ENZO BIOCHEM INC
Form 10-Q
December 07, 2017
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

Mark one

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

For the quarterly period ended October 31, 2017

or

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

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 x No o

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

Large accelerated filer o Accelerated filer x
Non-accelerated filer o (Do not check if smaller reporting company) Smaller reporting company o
Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Yes o No o

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

Yes o No x

As of December 1, 2017, the Registrant had 46,925,721 shares of common stock outstanding.

ENZO BIOCHEM, INC.
FORM 10-Q
October 31, 2017

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**Part 1** Financial Information

**Item 1** Financial Statements

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

| | October 31, 2017 (unaudited) | July 31, 2017 |
|---|---|---|
| ASSETS | | |
| Current assets: | | |
| Cash and cash equivalents | $66,849 | $64,167 |
| Accounts receivable, net of allowances | 14,443 | 15,180 |
| Inventories | 7,210 | 7,047 |
| Prepaid expenses and other | 2,481 | 2,690 |
| Total current assets | 90,983 | 89,084 |
| | | |
| Property, plant and equipment, net | 7,837 | 7,901 |
| Goodwill | 7,452 | 7,452 |
| Intangible assets, net | 2,647 | 2,895 |
| Other assets | 337 | 333 |
| Total assets | $109,256 | $107,665 |
| | | |
| LIABILITIES AND STOCKHOLDERS' EQUITY | | |
| Current liabilities: | | |
| Accounts payable – trade | $9,558 | $10,350 |
| Accrued liabilities | 9,313 | 6,720 |
| Other current liabilities | 670 | 740 |
| Total current liabilities | 19,541 | 17,810 |
| | | |
| Other liabilities | 533 | 983 |
| Total liabilities | $20,074 | $18,793 |
| | | |
| 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: 46,994,283 and outstanding: 46,913,532 at October 31, 2017 and shares issued: 46,506,176 at July 31, 2017 | 470 | 465 |
| Additional paid-in capital | 329,971 | 328,294 |
| Less: Treasury stock at cost 80,751 shares at October 31, 2017 and -0- at July 31, 2017 | (815) | — |
| Accumulated deficit | (242,540) | (241,900) |

| | | |
|---|---|---|
| Accumulated other comprehensive income | 2,096 | 2,013 |
| Total stockholders' equity | 89,182 | 88,872 |
| Total liabilities and stockholders' equity | $ 109,256 | $ 107,665 |

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, | |
|---|---|---|
| | 2017 | 2016 |
| Revenues: | | |
| Clinical laboratory services | $20,334 | $18,558 |
| Product revenues | 7,081 | 7,426 |
| Royalty and license fee income | 261 | 300 |
| Total revenues | 27,676 | 26,284 |
| | | |
| Operating costs, expenses: | | |
| Cost of clinical laboratory services | 12,042 | 10,896 |
| Cost of product revenues | 3,389 | 3,309 |
| Research and development | 747 | 822 |
| Selling, general, and administrative | 10,891 | 11,494 |
| Provision for uncollectible accounts receivable | 814 | 669 |
| Legal fee expense | 431 | 372 |
| Total operating costs, expenses | 28,314 | 27,562 |
| | | |
| Operating loss | (638) | (1,278) |
| | | |
| Other income (expense): | | |
| Interest | 157 | 46 |
| Other | 36 | 119 |
| Foreign exchange loss | (195) | (361) |
| Loss before income taxes | (640) | (1,474) |
| Provision for income taxes | — | — |
| Net loss | $(640) | $(1,474) |
| | | |
| Net loss per common share: | | |
| Basic | $(0.01) | $(0.03) |
| Diluted | $(0.01) | $(0.03) |
| | | |
| Weighted average common shares outstanding: | | |
| Basic | 46,914 | 46,272 |
| Diluted | 46,914 | 46,272 |

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, | |
|---|---|---|
| | 2017 | 2016 |
| Net loss | $(640) | $(1,474) |
| Other comprehensive (loss) income: | | |
| Foreign currency translation adjustments | 83 | 254 |
| Comprehensive loss | $(557) | $(1,220) |

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, 2017**
**(UNAUDITED)**
**(in thousands, except share data)**

| | Common Stock Shares Issued | Treasury Stock Shares | Common Stock Amount | Additional Paid-in Capital | Treasury Stock Amount | Accumulated Deficit | Accumulated Other Comprehensive Income | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|---|
| Balance at July 31, 2017 | 46,506,176 | — | $ 465 | $ 328,294 | $ — | $ (241,900) | $ 2,013 | $ 88,872 |
| Net loss for the period ended October 31, 2017 | — | — | — | — | — | (640) | — | (640) |
| Purchase of treasury stock | — | 80,751 | — | — | (815) | — | — | (815) |
| Vesting of restricted stock | 1,001 | | — | — | — | — | — | — |
| Exercise of stock options | 487,106 | — | 5 | 1,472 | — | — | — | 1,477 |
| Share-based compensation charges | — | — | — | 205 | — | — | — | 205 |
| Foreign currency translation adjustments | — | — | — | — | — | — | 83 | 83 |
| Balance at October 31, 2017 | 46,994,283 | 80,751 | $ 470 | $ 329,971 | $ (815) | $ (242,540) | $ 2,096 | $ 89,182 |

