide additional specimens.

Conference Call

The Company will conduct a conference call on December 11, 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 45170643. Interested parties may also listen over the Internet at <http://www.wsw.com/webcast/cc/enz4>. 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 December 25, 2009. The replay of the conference call can be accessed by dialing 1-800-642-1687, and when prompted, use PIN number 45170643. International callers can dial 1-706-645-9291, using the same PIN number.

NON-GAAP Financial Measures

To comply with Regulation G promulgated pursuant to the Sarbanes-Oxley Act, Enzo Biochem attached to this news release and will post to the Company's investor relations web site (www.enzo.com) any reconciliation of differences between non-GAAP financial information that may be required in connection with issuing the Company's quarterly financial results.

The Company, as is common in its industry, uses EBITDA as a measure of performance to demonstrate earnings exclusive of interest, taxes, depreciation and amortization. The Company manages its business based on its cash flows. The Company, in its daily management of its business affairs and analysis of its monthly, quarterly and annual performance, makes its decisions based on cash flows, not on the amortization of assets obtained through historical activities. The Company, in managing its current and future affairs, cannot affect the amortization of the intangible assets to any material degree, and therefore uses EBITDA as its primary management guide. Since an outside investor may base its evaluation of the Company's performance based on the Company's net loss not its cash flows, there is a limitation to the EBITDA measurement. EBITDA is not, and should not be considered, an alternative to net loss, loss from operations, or any other measure for determining operating performance or liquidity, as determined under accounting principles generally accepted in the United States (GAAP). The most directly comparable GAAP reference in the Company's case is the removal of interest, taxes, depreciation and amortization.

About Enzo Biochem

Enzo Biochem, Inc., is a growth-oriented integrated life sciences and biotechnology company focused on harnessing biological process to develop research tools, diagnostics and therapeutics, and serves as a provider of test services, including exotic tests, to the medical community. Since our founding in 1976, our strategic focus has been on the development of enabling technologies in the life sciences field. Enzo Life Sciences 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 serve the molecular biology, drug discovery and pathology research markets worldwide. Enzo Clinical Labs division provides laboratory services for a growing roster of physicians in the New York Metropolitan area, as well as parts of New Jersey and Pennsylvania. Its tests include, in addition to routine tests, capabilities for detecting molecular infection disease, molecular oncology, autoimmune disorders and genetics. Enzo Clinical Labs also provides clinical diagnostic services that allow Enzo to capitalize on its extensive advanced molecular and cytogenetic capabilities and the broader trends in predictive and personalized diagnostics. Enzo Therapeutics is a biopharmaceutical venture that has developed multiple novel approaches in the areas of gastrointestinal, infectious, ophthalmic and metabolic diseases. It has focused its efforts on developing treatment regimens for diseases and conditions for which current treatment options are ineffective, costly, and/or cause unwanted side effects. In the course of the company's research and development activities, Enzo has developed a substantial portfolio of intellectual property assets, with 249 issued patents worldwide and over 200 pending patent applications.

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.

ENZO BIOCHEM, INC.

(in thousands, except per share data)

Selected operations data:

Three months ended

October 31

(unaudited)

	2009	Notes	2008
Product revenues	\$10,744	A	\$9,976
Royalty and license fee income	3,311		2,916

Clinical laboratory services	11,110		8,172
Total revenues	\$25,165		\$21,064
Gross profit	\$13,329	B	\$8,168
Loss before income tax benefit (provision)	(\$1,893)		(\$6,232)
Benefit (provision) for income taxes	79	C	(138)
Net loss	(\$1,814)		(\$6,370)
Basic and diluted loss per share	(\$0.05)		(\$0.17)
Weighted average shares - basic and diluted	37,855		37,337
Reconciliation of GAAP Net Loss to Non-GAAP measure EBITDA:			
Net loss	(\$1,814)		(\$6,370)
Depreciation and amortization	943		754
Interest income	(9)		(410)
Benefit (provision) for income taxes	(79)		138
EBITDA	(\$959)	D	(\$5,888)
Basic and diluted loss per share - EBITDA	(\$0.03)		(\$0.16)
Weighted average shares - basic and diluted	37,855		37,337

A- 2009 includes among other items; \$1.0 million in organic growth from core products, \$2.7 million in products revenues from an acquisition on March 12, 2009, partially offset by a reduction in low margin distribution product revenue of \$2.9 million.

B- 2009 and 2008 include \$0.1 million and \$0.5 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- EBITDA is a non-GAAP measure, see press release comments.

Selected balance sheet data:

October 31, 2009 July 31, 2009

	(unaudited)	(audited)
Cash and cash equivalents and short term investments	\$46,382	\$50,235
Working capital	\$59,176	\$60,518
Stockholders' equity	\$116,180	\$116,781
Total assets	\$131,760	\$133,128

Source: Enzo Biochem, Inc.