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 April 30, 2017

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, 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	☐	Accelerated filer	☒
Non-accelerated filer	☐ (Do not check if smaller reporting company)	Smaller reporting company	☐
Emerging growth company	☐		

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. ☐

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 June 1, 2017, the Registrant had 46,407,331 shares of common stock outstanding.

ENZO BIOCHEM, INC.
FORM 10-Q
April 30, 2017

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

	April 30, 2017 (unaudited)	July 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 62,627	$ 67,777
Accounts receivable, net of allowances	15,805	14,592
Inventories	7,170	6,971
Prepaid expenses and other	1,860	2,057
Total current assets	87,462	91,397
Property, plant and equipment, net	8,093	8,214
Goodwill	7,452	7,452
Intangible assets, net	3,244	4,422
Other assets	326	336
Total assets	$ 106,577	$ 111,821
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable – trade	$ 9,400	$ 9,857
Accrued liabilities	6,761	8,211
Loan payable	—	1,557
Other current liabilities	797	943
Total current liabilities	16,958	20,568
Other liabilities	1,057	1,699
Total liabilities	$ 18,015	$ 22,267
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 and outstanding: 46,407,331 at April 30, 2017 and 46,267,619 at July 31, 2016	464	463
Additional paid-in capital	327,771	326,288
Accumulated deficit	(241,994)	(239,396)
Accumulated other comprehensive income	2,321	2,199
Total stockholders' equity	88,562	89,554
Total liabilities and stockholders' equity	$ 106,577	$ 111,821

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 April 30,		Nine Months Ended April 30,	
	2017	2016	2017	2016
Revenues:				
Clinical laboratory services	$ 19,584	$ 18,162	$ 56,979	$ 52,775
Product revenues	7,312	8,001	21,721	22,266
Royalty and license fee income	193	270	933	1,129
Total revenues	27,089	26,433	79,633	76,170
Operating costs, expenses and legal settlements, net:				
Cost of clinical laboratory services	11,334	11,142	33,282	32,009
Cost of product revenues	3,582	3,846	10,411	10,663
Research and development	766	882	2,071	2,610
Selling, general and administrative	10,502	10,869	33,141	32,374
Provision for uncollectible accounts receivable	620	576	1,968	1,739
Legal fee expense	512	1,632	1,254	5,644
Legal settlements, net	—	—	—	(18,450)
Total operating costs, expenses and legal settlements, net	27,316	28,947	82,127	66,589
Operating income (loss)	(227)	(2,514)	(2,494)	9,581
Other income (expense):				
Interest	115	(40)	240	(122)
Other	(74)	22	69	87
Foreign exchange gain (loss)	147	419	(308)	(99)
Income (loss) before income taxes	(39)	(2,113)	(2,493)	9,447
Provision for income taxes	(32)	(2)	(105)	(296)
Net income (loss)	$ (71)	$ (2,115)	$ (2,598)	$ 9,151
Net income (loss) per common share:				
Basic	$ (0.00)	$ (0.05)	$ (0.06)	$ 0.20
Diluted	$ (0.00)	$ (0.05)	$ (0.06)	$ 0.20
Weighted average common shares outstanding:				
Basic	46,367	46,201	46,310	46,115
Diluted	46,367	46,201	46,310	46,450

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 April 30,		Nine Months Ended April 30,	
	2017	2016	2017	2016
Net income (loss)	$ (71)	$ (2,115)	$ (2,598)	$ 9,151
Other comprehensive income (loss):				
Foreign currency translation adjustments	(116)	(222)	122	66
Comprehensive income (loss)	$ (187)	$ (2,337)	$ (2,476)	$ 9,217

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

ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
Nine Months Ended April 30, 2017
(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, 2016	*46,267,619*	$ 463	$ 326,288	$ (239,396)	$ 2,199	$ 89,554
Net loss for the period ended April 30, 2017	—	—	—	(2,598)	—	(2,598)
Vesting of restricted stock	*2,813*	—	—	—	—	—
Exercise of stock options	*45,358*	—	159	—	—	159
Share-based compensation charges	—	—	601	—	—	601
Issuance of common stock for 401(k) plan match	*91,541*	1	723	—	—	724
Foreign currency translation adjustments	—	—	—	—	122	122
Balance at April 30, 2017	*46,407,331*	$ 464	$ 327,771	$ (241,994)	$ 2,321	$ 88,562

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

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

	Nine Months Ended April 30,	
	2017	**2016**
Cash flows from operating activities:		
Net income (loss)	$ (2,598)	$ 9,151
Adjustments to reconcile net income (loss) to net cash (used in) provided by operating activities:		
Depreciation and amortization of property, plant and equipment	1,552	1,602
Amortization of intangible assets	1,140	1,260
Provision for uncollectible accounts receivable	1,968	1,170
Deferred income tax benefit	—	(8)
Share-based compensation charges	601	370
Accrual for share-based 401(k) employer match expense	552	560
Foreign exchange loss	267	14
Changes in operating assets and liabilities:		
Accounts receivable	(3,192)	(3,040)
Other receivables	—	6,650
Inventories	(213)	447
Prepaid expenses and other	195	402
Accounts payable – trade	(459)	396
Accrued liabilities, other current liabilities and other liabilities	(1,707)	(1,970)
Total adjustments	704	7,853
Net cash (used in) provided by operating activities	(1,894)	17,004
Cash flows from investing activities:		
Capital expenditures	(1,424)	(1,389)
Security deposits and other	6	(1)
Net cash used in investing activities	(1,418)	(1,390)
Cash flows from financing activities:		
Proceeds from borrowings under Credit Agreement	40,694	67,343
Repayments under Credit Agreement	(42,250)	(68,356)
Installment loan and capital lease obligation payments	(428)	(424)
Proceeds from the exercise of stock options	159	66
Net cash used in financing activities	(1,825)	(1,371)
Effect of exchange rate changes on cash and cash equivalents	(13)	8
(Decrease) increase in cash and cash equivalents	(5,150)	14,251
Cash and cash equivalents - beginning of period	67,777	18,109
Cash and cash equivalents - end of period	$ 62,627	$ 32,360

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 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 April 30, 2017, the consolidated statements of operations and comprehensive income (loss) for the three and nine months ended April 30, 2017 and 2016, and the consolidated statements of stockholders' equity and cash flows for the nine months ended April 30, 2017 and 2016 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 interim financial statements should be read in conjunction with the consolidated financial statements for the year ended July 31, 2016 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, 2016 has been derived from the audited financial statements at that date. The results of operations for the three and nine months ended April 30, 2017 are not necessarily indicative of the results that may be expected for the fiscal year ending July 31, 2017.