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, | |
|---|---|---|
| | 2017 | 2016 |
| Cash flows from operating activities: | | |
| Net loss | $(640) | $(1,474) |
| Adjustments to reconcile net loss to net cash provided by (used in) operating activities: | | |
| Depreciation and amortization of property, plant and equipment | 521 | 515 |
| Amortization of intangible assets | 228 | 412 |
| Provision for uncollectible accounts receivable | 814 | 669 |
| Share-based compensation charges | 205 | 151 |
| Accrual for share-based 401(k) employer match expense | 177 | 177 |
| Foreign exchange loss | 198 | 349 |
| Changes in operating assets and liabilities: | | |
| Accounts receivable | (101) | (150) |
| Inventories | (198) | (298) |
| Prepaid expenses and other | 207 | 137 |
| Accounts payable – trade | (819) | (522) |
| Accrued liabilities, other current liabilities and other liabilities | 2,003 | (299) |
| Total adjustments | 3,235 | 1,141 |
| Net cash provided by (used in) operating activities | 2,595 | (333) |
| Cash flows from investing activities: | | |
| Capital expenditures | (461) | (514) |
| Net cash used in investing activities | (461) | (514) |
| Cash flows from financing activities: | | |
| Proceeds from borrowings under Credit Agreement | — | 24,297 |
| Repayments under Credit Agreement | — | (23,854) |
| Installment loan and capital lease obligation payments | (101) | (146) |
| Proceeds from the exercise of stock options | 658 | 6 |
| Net cash provided by financing activities | 557 | 303 |
| Effect of exchange rate changes on cash and cash equivalents | (9) | (19) |
| Increase (decrease) in cash and cash equivalents | 2,682 | (563) |
| Cash and cash equivalents - beginning of period | 64,167 | 67,777 |
| Cash and cash equivalents - end of period | $66,849 | $67,214 |

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

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**ENZO BIOCHEM, INC.**
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**As of October 31, 2017**
**(Unaudited)**
**(Dollars in thousands, except share data)**

Note 1 – Basis of Presentation

The accompanying consolidated financial statements include the accounts of Enzo Biochem, Inc. and its wholly-owned subsidiaries, Enzo Life Sciences, Enzo Clinical Labs, Enzo Therapeutics and Enzo Realty LLC, collectively or with one or more of its subsidiaries referred to as the "Company" or "Companies". The consolidated balance sheet as of October 31, 2017, the consolidated statements of operations, comprehensive income (loss), and cash flows for the three months ended October 31, 2017 and 2016, and the consolidated statement of stockholders' equity for the three months ended October 31, 2017 (the "interim statements") 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 interim statements should be read in conjunction with the consolidated financial statements for the year ended July 31, 2017 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, 2017 has been derived from the audited financial statements at that date. The results of operations for the three months ended October 31, 2017 are not necessarily indicative of the results that may be expected for the fiscal year ending July 31, 2018.

***Effect of New Accounting Pronouncements***

*Recently Adopted Accounting Pronouncements*

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*, which requires all excess tax benefits or deficiencies to be recognized as income tax expense or benefit in the income statement. In addition, excess tax benefits should be classified along with other income tax cash flows as an operating activity in the statement of cash flows. The adoption of this new standard did not have a material impact on our consolidated financial statements. We adopted this standard as of August 1, 2017.

*Pronouncements Issued but Not Yet Adopted*

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers: Topic 606*. ASU 2014-09 and its amendments supersede the current revenue recognition guidance, including industry-specific guidance. The new standard introduces a five-step model to achieve its core principle of the entity recognizing revenue to depict the transfer of goods or services to customers at an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services, and on transfer of control, as opposed to transfer of risk and rewards. The standard also expands the required financial statement disclosures regarding revenue recognition. ASU 2014-09 will be effective for our interim periods and the fiscal year beginning August 1, 2018, and we are not early adopting. We expect to use retrospective application upon adoption. Based on our preliminary assessment, we expect the adoption of this ASU may result in some portion of the amounts that have historically been classified as bad debt expense, primarily related to patient responsibility, could be reflected as a reduction of the transaction price and therefore as a reduction in revenue; and increased disclosure, including qualitative and quantitative disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts from customers. However, the adoption of this ASU is not expected to have a material impact on our financial position or cash flows.

In February 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-02 – *Leases (Topic 842)*. The new standard establishes a right-of-use (ROU) model that requires a lessee to record a ROU asset and a lease liability on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the income statement. The new standard is effective for our fiscal year beginning August 1, 2019 including interim periods within that fiscal year. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. We believe the adoption of this standard will materially impact our consolidated financial statements by significantly increasing our non-current assets and non-current liabilities on our consolidated balance sheets in order to record the right of use assets and related lease liabilities for our existing operating leases.

We will recognize expense in the Statement of Operations similar to current lease accounting, in the cost of sales and selling, general and administrative.

In May 2017, the FASB issued ASU 2017-09, *Compensation – Stock Compensation (Topic 708) Scope of Modification Accounting* which provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. Adoption of the Standard is required for our annual and interim periods beginning August 1, 2018 with the amendments in the update applied prospectively to an award modified on or after the adoption date. Early adoption is permitted. We are currently evaluating the impact this new standard will have on the consolidated financial statements.

We reviewed all other recently issued accounting pronouncements and have concluded they are not applicable or not expected to be significant to the accounting for our operations.

Certain prior period amounts have been reclassified to conform to the current period presentation. These reclassifications had no effect on the reported results of operations.

***Concentration Risk***

One provider whose programs are included in the “Third-party payer” and “Health Maintenance Organizations” (“HMO’s”) categories represents approximately 40% and 36% of the Clinical Labs segment net revenue for the three months ended October 31, 2017 and 2016, respectively.

Note 2 – Net income (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. As a result of the net loss for the three months ended October 31, 2017 and 2016 diluted weighted average shares outstanding are the same as basic weighted average shares outstanding, and do not include the potential common shares from stock options and unvested restricted stock because to do so would be antidilutive.

For the three months ended October 31, 2017 and 2016, the number of potential common shares (“in the money options”) and unvested restricted stock excluded from the calculation of diluted earnings per share was 931,000, and 720,000, respectively.

For the three months ended October 31, 2017 and 2016 there were no outstanding “out of the money” options to purchase common shares.

Note 3 - Supplemental disclosure for statement of cash flows

For the three months ended October 31, 2017 and 2016, income taxes paid by the Company were $15 and $954, respectively**.**

For the three months ended October 31, 2017 and 2016, interest paid by the Company was $25 and $58, respectively.

For the three months ended October 31, 2017 and 2016, the Company financed $0 and $69 respectively, in machinery and transportation equipment under installment loans.

During the three months ended October 31, 2017 and 2016, the Company did not enter into any capital lease agreements.

