UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

# FORM 10-Q

Mark one

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended October 31, 2013

or

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 001-09974

# ENZO BIOCHEM, INC.

(Exact name of registrant as specified in its charter)

| New York | 13-2866202 |
|---|---|
| (State or Other Jurisdiction of Incorporation or Organization) | (IRS. Employer Identification No.) |
| 527 Madison Ave, New York, New York | 10022 |
| (Address of Principal Executive office) | (Zip Code) |

212-583-0100
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant has required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 45 of Regulation S-T (§232.405 of that chapter) during the preceding 12 months (or such shorter period that the registrant was required to submit and post such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Large accelerated filer ☐ Accelerated filer ☒ Non-accelerated filer ☐ Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act.)

Yes ☐ No ☒

As of December 2, 2013, the Registrant had approximately 41,348,000 shares of common stock outstanding.

ENZO BIOCHEM, INC.
FORM 10-Q
October 31, 2013

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**ENZO BIOCHEM, INC.**
**CONSOLIDATED BALANCE SHEETS**
**(in thousands, except share data)**

| | October 31, 2013 (unaudited) | July 31, 2013 (audited) |
|---|---|---|
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | $ 7,426 | $ 9,007 |
| Accounts receivable, net of allowances | 13,717 | 12,288 |
| Inventories | 9,107 | 8,805 |
| Prepaid expenses and other | 2,140 | 2,456 |
| Total current assets | 32,390 | 32,556 |
| Property, plant and equipment, net | 8,510 | 8,617 |
| Goodwill | 7,452 | 7,452 |
| Intangible assets, net | 9,564 | 9,943 |
| Other | 370 | 390 |
| Total assets | $ 58,286 | $ 58,958 |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Loan payable | $ 3,645 | $ 3,264 |
| Accounts payable – trade | 8,721 | 8,481 |
| Accrued liabilities | 11,526 | 11,776 |
| Other current liabilities | 349 | 331 |
| Total current liabilities | 24,241 | 23,852 |
| Deferred taxes | 176 | 200 |
| Other liabilities | 775 | 774 |
| Total liabilities | $ 25,192 | $ 24,826 |
| Commitments and contingencies | | |
| Stockholders' equity: | | |
| Preferred Stock, $.01 par value; authorized 25,000,000 shares; no shares issued or outstanding | — | — |
| Common Stock, $.01 par value; authorized 75,000,000 shares; shares issued: 41,280,340 at October 31, 2013 and 40,569,393 at July 31, 2013 | 413 | 406 |
| Additional paid-in capital | 306,074 | 304,288 |
| Accumulated deficit | (275,207) | (272,420) |
| Accumulated other comprehensive income | 1,814 | 1,858 |
| Total stockholders' equity | 33,094 | 34,132 |
| Total liabilities and stockholders' equity | $ 58,286 | $ 58,958 |

The accompanying notes are an integral part of these consolidated financial statements.

**ENZO BIOCHEM, INC.**
**CONSOLIDATED STATEMENTS OF OPERATIONS**
**(UNAUDITED)**
**(in thousands, except per share data)**

| | Three Months Ended October 31, | |
|---|---|---|
| | **2013** | **2012** |
| Revenues: | | |
| Clinical laboratory services | $ 14,860 | $ 15,177 |
| Product revenues | 7,663 | 8,434 |
| Royalty and license fee income | 1,611 | 2,019 |
| Total revenues | 24,134 | 25,630 |
| Operating expenses: | | |
| Cost of clinical laboratory services | 9,709 | 9,710 |
| Cost of product revenues | 3,846 | 4,184 |
| Research and development | 817 | 1,011 |
| Selling, general, and administrative | 10,529 | 11,415 |
| Provision for uncollectible accounts receivable | 872 | 1,594 |
| Legal | 1,381 | 1,700 |
| Total operating expenses | 27,154 | 29,614 |
| Operating loss | (3,020) | (3,984) |
| Other income (expense): | | |
| Interest | (62) | (9) |
| Other | 61 | 9 |
| Foreign currency gain | 297 | 229 |
| Loss before income taxes | (2,724) | (3,755) |
| (Provision) benefit for income taxes | (63) | 64 |
| Net loss | $ (2,787) | $ (3,691) |
| Net loss per common share: | | |
| Basic and diluted | $ (0.07) | $ (0.09) |
| Weighted average common shares outstanding: | | |
| Basic and diluted | 41,057 | 39,279 |

The accompanying notes are an integral part of these consolidated financial statements.

**ENZO BIOCHEM, INC.**
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)**
**(UNAUDITED)**
**(in thousands)**

| | Three Months Ended October 31, | |
|---|---|---|
| | **2013** | **2012** |
| Net loss | $ (2,787) | $ (3,691) |
| Other comprehensive (loss) income: | | |
| Foreign currency translation adjustments | (44) | 160 |
| Comprehensive loss | $ (2,831) | $ (3,531) |

The accompanying notes are an integral part of these consolidated financial statements.

**ENZO BIOCHEM, INC.**
**CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY**
**Three months ended October 31, 2013**
**(UNAUDITED)**
**(in thousands, except share data)**

| | *Common Stock Shares* | Common Stock Amount | Additional Paid-in Capital | Accumulated Deficit | Accumulated Other Comprehensive Income | Total Stockholders' Equity |
|---|---|---|---|---|---|---|
| Balance at July 31, 2013 | *40,569,393* | $ 406 | $ 304,288 | $ (272,420) | $ 1,858 | $ 34,132 |
| Net (loss) for the period ended October 31, 2013 | — | — | — | (2,787) | — | (2,787) |
| Share based compensation charges | — | — | 103 | — | — | 103 |
| Vesting of restricted stock | *9,492* | — | — | — | — | — |
| Net proceeds from issuance of common stock | *701,455* | 7 | 1,683 | — | — | 1,690 |
| Foreign currency translation adjustments | — | — | — | — | (44) | (44) |
| Balance at October 31, 2013 | 41,280,340 | $ 413 | $ 306,074 | $ (275,207) | $ 1,814 | $ 33,094 |

The accompanying notes are an integral part of these consolidated financial statements.

**ENZO BIOCHEM, INC.**
**CONSOLIDATED STATEMENTS OF CASH FLOWS**
**(UNAUDITED)**
**(in thousands)**

| | Three Months Ended October 31, | |
|---|---|---|
| | **2013** | **2012** |
| Cash flows from operating activities: | | |
| Net loss | $ (2,787) | $ (3,691) |
| Adjustments to reconcile net loss to net cash used in operating activities: | | |
| Depreciation and amortization of property, plant and equipment | 557 | 652 |
| Amortization of intangible assets | 468 | 497 |
| Provision for uncollectible accounts receivable | 872 | 1,594 |
| Income tax benefit | (32) | (197) |
| Share-based compensation charges | 103 | 142 |
| Share-based 401(k) employer match expense | 160 | 147 |
| Foreign currency transaction (gain) | (302) | (282) |
| | | |
| Changes in operating assets and liabilities: | | |
| Accounts receivable | (2,277) | (1,410) |
| Inventories | (252) | 190 |
| Prepaid expenses and other | 323 | 259 |
| Accounts payable – trade | 253 | (1,125) |
| Accrued liabilities, other current liabilities and other liabilities | (394) | 1,747 |
| Total adjustments | (521) | 2,214 |
| | | |
| Net cash used in operating activities | (3,308) | (1,477) |
| | | |
| Cash flows from investing activities: | | |
| Capital expenditures | (334) | (291) |
| Security deposits and other | 20 | (44) |
| Net cash used in investing activities | (314) | (335) |
| | | |
| Cash flows from financing activities: | | |
| Net proceeds from issuance of common stock | 1,684 | — |
| Proceeds from borrowings under Credit Agreement | 15,176 | — |
| Repayments under Credit Agreement | (14,795) | — |
| Installment loan and capital lease obligation payments | (96) | (28) |
| Net cash provided by (used in) financing activities | 1,969 | (28) |
| | | |
| Effect of exchange rate changes on cash and cash equivalents | 72 | 165 |
| | | |
| Decrease in cash and cash equivalents | (1,581) | (1,675) |
| Cash and cash equivalents - beginning of period | 9,007 | 15,076 |
| Cash and cash equivalents - end of period | $ 7,426 | $ 13,401 |

The accompanying notes are an integral part of these consolidated financial statements.