Effect of New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In April 2015, the FASB issued ASU No. 2015-03 *Interest – Imputation of Interest.* The ASU was issued as part of the Simplification Initiatives, to simplify presentation of debt issuance costs. The amendments in the update require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this update. We adopted this standard at the start of our fiscal year ending July 31, 2017. The adoption of this update had no material impact on our consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, *Simplifying the Measurement of Inventory (Topic 330)*. ASU 2015-11 changes the measurement principle for inventory from the lower of cost or market to lower of cost or net realizable value. We adopted this standard for the fiscal year ending July 31, 2017. The adoption of this update did not have any impact on our consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, *Intangibles – Goodwill and Other – Simplifying the Test for Goodwill Impairment* The ASU eliminates step two in the current two-step process so that any goodwill impairment is measured as the amount by which the reporting unit's carrying amount exceeds its fair value. We adopted this standard effective February 1, 2017 and will utilize this approach for any interim or annual goodwill impairment test performed subsequent to adoption. Early adoption of this ASU did not have any impact on our consolidated financial statements.

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 do not expect to early adopt for reporting periods beginning after December 15, 2016. We expect to use the full retrospective method upon adoption. We are currently assessing the impact the adoption of ASU 2014-09 will have on the Company's combined consolidated financial statements. We continue to evaluate the impact of this standard on our segments.

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.

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. Application of the standard is required for our annual and interim periods beginning August 1, 2017. We do not expect to early adopt the standard. We are in the process of determining the financial statement impact of this new standard on our consolidated financial statements and are currently unable to estimate the impact on our consolidated financial statements.

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.

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 and nine months ended April 30, 2017 and three months ended April 30, 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 and nine months ended April 30, 2017 and the three months ended April 30, 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 987,000, 865,000 and 444,000, respectively. For the nine months ended April 30, 2016, approximately 337,000 weighted average stock options were included in the calculation of diluted weighted average shares outstanding.

For the three and nine months ended April 30, 2017, the effect of zero and 165,000 of outstanding "out of the money" options to purchase common shares were excluded from the calculation of diluted net income per share because their effect would be anti-dilutive. For the three and nine months ended April 30, 2016, the effect of approximately 235,000 and 282,000 of outstanding "out of the money" options to purchase common shares were excluded from the calculation of diluted net income per share because their effect would be anti-dilutive.

Note 3 - Supplemental disclosure for statement of cash flows

For the nine months ended April 30, 2017 and 2016, income taxes paid by the Company were $1,021 and $207, respectively.

For the nine months ended April 30, 2017 and 2016, interest paid by the Company was $99 and $112.

For the nine months ended April 30, 2017 and 2016, the Company financed $69 and $76 respectively, in machinery and transportation equipment under installment loans.

During the nine months ended April 30, 2017, the Company did not enter into any capital lease agreements. During the nine months ended April 30, 2016, the Company entered into $1,186 in capital lease agreements.

During the nine months ended April 30, 2017 and 2016, the Company issued shares of common stock in connection with its share-based 401(k) employer match in the amount of $724 and $709, respectively.

Note 4 - Inventories

Inventories consist of the following:

	April 30, 2017	July 31, 2016
Raw materials	$ 939	$ 951
Work in process	1,881	1,755
Finished products	4,350	4,265
	$ 7,170	$ 6,971

Note 5 – Goodwill and intangible assets

At April 30, 2017 and July 31, 2016, the Company's net carrying amount of goodwill, related to the Clinical Labs segment, is $7,452.

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, 2016	$ 27,650	$ (23,228)	$ 4,422
Amortization expense	—	(1,140)	(1,140)
Foreign currency translation	(159)	121	(38)
April 30, 2017	$ 27,491	$ (24,247)	$ 3,244

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

	April 30, 2017			July 31, 2016		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
Patents	$ 11,027	$ (10,931)	$ 96	$ 11,027	$ (10,905)	$ 122
Customer relationships	12,034	(8,948)	3,086	12,122	(8,331)	3,791
Website and acquired content	1,006	(1,006)	—	1,011	(1,011)	—
Licensed technology and other	481	(450)	31	485	(437)	48
Trademarks	2,943	(2,912)	31	3,005	(2,544)	461
Total	$ 27,491	$ (24,247)	$ 3,244	$ 27,650	$ (23,228)	$ 4,422

At April 30, 2017, information with respect to intangibles assets acquired is as follows:

	Useful life assigned	Weighted average remaining useful life
Customer relationships	8-15 years	3.5 years
Trademarks	5 years	0.5 year
Other intangibles	10 years	2.5 years

At April 30, 2017, the weighted average useful life of intangible assets is approximately three 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 nominal interest rate for the four month period the loan was outstanding during fiscal year 2017 and year ended July 31, 2016 was 5.25%. The effective interest rate for the credit agreement was 14.3% for the four month period the loan was outstanding in fiscal 2017 and 11.4% for the fiscal year ended July 31, 2016. The Credit Agreement expired and was repaid in full on December 7, 2016.