During the three months ended October 31, 2017 certain officers of the Company exercised 271,591 stock options in non-cash transactions. The officers surrendered 80,751 shares of the Company’s common stock to exercise the stock options. The Company recorded approximately $815, the market value of the surrendered shares, as treasury stock.

Note 4 - Inventories

Inventories consist of the following:

| | October 31, 2017 | July 31, 2017 |
|---|---|---|
| Raw materials | $878 | $852 |
| Work in process | 1,881 | 1,905 |
| Finished products | 4,451 | 4,290 |
| | $7,210 | $7,047 |

Note 5 – Goodwill and intangible assets

At October 31, 2017 and July 31, 2017, the Company's carrying amount of goodwill, related to the Clinical Labs segment, is $7,452.

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

| | Gross | Accumulated Amortization | Net |
|---|---|---|---|
| July 31, 2017 | $27,436 | $ (24,541) | $2,895 |
| Amortization expense | — | (228) | (228) |
| Foreign currency translation | (118) | 98 | (20) |
| October 31, 2017 | $27,318 | $ (24,671) | $2,647 |

Intangible assets, all finite lived, consist of the following:

| | October 31, 2017 | | | July 31, 2017 | | |
|---|---|---|---|---|---|---|
| | Gross | Accumulated Amortization | Net | Gross | Accumulated Amortization | Net |
| Patents | $11,026 | $ (10,957) | $69 | $11,027 | $ (10,951) | $76 |
| Customer relationships | 11,823 | (9,260) | 2,563 | 11,881 | (9,083) | 2,798 |
| Website and acquired content | 1,007 | (1,007) | — | 1,011 | (1,011) | — |
| Licensed technology and other | 485 | (470) | 15 | 484 | (463) | 21 |
| Trademarks | 2,977 | (2,977) | — | 3,033 | (3,033) | — |
| Total | $27,318 | $ (24,671) | $2,647 | $27,436 | $ (24,541) | $2,895 |

At October 31, 2017, information with respect to intangibles assets acquired is as follows:

| | Useful life assigned | Weighted average remaining useful life |
|---|---|---|
| Customer relationships | 8 -15 years | 3 years |
| Other intangibles | 10 years | 2 years |

At October 31, 2017, the weighted average useful life of intangible assets is approximately two years.

Note 6 - Loan Payable

In June 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 MidCap Financial LLC. (formerly Healthcare Finance Group, LLC). The Credit Agreement, which expired in December 2016, provided 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 provided for additional borrowings of $4.0 million for increased eligible assets. Debt issuance costs of $281 were amortized over the life of the Credit Agreement. The Credit Agreement expired and was repaid in full on December 7, 2016.

Note 7 – Accrued Liabilities

Accrued liabilities consist of the following:

| | October 31, 2017 | July 31, 2017 |
|---|---|---|
| Payroll, benefits, and commissions | $6,437 | $4,092 |
| Professional fees | 554 | 442 |
| Legal fee expense | 327 | 599 |
| Research and development | 143 | 143 |
| Other | 1,852 | 1,444 |
| | $9,313 | $6,720 |

Note 8 – Other Liabilities

Other liabilities consist of the following:

| | October 31, 2017 | July 31, 2017 |
|---|---|---|
| Capital lease obligations, net of short term | $ 520 | $551 |
| Accrued legal settlement | — | 410 |
| Installment loans, net of short term | 13 | 22 |
| | $ 533 | $983 |

As of October 31, 2017, future minimum payments under the capital leases, net of interest of $105 aggregates $699 including a short term debt portion of $179 included in other current liabilities. Future minimum payments under the installment loans aggregate $102, including a short term portion of $89 included in other current liabilities. A total of $400 is included in other current liabilities at October 31, 2017 as accrued legal settlement which is further discussed in Note 11 - Contingencies.

Note 9 – Stockholders' Equity

***Controlled Equity Offering***

The Company has 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"). The Company pays Cantor a commission of 3.0% of the aggregate gross proceeds received under the Sale 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. The initial agreement contemplated the sale of shares of the Company's common stock having an aggregate offering price of up to $20.0 million. In December 2014, the Sales Agreement was amended in order for the Company to offer and sell additional shares of Common Stock having an aggregate offering price of $20.0 million.

On September 1, 2017, the Company filed with the SEC a "shelf" registration and sales agreement prospectus covering the offering, issuance and sale of our Common Stock that may be issued and sold under the existing Sales Agreement in an aggregate amount of up to $19.15 million. A total of $150 million of securities may be sold under this shelf registration, which was declared effective September 15, 2017.

During the three months ended October 31, 2017 and during fiscal 2017, the Company did not sell any shares of Common Stock under the Sales Agreement.

***Treasury stock***

During the three months ended October 31, 2017 certain officers of the Company exercised 271,591 stock options in non-cash transactions. The officers surrendered 80,751 shares of the Company's common stock to exercise the stock options. The Company recorded approximately $815, the market value of the surrendered shares, as treasury stock.

***Share-based compensation***

The Company has 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, 2017. 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,** | |
|---|---|---|
| | **2017** | **2016** |
| Stock options | $202 | $146 |
| Restricted stock | 3 | 5 |
| | $205 | $151 |

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, | |
|---|---|---|
| | 2017 | 2016 |
| Cost of clinical laboratory services | $— | $2 |
| Selling, general and administrative | 205 | 149 |
| | $205 | $151 |

No excess tax benefits were recognized during the three month periods ended October 31, 2017 and 2016.

***Stock Option Plans***

The following table summarizes stock option activity during the three month period ended October 31, 2017:

| | Options | Weighted Average Exercise Price | Weighted Average Remaining Contractual Term | Aggregate Intrinsic Value (000s) |
|---|---|---|---|---|
| Outstanding at July 31, 2017 | 2,130,995 | $ 4.26 | | |
| Awarded | — | $ — | | |
| Exercised | (487,106 ) | $ 3.03 | | $ 4,940 |
| Cancelled or expired | (19,334 ) | $ 5.92 | | |
| Outstanding at end of period | 1,624,555 | $ 4.62 | 2.8 years | $ 12,313 |
| Exercisable at end of period | 903,868 | $ 3.39 | 1.6 years | $ 5,838 |

As of October 31, 2017, the total future compensation cost related to non-vested options, not yet recognized in the statements of operations, was $1.0 million and the weighted average period over which the remaining expense of these awards is expected to be recognized is fourteen months.