Note 1 – Basis of Presentation

The accompanying consolidated financial statements include the accounts of Enzo Biochem, Inc. and its wholly-owned subsidiaries, Enzo Clinical Labs, Enzo Life Sciences, Enzo Therapeutics and Enzo Realty LLC, collectively referred to as the "Company" or "Companies". The consolidated balance sheet as of October 31, 2013, the consolidated statements of operations, comprehensive income (loss), and cash flows for the three months ended October 31, 2013 and 2012, and the consolidated statement of stockholders' equity for the three months ended October 31, 2013 are unaudited. In the opinion of management, all adjustments (which include normal recurring adjustments) necessary to present fairly the financial position and operating results for the interim periods have been made. Certain information and footnote disclosure, normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States, have been condensed or omitted. The consolidated financial statements should be read in conjunction with the consolidated financial statements for the year ended July 31, 2013 and notes thereto contained in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission. The consolidated balance sheet at July 31, 2013 has been derived from the audited financial statements at that date. The results of operations for the three months ended October 31, 2013 are not necessarily indicative of the results that may be expected for the fiscal year ending July 31, 2014.

Note 2 – Net loss per share

Basic net income (loss) per share represents net income (loss) divided by the weighted average number of common shares outstanding during the period. The dilutive effect of potential common shares, consisting of outstanding stock options and unvested restricted stock, is determined using the treasury stock method. Diluted weighted average shares outstanding for the three months ended October 31, 2013 and 2012 do not include the potential common shares from stock options and unvested restricted stock because to do so would have been antidilutive, and as such is the same as basic weighted average shares outstanding.

During the three months ended October 31, 2013 and 2012, potential shares from unvested restricted stock excluded from the computation of diluted net loss per share were approximately 51,000 and 0 shares, respectively.

For the three months ended October 31, 2013 and 2012 the effect of approximately 723,000 and 686,000 shares respectively, of outstanding "out of the money" options to purchase common shares were excluded from the calculation of diluted net loss per share because their effect would be anti-dilutive.

Note 3 - Supplemental disclosure for statement of cash flows

For the three months ended October 31, 2013 and 2012, income taxes paid by the Company approximated $5 and $21, respectively .

For the three months ended October 31, 2013 and 2012, interest paid by the Company approximated $65 and $9, respectively.

For the three months ended October 31, 2013 and 2012, the Company financed $115 and $0, respectively, in machinery and transportation equipment under installment loans.

For the three months ended October 31, 2013 and 2012, the Company entered into a capital lease for machinery and equipment with a cost basis of $0 and $768 respectively.

Note 4 - Inventories

Inventories consist of the following:

| | October 31, 2013 | July 31, 2013 |
|---|---|---|
| Raw materials | $ 1,092 | $ 922 |
| Work in process | 2,675 | 2,628 |
| Finished products | 5,340 | 5,255 |
| | $ 9,107 | $ 8,805 |

Note 5 – Goodwill and intangible assets

*Goodwill*

At October 31, 2013 and July 31, 2013, the Company's carrying amount of goodwill, related to the Clinical Labs segment, is $7,452

*Intangible assets*

The Company's change in the net carrying amount of intangible assets, all in the Life Sciences segment is as follows:

| | Gross | Accumulated Amortization | Net |
|---|---|---|---|
| July 31, 2013 | $ 28,214 | $ (18,271) | $ 9,943 |
| Amortization expense | — | (468) | (468) |
| Foreign currency translation | 240 | (151) | 89 |
| October 31, 2013 | $ 28,454 | $ (18,890) | $ 9,564 |

Intangible assets consist of the following:

| | October 31, 2013 | | | July 31, 2013 | | |
|---|---|---|---|---|---|---|
| | Gross | Accumulated Amortization | Net | Gross | Accumulated Amortization | Net |
| Patents | $ 11,027 | $ (10,610) | $ 417 | $ 11,027 | $ (10,587) | $ 440 |
| Customer relationships | 12,582 | (5,770) | 6,812 | 12,446 | (5,448) | 6,998 |
| Website and acquired content | 1,035 | (1,005) | 30 | 1,026 | (980) | 46 |
| Licensed technology and other | 524 | (406) | 118 | 513 | (382) | 131 |
| Trademarks | 3,286 | (1,099) | 2,187 | 3,202 | (874) | 2,328 |
| Total | $ 28,454 | $ (18,890) | $ 9,564 | $ 28,214 | $ (18,271) | $ 9,943 |

At October 31, 2013, information with respect to the intangibles acquired is as follows:

| | Useful life assigned | Weighted average remaining useful life |
|---|---|---|
| Customer relationships | 8-15 years | 7 years |
| Trademarks | 5 years | 4 years |
| Other intangibles | 4-5 years | 2 years |

At October 31, 2013, the weighted average useful lives of amortizable intangible assets were approximately six years.

Note 6 - Loan Payable

On June 7, 2013, the Company entered into a secured Revolving Loan and Security Agreement (the "Credit Agreement") among the Company and certain of its subsidiaries, with Enzo Therapeutics as a guarantor, and Healthcare Finance Group, LLC (the "Lender). The Credit Agreement, which expires in December 2016, provides for borrowings against eligible US receivables, as defined, of the Clinical Lab and Life Science segments up to $8.0 million at defined eligibility percentages and provides for additional borrowings of $4.0 million for increased eligible assets. Debt issuance costs of $281 are being amortized over the life of the Credit Agreement. If the amount of borrowings outstanding under the revolving credit facility exceeds the borrowing base then in effect, or the Lender requires a reserve, the Company will be required to repay such borrowings in an amount sufficient to eliminate such excess. Interest on advances, payable monthly, is based on the three month LIBOR rate, with a floor of 1.25% plus an applicable margin of 4.0%, In the event of any default, the interest rate may be increased 3.0% over the current rate. The facility also carries a non-utilization fee of 0.50% per annum, payable monthly, on the unused portion of the Credit Agreement. The Credit Agreement requires a minimum borrowing of $2.0 million. During the 2014 quarter the Company notified the Lender to allow for borrowings against the eligible Life Science receivables. At October 31, 2013, the borrowings under the Credit Agreement related to the Clinical Lab and Life Science receivables aggregated $3.6 million with no additional availability based on current eligible receivables and permitted borrowing levels.

The Company's obligations under the Credit Agreement are secured by primarily all the unencumbered U.S. assets of the Company, excluding buildings and intellectual property which the Lender has a negative pledge, and the capital stock of subsidiaries. The Credit Agreement includes customary affirmative and negative covenants and events of default and requires maximum levels of cash usage and minimum levels of liquidity, as defined, and provides for increased liquidity levels if operating results are not achieved. Negative covenants include among others, limitations on additional debt, liens, loans or investments, distributions, asset sales and affiliate transactions. Events of default include, non-payment of principal and interest on debt outstanding, non-performance of covenants, material change in business, breach of representations, bankruptcy and insolvency, material judgments and changes in control. As of October 31, 2013, the Company is in compliance with the covenants.

Note 7 – Accrued Liabilities and Other Current Liabilities

Accrued liabilities consist of the following as of:

| | October 31, 2013 | July 31, 2013 |
|---|---|---|
| Legal | $ 2,975 | $ 3,104 |
| Payroll, benefits, and commissions | 4,697 | 4,794 |
| Professional fees | 957 | 721 |
| Research and development | 734 | 863 |
| Other | 2,163 | 2,294 |
| | $ 11,526 | $ 11,776 |

Other current liabilities consist of the following as of:

| | October 31, 2013 | July 31, 2013 |
|---|---|---|
| Capital lease obligations | $ 149 | $ 149 |
| Installment loans | 200 | 182 |
| | $ 349 | $ 331 |

Note 8 – Other Liabilities

Other liabilities consist of the following as of:

| | October 31, 2013 | July 31, 2013 |
|---|---|---|
| Capital lease obligation, net of short term | $ 470 | $ 505 |
| Installment loans, net of short term | 305 | 269 |
| | $ 775 | $ 774 |

During the three months ended October 31, 2013, the Company entered into various installment loans for lab and transportation equipment aggregating $115 for the Clinical Labs segment. As of October 31, 2013, future minimum payments under the capital lease, net of interest of $70 aggregates $619, including a short term debt portion of $149 included in other current liabilities. Future minimum payments under the installment loans aggregate $505, including a short term portion of $200 included in other current liabilities.

