

March 24, 2016

**Enzo Biochem (NYSE/ENZ)**
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**BUY**
**Q2/16 results strong**
*Enzo Biochem provides molecular diagnostic products and services*
**Investment Highlights**

1) **Enzo Biochem reported very strong financial results for their Q2/2016 (January) quarter**, including revenues of \$24.6 million, up 6% year-over-year, and net income of \$6.8 million, or \$0.15 per share, as compared to a net loss of \$4.1 million or (\$0.09) per share in the same period one year ago. Revenue growth was led by a 19% increase at Enzo Clinical Labs, to \$17.5 million, or 71% of total revenues, offset by declines in life science product sales and royalty and license fees. Bottom line results for Enzo in Q2 were aided by improved gross margins to 44.0% from 43.4% in the past year, as well as a gain on a litigation settlement of \$11.7 million this year, offset to a small extent by one-time charges to deal with a non-successful proxy contest. An expanding number of MDx test offerings as well as new clients led to growth for Enzo Clinical labs, while industry-wide weak demand due to reduced government funding as well as unfavorable foreign currency factors were the culprits in a 15% decline in Enzo Life Sciences revenues this year. Non-GAAP earnings per share, after one-time charges and settlements, improved to a loss of (\$0.07) per share in Q2/2016 from a loss of (\$0.09) per share in Q2/2015. Legal settlements helped increase cash on hand to \$37.0 million at the end of the second quarter, up from \$18.1 million at the start of the fiscal year.

2) **Enzo management did not provide specific financial guidance going forward, and thus we are adjusting our previous estimates for the upcoming third quarter (April) and fiscal 2016E (ending July)**, primarily due to lower revenues from the life science products group. For the upcoming Q3/2016E quarter (ending April), we are estimating that Enzo will post \$24.5 million in revenues, up 2% year-over-year, primarily due to increased clinical laboratory service revenues, with a net loss of \$3.2 million, or (\$0.07) per share, as compared with similar bottom-results of a net loss of \$2.9 million, or (\$0.06) in the previous year period. For the 2016E fiscal year, we are estimating that Enzo will post revenues of \$100.1 million, or 3% above fiscal 2015, and net income of \$4.6 million or \$0.10 per share. While

**Current Price \$4.45**
**Price Target \$7.50**

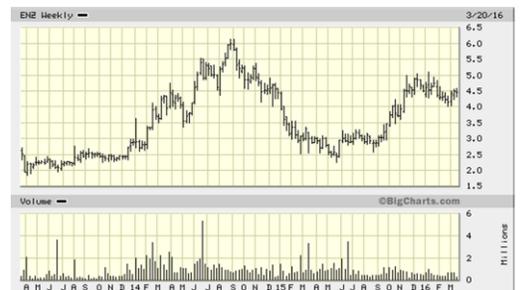
Estimates	F2014A	F2015A	F2016E
Revenues(\$000s)	\$95,947	\$97,599	\$100,087
1Q October	24,134	24,824	25,177 A
2Q January	22,928	23,092	24,560 A
3Q April	23,978	23,986	24,450 E
4Q July	24,907	25,697	25,900 E

EPS (diluted)	(\$0.23)	(\$0.05)	\$0.10
1Q October	(0.07)	(0.08)	0.10 A
2Q January	(0.09)	(0.09)	0.15 A
3Q April	(0.01)	(0.06)	(0.07) E
4Q July	(0.07)	0.18	(0.07) E

P/E (x)	N/A	N/A	N/A
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EBITDA/Share	(\$0.12)	\$0.09	\$0.23
EV/EBITDA (x)	N/A	N/A	N/A

Stock Data	
52-Week Range	\$2.26-\$5.09
Shares Outstanding (mil.)	46.5
Market Capitalization (mil.)	\$207.0
Enterprise Value (mil.)	\$173.0
Debt to Capital (1/16)	5.2%
Book Value/Share (1/16)	\$1.17
Price/Book	3.8 x
Average Trading Volume (3-month)	129,900
Insider Ownership	15.5%
Institutional Ownership	50.1%
Short interest	920,000
Dividend / Yield	\$0.00/0.0%



Price target and ratings changes over the past 3 yrs:  
 Initiated - February 9, 2016 - Buy - Price Target \$7.50

the Company is forecast to burn approximately \$4-\$6 million in cash from operations over the remaining two quarters of this fiscal year, Enzo has plenty of cash on hand to fund these projected losses. In addition, our estimates do not assume any additional litigation settlements accruing for this year, despite the recent successes in this area and eight of the original eleven similar patent cases remaining in litigation.

**3) Simultaneously with its Q2 earnings release, Enzo also announced that the Company has submitted a validation package for its newest Ampiprobe based assay – for the detection and identification of the most common species of Candida yeast fungus – to the reference New York State Department of Health.** The Candida assay, deemed Ampiprobe Candidiasis, is expected to be the first in a panel of tests aimed at the women’s infectious disease market, and employs Enzo’s integrated life science and clinical lab services capabilities. The Candida test market is estimated at 10 million per year, with a high rate of occurrence for individuals prone to the skin infection, and Enzo’s proprietary test needs only a single vaginal swab from the patient, saving time and labor costs for health service providers. The Candida validation package is the second complete validation completed for Ampiprobe and the third submission in the last twelve months, and is expected to be part of a more extensive line of lower cost diagnostic assays – reflecting steadily declining reimbursement rates for diagnostic tests. Further down the road, Enzo is targeting marketing clearance for additional Ampiprobe-based assays for its product portfolio, particularly in the women’s health area related to distinguishing characteristics of tumors by using biopsy specimens.