Note 7 – Accrued Liabilities and Other Current Liabilities

Accrued liabilities consist of the following:

	April 30, 2017	July 31, 2016
Payroll, benefits, and commissions	$ 3,956	$ 3,956
Professional fees	526	503
Legal fee expense	458	954
Research and development	—	300
Other	1,821	2,498
	$ 6,761	$ 8,211

Note 8 – Other Liabilities

Other liabilities consist of the following:

	April 30, 2017	July 31, 2016
Capital lease obligations, net of short term	$ 618	$ 794
Accrued legal settlement	400	800
Installment loans, net of short term	39	105
	$ 1,057	$ 1,699

As of April 30, 2017, future minimum payments under the capital leases, net of interest of $140 aggregates $861 including a short term debt portion of $243 included in other current liabilities. Future minimum payments under the installment loans aggregate $186, including a short term portion of $147 included in other current liabilities. A total of $400 is included in other current liabilities and $400 in other liabilities as accrued legal settlement which is further discussed in Note 12 - Contingencies.

Note 9 – Stockholders' Equity

Controlled Equity Offering

In March 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.

In December 2014, the Sales Agreement was amended in order for the Company to offer and sell, through Cantor, acting as agent, additional shares of Common Stock having an aggregate offering price of $20.0 million. In connection with the amendment to the Sales Agreement, the Company also filed with the Security and Exchange Commission ("SEC") a prospectus supplement dated December 31, 2014.

Most recently with respect to the Sales Agreement, the Company filed a "shelf" registration and prospectus supplement dated September 1, 2016 which was declared effective by the SEC on November 3, 2016.

During the nine months ended April 30, 2017 and 2016, the Company did not sell any shares of Common Stock under the Sales Agreement.

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, 2016. 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 April 30,		Nine months ended April 30,	
	2017	2016	2017	2016
Stock options	$ 204	$ 143	$ 586	$ 351
Restricted stock	5	6	15	19
	$ 209	$ 149	$ 601	$ 370

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 April 30,		Nine months ended April 30,	
	2017	2016	2017	2016
Cost of clinical laboratory services	$ 2	$ 2	$ 5	$ 5
Selling, general and administrative	207	147	596	365
	$ 209	$ 149	$ 601	$ 370

No excess tax benefits were recognized during the nine month periods ended April 30, 2017 and 2016.

Stock Option Plans

The following table summarizes stock option activity during the nine month period ended April 30, 2017:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (000s)
Outstanding at July 31, 2016	1,808,875	$ 3.43		
Awarded	493,996	$ 7.07		
Exercised	(45,358)	$ 3.28		$ 338
Cancelled or expired	(9,000)	$ 4.74		
Outstanding at end of period	2,248,513	$ 4.23	2.7 years	$ 10,433
Exercisable at end of period	1,484,993	$ 3.26	1.2 years	$ 8,231

As of April 30, 2017, the total future compensation cost related to non-vested options, not yet recognized in the statements of operations, was $1.4 million and the weighted average period over which the remaining expense of these awards is expected to be recognized is twenty 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 nine months ended April 30, 2017 is as follows:

	Awards	Weighted Average Award Price
Outstanding at July 31, 2016	8,501	$ 4.13
Awarded	—	—
Vested	(2,813)	$ (3.49)
Forfeited	—	—
Unvested at end of period	5,688	$ 1.96

The fair value of a restricted stock award is determined based on the closing stock price on the award date. As of April 30, 2017, there was approximately $0.01 million of unrecognized compensation cost related to unvested restricted stock-based compensation to be recognized over a weighted average remaining period of approximately seven months.

The fair value of the awards that vested during the nine months ended April 30, 2017 and 2016 was $19 and $30, respectively.

The total number of shares available for grant as equity awards from the 2011 Incentive Plan is approximately 333,000 shares as of April 30, 2017.

During the nine months ended April 30, 2017, the Company contributed $724 to match its employees' 401(k) contributions by issuing 91,541 shares of its common stock, representing the fair value of the shares at the date of issuance, and adjusted common stock and additional paid in capital by the same amount.

During the nine months ended April 30, 2016, the Company contributed $709 to match its employees' 401(k) contributions by issuing 160,352 shares of its common stock, representing the fair value of the shares at the date of issuance, and adjusted common stock and additional paid in capital by the same amount.

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 for the three months ended April 30, 2017 and 2016 was 82.0% and de minimis, respectfully. The Company's effective tax rate provision for the nine months ended April 30, 2017 and 2016 was 4.2% and 3.1%, respectively. The tax provision for the 2017 periods was based on state, local and foreign taxes. The tax provision for the nine months ended April 30, 2016 included a provision for federal alternative minimum tax. The Company's effective tax rate for all 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 in various states and New York City. Certain subsidiaries file separate state and foreign tax returns.

Note 11 – 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. Legal settlements, net represent 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, 2016.

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

Three months ended April 30, 2017

	Clinical Labs	Life Sciences	Therapeutics	Other	Consolidated
Revenues:					
Clinical laboratory services	$ 19,584	—	—	—	$ 19,584
Product revenues	—	$ 7,312	—	—	7,312
Royalty and license fee income	—	193	—	—	193
	19,584	7,505	—	—	27,089
Operating costs and expenses:					
Cost of clinical laboratory services	11,334	—	—	—	11,334
Cost of product revenues	—	3,582	—	—	3,582
Research and development	—	552	$ 214	—	766
Selling, general and administrative	6,118	2,745	—	$ 1,639	10,502
Provision for uncollectible accounts receivable	650	(30)	—	—	620
Legal fee expense	4	42	—	466	512
Total operating costs and expenses	18,106	6,891	214	2,105	27,316
Operating income (loss)	1,478	614	(214)	(2,105)	(227)
Other income (expense):					
Interest	(28)	12	—	131	115
Other	7	(98)	—	17	(74)
Foreign exchange loss	—	147	—	—	147
Income (loss) before income taxes	$ 1,457	$ 675	$ (214)	$ (1,957)	$ (39)
Depreciation and amortization included above	$ 390	$ 423	$ —	$ 37	$ 850
Share-based compensation included in above:					
Cost of clinical laboratory services	$ 2	—	—	—	$ 2
Selling, general and administrative	38	$ 23	—	$ 146	207
Total	$ 40	$ 23	$ —	$ 146	$ 209
Capital expenditures	$ 483	$ 252	$ —	$ —	$ 735