Note 9 – Stockholders' Equity

***Controlled Equity Offering***

On March 28, 2013, the Company entered into a Controlled Equity Offering [SM] Sales Agreement (the "Sales Agreement") with Cantor Fitzgerald & Co., as sales agent ("Cantor"). Under the Sales Agreement, the Company may offer and sell, from time to time, through Cantor, shares of the Company's common stock, par value $0.01 per share (the "Common Stock"), having an aggregate offering price of up to $20.0 million (the "Shares"). The Company will pay Cantor a commission of 3.0% of the aggregate gross proceeds received under the Sales Agreement. The Company is not obligated to make any sales of the Shares under the Sales Agreement. The offering of Shares pursuant to the Sales Agreement will terminate upon the earlier of (a) the sale of all of the Shares subject to the Sales Agreement or (b) the termination of the Sales Agreement by Cantor or the Company, as permitted therein. During the three months ended October 31, 2013, the Company sold an aggregate of 701,455 shares of common stock under the Sales Agreement at an average price of $2.48 per share and received proceeds of approximately $1.7 million, net of expenses.

***Share-based compensation***

The Company has an incentive stock option plan (the "1999 Plan"), an incentive stock option and restricted stock award plan (the "2005 Plan"), and a long term incentive share award plan, (the "2011 Incentive Plan"), which are more fully described in Note 10 to the consolidated financial statements included in the Company's Annual Report on Form 10-K for the fiscal year ended July 31, 2013. The 2011 Plan, which is the only plan from which awards may now be granted, provides for the award to eligible employees, officers, directors, consultants and other persons of stock options, stock appreciation rights (SARs), restricted stock, restricted stock units, performance awards, and other stock-based awards.

The amounts of share-based compensation expense recognized in the periods presented are as follows:

| | Three months ended October 31, | |
|---|---|---|
| | 2013 | 2012 |
| Stock options | $ 47 | — |
| Restricted stock | 56 | $ 142 |
| | $ 103 | $ 142 |

The following table sets forth the amount of expense related to share-based payment arrangements included in specific line items in the accompanying statements of operations:

| | Three months ended October 31, | |
|---|---|---|
| | 2013 | 2012 |
| Cost of clinical laboratory services | $ 2 | $ 2 |
| Research and development | 1 | 1 |
| Selling, general and administrative | 100 | 139 |
| | $ 103 | $ 142 |

No excess tax benefits were recognized during the three month periods ended October 31, 2013 and 2012.

*Stock option plans*

The following table summarizes stock option activity during the three month period ended October 31, 2013:

| | Options | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term | Aggregate Intrinsic Value (000s) |
|---|---|---|---|---|
| Outstanding at July 31, 2013 | 726,645 | $ 10.39 | | |
| Awarded | 10,000 | $ 2.53 | | |
| Exercised | — | $ | | |
| Cancelled or expired | (13,409) | $ 12.39 | | |
| Outstanding at end of period | 723,236 | $ 10.24 | 2.4 years | $ — |
| Exercisable at end of period | 376,419 | $ 17.04 | 0.7 years | $ — |

On October 3, 2013, the Company awarded 10,000 options to an officer with an exercise price of $2.53 and a five year term, which vest over four years. The fair value of the options granted was $1.23 per share. The assumptions used to fair value this option award were as follows: expected life of 4.75 years, expected volatility 57.6%, risk free interest rate of 1.3% and no dividend yield. As of October 31, 2013, none of these options were vested.

As of October 31, 2013, the total future compensation cost related to non-vested options, not yet recognized in the statements of operations, was $0.3 million and the weighted average period over which the remaining expense of these awards is expected to be recognized is 1.4 years.

*Restricted Stock Awards*

A summary of the activity pursuant to the Company's restricted stock awards for the three months ended October 31, 2013 is as follows:

| | Awards | Weighted Average Award Price |
|---|---|---|
| Outstanding at July 31, 2013 | 125,133 | $ 3.45 |
| Awarded | 1,000 | 2.48 |
| Vested | (9,492) | (1.75) |
| Forfeited | — | — |
| Unvested at end of period | 116,641 | $ 3.58 |

The fair value of a restricted stock award is determined based on the closing stock price on the award date. As of October 31, 2013, there was approximately $0.2 million of unrecognized compensation cost related to unvested restricted stock-based compensation to be recognized over a weighted average remaining period of approximately one year.

The total number of shares available for grant as equity awards from the 2011 Incentive Plan is approximately 2,312,000 shares as of October 31, 2013.

Note 10 - Income taxes

At the end of each interim reporting period, the Company estimates its effective income tax rate expected to be applicable for the full year. This estimate is used to determine the income tax provision or benefit on a year-to-date basis and may change in subsequent interim periods.

The Company's effective tax rate (provision) benefit for the three months ended October 31, 2013 was a provision of (2.3%) compared to a benefit of 1.7% during the three months ended October 31, 2012. The tax benefit (provision) for the periods were based on state and local taxes and domestic and foreign tax for intangibles. The Company's effective tax rate for both periods differed from the expected net operating loss carryforward benefit at the U.S. federal statutory rate of 34% primarily due to the inability to recognize such benefit. The carryforward benefit cannot be recognized because of uncertainties relating to future taxable income in terms of both its timing and its sufficiency, which would enable the Company to realize the federal carryforward benefit.

The Company files a consolidated Federal income tax return. The Company files combined returns with California, Michigan and New York State and City for certain subsidiaries. Other subsidiaries file separate state and foreign tax returns. With few exceptions, the periods that remain subject to examination are fiscal years ended July 31, 2010 through July 31, 2012.

Note 11 – Royalty and licensing income

The Company's Life Science segment has a license agreement with QIAGEN Gaithersburg Inc. ("Qiagen") that began in 2005, whereby the Company earns quarterly running royalties on the net sales of Qiagen products subject to the license until the expiration of the patent on April 24, 2018. During the three months ended October 31, 2013 and 2012, the Company recorded royalty income under the Agreement of approximately $1.6 million and $1.9 million, respectively.

Note 12 – Segment reporting

The Company has three reportable segments: Clinical Labs, Life Sciences, and Therapeutics. The Clinical Labs segment provides diagnostic services to the health care community. The Company's Life Sciences segment develops, manufactures, and markets products to research and pharmaceutical customers. The Company's Therapeutic segment conducts research and development activities for therapeutic drug candidates. The Company evaluates segment performance based on segment income (loss) before taxes. Costs excluded from segment income (loss) before taxes and reported as "Other" consist of corporate general and administrative costs which are not allocable to the three reportable segments.

Management of the Company assesses assets on a consolidated basis only and, therefore, assets by reportable segment have not been included in the reportable segments below. The accounting policies of the reportable segments are the same as those described in the summary of significant accounting policies contained in the Company's Annual Report on Form 10-K for the year ended July 31, 2013.

The following financial information represents the operating results of the reportable segments of the Company:

**Three months ended October 31, 2013**

| | Clinical Labs | Life Sciences | Therapeutics | Other | Consolidated |
|---|---|---|---|---|---|
| Revenues: | | | | | |
| Clinical laboratory services | $ 14,860 | — | — | — | $ 14,860 |
| Product revenues | — | $ 7,663 | — | — | 7,663 |
| Royalty and license fee income | — | 1,611 | — | — | 1,611 |
| | 14,860 | 9,274 | — | — | 24,134 |
| Operating expenses: | | | | | |
| Cost of clinical laboratory services | 9,709 | — | — | — | 9,709 |
| Cost of product revenues | — | 3,846 | — | — | 3,846 |
| Research and development | 11 | 526 | $ 280 | — | 817 |
| Selling, general and administrative | 5,050 | 3,495 | — | $ 1,984 | 10,529 |
| Provision for uncollectible accounts receivable | 844 | 28 | — | — | 872 |
| Legal | 148 | 22 | — | 1,211 | 1,381 |
| Total operating expenses | 15,762 | 7,917 | 280 | 3,195 | 27,154 |
| Operating income (loss) | (902) | 1,357 | (280) | (3,195) | (3,020) |
| Other income (expense) | | | | | |
| Interest | (11) | 5 | — | (56) | (62) |
| Other | 18 | 27 | — | 16 | 61 |
| Foreign currency gain | — | 297 | — | — | 297 |
| Income (loss) before income taxes | $ (895) | $ 1,686 | $ (280) | $ (3,235) | $ (2,724) |
| Depreciation and amortization included above | $ 355 | $ 641 | $ 4 | $ 25 | $ 1,025 |
| Share-based compensation included in above: | | | | | |
| Cost of clinical laboratory services | $ 2 | — | — | — | $ 2 |
| Research and development | — | $ 1 | — | — | 1 |
| Selling, general and administrative | 10 | 4 | — | $ 86 | 100 |
| Total | $ 12 | $ 5 | — | $ 86 | $ 103 |
| Capital expenditures | $ 259 | $ 75 | $ — | $ — | $ 334 |