The intrinsic value of in the money stock option awards that are vested at the end of the period represents the Company’s closing stock price on the last trading day of the period in excess of the exercise price multiplied by the number of options vested.

***Restricted Stock Awards***

A summary of the activity pursuant to the Company's unvested restricted stock awards for the three months ended October 31, 2017 is as follows:

| | Awards | Weighted Average Award Price |
|---|---|---|
| Outstanding at July 31, 2017 | 7,436 | $ 4.45 |
| Awarded | — | — |
| Vested | (1,001 ) | $ (4.84 ) |
| Forfeited | — | — |
| Unvested at end of period | 6,435 | $ 3.85 |

The fair value of a restricted stock award is determined based on the closing stock price on the award date. As of October 31, 2017, there was approximately $0.1 million of unrecognized compensation cost related to unvested restricted stock-based compensation to be recognized over a weighted average remaining period of approximately twenty five months.

The fair value of the awards that vested during the three months ended October 31, 2017 and 2016 was $10 and $8, respectively.

The total number of shares available for grant as equity awards from the 2011 Incentive Plan is approximately 349,600 shares as of October 31, 2017.

Note 10 – 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 Life Sciences segment develops, manufactures, and markets products to research and pharmaceutical customers. The 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. Legal fee expense incurred to defend the Company’s intellectual property and other general corporate matters is considered a component of the Other segment. Legal fee expense specific to other segments’ activities has been allocated to those segments. When recognized, legal settlements, net represents activities for which royalties would have been received by the Company’s Life Sciences segment had the Company had agreements in place with plaintiffs for the patents or products covered by the settlements.

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, 2017.

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

**Three months ended October 31, 2017**

| | Clinical Labs | Life Sciences | Therapeutics | Other | Consolidated |
|---|---|---|---|---|---|
| Revenues: | | | | | |
| Clinical laboratory services | $20,334 | — | — | — | $ 20,334 |
| Product revenues | — | $ 7,081 | — | — | 7,081 |
| Royalty and license fee income | — | 261 | — | — | 261 |
| | 20,334 | 7,342 | — | — | 27,676 |
| Operating costs and expenses: | | | | | |
| Cost of clinical laboratory services | 12,042 | — | — | — | 12,042 |
| Cost of product revenues | — | 3,389 | — | — | 3,389 |
| Research and development | — | 523 | $ 224 | — | 747 |
| Selling, general and administrative | 6,095 | 2,614 | — | $2,182 | 10,891 |
| Provision for uncollectible accounts receivable | 800 | 14 | — | — | 814 |
| Legal fee expense | 13 | 3 | — | 415 | 431 |
| Total operating costs and expenses | 18,950 | 6,543 | 224 | 2,597 | 28,314 |
| Operating income (loss) | 1,384 | 799 | (224) | (2,597) | (638) |
| Other income (expense): | | | | | |
| Interest | (25) | 12 | — | 170 | 157 |
| Other | 14 | 7 | — | 15 | 36 |
| Foreign exchange loss | — | (195) | — | — | (195) |
| Income (loss) before income taxes | $1,373 | $ 623 | $ (224) | $(2,412) | $ (640) |
| Depreciation and amortization included above | $404 | $ 326 | $ — | $19 | $ 749 |
| Share-based compensation included in above: | | | | | |
| Selling, general and administrative | 32 | $ 23 | — | $150 | 205 |
| Total | $32 | $ 23 | $ — | $150 | $ 205 |
| Capital expenditures | $418 | $ 43 | $ — | $— | $ 461 |

**Three months ended October 31, 2016**

| | Clinical Labs | Life Sciences | Therapeutics | Other | Consolidated |
|---|---|---|---|---|---|
| Revenues: | | | | | |
| Clinical laboratory services | $18,558 | — | — | — | $ 18,558 |
| Product revenues | — | $ 7,426 | — | — | 7,426 |
| Royalty and license fee income | — | 300 | — | — | 300 |
| | 18,558 | 7,726 | — | — | 26,284 |
| Operating costs, expenses and legal settlements, net: | | | | | |
| Cost of clinical laboratory services | 10,896 | — | — | — | 10,896 |
| Cost of product revenues | — | 3,309 | — | — | 3,309 |
| Research and development | — | 627 | $ 195 | — | 822 |
| Selling, general and administrative | 5,952 | 2,946 | — | $2,596 | 11,494 |
| Provision for uncollectible accounts receivable | 666 | 3 | — | — | 669 |
| Legal fee expense | 52 | 12 | — | 308 | 372 |
| Total operating costs, expenses and legal settlements, net | 17,566 | 6,897 | 195 | 2,904 | 27,562 |
| Operating income (loss) | 992 | 829 | (195) | (2,904) | (1,278) |
| Other income (expense): | | | | | |
| Interest | (29) | 10 | — | 65 | 46 |
| Other | 102 | — | — | 17 | 119 |
| Foreign exchange loss | — | (361) | — | — | (361) |
| Income (loss) before income taxes | $1,065 | $ 478 | $ (195) | $(2,822) | $ (1,474) |
| Depreciation and amortization included above | $401 | $ 508 | $ — | $18 | $ 927 |
| Share-based compensation included in above: | | | | | |
| Selling, general and administrative | 17 | $ 11 | — | $121 | 149 |
| Total | $19 | $ 11 | $ — | $121 | $ 151 |
| Capital expenditures | $412 | $ 102 | $ — | $— | $ 514 |