Three months ended April 30, 2016

	Clinical Labs	Life Sciences	Therapeutics	Other	Consolidated
Revenues:					
Clinical laboratory services	$ 18,162	—	—	—	$ 18,162
Product revenues	—	$ 8,001	—	—	8,001
Royalty and license fee income	—	270	—	—	270
	18,162	8,271	—	—	26,433
Operating costs and expenses:					
Cost of clinical laboratory services	11,142	—	—	—	11,142
Cost of product revenues	—	3,846	—	—	3,846
Research and development	—	674	$ 208	—	882
Selling, general and administrative	6,008	2,877	—	$ 1,984	10,869
Provision for uncollectible accounts receivable	612	(36)	—	—	576
Legal fee expense	54	11	—	1,567	1,632
Legal settlements, net	—	—	—	—	—
Total operating costs and expenses	17,816	7,372	208	3,551	28,947
Operating income (loss)	346	899	(208)	(3,551)	(2,514)
Other income (expense)					
Interest	(33)	7	—	(14)	(40)
Other	2	4	—	16	22
Foreign exchange loss	—	419	—	—	419
Income (loss) before income taxes	$ 315	$ 1,329	$ (208)	$ (3,549)	$ (2,113)
Depreciation and amortization included above	$ 418	$ 514	$ —	$ 28	$ 960
Share-based compensation included in above:					
Cost of clinical laboratory services	$ 2	—	—	—	$ 2
Selling, general and administrative	14	$ 9	—	$ 124	147
Total	$ 16	$ 9	$ —	$ 124	$ 149
Capital expenditures	$ 331	$ 115	$ —	$ —	$ 446

Nine months ended April 30, 2017

	Clinical Labs	Life Sciences	Therapeutics	Other	Consolidated
Revenues:					
Clinical laboratory services	$ 56,979	—	—	—	$ 56,979
Product revenues	—	$ 21,721	—	—	21,721
Royalty and license fee income	—	933	—	—	933
	56,979	22,654	—	—	79,633
Operating costs and expenses:					
Cost of clinical laboratory services	33,282	—	—	—	33,282
Cost of product revenues	—	10,411	—	—	10,411
Research and development	—	1,695	$ 376	—	2,071
Selling, general and administrative	17,967	8,596	—	$ 6,578	33,141
Provision for uncollectible accounts receivable	1,910	58	—	—	1,968
Legal fee expense	105	70	—	1,079	1,254
Total operating costs and expenses	53,264	20,830	376	7,657	82,127
Operating income (loss)	3,715	1,824	(376)	(7,657)	(2,494)
Other income (expense):					
Interest	(85)	34	—	291	240
Other	126	(98)	—	41	69
Foreign exchange loss	—	(308)	—	—	(308)
Income (loss) before income taxes	$ 3,756	$ 1,452	$ (376)	$ (7,325)	$ (2,493)
Depreciation and amortization included above	$ 1,185	$ 1,432	$ —	$ 75	$ 2,692
Share-based compensation included in above:					
Cost of clinical laboratory services	$ 5	—	—	—	$ 5
Selling, general and administrative	74	$ 49	—	$ 473	596
Total	$ 79	$ 49	$ —	$ 473	$ 601
Capital expenditures	$ 1,070	$ 354	$ —	$ —	$ 1,424

Nine **months ended April 30, 2016**

	Clinical Labs	Life Sciences	Therapeutics	Other	Consolidated
Revenues:					
Clinical laboratory services	$ 52,775	—	—	—	$ 52,775
Product revenues	—	$ 22,266	—	—	22,266
Royalty and license fee income	—	1,129	—	—	1,129
	52,775	23,395	—	—	76,170
Operating costs, expenses and legal settlements, net:					
Cost of clinical laboratory services	32,009	—	—	—	32,009
Cost of product revenues	—	10,663	—	—	10,663
Research and development	—	2,002	$ 608	—	2,610
Selling, general and administrative	16,943	8,709	—	$ 6,722	32,374
Provision for uncollectible accounts receivable	1,787	(48)	—	—	1,739
Legal fee expense	120	(6)	—	5,530	5,644
Legal settlements, net	1,500	(19,950)	—	—	(18,450)
Total operating costs, expenses and legal settlements, net	52,359	1,370	608	12,252	66,589
Operating income (loss)	416	22,025	(608)	(12,252)	9,581
Other income (expense)					
Interest	(75)	38	—	(85)	(122)
Other	5	35	—	47	87
Foreign exchange loss	—	(99)	—	—	(99)
Income (loss) before income taxes	$ 346	$ 21,999	$ (608)	$ (12,290)	$ 9,447
Depreciation and amortization included above	$ 1,226	$ 1,568	$ —	$ 68	$ 2,862
Share-based compensation included in above:					
Cost of clinical laboratory services	$ 5	—	—	—	$ 5
Selling, general and administrative	33	$ 19	—	$ 313	365
Total	$ 38	$ 19	$ —	$ 313	$ 370
Capital expenditures	$ 1,122	$ 267	$ —	$ —	$ 1,389

Note 12 – Contingencies

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., which became Life Technologies, Inc. and was acquired by Thermo Fisher Scientific, Inc. (NYSE:TMO) on February 3, 2014. 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. On January 6, 2014, the judge awarded prejudgment interest of approximately $12.5 million and additional post-interest on the full amount was also be awarded starting November 7, 2012 until the total award is satisfied. The final award to the Company could have been reduced or subject to possible claims from third parties. On March 16, 2015, the Court of Appeals for the Federal Circuit vacated that judgment in a decision remanding the matter to the district court for further proceedings. On February 22, 2016, the Connecticut District Court granted Applera's motion for summary judgment of non-infringement. The Company appealed that decision. 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.