**Three months ended October 31, 2012**

| | Clinical Labs | Life Sciences | Therapeutics | Other | Consolidated |
|---|---|---|---|---|---|
| Revenues: | | | | | |
| Clinical laboratory services | $ 15,177 | — | — | — | $ 15,177 |
| Product revenues | — | $ 8,434 | — | — | 8,434 |
| Royalty and license fee income | — | 2,019 | — | — | 2,019 |
| | 15,177 | 10,453 | — | — | 25,630 |
| Operating expenses: | | | | | |
| Cost of clinical laboratory services | 9,710 | — | — | — | 9,710 |
| Cost of product revenues | — | 4,184 | — | — | 4,184 |
| Research and development | 89 | 606 | $ 316 | — | 1,011 |
| Selling, general and administrative | 4,961 | 4,272 | — | $ 2,182 | 11,415 |
| Provision for uncollectible accounts receivable | 1,556 | 38 | — | — | 1,594 |
| Legal | 107 | 6 | — | 1,587 | 1,700 |
| Total operating expenses | 16,423 | 9,106 | 316 | 3,769 | 29,614 |
| Operating income (loss) | (1,246) | 1,347 | (316) | (3,769) | (3,984) |
| Other income (expense) | | | | | |
| Interest | (9) | (1) | — | 1 | (9) |
| Other | 6 | 1 | — | 2 | 9 |
| Foreign currency gain | — | 229 | — | — | 229 |
| Income (loss) before income taxes | $ (1,249) | $ 1,576 | $ (316) | $ (3,766) | $ (3,755) |
| Depreciation and amortization included above | $ 308 | $ 813 | $ 7 | $ 21 | $ 1,149 |
| Share-based compensation included in above: | | | | | |
| Cost of clinical laboratory services | $ 2 | — | — | — | $ 2 |
| Research and development | — | $ 1 | — | — | 1 |
| Selling, general and administrative | 11 | — | — | $ 128 | 139 |
| Total | $ 13 | $ 1 | — | $ 128 | $ 142 |
| Capital expenditures | $ 205 | $ 86 | $ — | $ — | $ 291 |

Note 13 - Contingencies

The Company, as plaintiff, is currently engaged in litigation in the United States District Court for the Southern District of New York against six parties (and certain of their related companies): Amersham plc, Perkin Elmer, Inc., Molecular Probes, Inc., Orchid Biosciences, Inc., Affymetrix, Inc., and Roche Diagnostic GmbH ("Roche"). These cases were commenced at various times from October 2002 to June 2004. In each of the six cases, the Company asserts similar (with some differences) causes of action against the defendants which can be generally described as contract, tort, fraud, and patent claims, except that no patent claims are asserted against Affymetrix. In the Roche case, Roche seeks a declaratory judgment of non-breach and patent invalidity against the Company. The cases were consolidated for pre-trial purposes in 2004 and there has been extensive discovery among the parties. In 2011, the defendants moved for summary judgment of non-infringement regarding the Company's patent claims. In 2012, those motions were granted in part and denied in part. In December 2012, all six defendants moved for summary judgment on the Company's non-patent claims. Additional discovery was taken and the Company responded to the motions in May 2013. On October 22, 2013, the Court granted Amersham's motion for summary judgment. Thereafter, on November 26, 2013, the parties settled and dismissed the Amersham case. On October 28, 2013, the Court granted in part and denied in part PerkinElmer's motion for summary judgment. A jury trial in that case is scheduled for March 18, 2014. By decisions dated December 6, 2013, the Court granted in part and denied in part the summary judgment by Roche and Affymetrix. Jury trials have been ordered in both cases, Affymetrix on April 14, 2014 and Roche on a date to be determined. On the same date, the Court granted the summary judgment for the remaining two motions by Molecular Probes and Orchid.

On June 7, 2004, the Company and Enzo Life Sciences, Inc., filed suit in the United States District Court for the District of Connecticut against Applera Corporation and its wholly-owned subsidiary Tropix, Inc., now Life Technologies, Inc. (NASDAQ:LIFE). The complaint alleged infringement of six patents relating to DNA sequencing systems, labeled nucleotide products, and other technology. Yale University is the owner of four of the patents and the Company is the exclusive licensee. These four patents are commonly referred to as the "Ward" patents. On November 12, 2012, a jury in New Haven found that one of these patents (United States Patent No. 5,449,667) was infringed and not proven invalid. The jury awarded $48.5 million for this infringement. Prejudgment interest should provide for additional recovery in the tens of millions of dollars. Life Technologies will likely appeal and there can be no assurance that the Company will be successful in this litigation. Even if the Company is not successful, management does not believe that there will be a significant adverse monetary impact on the Company.

In 2012, the Company received a Subpoena Duces Tecum (the "Subpoena") from the federal Department of Health and Human Services, Office of Inspector General ("OIG"). The Subpoena was issued as part of an investigation being conducted by the US Attorney's Office for the Eastern District of New York in conjunction with the OIG. While a number of potential issues were raised initially by the government, the investigation has come to focus primarily on certain practices relating to an alleged failure to collect diagnosis codes from physicians who ordered tests through Enzo Clinical Labs. The time period covered by the investigation is from 2004 through 2011. In response to the Subpoena, the Company is cooperating with the government and has provided documents as requested and no claim has yet been asserted by the OIG. The Company continues to review the methodologies around the matters raised as well as the facts that impact them. Due to the on-going review, various questions of fact and the continuing discussions with the government the Company is unable at this time to predict the outcome or estimate the potential impact that could result from the final resolution of the investigation.

The Company is party to other claims, legal actions, complaints, and contractual disputes that arise in the ordinary course of business. The Company believes that any liability that may ultimately result from the resolution of these matters will not, individually or in the aggregate, have a material adverse effect on its financial position or results of operations.

**Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations**

The following discussion of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes and other information included elsewhere in this Quarterly Report on Form 10-Q.

Forward-Looking Statements

Our disclosure and analysis in this report, including but not limited to the information discussed in this Item 2, contain forward-looking information about our Company's financial results and estimates, business prospects and products in research and development that involve substantial risks and uncertainties. From time to time, we also may provide oral or written forward-looking statements in other materials we release to the public. Forward-looking statements give our current expectations or forecasts of future events. You can identify these statements by the fact that they do not relate strictly to historic or current facts. They use words such as "anticipate", "estimate", "expect", "project", "intend", "plan", "believe", "will", and other words and terms of similar meaning in connection with any discussion of future operations or financial performance. In particular, these include statements relating to future actions, prospective products or product approvals, future performance or results of current and anticipated products, sales efforts, expenses, interest rates, foreign currency rates, intellectual property matters, the outcome of contingencies, such as legal proceedings, and financial results.

We cannot guarantee that any forward-looking statement will be realized, although we believe we have been prudent in our plans and assumptions. Achievement of future results is subject to risks, uncertainties and inaccurate assumptions. Should known or unknown risks or uncertainties materialize, or should underlying assumptions prove inaccurate, actual results could vary materially from past results and those anticipated, estimated or projected. As a result, investors are cautioned not to place undue reliance on any of our forward-looking statements. Investors should bear this in mind as they consider forward-looking statements. We do not assume any obligation to update or revise any forward-looking statement that we make, even if new information becomes available or other events occur in the future. We are also affected by other factors that may be identified from time to time in our filings with the Securities and Exchange Commission, some of which are set forth in Item 1A - Risk Factors in our Form 10-K filing for the 2013 fiscal year. You are advised to consult any further disclosures we make on related subjects in our Forms 10-Q, 8-K and 10-K reports to the Securities and Exchange Commission. Although we have attempted to provide a list of important factors which may affect our business, investors are cautioned that other factors may prove to be important in the future and could affect our operating results. You should understand that it is not possible to predict or identify all such factors or to assess the impact of each factor or combination of factors on our business. Consequently, you should not consider any such list to be a complete set of all potential risks or uncertainties.