**Note 11 – Contingencies**

As of August 1, 2014, the Company was engaged in litigation in the United States District Court for the Southern District of New York against Roche Diagnostic GmbH and its related company Roche Molecular Systems, Inc. ("Roche"), as declaratory judgment defendant. This case was commenced in May 2004. Roche seeks a declaratory judgment of non-breach of contract and patent invalidity against the Company. Roche has also asserted tort claims against the Company. The Company has asserted breach of contract and patent infringement causes of action against Roche. There has been extensive discovery in the case. In 2011, Roche moved for summary judgment of non-infringement regarding the Company's patent claims. In 2012, the motion was granted in part and denied in part. In December 2012, Roche 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. In December 2013, the Court granted in part and denied in part Roche's summary judgment motion. In October 2014, the Court ordered that damages discovery concerning the Company's remaining contract and patent claims and Roche's claims should be completed by the end of January 2015, and expert discovery should be completed following the Court's not-yet-issued claim construction ruling concerning the Company's patent infringement claim against Roche. Roche dropped its tort claims during damages discovery. On October 2, 2017, the Court issued its claim construction ruling. On October 20, 2017, the Court issued a scheduling order which requires the completion of expert discovery by February 28, 2018 and schedules a conference on April 5, 2018 that will function as a pre-trial conference or a pre-motion conference. The Company and Enzo Life Sciences intend to vigorously press their remaining claims and contest the claims against them.

As of October 31, 2017, there are seven pending cases originally brought by the Company in the United States District Court for the District of Delaware ("the Court") alleging patent infringement against various companies. On June 28, 2017, the Court issued an opinion in the Gen-Probe case, granting Gen-Probe's motion for summary judgment that the asserted claims of the '180 patent are invalid for nonenablement. The Court entered final judgment of invalidity of the asserted claims of the '180 patent on July 19, 2017 in the Gen-Probe and Hologic cases. The Court entered partial final judgment of invalidity of the asserted claims of the '180 patent and stayed the remainder of the cases in the Becton Dickinson and Roche cases on July 31, 2017 and August 2, 2017, respectively. The Company filed notices of appeal in each of the Gen-Probe, Hologic, Becton Dickinson, and Roche cases, which were docketed by the United States Court of Appeals for the Federal Circuit ("Federal Circuit"). In the Abbott case, the parties agreed that the Court's summary judgment ruling in the Gen-Probe case invalidated all of the '180 patent claims asserted against the Abbott Defendants. On August 15, 2017, the Court granted Abbott's motion for summary judgment that the asserted claims of the '405 patent are invalid for nonenablement. On September 1, 2017, the Court entered final judgment of invalidity of the asserted claims of the '180 and '405 patents for nonenablement in the Abbott case. Enzo subsequently filed a notice of appeal in the Abbott case on September 14, 2017. The Federal Circuit docketed the appeal on September 15, 2017. The Federal Circuit consolidated the appeals from the Abbott, Becton Dickinson, Gen-Probe, Hologic, and Roche litigations ("Consolidated Appeals"). We disagree with the Court's invalidity decisions regarding the '180 and '405 patents in the pending cases as set forth in our opening brief in the Consolidated Appeals pending in the Federal Circuit filed on November 28, 2017. In the Consolidated Appeals, we have asked the Federal Circuit to reverse the Court's grants of final and summary judgment of invalidity of the asserted claims of the '180 and '405 patents and to remand the cases against Abbott, Becton Dickinson, Gen-Probe, Hologic, and Roche to the Court. In the other two cases involving Hologic, one of the cases is stayed, while the other case is proceeding under the Court's scheduling order with fact and expert discovery deadlines through September 2018, a summary judgment hearing date in February 2019, and a trial date in May 2019. The Court granted Enzo's motion to amend its complaint to add two new defendants to that case.

There can be no assurance that the Company will be successful in these litigations. Even if the Company is not successful, management does not believe that there will be a significant adverse monetary impact on the Company.

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", "beli "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 July 31, 2017 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 an integrated diagnostic bioscience company focusing on delivering and applying advanced technology capabilities to produce affordable reliable products and services to allow our customers to meet their clinical needs. We develop, manufacture and sell our proprietary technology solutions and platforms to clinical laboratories, specialty clinics and researchers and physicians globally. Enzo's structure and business strategy represent the culmination of years of extensive planning and work. The Company now has the unique ability to offer low cost, high performance products and services in molecular diagnostics, which ideally positions it to capitalize on the reimbursement pressures facing diagnostic labs. Our pioneering work in

genomic analysis coupled with our extensive patent estate and enabling platforms have positioned the Company to continue to play an important role in the rapidly growing molecular medicine marketplaces.

Enzo technology solutions and platforms and unique operational structure are designed to reduce overall healthcare costs for both government and private insurers. Our proprietary technology platforms reduces our customers' need for multiple, specialized instruments, and offer a variety of high throughput capabilities together with a demonstrated high level of accuracy and reproducibility. Our genetic test panels are focused on large and growing markets primarily in the areas of personalized medicine, women's health, infectious diseases and genetic disorders.

For example, our AMPIPROBE® technology platform can lead to the development of an entire line of nucleic acid clinical products that can allow laboratories to offer a complete menu of services at a cost that allows them to enjoy an acceptable margin. Our technology solutions provide tools to physicians, clinicians and other health care providers to improve detection, treatment and monitoring of a broad spectrum of diseases and conditions. In addition, reduced patient to physician office visits translates into lower healthcare processing costs and greater patient services.

In the course of our research and development activities, we have built a substantial portfolio of intellectual property assets, comprised of 336 issued patents worldwide, and over 151 pending patent applications, along with extensive enabling technologies and platforms.

Below are brief descriptions of each of our operating segments (See Note 10 in the Notes to Consolidated Financial Statements):

**Enzo Clinical Labs** is a clinical reference laboratory providing a wide range of clinical services to physicians, medical centers, other clinical labs and pharmaceutical companies. The Company believes having a CLIA-certified and a College of American Pathologists ("CAP") accredited medical laboratory located in New York provides us the opportunity to more rapidly introduce cutting edge products and services to the clinical marketplace. Enzo Clinical Labs offers an extensive menu of molecular and other clinical laboratory tests and procedures used in patient care by physicians to establish or support a diagnosis, monitor treatment or medication, and search for an otherwise undiagnosed condition. Our laboratory is equipped with state-of-the-art communication and connectivity solutions enabling the rapid transmission, analysis and interpretation of generated data. We operate a full service clinical laboratory in Farmingdale, New York, a network of over 30 patient service centers throughout New York, New Jersey and expanding into Connecticut, a free standing "STAT" or rapid response laboratory in New York City and a full service phlebotomy, in-house logistics department, and an information technology department. Given our license in New York State, we are able to offer testing services to clinical laboratories and physicians in the majority of states nationwide.