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. On December 6, 2013, the Court granted in part and denied in part Roche's summary judgment motion. On October 22, 2014, the Court ordered that damages discovery concerning the Company's remaining contract and patent claims and Roche's claims should be completed by January 30, 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 April 28, 2015, the Court heard oral argument on claim construction issues. On May 8, 2015, Roche and the Company jointly moved the Court to extend the schedule for damages discovery until May 29, 2015, and the Court granted that motion. The parties are waiting for the Courts' ruling on claim construction. The Company and Enzo Life Sciences intend to vigorously press their remaining claims and contest the claims against them.

On September 22, 2014, the Company and the U.S. Department of Justice reached a settlement agreement to resolve an investigation focused primarily on an alleged failure to collect diagnosis codes from physicians who ordered tests through Enzo Clinical Labs. During fiscal year 2014, the Company recorded a charge of $2.0 million in the statement of operations under legal settlements, net within the Clinical Labs segment. The settlement amount is being paid with interest over a five-year period. During fiscal year 2016, the Company accrued an additional $1.5 million, due to the Company's achievement of certain financial milestones. As of April 30, 2017, the total liability for this settlement is $0.8 million, of which $0.4 million is included in other current liabilities and $0.4 million included in other liabilities.

On June 20, 2014, the Company, as plaintiff finalized and executed a settlement agreement with PerkinElmer, Inc., and PerkinElmer Health Sciences, Inc. (formerly known as PerkinElmer Life Sciences, Inc.) (together, "PerkinElmer"), with respect to an action between the Company and PerkinElmer before the U.S. District Court, Southern District of New York, Case No 03-CV-3817. PerkinElmer paid $7.0 million in escrow pursuant to the agreement because of a former attorney's charging lien for fees allegedly owed for past services rendered to the Company. On December 3, 2015, the Company entered into a Settlement Agreement with the former attorney pursuant to which the Company and the former attorney resolved their respective claims against each other. During the three months ended January 31, 2016, the Company received a total of approximately $7.0 million from the escrow referred to above in accordance with the terms of the Settlement Agreement which was included in the statement of operations under Legal settlements, net within the Life Science segment in that period.

On October 9, 2015, the Company reached and finalized a settlement with Affymetrix, Inc. in the amount of $6.8 million, net in a patent infringement action brought by the Company. On January 4, 2016, the Company reached and finalized a settlement agreement with Agilent Technologies, Inc. in the amount of $6.1 million, net in a patent infringement action brought by the Company.

Both cases were originally brought by the Company in the United States District Court for the District of Delaware. The settlements were included in the statement of operations during the applicable fiscal period under Legal settlements, net within the Life Science segment.

On May 16, 2016, the Company reached and finalized a settlement with Life Technologies Corporation in the amount of $24.3 million, net in an infringement action brought by the Company regarding its US Patents No. 6,992,180 and 7,064,197. On July 1, 2016, the Company reached and finalized a settlement with Illumina, Inc., in the amount of $14.5 million, net in an infringement action brought by the Company regarding US Patent No. 7,064,197. These cases were originally brought by the Company in the United States District Court for the District of Delaware. The settlements are included in the statement of operations under Legal settlements, net within the Life Science segment for the fiscal year ended July 31, 2016.

As of April 30, 2017, there are seven pending cases originally brought by the Company in the United States District Court for the District of Delaware alleging patent infringements against various companies. For the cases involving Gen-Probe/Hologic, Roche, and Becton Dickinson, the court has scheduled trial dates in October, November and December 2017, respectively. The court heard summary judgment arguments in those cases on April 4, 2017, but has not ruled on any of the pending summary judgment motions. For the case involving Abbott, the court has set summary judgment briefing deadlines, including a summary judgment hearing in 2017, but has not set a trial date. In the other two cases involving Hologic, one of the cases is stayed pending the resolution of summary judgment motions in the Gen-Probe/Hologic cases, 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. 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", "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 July 31, 2016 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 vertically integrated growth-oriented 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 represents 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 is designed to reduce overall healthcare costs to both government and private insurers.Our proprietary technology platforms reduces our customers' need for multiple, specialized instruments, and offer a variety of 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, comprising 314 issued patents worldwide, and over 146 pending patent applications, along with extensive enabling technologies and platforms.

Below are brief descriptions of each of our operating segments (See Note 11 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 College of American Pathologists ("CAP") certified 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 and New Jersey, a free standing "STAT" or rapid response laboratory in New York City and a full service phlebotomy, in-house logistics department, and 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 of our Form 10-K filing for the July 31, 2016 fiscal year. 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 115 patents and patent applications.

Results of Operations
Three months ended April 30, 2017 compared to April 30, 2016
(in 000s)

Comparative Financial Data for the Three Months Ended April 30,

	2017	2016	Increase (Decrease)	% Change
Revenues:				
Clinical laboratory services	$ 19,584	$ 18,162	$ 1,422	8
Product revenues	7,312	8,001	(689)	(9)
Royalty and license fee income	193	270	(77)	(29)
Total revenues	27,089	26,433	656	2
Operating costs and expenses:				
Cost of clinical laboratory services	11,334	11,142	192	2
Cost of product revenues	3,582	3,846	(264)	(7)
Research and development	766	882	(116)	(13)
Selling, general and administrative	10,502	10,869	(367)	(3)
Provision for uncollectible accounts receivable	620	576	44	8
Legal fee expense	512	1,632	(1,120)	(69)
Total costs and expenses	27,316	28,947	(1,631)	(6)
Operating loss	(227)	(2,514)	2,287	91
Other income (expense):				
Interest	115	(40)	155	**
Other	(74)	22	(96)	**
Foreign currency gain	147	419	(272)	(65)
Loss before income taxes	$ (39)	$ (2,113)	$ (2,074)	98

**** not meaningful**

Consolidated Results:

The “2017 period” and the “2016 period” refer to the three months ended April 30, 2017 and 2016, respectively.

Clinical laboratory services revenues for the 2017 period were $19.6 million compared to $18.2 million in the 2016 period, an increase of $1.4 million or 8%. The increase is attributed to molecular testing volume in women’s health markets and the addition of new accounts versus the 2016 period.

Product revenues for the 2017 period were $7.3 million compared to $8.0 million in the 2016 period, a decrease of $0.7 million or 9%. The decrease was due to lower product order volume in both the United States and foreign markets of $0.6 million and the negative impact of foreign currency translation.