**Overview**

Enzo Biochem, Inc. (the "Company" "we", "our" or "Enzo") is a growth-oriented integrated life sciences and biotechnology company focused on harnessing biological processes to develop research tools, diagnostics and therapeutics and serves as a provider of test services, including esoteric tests, to the medical community. Since our founding in 1976, our strategic focus has been on the development of enabling technologies in research, development, manufacture, licensing and marketing of innovative health care products, platforms and services based on molecular and cellular technologies. Our pioneering work in genomic analysis coupled with our extensive patent estate and enabling platforms have strategically positioned the Company to play an important role in the rapidly growing life sciences and molecular medicine marketplaces.

In the course of our research and development activities, we have built a substantial portfolio of intellectual property assets, comprising 145 key issued patents worldwide, and over 160 pending patent applications, along with extensive enabling technologies and platforms.

We are comprised of three operating segments, of which the Therapeutics and Life Sciences segments have evolved out of our core competencies: the use of nucleic acids as informational molecules and the use of compounds for immune modulation and augmented by the previous acquisitions of a number of related companies. The Company's Enzo Clinical Labs and Enzo Life Sciences reporting units, as described below, are affected by different US and global economic conditions which are included in Item 1A, Risk Factors in our Form 10-K filing for the 2013 fiscal year.

Below are brief descriptions of each of our operating segments (See note 12 in the Notes to Consolidated Financial Statements):

**Enzo Clinical Labs** is a regional clinical laboratory serving the New York, New Jersey and Eastern Pennsylvania medical communities. The Company believes having clinical diagnostic services allows us to capitalize first hand on our extensive advanced technological capabilities and the broader trends in predictive and personalized diagnostics. Enzo Clinical Labs offers a menu of routine and esoteric clinical laboratory tests or procedures used in general patient care by physicians to establish or support a diagnosis, monitor treatment or medication, and search for an otherwise undiagnosed condition. We operate a full-service clinical laboratory in Farmingdale, New York, a network of over 35 patient service centers throughout New York and New Jersey, a stand-alone "stat" or rapid response laboratory in New York City and a full-service phlebotomy, in-house logistics department, and information technology department.

**Enzo Life Sciences** manufactures, develops and markets products and tools to life sciences, drug development and clinical research customers world-wide and has amassed a large patent and technology portfolio. Enzo Life Sciences, Inc. is a recognized leader in labeling and detection technologies across research and diagnostic markets. Our strong portfolio of proteins, antibodies, peptides, small molecules, labeling probes, dyes and kits provides life science researchers tools for target identification/validation, high content analysis, gene expression analysis, nucleic acid detection, protein biochemistry and detection, and cellular analysis. We are internationally recognized and acknowledged as a leader in manufacturing, in-licensing, and commercialization of over 7,500 of our own products and in addition distribute over 30,000 products made by over 40 other original manufacturers. Our strategic focus is directed to innovative diagnostic platforms and high quality research reagents and kits in the primary key research areas of genomics, cellular analysis, small molecule chemistry, protein homeostasis epigenetics immunoassays and assay development.

The segment is an established source for a comprehensive panel of products to scientific experts in the fields of cancer, cardiovascular disease, neurological disorders, diabetes and obesity, endocrine disorders, infectious and autoimmune disease, hepatotoxicity and renal injury.

**Enzo Therapeutics** is a biopharmaceutical venture that has developed multiple novel approaches in the areas of gastrointestinal, infectious, ophthalmic and metabolic diseases, many of which are derived from the pioneering work of Enzo Life Sciences. Enzo Therapeutics 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. This focus has generated a clinical and preclinical pipeline, as well as more than 45 patents and patent applications.

***Results of Operations***
***Three months ended October 31, 2013 compared to October 31, 2012***
***(in 000s)***

Comparative Financial Data for the Three Months Ended October 31,

| | 2013 | 2012 | Increase (Decrease) | % Change |
|---|---|---|---|---|
| Revenues: | | | | |
| Clinical laboratory services | $ 14,860 | $ 15,177 | $ (317) | (2)% |
| Product revenues | 7,663 | 8,434 | (771) | (9) |
| Royalty and license fee income | 1,611 | 2,019 | (408) | (20) |
| Total revenues | 24,134 | 25,630 | (1,496) | (6) |
| | | | | |
| Operating expenses: | | | | |
| Cost of clinical laboratory services | 9,709 | 9,710 | (1) | - |
| Cost of product revenues | 3,846 | 4,184 | (338) | (8) |
| Research and development | 817 | 1,011 | (194) | (19) |
| Selling, general, and administrative | 10,529 | 11,415 | (886) | (8) |
| Provision for uncollectible accounts receivable | 872 | 1,594 | (722) | (45) |
| Legal | 1,381 | 1,700 | (319) | (19) |
| Total operating expenses | 27,154 | 29,614 | (2,460) | (8) |
| | | | | |
| Operating loss | (3,020) | (3,984) | 964 | 24 |
| | | | | |
| Other income (expense): | | | | |
| Interest | (62) | (9) | (53) | (589) |
| Other | 61 | 9 | 52 | 578 |
| Foreign currency gain | 297 | 229 | 68 | 30 |
| Loss before income taxes | $ (2,724) | $ (3,755) | $ 1,031 | 27 |

**Consolidated Results:**

The “2014 period” and the “2013 period” refer to the three months ended October 31, 2013 and 2012, respectively.

Clinical laboratory services revenues for the 2014 period were $14.9 million compared to $15.2 million in the 2013 period. The 2014 period’s decrease over the 2013 period was $0.3 million or 2% due to reduced reimbursement rates and lower volume from certain payers offset by incremental growth related to test offerings in the molecular area. During the 2013 period the revenues was negatively impacted by a severe storm affecting our service area in the last three days of the quarter of approximately $0.7 million.

Product revenues decreased by $0.8 million or 9% in the 2014 period to $7.6 million as compared to $8.4 million in the 2013 period due to a decline in organic sales. During the 2014 period we continue to experience a decline in certain distributed products for certain customer types and in resale products, including the continued impact from the rationalization of low margin products, and market softness in research reagent products.

Royalty and license fee income during the 2014 period was $1.6 million compared to $2.0 million in the 2013 period, a decrease of $0.4 million or 20%. Royalties are primarily earned from the reported sales of Qiagen products subject to a license agreement. There are no direct expenses relating to royalty and licensing income.

The cost of clinical laboratory services during each of the 2014 and 2013 periods was $ 9.7 million. During 2014, the Company had decreases in reagent costs and supplies of $0.1 million offset by higher outside reference testing of $0.1 million. Certain expense variances are affected by the changes in the mix of tests offered to the ordering physician.

The cost of product revenues during the 2014 period was $3.9 million compared to $4.2 million in the 2013 period, a decrease of $0.3 million or 8%. The decrease is attributed to lower product revenues.

Research and development expenses were approximately $0.8 million during the 2014 period, compared to $1.0 million in the 2013 period, a decrease of $0.2 million or 19%. The decrease was principally attributed to lower costs of $0.1 million at the Enzo Life Sciences segment due to lower payroll and other costs and decreases at Enzo Clinical Labs of $0.1 million due to lower payroll and other costs.

The Company's selling, general and administrative expenses were approximately $10.5 million during the 2014 period and $11.4 million during the 2013 period, a decrease of $0.9 million or 8%. The Enzo Life Sciences segment selling, general and administrative decreased by $0.8 million due to the positive effects from the business realignments in the last three quarters of fiscal 2013 resulting in lower payroll and related costs of $0.6 million, lower depreciation and amortization of $0.1 million and $0.1 million in other operating costs. The Other selling general and administrative decreased by $0.2 million, primarily due to a decrease in professional fees. The Clinical Lab segment selling general and administrative increased by $0.1 million primarily due to increases in other costs of $0.2 million offset by decreases in payroll related costs of $0.1 million.

The provision for uncollectible accounts receivable, primarily related to the Clinical Labs segment, was $0.9 million for the 2014 period as compared to $1.6 million in the 2013 period. The decrease is primarily due to the change in payer mix and service volume and improvements in collection experience at the Clinical Labs. As a percentage of revenues the provision for uncollectible accounts receivable for the Clinical Lab segment decreased to 5.7% in the 2014 period from 10.2% in the 2013 period.

Legal expense was $1.4 million during the 2014 period compared to $1.7 million in the 2013 period, a decrease of $0.3 million primarily due to higher patent litigation trial costs that occurred in the 2013 period.

During the 2014 period, the gain on foreign currency transactions was $0.3 million as compared to a gain of $0.2 million in the 2013 period. The gain in the both periods was due to the strengthening of foreign currencies relative to the US dollar.