**Enzo Life Sciences** manufactures, develops and markets products and tools to clinical research, drug development and bioscience research customers worldwide. Underpinned by broad technological capabilities, Enzo Life Sciences has developed proprietary products used in the identification of genomic information by laboratories around the world. Information regarding our technologies can be found in the "Core Technologies" section (See Form 10K for the fiscal year ended July, 31, 2017). We are internationally recognized and acknowledged as a leader in the development, manufacturing validation and commercialization of numerous products serving not only the clinical research market but life sciences researchers in the fields of cellular analysis and drug discovery, among others. Our operations are supported by global operations allowing for the efficient marketing and delivery of our products around the world.

**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 101 patents and patent applications.

***Results of Operations***

***Three months ended October 31, 2017 compared to October 31, 2016***
***(in 000s)***

Comparative Financial Data for the Three Months Ended October 31,

| | 2017 | 2016 | Increase (Decrease) | % Change |
|---|---|---|---|---|
| Revenues: | | | | |
| Clinical laboratory services | $20,334 | $18,558 | $ 1,776 | 10 |
| Product revenues | 7,081 | 7,426 | (345) | (5) |
| Royalty and license fee income | 261 | 300 | (39) | (13) |
| Total revenues | 27,676 | 26,284 | 1,392 | 5 |
| | | | | |
| Operating costs, expenses and legal settlements, net: | | | | |
| Cost of clinical laboratory services | 12,042 | 10,896 | 1,146 | 11 |
| Cost of product revenues | 3,389 | 3,309 | 80 | 2 |
| Research and development | 747 | 822 | (75) | (9) |
| Selling, general and administrative | 10,891 | 11,494 | (603) | (5) |
| Provision for uncollectible accounts receivable | 814 | 669 | 145 | 22 |
| Legal fee expense | 431 | 372 | 59 | 16 |
| Total costs, expenses and legal settlements, net | 28,314 | 27,562 | 752 | 3 |
| | | | | |
| Operating loss | (638) | (1,278) | 640 | 50 |
| | | | | |
| Other income (expense): | | | | |
| Interest | 157 | 46 | 111 | ** |
| Other | 36 | 119 | (83) | (70) |
| Foreign currency loss | (195) | (361) | 166 | (46) |
| (Loss) before income taxes | $(640) | $(1,474) | $ 834 | 57 |

**** not meaningful**

**Consolidated Results:**

The “2018 period” and the “2017 period” refer to the three months ended October 31, 2017 and 2016, respectively.

Clinical laboratory services revenues for the 2018 period were $20.3 million compared to $18.6 million in the 2017 period, an increase of $1.8 million or 10%. The increase is attributed to molecular and women’s health testing volume

in women’s health markets, the addition of new accounts, and expansion of the service area versus the 2017 period.

Product revenues for the 2018 period were $7.1 million compared to $7.4 million in the 2017 period, a decrease of $0.3 million or 5%. The decrease resulted from lower product order volume due to lower research funding and lower pricing due to competition in the United States, which was partially offset by organic growth in foreign markets and the positive impact of foreign currency translation.

The cost of clinical laboratory services during the 2018 period was $12.0 million as compared to $10.9 million in the 2017 period, an increase of $1.1 million or 11% due to the volume increase in clinical laboratory services revenue from molecular testing.

The cost of product revenues was $3.4 million in the 2018 period and $3.3 million in the 2017 period, an increase of $0.1 million or 2% due to the sale of lower margin items. The gross profit margin was 52% in the 2018 period and 55% in the 2017 period, and negatively impacted by the sale of lower margin products and price discounting.

Research and development expenses were $0.7 million versus $0.8 million in the 2017 period, a decrease of $0.1 million or 9%. The expense for the Life Sciences segment decreased $0.1 million due to lower compensation and patent expenses. The expense for the Therapeutics segment was unchanged in both periods.

Selling, general and administrative expenses were approximately $10.9 million during the 2018 period versus $11.5 million during the 2017 period, a decrease of $0.6 million or 5%. The Clinical Lab segment expense increased $0.1 million comprised of a $0.4 million increase in selling salaries, office and IT expenses, and billing and collection expenses for self-pay patient receivables, partially offset by a decrease of $0.3 million in commissions, information technology support and office salaries, and bank fees. The Life Sciences segment expense decreased $0.3 million due to a decrease of $0.2 for intangibles amortization and a decrease in web based advertising of $0.1 million. The Other segment expense decreased $0.4 million, comprised of a decrease in compensation related expenses of $0.3 million and decrease of $0.1 million in professional fees and office expense.

The provision for uncollectible accounts receivable, primarily related to the Clinical Labs segment, was approximately $0.8 million in the 2018 period and $0.7 million in the 2017 period, an increase of approximately $0.1 million. As a percentage of Clinical laboratory services, the provision for uncollectible accounts receivable relating to the Clinical Labs segment was 3.9% in the 2018 period and 3.6% in the 2017 period.

Legal fee expense was just over $0.4 million during the 2018 period compared to just under $0.4 million in the 2017 period, an increase of $0.1 million or 16% due to the timing of legal activity and related costs associated with on-going patent litigation where the Company is plaintiff.

**Segment Results:**

**Clinical Labs**

Revenue from laboratory services for the 2018 period were $20.3 million compared to $18.6 million in the 2017 period. The increase of $1.8 million or 10% is attributed to increased molecular and women’s health testing volume and the addition of new accounts and expansion of the service area. Cost of sales during the 2018 period was $12.0 million as compared to $10.9 million in the 2017 period, an increase of $1.1 million or 11% due to higher testing volume. Gross profit margin was 41% in the 2018 period and 41% in the 2017 period both attributed to higher margin molecular testing. As a percentage of revenues, the provision for uncollectable accounts, primarily for self-pay patient accounts, was 3.9% for the 2018 period and 3.6% for the 2017 period. Income before taxes was $1.4 million for 2018 period as compared to $1.1 million in the 2017 period, an increase of $0.3 million.