The cost of clinical laboratory services during the 2017 period was $11.3 million as compared to $11.1 million in the 2016 period, an increase of $0.2 million or 2% primarily due to the volume increase in clinical laboratory services revenue from molecular testing.

The cost of product revenues during the 2017 period was $3.6 million compared to $3.9 million in the 2016 period, a decrease of $0.3 million or 7% due to lower sales. The gross profit margin including royalty income was 52% in the 2017 period and 54% in the 2016 period due to the decline in royalty income and a slight increase in production wages.

Research and development expenses were $0.8 million versus $0.9 million in the 2016 period, a decrease of $0.1 million or 13%. The expense for the Life Sciences segment decreased $0.1 million due to lower compensation expense.

Selling, general and administrative expenses were approximately $10.5 million during the 2017 period versus $10.9 million during the 2016 period, a decrease of $0.4 million or 3%. The Clinical Lab segment expense increased $0.1 million for miscellaneous building and office expenses. The Life Sciences segment decreased $0.1 million due to a decrease in the amortization of intangibles. The Other segment expense decreased $0.4 million due to lower benefits costs and consulting.

The provision for uncollectible accounts receivable, primarily related to the Clinical Labs segment, was approximately $0.7 and $0.6 million in the 2017 and 2016 periods, respectively. As a percentage of Clinical laboratory services, the provision for uncollectible accounts receivable relating to the Clinical Labs segment was 3.3% in the 2017 period and 3.4% in the 2016 period.

Legal fee expense was $0.5 million during the 2017 period compared to $1.6 million in the 2016 period, a decrease of $1.1 million or 69% 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 2017 period were $19.6 million compared to $18.2 million in the 2016 period. The increase of $1.4 million or 8% is attributed to increased molecular testing volume and the addition of new accounts. Cost of sales during the 2017 period was $11.3 million as compared to $11.1 million in the 2016 period, an increase of $0.2 million due to higher molecular testing volume and lower reference expenses. Gross profit margin was 42% in the 2017 period and 39% in the 2016 period, attributed to higher margin molecular testing. As a percentage of revenues, the provision for uncollectable accounts was 3.3% as compared to 3.4% in the 2016 period and is derived from self-pay patient responsibility balances. Income before taxes was $1.5 million in the 2017 period as compared to $0.3 million in the 2016 period, a favorable change of $1.2 million.

Life Sciences

Product revenues for the 2017 period was $7.3 million compared to $8.0 million in 2016, a decrease of $0.7 million or 9% in the 2017 period due to volume decreases in product sales of $0.6 million in both the United States and foreign markets and the negative impact of foreign currency translation. The segment's gross profit was $3.9 million in the 2017 period compared to $4.4 million in the 2016 period, due to the impact of lower product revenues and royalty income. Due to lower appreciation of foreign currencies versus the US dollar in the 2017 period versus the 2016 period, in particular the Swiss franc and Euro, the foreign currency gain was $0.1 million versus $0.4 million in the 2016 period, a decrease of $0.3 million. Income before taxes was $0.7 million for the 2017 period as compared to $1.3 million for the 2016 period, a decrease of $0.6 million.

Therapeutics

The Therapeutics segment's loss before taxes was $0.2 million in the 2017 and 2016 periods.

Other

The Other segment's loss before taxes for the 2017 period was approximately $2.0 million as compared to $3.5 million for the 2016 period, an improvement of $1.5 million. During the 2017 period, legal fee expense associated with on-going patent litigation declined $1.1 million, benefits costs and consulting expenses declined $0.3 million, and interest income on cash and cash equivalents increased $0.1 million.

Results of Operations
Nine months ended April 30, 2017 compared to April 30, 2016
(in 000s)

Comparative Financial Data for the Nine Months Ended April 30,

	2017	2016	Increase (Decrease)	% Change
Revenues:				
Clinical laboratory services	$ 56,979	$ 52,775	$ 4,204	8
Product revenues	21,721	22,266	(545)	(2)
Royalty and license fee income	933	1,129	(196)	(17)
Total revenues	79,633	76,170	3,463	5
Operating costs, expenses and legal settlements, net:				
Cost of clinical laboratory services	33,282	32,009	1,273	4
Cost of product revenues	10,411	10,663	(252)	(2)
Research and development	2,071	2,610	(539)	(21)
Selling, general and administrative	33,141	32,374	767	2
Provision for uncollectible accounts receivable	1,968	1,739	229	13
Legal fee expense	1,254	5,644	(4,390)	(78)
Legal settlements, net	—	(18,450)	18,450	(100)
Total costs, expenses and legal settlements, net	82,127	66,589	15,538	23
Operating (loss) income	(2,494)	9,581	(12,075)	**
Other income (expense):				
Interest	240	(122)	362	**
Other	69	87	(18)	(21)
Foreign currency loss	(308)	(99)	(209)	(211)
(Loss) income before income taxes	$ (2,493)	$ 9,447	$ (11,940)	**

**** not meaningful**

Consolidated Results:

The “2017 period” and the “2016 period” refer to the nine months ended April 30, 2017 and 2016, respectively.

Clinical laboratory services revenues for the 2017 period were $57.0 million compared to $52.8 million in the 2016 period, an increase of $4.2 million or 8%. The increase is attributed to molecular testing volume in women’s health markets and the addition of new accounts versus the 2016 period.

Product revenues for the 2017 period were $21.7 million compared to $22.3 million in the 2016 period, a decrease of $0.5 million or 2%. The decrease was due to lower product order volume in both the United States and in foreign markets of $0.2 million and the negative impact of foreign currency translation.

The cost of clinical laboratory services during the 2017 period was $33.3 million as compared to $32.0 million in the 2016 period, an increase of $1.3 million or 4% primarily due to the volume increase in clinical laboratory services revenue from molecular testing.