**Segment Results**

**Clinical Labs**

The Clinical Labs segment's loss before taxes was $0.9 million for the 2014 period as compared to a loss of $1.2 million in the 2013 period, a decrease of $0.3 million resulting from a decrease in the provision for uncollectable accounts receivable offset by lower service volume. The revenue from laboratory services decreased in the 2014 period by $0.3 million due to reduced reimbursement rates and lower volume from certain payers offset by incremental growth related to test offerings in the molecular area. As a result of these revenue impacts and changes in costs of services, the 2014 period gross profit of $5.2 million decreased from the 2013 period by $0.3 million. Selling, general and administrative expense increased by approximately $0.1 million primarily due to increases in other costs of $0.2 million offset by decreases in payroll costs of $0.1 million. The provision for uncollectible accounts receivable decreased by $0.7 million as compared to the 2013 period due to the improved implemented collection procedures and changes in the mix of payers and as a percentage of revenues decreased to 5.7% in the 2014 period from 10.2% in the 2013 period.

**Life Sciences**

The Life Sciences segment's income before taxes was $1.7 million for the 2014 period as compared to $1.6 million for the 2013 period. The segment's gross profit was $5.4 million in the 2014 period, as compared $6.3 million in the 2013 period. Gross profit was negatively impacted by the decline in product and royalty and license fee revenues, offset by reduced payroll, facility and other costs resulting from realignments during the last three quarters of fiscal 2013. Product revenues decreased by $0.8 million or 9% in the 2014 period to $7.6 million as we continue to experience a decline in certain distributed products for certain customer types and in resale products, including the continued impact from the rationalization of low margin products, and market softness in research reagent products. Royalty and license fee income of $1.6 million represented a decrease of $0.4 million as compared to the 2013 period and is primarily from the reported sales of Qiagen products subject to a license agreement. The segment's other operating expenses, including selling, general and administrative, legal and research and development, decreased by approximately $0.9 million during the 2014 period due to reduced research and development of $0.1 million and selling, general and administrative of $0.8 million. Due to the slightly greater strengthening of foreign currencies during the 2014 period as compared to the 2013 period, the foreign currency gain increased by $0.1 million in the 2014 period.

**Therapeutics**

Therapeutics loss before income taxes was approximately $0.3 million in both the 2014 and 2013 period.

**Other**

The Other loss before taxes for the 2014 period was approximately $3.2 million as compared to $3.8 million for the 2013 period, a decrease of $0.6 million. In the 2014 period legal expenses decreased by $0.4 million due to a decrease in legal services directly related to a patent litigation trial in 2013. General and administrative costs decreased by $0.2 million primarily due to lower professional fees.

**Liquidity and Capital Resources**

At October 31, 2013, the Company had cash and cash equivalents of $7.4 million of which $1.7 million was in foreign accounts, as compared to cash and cash equivalents of $9.0 million, of which $1.5 million was in foreign accounts at July 31, 2013. It is the Company's current intent to permanently reinvest these funds outside of the United States, and its current plans do not demonstrate a need to repatriate them to fund its United States operations. The Company had working capital of $8.1 million at October 31, 2013 compared to $8.7 million at July 31, 2013. The decrease in working capital of $0.6 million was primarily the result of the net loss, funding capital expenditures and changes in net operating assets and liabilities.

Net cash used in operating activities for the three months ended October 31, 2013 was approximately $3.3 million as compared to $1.5 million for the three months ended October 31, 2012. The increase in net cash used in operating activities in the 2014 period over the 2013 period of approximately $1.8 million was primarily due to an increase in operating assets, primarily accounts receivable and inventory and the decrease in current liabilities totaling $2.0 million and lower non-cash charges of $0.7 million, offset by a decrease in the net loss of $0.9 million in the 2014 period.

Net cash used in investing activities was approximately $0.3 million in 2014 and in the year ago period. Investing activities primarily relate to capital expenditures which approximated $0.3 million in both the 2014 and 2013 periods.

Net cash provided by financing was approximately $2.0 million as compared to $0 in the year ago period. The increase over 2013 period was due to an increase in proceeds from issuance of common stock under the Controlled Equity Offering program of $1.7 million and the net increase in borrowings of $0.4 million under the Credit Agreement offset by an increase in payments for installment loans and capital leases of $0.1 million.

Despite the challenging global economic environment, affecting Life Sciences revenues in fiscal 2013 and continuing in 2014 at reduced levels, attributed to macroeconomic concerns, reduced funding of customer research budgets and the impact of the Company's rationalization of low margin products and at the Clinical Labs, the impact of healthcare reform regulations and changes in payer policies affecting reimbursements to providers, the Company believes that its current cash and cash equivalents level, utilization of the Controlled Equity Offering program disclosed in Note 9, and future available borrowings under the Revolving Loan and Security Agreement disclosed in Note 6 are sufficient for its foreseeable liquidity and capital resource needs over the next twelve (12) months, although there can be no assurance that future events will not alter such view. Although there can be no assurances, in the event additional capital is required, the Company believes it has the ability to raise additional funds through other equity offerings or other sources of funds. Our liquidity plans are subject to a number of risks and uncertainties, including those described in the Item 1A. "Risk Factors" section of the Form 10-K for the year ended July 31, 2013 and referred to above are unchanged, some of which are outside our control. Macroeconomic conditions could limit our ability to successfully execute our business plans and therefore adversely affect our liquidity plans.

See our Form 10-K for the fiscal year ended July 31, 2013 for Forward Looking Cautionary Statements and Risk Factors.

**Contractual Obligations**

There have been no material changes to our Contractual Obligations as reported in our Form 10-K for the fiscal year ended July 31, 2013.

Management is not aware of any material claims, disputes or settled matters concerning third party reimbursement that would have a material effect on our financial statements.

**Off Balance Sheet Arrangements**

The Company does not have any “off balance sheet arrangements” as such term is defined in Item 303(a)(4) of Regulation S-K.

**Critical Accounting Policies**

The Company’s discussion and analysis of its financial condition and results of operations are based upon Enzo Biochem, Inc. consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. These estimates and judgments also affect related disclosure of contingent assets and liabilities.

On an on-going basis, we evaluate our estimates, including those related to contractual expense, allowance for uncollectible accounts, inventory, intangible assets and income taxes. The Company bases its estimates on experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

*Product revenues*

Revenues from product sales are recognized when the products are shipped and title transfers, the sales price is fixed or determinable and collectability is reasonably assured.

*Royalties*

Royalty revenues are recorded in the period earned. Royalties received in advance of being earned are recorded as deferred revenues.

*Revenues – Clinical laboratory services*

Revenues from Clinical Labs are recognized upon completion of the testing process for a specific patient and reported to the ordering physician. These revenues and the associated accounts receivable are based on gross amounts billed or billable for services rendered, net of a contractual adjustment, which is the difference between amounts billed to payers and the expected approved reimbursable settlements from such payers.

The following table represents the clinical laboratory segment's net revenues and percentages by revenue category:

| | Three months ended October 31, 2013 | | Three months ended October 31, 2012 | |
|---|---|---|---|---|
| Revenue category | | | | |
| Medicare | $ 3,262 | 22% | $ 3,280 | 22% |
| Third-party payer | 7,019 | 47 | 7,149 | 47 |
| Patient self-pay | 3,144 | 21 | 3,420 | 23 |
| HMO's | 1,435 | 10 | 1,328 | 8 |
| Total | $ 14,860 | 100% | $ 15,177 | 100% |

The Company provides services to certain patients covered by various third-party payers, including the Federal Medicare program. Laws and regulations governing Medicare are complex and subject to interpretation for which action for noncompliance includes fines, penalties and exclusion from the Medicare programs. See Note 13 and Item 1, Legal Proceedings.

Other than the Medicare program, one provider whose programs are included in the Third-party payers and Health Maintenance Organizations ("HMO's") categories represents approximately 22% and 21% of the Clinical Labs net revenues for the three months ended October 31, 2013 and 2012, respectively. Another third party provider represents 9% and 11% of Clinical Labs net revenues for the three months ended October 31, 2013 and 2012.

*Contractual Adjustment*

The Company's estimate of contractual adjustment is based on significant assumptions and judgments, such as its interpretation of payer reimbursement policies, and bears the risk of change. The estimation process is based on the experience of amounts approved as reimbursable and ultimately settled by payers, versus the corresponding gross amount billed to the respective payers. The contractual adjustment is an estimate that reduces gross revenue, based on gross billing rates, to amounts expected to be approved and reimbursed. Gross billings are based on a standard fee schedule we set for all third party payers, including Medicare, HMO's and managed care. The Company adjusts the contractual adjustment estimate quarterly, based on its evaluation of current and historical settlement experience with payers, industry reimbursement trends, and other relevant factors.