**Life Sciences**

Product revenues for the 2018 period were $7.1 million compared to $7.4 million in the 2017 period, a decrease of $0.3 million or 5%. The decrease resulted from lower product order volume due to lower research funding and lower pricing due to competition in the United States, which was partially offset by organic growth in foreign markets and the positive impact of foreign currency translation. The segment's gross profit was $4.0 million in the 2018 period and $4.4 million in the 2017 period. The gross profit margin was 52% in the 2018 period and 55% in the 2017 period and negatively impacted by the sales of lower margin products and price discounting. In the 2018 period, selling general and administrative expenses decreased $0.3 million and research and development decreased $0.1 million compared to the 2017 period. Due to smaller depreciation of foreign currencies versus the US dollar during the 2018 period compared to the 2017 period, in particular the British pound, the foreign currency loss was $0.2 million compared to a loss of $0.4 million in the 2017 period, a favorable change of $0.2 million. Income before taxes was $0.6 million for the 2018 period as compared to $0.5 million for the 2017 period, an increase of $0.1 million.

**Therapeutics**

The Therapeutics segment's operating loss before income taxes was approximately $0.2 million in each of the 2018 and 2017 periods.

**Other**

The Other segment's operating loss before taxes for the 2018 period was approximately $2.4 million compared to $2.8 million for the 2017 period, an improvement of $0.4 million. The 2018 period selling general and administrative expense declined $0.4 million compared to the 2017 period due to decreases in compensation related expense, professional fees, and office expense. Interest income increased $0.1 million due to the impact of a higher interest rate earned on cash and cash equivalents during the 2018 period and because of interest expense incurred in the

2017 period on the loan payable then outstanding. The loan was repaid during the second quarter of 2017 period. During the 2018 period, legal fee expense associated with on-going patent litigation increased $0.1 million.

**Liquidity and Capital Resources**

At October 31, 2017, the Company had cash and cash equivalents of $66.8 million of which $0.6 million was in foreign accounts, as compared to cash and cash equivalents of $64.2 million, of which $0.5 million was in foreign accounts at July 31, 2017. 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 $71.4 million at October 31, 2017 compared to $71.3 million at July 31, 2017. The increase in working capital of $0.1 million was primarily due to the period loss and net changes in operating assets and liabilities.

Net cash provided by operating activities as of October 31, 2017 was approximately $2.6 million as compared to cash used in operating activities of $0.3 million in fiscal 2017, an increase of approximately $2.9 million. The increase is due to net changes in assets and liabilities of $2.4 million and decrease in net loss of $0.8 million offset by $0.3 million in non-cash adjustments.

Net cash used in investing activities in fiscal 2018 and 2017 was approximately $0.5 million, which consists primarily of capital expenditures.

Net cash provided by financing activities in fiscal 2018 was approximately $0.6 million as compared to $0.3 million in fiscal 2017. The change of $0.3 million is mainly due to the exercise of stock options.

The Company continued to review all operating units to further reduce annual operating expenditures in fiscal 2018. Revenues and operating results at the Clinical Labs segment improved, but revenues for the Life Sciences segment decreased slightly versus fiscal 2017. If Life Sciences segment revenues were to significantly decline, it could be required to record impairments of its intangible assets, which last occurred in fiscal 2012. The Company believes that its current cash and cash equivalents level, and utilization of the Controlled Equity Offering program if necessary, as disclosed in Form 10-K Note 10 to the financial statements are sufficient for its foreseeable liquidity and capital resource needs over at least 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 equity offerings or other sources. Our liquidity plans are subject to a number of risks and uncertainties, including those described in the Item 1A. "Risk Factors" section of our Form 10-K for the year ended July 31, 2017, 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.

**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, 2017.

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, except as disclosed in Note 11 to the Consolidated 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.’s 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, 2017** | | **Three months ended October 31, 2016** | |
|---|---|---|---|---|
| Revenue category | | | | |
| Third-party payer | $11,660 | 57 % | $10,193 | 55 % |
| Patient self-pay | 2,859 | 14 | 3,103 | 17 |
| Medicare | 2,985 | 15 | 2,835 | 15 |
| HMO's | 2,830 | 14 | 2,427 | 13 |
| Total | $20,334 | 100% | $18,558 | 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.

Other than the Medicare program, one provider whose programs are included in the “Third-party payer” and “Health Maintenance Organizations” (“HMO’s”) categories represents approximately 40% and 36% of the Clinical Labs segment net revenue for the three months ended October 31, 2017 and 2016, respectively.

*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 from these programs.

During the three months ended October 31, 2017 and 2016, the contractual adjustment percentages, determined using current and historical reimbursement statistics, were 85.0% and 83.7%, respectively, of gross billings. In general, 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 molecular 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 $1.4 million and $1.1 million for the three months ended October 31, 2017 and 2016, and a change in the net accounts receivable of approximately $0.6 million as of October 31, 2017.

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. Therefore, we are unable to quantify the effect contractual adjustments recorded during the current period have on revenue recorded in a previous period. However, we can reasonably estimate our monthly 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; and
- 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, 2017, and July 31, 2017, approximately 75%, of the Company’s net accounts receivable relates to its Clinical Labs business, which operates in the New York, New Jersey and Connecticut medical communities.

The Life Sciences segment's accounts receivable, of which $1.2 million or 34% and $1.1 million or 29% represents foreign receivables as of October 31, 2017 and July 31, 2017, includes royalty receivables of $0.1 and $0.4 million, as of October 31, 2017 and July 31, 2017, respectively, from Qiagen Corporation.