The cost of product revenues was $10.4 million in the 2017 period and $10.7 million in the 2016 period, a decrease of $0.3 million or 2%. The gross profit margin including royalty income was 54% in both the 2017 and 2016 periods.

Research and development expenses were $2.1 million versus $2.6 million in the 2016 period, a decrease of $0.5 million or 21%. The expense for the Therapeutics segment decreased $0.2 million due to the impact of an adjustment decreasing an obligation for clinical trial activity. The expense for the Life Sciences segment decreased $0.3 million due to lower compensation, materials and patent expenses.

Selling, general and administrative expenses were approximately $33.2 million during the 2017 period versus $32.4 million during the 2016 period, an increase of $0.8 million or 2%. The Clinical Lab segment expense increased $1.0 million comprised of sales and support compensation costs of $0.6 million, $0.3 million in miscellaneous office, information technology and business development expenses, and an increase in collection expenses for self-pay patient receivables of $0.1 million. The Life Sciences segment expense decreased $0.1 million due to a decrease in the amortization of intangibles. The other segment expense decreased $0.1 million due to lower consulting expense.

The provision for uncollectible accounts receivable, primarily related to the Clinical Labs segment, was approximately $1.9 million in the 2017 period and $1.7 million in the 2016 period, an increase of $0.2 million. As a percentage of Clinical laboratory services, the provision for uncollectible accounts receivable relating to the Clinical Labs segment was 3.4% in both the 2017 and 2016 periods.

Legal fee expense was $1.2 million during the 2017 period compared to $5.6 million in the 2016 period, a decrease of $4.4 million or 78% due to the timing of legal activity and related costs associated with on-going patent litigation where the Company is plaintiff. Legal fee expense in the 2016 period also included $0.4 million for contested proxy costs relating to our January 2016 annual stockholders' meeting.

There were no legal settlements during the 2017 period. Legal settlements, net were $(18.5) million in the 2016 period. During the 2016 period the Company as plaintiff finalized and executed settlement agreements with Affymetrix and Agilent Technologies, Inc. relating to patent infringement claims and collected proceeds held in escrow relating to the PerkinElmer, Inc. and Molecular Probes, Inc. settlements, totaling $20.0 million. The Company also recorded an additional charge of $1.5 million relating to the 2014 settlement with the U.S. Department of Justice, due to the achievement of certain financial milestones.

Segment Results:

Clinical Labs

Revenue from laboratory services for the 2017 period were $57.0 million compared to $52.8 million in the 2016 period. The increase of $4.2 million or 8% is attributed to increased molecular testing volume and the addition of new accounts. Cost of sales during the 2017 period was $33.3 million as compared to $32.0 million in the 2016 period, an increase of $1.3 million or 4% due to higher testing volume. Gross profit margin was 42% in the 2017 period and 39% in the 2016 period attributed to higher margin molecular testing. As a percentage of revenues, the provision for uncollectable accounts was 3.4% for both the 2017 and 2016 periods. Income before taxes was $3.8 million for 2017 period as compared to $0.4 million in the 2016 period, an increase of $3.4 million. The 2016 period includes an additional $1.5 million charge for the legal settlement with the U.S. Department of Justice, due to the achievement of certain financial milestones.

Life Sciences

Product revenues for the 2017 period were $21.7 million compared to $22.3 million in the 2016 period, a decrease of $0.5 million or 2%. The decrease is due to lower product sales of $0.2 million in the United States and foreign markets and the negative impact of foreign currency translation. The segment's gross profit was $12.2 million in the 2017 period and $12.7 million in the 2016 period. Due to greater depreciation of foreign currencies versus the US dollar, in particular the Swiss franc and Euro in the 2017 period versus the 2016 period, the foreign currency loss was $0.3 million compared to $0.1 million in the 2016 period, an unfavorable change of $0.2 million. Income before taxes was $1.4 million for the 2017 period as compared to $22.0 million for the 2016 period, a decrease of $20.6 million. The 2016 period includes $20.0 million for patent litigation settlements previously described.

Therapeutics

The Therapeutics segment's operating loss before income taxes was approximately $0.4 million and $0.6 million in the 2017 and 2016 periods, respectively, a decrease of $0.2 million due to the impact of an adjustment decreasing an obligation for clinical trial activity.

Other

The Other segment's operating loss before taxes for the 2017 period was approximately $7.3 million as compared to $12.3 million for the 2016 period, an improvement of $5.0 million. During the 2017 period, legal fee expense associated with on-going patent litigation declined $4.0 million. Interest income increased $0.4 million due to the impact of both the higher level of cash and cash equivalents earning interest in the 2017 period and the repayment of the loan payable during the beginning of the second quarter of 2017 period. The 2016 period included $1.5 million of consulting and legal fee expenses relating to contested proxy costs for the 2016 annual stockholders' meeting. These favorable impacts were partially offset by an increase in compensation and benefits expenses of $0.9 million in the 2017 period.

Liquidity and Capital Resources

At April 30, 2017, the Company had cash and cash equivalents of $62.6 million of which $0.5 million was in foreign accounts, as compared to cash and cash equivalents of $67.8 million, of which $0.5 million was in foreign accounts at July 31, 2016. 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 $70.5 million at April 30, 2017 compared to $70.8 million at July 31, 2016. The decrease in working capital of $0.3 million was primarily due to the period loss and net changes in operating assets and liabilities.

Net cash used in operating activities as of April 30, 2017 was approximately $1.9 million as compared to cash provided by operating activities of $17.0 million in fiscal 2016, a decrease of approximately $18.9 million. The decrease is due to $18.5 million in net legal settlements included in the 2016 period and net changes in assets and liabilities.

Net cash used in investing activities in fiscal 2017 and 2016 was approximately $1.4 million, which consists primarily of capital expenditures.

Net cash used in financing activities in fiscal 2017 was approximately $1.8 million as compared to $1.4 million in fiscal 2016. The change of $0.4 million is mainly due to the expiration and repayment of our credit agreement.

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 Services, LLC (formerly Healthcare Finance Group, LLC). The Credit Agreement expired and was repaid in full on December 7, 2016.