The other relevant factors that affect our contractual adjustment include the monthly and quarterly review of: 1) current gross billings and receivables and reimbursement by payer, 2) current changes in third party arrangements and 3) the growth of in-network provider arrangements and managed care plans specific to our Company.

Our clinical laboratory business is primarily dependent upon reimbursement from third-party payers, such as Medicare (which principally serves patients 65 and older) and insurers. We are subject to variances in reimbursement rates among different third-party payers, as well as constant changes of reimbursement rates. Changes that decrease reimbursement rates or coverage would negatively impact our revenues. The number of individuals covered under managed care contracts or other similar arrangements has grown over the past several years and may continue to grow in the future. In addition, Medicare and other government healthcare programs continue to shift to managed care. These trends will continue to reduce our revenues.

During the three months ended October 31, 2013 and 2012, the contractual adjustment percentages, determined using current and historical reimbursement statistics, were 85.1% and 84.8%, respectively, of gross billings. The Company believes a decline in reimbursement rates or a shift to managed care or similar arrangements may be offset by the positive impact of an increase in the number of tests we perform. However, there can be no assurance that we can increase the number of tests we perform or that if we do increase the number of tests we perform, that we can maintain that higher number of tests performed, or that an increase in the number of tests we perform would result in increased revenue.

The Company estimates (by using a sensitivity analysis) that each 1% point change in the contractual adjustment percentage could result in a change in clinical laboratory services revenues of approximately $1.0 million for the three months ended October 31, 2013 and 2012, and a change in the net accounts receivable of approximately $0.6 million as of October 31, 2013.

Our clinical laboratory financial billing system records gross billings using a standard fee schedule for all payers and does not record contractual adjustment by payer at the time of billing. Adjustments to our standard fee schedule will impact the contractual adjustment recorded. Therefore, we are unable to quantify the effect of contractual adjustment recorded during the current period that relates to revenue recorded in a previous period. However, we can reasonably estimate our contractual adjustment to revenue on a timely basis based on our quarterly review process, which includes:

- an analysis of industry reimbursement trends;
- an evaluation of third-party reimbursement rates changes and changes in reimbursement arrangements with third-party payers;
- a rolling monthly analysis of current and historical claim settlement and reimbursement experience statistics with payers;
- an analysis of current gross billings and receivables by payer.

*Accounts Receivable and Allowance for Doubtful Accounts*

Accounts receivable are reported at realizable value, net of allowances for doubtful accounts, which is estimated and recorded in the period of the related revenue.

The following is a table of the Company's net accounts receivable by segment. The Clinical Labs segment's net receivables are detailed by billing category and as a percent to its total net receivables. At October 31, 2013 and July 31, 2013, approximately 60% of the Company's net accounts receivable relates to its Clinical Labs business, which operates in the New York, New Jersey, and Eastern Pennsylvania medical communities.

The Life Sciences segment's accounts receivable, of which $1.6 million or 30% and $1.7 million or 35% represents foreign receivables as of October 31, 2013 and July 31, 2013 respectively, includes royalty receivables of $1.6 million and $1.2 million, as of October 31, 2013 and July 31, 2013, respectively, from Qiagen (Note 11).

Net accounts receivable

| Billing category | As of October 31, 2013 | | As of July 31, 2013 | |
|---|---|---|---|---|
| Clinical Labs | | | | |
| Medicare | $ 1,101 | 13% | $ 930 | 13% |
| Third party payers | 3,759 | 46 | 3,395 | 46 |
| Patient self-pay | 3,082 | 37 | 2,696 | 37 |
| HMO's | 335 | 4 | 300 | 4 |
| Total Clinical Labs | 8,277 | 100% | 7,321 | 100% |
| Total Life Sciences | 5,440 | | 4,967 | |
| Total accounts receivable | $ 13,717 | | $ 12,288 | |

Changes in the Company's allowance for doubtful accounts are as follows:

| | Three months ended October 31, 2013 | Twelve months ended July 31, 2013 |
|---|---|---|
| Beginning balance | $ 2,707 | $ 3,273 |
| Provision for doubtful accounts | 872 | 4,496 |
| Write-offs, net | (864) | (5,062) |
| Ending balance | $ 2,715 | $ 2,707 |

The Company estimates its allowance for doubtful accounts in the period the related services are billed and adjusts the estimate in future accounting periods as necessary. It bases the estimate for the allowance on the evaluation of historical collection experience, the aging profile of accounts receivable, the historical doubtful account write-off percentages, payer mix, and other relevant factors.

The allowance for doubtful accounts primarily related to the Clinical Labs segment includes the balances, after receipt of the approved settlements from third party payers, for the insufficient diagnosis information received from the ordering physician which result in denials of payment, and the uncollectible portion of receivables from self payers, including deductibles and copayments, which are subject to credit risk and patients' ability to pay.

During the three months ended October 31, 2013 and 2012, the Company determined an allowance for doubtful accounts less than 210 days and wrote off 100% of accounts receivable over 210 days, as it assumed those accounts are uncollectible, except for certain fully reserved balances, principally related to Medicare. These accounts have not been written off because the payer's filing date deadline has not occurred or the collection process has not been exhausted. The Company's collection experience on Medicare receivables beyond 210 days has been insignificant. The Company adjusts the historical collection analysis for recoveries, if any, on an ongoing basis.

The Company's ability to collect outstanding receivables from third party payers is critical to its operating performance and cash flows. The primary collection risk lies with patients initially determined to have primary insurance and patients for whom primary insurance has paid but a co-pay or deductible portion remains outstanding. The Company also assesses the current state of its billing functions in order to identify any known collection or reimbursement issues in order to assess the impact, if any, on the allowance estimates, which involves judgment.

The Company believes that the collectability of its receivables is directly linked to the quality of its billing processes, most notably, those related to obtaining the correct information in order to bill effectively for the services provided. Should circumstances change (e.g. shift in payer mix, decline in economic conditions or deterioration in aging of receivables), our estimates of net realizable value of receivables could be reduced by a material amount.

The following table indicates the Clinical Labs aged gross receivables by payer group which is prior to adjustment to gross receivables for: 1) contractual adjustment, 2) fully reserved balances not yet written off, and 3) other revenue adjustments.

| As of October 31, 2013 | Total Amount | % | Medicare Amount | % | Third Party Payers Amount | % | Self-pay Amount | % | HMO Amount | % |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-30 days | $ 27,882 | 51 | 4,470 | 62 | 16,184 | 45 | 3,271 | 45 | 3,957 | 95% |
| 31-60 days | 6,082 | 11 | 675 | 10 | 3,563 | 10 | 1,823 | 25 | 21 | 1% |
| 61-90 days | 5,038 | 9 | 546 | 8 | 2,938 | 8 | 1,516 | 21 | 38 | 1% |
| 91-120 days | 4,249 | 8 | 382 | 5 | 3,062 | 8 | 754 | 10 | 51 | 1% |
| 121-150 days | 3,143 | 6 | 161 | 2 | 2,963 | 8 | (2) | — | 21 | 1% |
| Greater than 150 days* | 8,693 | 15 | 947 | 13 | 7,766 | 21 | (81) | (1) | 61 | 1% |
| Totals | $ 55,087 | 100% | $ 7,181 | 100% | $ 36,476 | 100% | $ 7,281 | 100% | $ 4,149 | 100% |

| As of July 31, 2013 | Total Amount | % | Medicare Amount | % | Third Party Payers Amount | % | Self-pay Amount | % | HMO's Amount | % |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-30 days | $ 25,565 | 50% | $ 3,741 | 62% | $ 14,915 | 44% | $ 3,341 | 48% | $ 3,568 | 96% |
| 31-60 days | 6,238 | 12% | 452 | 7% | 4,254 | 12% | 1,492 | 21% | 40 | 1% |
| 61-90 days | 5,923 | 12% | 357 | 6% | 3,845 | 11% | 1,686 | 24% | 35 | 1% |
| 91-120 days | 4,287 | 8% | 216 | 4% | 3,484 | 10% | 546 | 8% | 41 | 1% |
| 121-150 days | 2,319 | 5% | 166 | 3% | 2,140 | 6% | — | 0% | 13 | 0% |
| Greater than 150 days* | 6,847 | 13% | 1,058 | 18% | 5,824 | 17% | (73) | -1% | 38 | 1% |
| Totals | $ 51,179 | 100% | $ 5,990 | 100% | $ 34,462 | 100% | $ 6,992 | 100% | $ 3,735 | 100% |

* Total includes $3,836 fully reserved over 210 days as of October 31, 2013.