Net accounts receivable

| **Billing category** | **As of October 31, 2017** | | **As of July 31, 2017** | |
|---|---|---|---|---|
| Clinical Labs | | | | |
| Third party payers | $7,557 | 70 % | $7,256 | 64 % |
| Medicare | 1,335 | 12 | 1,385 | 12 |
| HMO's | 1,050 | 10 | 1,169 | 10 |
| Patient self-pay | 916 | 8 | 1,591 | 14 |
| Total Clinical Labs | 10,858 | 100% | 11,401 | 100% |
| Total Life Sciences | 3,585 | | 3,779 | |
| Total accounts receivable | $14,443 | | $15,180 | |

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

| | Three months ended October 31, 2017 | Fiscal year ended July 31, 2017 |
|---|---|---|
| Beginning balance | $ 3,576 | $ 3,517 |
| Provision for doubtful accounts | 814 | 2,775 |
| Write-offs, net | (824) | (2,716) |
| Ending balance | $ 3,566 | $ 3,576 |

For the Clinical Labs segment, the allowance for doubtful accounts represents amounts that the Company does not expect to collect after the Company has exhausted its collection procedures. The Company estimates its allowance for doubtful accounts in the period the related services are billed and reduces the allowance in future accounting periods based on write-offs during those periods. It bases the estimate for the allowance on the evaluation of historical experience of accounts going to collections and the net amounts not received. Accounts going to collection include 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 our estimate of the uncollected portion of receivables from self-payers, including deductibles and copayments, which are subject to credit risk and patients' ability to pay. The Company fully reserves through its contractual allowances amounts that 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 adjusts the historical collection analysis for recoveries, if any, on an on-going 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 uninsured patients or patients for whom primary insurance has paid but a patient 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 accurate patient 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.

Billing for laboratory services is complicated because of many factors, especially: the differences between our standard gross fee schedule for all payers and the reimbursement rates of the various payers we deal with, disparity of coverage and information requirements among the various payers, and disputes with payers as to which party is responsible for reimbursement. The allowance for doubtful accounts as a percentage of total accounts receivable at October 31, 2017 and July 31, 2017 was 19.8% and 19.1%, respectively.

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, 2017 | Total | % | Third Party Payers | % | Self-Pay | % | Medicare | % | HMO's | % |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-30 days | $26,025 | 45 | $17,138 | 43 | $ 1,240 | 18 | $ 4,004 | 64 | $3,643 | 88 |
| 31-60 days | 7,680 | 13 | 5,251 | 13 | 1,173 | 17 | 900 | 14 | 356 | 8 |
| 61-90 days | 5,100 | 9 | 3,578 | 9 | 932 | 14 | 512 | 8 | 78 | 2 |
| 91-120 days | 3,899 | 7 | 2,720 | 6 | 777 | 11 | 349 | 5 | 53 | 1 |
| 121-150 days | 3,311 | 6 | 2,295 | 6 | 647 | 10 | 349 | 5 | 20 | — |
| Greater than 150 days | 11,601 | 20 | 9,272 | 23 | 2,026 | 30 | 255 | 4 | 48 | 1 |
| Totals | $57,616 | 100% | $40,254 | 100% | $ 6,795 | 100% | $ 6,369 | 100% | $4,198 | 100% |

| As of July 31, 2017 | Total | % | Third Party Payers | % | Self-Pay | % | Medicare | % | HMO's | % |
|---|---|---|---|---|---|---|---|---|---|---|
| 1-30 days | $25,357 | 42 | $16,683 | 40 | $ 1,082 | 16 | $ 4,022 | 60 | $3,570 | 82 |
| 31-60 days | 8,732 | 15 | 5,723 | 14 | 1,183 | 17 | 1,294 | 19 | 532 | 12 |
| 61-90 days | 5,703 | 10 | 4,208 | 10 | 927 | 14 | 529 | 9 | 39 | 1 |
| 91-120 days | 3,749 | 6 | 2,732 | 6 | 701 | 10 | 288 | 4 | 28 | 1 |
| 121-150 days | 3,689 | 6 | 2,772 | 7 | 672 | 10 | 228 | 3 | 17 | — |
| Greater than 150 days | 12,455 | 21 | 9,652 | 23 | 2,270 | 33 | 379 | 6 | 154 | 4 |
| Totals | $59,685 | 100% | $41,770 | 100% | $ 6,835 | 100% | $ 6,740 | 100% | $4,340 | 100% |

*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 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 net realizable value, which approximates market. Work-in-process and finished goods inventories consist of material, labor, and manufacturing overhead. Write downs of inventories to net realizable 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 and Intangible Assets*

Goodwill represents the excess of the cost of an acquisition over the fair value of the net assets acquired. Intangible assets, arose primarily from acquisitions, and primarily consist of customer relationships, trademarks, licenses, and website and database content. Finite-lived intangible assets are amortized according to their estimated useful lives, which range from 4 to 15 years.

The Company tests goodwill and long-lived assets annually as of the first day of the fourth quarter, or more frequently if indicators of potential impairment exist. In assessing goodwill and long-lived assets for impairment, the Company has the option to first perform a qualitative assessment to determine whether the existence of events or circumstances

leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If the Company determines that it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, the Company is not required to perform any additional tests in assessing goodwill and long-lived assets for impairment. However, if the Company concludes otherwise or elects not to perform the qualitative assessment, then it identifies the reporting units and compares the fair value of each of these reporting units to their respective carrying amount. If the carrying amount of the reporting unit is less than its fair value, no impairment exists. If the carrying amount of the reporting unit is higher than its fair value, the impairment charge is the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill and intangibles allocated to the reporting unit.

**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 section of the Form 10-K for the fiscal year ended July 31, 2017) 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 increase of 10% in the value of the U.S. dollar versus foreign currencies at October 31, 2017, our assets and liabilities would decrease by $0.5 million and $0.1 million, respectively, and our net sales and net earnings (loss) would decrease by $0.9 million and $0.2 million, respectively, on an annual basis.

We also maintain intercompany balances and loans 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 $1.3 million on an annual basis.

*Interest Rate Risk*

As of October 31, 2017, 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, 2017 filed with the Securities and Exchange Commission, other than as noted in Note 11 to the Consolidated Financial Statements as of October 31, 2017.

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, 2017.

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 7, 2017 by: /s/ Barry Weiner
President, Chief Financial Officer, Principal Accounting Officer, Treasurer and Director