The Company continued to review all operating units to further reduce annual operating expenditures in fiscal 2017. Revenues and operating results at the Clinical Labs segment improved, but revenues for the Life Sciences segment decreased slightly versus fiscal 2016. 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, 2016, 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, 2016 for Forward Looking Cautionary Statements.

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, 2016.

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 12 to the Consolidated Financial Statement.

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 April 30, 2017		Three months ended April 30, 2016	
Revenue category				
Third-party payer	$ 10,455	53%	$ 10,250	57%
Patient self-pay	3,741	19	4,357	24
Medicare	2,832	15	2,421	13
HMO's	2,556	13	1,134	6
Total	$ 19,584	100%	$ 18,162	100%

	Nine months ended April 30, 2017		Nine months ended April 30, 2016	
Revenue category				
Third-party payer	$ 31,422	55%	$ 30,049	57%
Patient self-pay	9,617	17	11,120	21
Medicare	8,462	15	8,174	15
HMO's	7,478	13	3,432	7
Total	$ 56,979	100%	$ 52,775	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 12 in the Notes to Consolidated Financial Statements.

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 38% and 31% of the Clinical Labs segment net revenue for the three months ended April 30, 2017 and 2016 respectively, and 38% and 30% for the nine months ended April 30, 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 April 30, 2017 and 2016, the contractual adjustment percentages, determined using current and historical reimbursement statistics, were 84.4% and 84.6%, respectively, of gross billings. During the nine months ended April 30, 2017 and 2016, the contractual adjustment percentages, determined using current and historical reimbursements statistics, were 83.6% and 84.0%, respectively; the decrease is due to the increase in molecular testing performed. 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 $3.5 million and $3.4 million for the nine months ended April 30, 2017 and 2016, and a change in the net accounts receivable of approximately $0.6 million as of April 30, 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 April 30, 2017, and July 31, 2016, approximately 75% and 71%, respectively, of the Company's net accounts receivable relates to its Clinical Labs business, which operates in the New York and New Jersey medical communities.

The Life Sciences segment's accounts receivable, of which $1.1 million or 28% and $1.2 million or 29% represents foreign receivables as of April 30, 2017 and July 31, 2016, includes royalty receivables of $0.1 and $0.5 million, as of April 30, 2017 and July 31, 2016, respectively, from Qiagen Corporation.

Net accounts receivable

Billing category	As of April 30, 2017		As of July 31, 2016	
Clinical Labs				
Third party payers	$ 7,273	62%	$ 5,738	55%
Patient self-pay	1,099	9	1,676	16
Medicare	1,918	16	1,609	16
HMO's	1,480	13	1,341	13
Total Clinical Labs	11,770	100%	10,364	100%
Total Life Sciences	4,035		4,228	
Total accounts receivable	$ 15,805		$ 14,592	

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

	April 30, 2017	July 31, 2016
Beginning balance	$ 3,517	$ 1,786
Provision for doubtful accounts	1,968	2,336
Write-offs, net	(1,704)	(605)
Ending balance	$ 3,781	$ 3,517

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.

As at April 30, 2017 and 2016, the Company recategorized to collections customers whose accounts receivable had been outstanding more than 210 days. 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'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 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 April 30, 2017 and July 31, 2016 was 19.3% and 19.4%, respectively. During the 2017 period a higher allowance was required due to the volume increase in genetic testing.

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 April 30, 2017	Total	%	Third Party Payers	%	Self-Pay	%	Medicare	%	HMO's	%
1-30 days	$ 31,423	55	$ 20,362	52	$ 3,438	43	$ 4,337	62	$ 3,286	95
31-60 days	8,387	15	5,437	14	2,104	26	832	12	14	0
61-90 days	4,964	9	3,237	8	1,251	15	438	6	38	1
91-120 days	3,945	6	2,366	6	1,107	14	426	6	46	1
121-150 days	2,383	4	1,908	5	28	—	419	6	28	1
Greater than 150 days*	6,521	11	5,769	15	151	2	534	8	67	2
Totals	$ 57,623	100%	$ 39,079	100%	$ 8,079	100%	$ 6,986	100%	$ 3,479	100%

As of July 31, 2016	Total	%	Third Party Payers	%	Self-Pay	%	Medicare	%	HMO's	%
1-30 days	$ 29,091	49	$ 18,020	43	$ 3,138	41	$ 4,945	72	$ 2,988	98
31-60 days	9,081	15	6,176	15	2,253	29	625	9	27	1
61-90 days	6,364	11	3,947	9	1,987	26	402	6	28	1
91-120 days	4,025	7	3,339	8	325	4	354	5	7	—
121-150 days	3,546	5	3,279	7	1	—	261	4	5	—
Greater than 150 days**	7,666	13	7,427	18	(57)	—	292	4	4	—
Totals	$ 59,773	100%	$ 42,188	100%	$ 7,647	100%	$ 6,879	100%	$ 3,059	100%

* Total includes $3,586 fully reserved over 210 days as of April 30, 2017.
** Total includes $3,115 fully reserved over 210 days as of July 31, 2016.

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 (exclusive of patents), 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. Patents represent capitalized legal costs incurred in pursuing patent applications. When such applications result in an issued patent, the related capitalized 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.

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 is required to perform the first step of a two-step quantitative impairment review process. The first step of the quantitative 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 amount. If the carrying amount of the reporting unit is less than its fair value, no impairment exists and the second step is not performed. If the carrying amount of the reporting unit is higher than its fair value, the second step must be performed to compute the amount of the goodwill impairment. In the second step, 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, 2016) 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 April 30, 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 $0.2 million and $0.1 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 $1.2 million on an annual basis.

Interest Rate Risk

As of April 30, 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, 2016 filed with the Securities and Exchange Commission, other than as noted in Note 12 to the Consolidated Financial Statements as of April 30, 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, 2016.

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: June 8, 2017

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 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: June 8, 2017

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 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: June 8, 2017

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 April 30, 2017 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: June 8, 2017

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 April 30, 2017 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: June 8, 2017

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