** Total includes $3,775 fully reserved over 210 days as of July 31, 2013.

*Income Taxes*

The Company accounts for income taxes under the liability method of accounting for income taxes. Under the liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. The liability method requires that any tax benefits recognized for net operating loss carry forwards and other items be reduced by a valuation allowance where it is not more likely than not the benefits will be realized in the foreseeable future.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Under the liability method, the effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

It is the Company's policy to provide for uncertain tax positions, if any, and the related interest and penalties based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. To the extent the Company prevails in matters for which a liability for an unrecognized tax benefit is established or is required to pay amounts in excess of the liability, the Company's effective tax rate in a given financial statement period may be affected.

Inventory

The Company values inventory at the lower of cost (first-in, first-out) or market. Work-in-process and finished goods inventories consist of material, labor, and manufacturing overhead. Write downs of inventories to market value are based on a review of inventory quantities on hand and estimated sales forecasts based on sales history and anticipated future demand. Unanticipated changes in demand could have a significant impact on the value of our inventory and require additional write downs of inventory which would impact our results of operations.

Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the net assets acquired. The Company tests goodwill and had tested other indefinite lived intangibles for impairment annually as of the first day of the fourth quarter, or more frequently if indicators of potential impairment exist. Goodwill is reviewed for impairment utilizing a two-step process. The first step of the impairment test requires the identification of the reporting units and comparison of the fair value of each of these reporting units to their respective carrying value. If the carrying value of the reporting unit is less than its fair value, no impairment exists and the second step is not performed. If the carrying value of the reporting unit is higher than its fair value, the second step must be performed to compute the amount of the goodwill impairment, if any. In the second step, the impairment is computed by comparing the implied fair value of the reporting unit goodwill with the carrying amount of that goodwill. If the carrying amount of the reporting unit goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized for the excess.

Intangible Assets

Intangible assets (exclusive of patents), arose primarily from acquisitions and primarily consist of customer relationships, trademarks, licenses, employment and non-compete agreements, and website and database content. These finite-lived intangible assets are amortized according to their estimated useful lives, which range from 4 to 15 years. The Company had previously capitalized certain legal costs directly incurred in pursuing patent applications as patent costs. When such applications result in an issued patent, the related costs are amortized over a ten year period or the life of the patent, whichever is shorter, using the straight-line method. The Company reviews its issued patents and pending patent applications, and if it determines to abandon a patent application or that an issued patent no longer has economic value, the unamortized balance in deferred patent costs relating to that patent is immediately expensed.

Accrual for Self-funded Medical

Accruals for self-funded medical insurance are determined based on a number of assumptions and factors, including historical payment trends, claims history and current estimates. These estimated liabilities are not discounted. If actual trends differ from these estimates, the financial results could be impacted.

Recent Accounting Pronouncements Adopted

There were no recent accounting pronouncements adopted that impact the Company during the three months ended October 31, 2013.

**Item 3. Quantitative and Qualitative Disclosures About Market Risk**

We are exposed to market risk from changes in foreign currency exchange rates resulting from acquisitions with foreign locations (See Item 1A. Risk Factors and Note 5 in the Notes to Consolidated Financial Statements for the fiscal year ended July 31, 2013) that could impact our results of operations and financial position. We do not currently engage in any hedging or market risk management tools.

*Foreign Currency Exchange Rate Risk*

The financial reporting of our non-U.S. subsidiaries is denominated in currencies other than the U.S. dollar. Since the functional currency of our non-U.S. subsidiaries is the local currency, foreign currency translation adjustments are accumulated as a component of accumulated other comprehensive income in stockholders' equity. Assuming a hypothetical decline of 10% in the value of the U.S. dollar versus foreign currencies at October 31, 2013, our assets and liabilities would decrease by $0.9 million and $0.5 million, respectively, and our net sales and net earnings (loss) would decrease by $1.1 million and $0.1 million, respectively, on an annual basis.

We also maintain intercompany balances and loans receivable with subsidiaries in different local currencies. These amounts are at risk of foreign exchange losses if exchange rates fluctuate. Assuming a hypothetical increase of 10% in the value of the U.S. dollar versus foreign currencies, our pre-tax earnings (loss) would be unfavorably impacted by approximately $0.4 million on an annual basis.

*Interest Rate Risk*

We are exposed to interest rate risk with our variable rate Credit Agreement which bears interest at the three month LIBOR with a floor of 1.25% plus 4% per annum. A 3% change in the LIBOR rate would impact our interest expense by $0.1 million.

As of October 31, 2013, we have fixed interest rate financing on transportation and equipment leases.

**Item 4. Controls and Procedures**

(a) Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this report, the Company's management conducted an evaluation (as required under Rules 13a-15(b) and 15d-15(b) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) of the Company's "disclosure controls and procedures" (as such term is defined under the Exchange Act), under the supervision and with the participation of the principal executive officer and the principal financial officer. Based on this evaluation, the principal executive officer and the principal financial officer concluded that the Company's disclosure controls and procedures are effective as of the end of the period covered by this report. Notwithstanding the foregoing, a control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that it will detect or uncover failures within the Company to disclose material information otherwise required to be set forth in the Company's periodic reports.

(b) Changes in Internal Controls over Financial Reporting

There was no change in the Company's internal controls over financial reporting during the fiscal quarter covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

## PART II – OTHER INFORMATION

Item 1. Legal Proceedings

There have been no other material developments with respect to previously reported legal proceedings discussed in the annual report on Form 10-K for the fiscal year ended July 31, 2013 filed with the Securities and Exchange Commission, other than as noted in Note 13 to the consolidated financial statements as of October 31, 2013 and the three months then ended.

Item 1A. Risk Factors

There have been no material changes from the risk factors disclosed in Part 1, Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended July 31, 2013.

Item 6. Exhibits

| Exhibit No. | Exhibit |
|---|---|
| 31.1 | Certification of Elazar Rabbani, Ph.D. pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2 | Certification of Barry Weiner pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 32.1 | Certification of Elazar Rabbani, Ph.D. pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 32.2 | Certification of Barry Weiner pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. |
| 101. INS* | XBRL Instance Document |
| 101. SCH* | XBRL Taxonomy Extension Schema Document |
| 101. CAL* | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF* | XBRL Taxonomy Extension Definitions Linkbase Document |
| 101.LAB* | XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE* | XBRL Taxonomy Extension Presentation Linkbase Document |

*XBRL (Extensible Business Reporting Language) information is being furnished and not filed for purposes of Sections 11 and 12 of the Securities Act of 1933 and Section 18 of the Securities Exchange Act of 1934.

## 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 thereunto duly authorized.

ENZO BIOCHEM, INC.
(Registrant)

Date: December 10, 2013

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

EXHIBIT 31.1

**CERTIFICATION PURSUANT TO**
**SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Elazar Rabbani, Ph.D., certify that:

1. I have reviewed this quarterly report on Form 10-Q of Enzo Biochem, Inc. (the "registrant").

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a – 15(e) and 15d – 15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 10, 2013

By: /s/ Elazar Rabbani, Ph.D.
Elazar Rabbani, Ph.D.
Chairman of the Board, Chief Executive Officer
and Secretary

EXHIBIT 31.2

**CERTIFICATION PURSUANT TO**
**SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Barry Weiner, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Enzo Biochem, Inc. (the "registrant").

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a – 15(e) and 15d – 15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 10, 2013

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

EXHIBIT 32.1

**CERTIFICATION PURSUANT TO**
**TITLE 18 U.S.C. SECTION 1350,**
**AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Enzo Biochem, Inc., and Subsidiaries ("the Company") on Form 10-Q for the period ended October 31, 2013 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Elazar Rabbani, Ph.D., Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: December 10, 2013

By: /s/ Elazar Rabbani, Ph.D.
Elazar Rabbani, Ph.D.
Chairman of the Board, Chief Executive Officer
and Director

EXHIBIT 32.2

**CERTIFICATION PURSUANT TO**
**TITLE 18 U.S.C. SECTION 1350,**
**AS ADOPTED PURSUANT TO**
**SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Enzo Biochem, Inc., and Subsidiaries ("the Company") on Form 10-Q for the period ended October 31, 2013 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Barry Weiner, President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: December 10, 2013

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