## Conclusion/Stock Valuation

Enzo Biochem shares have held steady this spring, reflecting strong recent quarterly results and positive R&D progress despite an uncertain reimbursement environment for molecular diagnostics. Still, with a strong balance sheet, revenue growth in its largest business group - clinical lab services, deep product pipeline in the molecular diagnostics area, and several upcoming catalysts, these shares continue to trade at a discount to other, more well-known stocks in related areas, and thus we are maintaining our BUY rating on ENZ shares with a 12-18 month price target of \$7.50 per share. (For full explanation of our stock valuation methodology, please see our Initiation Report dated February 9, 2016)

## Risk Factors

**In addition to normal economic and market risk factors that impact most equities and the common risks shared by Enzo Biochem with other companies in the industry, we believe an investment in ENZ involves the following risks:**

- **FDA and regulatory risks** – Enzo is subject to regulatory review for its ongoing research and development activities, as well as laboratory facilities, principally with the US Food and Drug Administration but also potentially with other international regulatory agencies as well.
- **Need to defend patents, trade secrets and other intellectual property** – At present, ENZ holds 245 patents relating to its products, methods and procedures for several core technology platforms. The Company may need to defend its intellectual property in the US and overseas in the future, particularly in reference to ongoing patent litigation activity.
- **Need to raise additional capital** - Currently, ENZ has enough cash on hand to fund ongoing research and development programs, ongoing patent litigation, and product commercialization activities for several years, approximately. However, the Company does not have a history of profitable operations and unforeseen events including potential delays in product sales, clinical programs and regulatory approvals could require ENZ to raise additional capital through the sale of equity, therefore potentially diluting current shareholders.

- **Limited stock liquidity** – Trading volume in ENZ has been comparatively light compared to other stocks in its industry, and as such, news regarding ENZ, its target market, partners and/or competitors could lead to significant volatility in the stock price.
- **Competitive Markets** – The Company competes in its target molecular diagnostic and clinical laboratory markets with a number of other manufacturers, marketers and service companies, some of which represent much larger companies. There can be no assurance that the Company will be able to successfully launch new products into these competitive markets in the future.

**Enzo Biochem Inc.**  
**Consolidated Statements of Income**  
 (In 000s, except per share data)

Fiscal Year Ended July	2011	2012	2013	2014	1Q15 October	2Q15 January	3Q15 April	4Q15 July	2015	1Q16A October	2Q16A January	3Q16E April	4Q16E July	2016E	2017E
<b>Revenues:</b>															
Clinical laboratory services	\$52,762	\$59,403	\$55,889	\$58,689	\$15,822	\$14,725	\$15,657	\$17,210	\$63,414	\$17,090	\$17,523	\$17,200	\$18,100	\$69,913	\$76,900
Product sales	41,830	37,722	32,526	32,850	8,002	7,723	7,906	8,059	31,690	7,687	6,578	6,800	7,300	28,365	30,000
Royalty and license fee income	7,437	5,958	5,292	4,408	1,000	644	423	428	2,495	400	459	450	500	1,809	1,500
<b>Total Revenues</b>	<b>\$102,029</b>	<b>\$103,083</b>	<b>\$93,707</b>	<b>\$95,947</b>	<b>\$24,824</b>	<b>\$23,092</b>	<b>\$23,986</b>	<b>\$25,697</b>	<b>\$97,599</b>	<b>\$25,177</b>	<b>\$24,560</b>	<b>\$24,450</b>	<b>\$25,900</b>	<b>\$100,087</b>	<b>\$108,400</b>
<b>Operating Expenses:</b>															
Cost of clinical lab services	31,682	36,305	38,251	38,948	10,130	\$9,246	\$9,724	10,489	39,589	10,332	\$10,535	\$10,320	10,950	42,137	46,140
Cost of product revenues	22,137	19,668	16,584	15,320	3,695	3,818	3,779	3,891	15,183	3,611	3,206	3,260	3,430	13,507	14,100
Research and development	7,806	6,293	3,889	3,141	791	834	809	916	3,350	867	861	900	950	3,578	3,790
Selling, general and admin	45,191	47,928	43,654	41,801	10,285	9,670	10,146	10,968	41,069	10,225	11,280	10,270	10,880	42,655	44,400
Bad debt expense	4,431	5,104	4,496	3,063	541	601	589	553	2,284	704	459	480	500	2,143	2,250
Legal fees and settlements	3,710	28,264	5,813	3,854	2,466	2,804	1,785	(9,725)	(2,670)	(5,199)	(9,239)	2,000	2,200	(10,238)	3,000
<b>Total operating expenses</b>	<b>114,957</b>	<b>143,562</b>	<b>112,687</b>	<b>106,127</b>	<b>27,908</b>	<b>26,973</b>	<b>26,832</b>	<b>17,092</b>	<b>98,805</b>	<b>20,540</b>	<b>17,102</b>	<b>27,230</b>	<b>28,910</b>	<b>93,782</b>	<b>113,680</b>
<b>Operating income (loss)</b>	<b>(12,928)</b>	<b>(40,479)</b>	<b>(18,980)</b>	<b>(10,180)</b>	<b>(3,084)</b>	<b>(3,881)</b>	<b>(2,846)</b>	<b>8,605</b>	<b>(1,206)</b>	<b>4,637</b>	<b>7,458</b>	<b>(2,780)</b>	<b>(3,010)</b>	<b>6,305</b>	<b>(5,280)</b>
Other (income) expense, net	105	(442)	31	275	(522)	(325)	(157)	(82)	(1,086)	(116)	(419)	(400)	(400)	(1,335)	(1,500)
<b>Income (loss) before tax</b>	<b>(12,823)</b>	<b>(40,921)</b>	<b>(18,949)</b>	<b>(9,905)</b>	<b>(3,606)</b>	<b>(4,206)</b>	<b>(3,003)</b>	<b>8,523</b>	<b>(2,292)</b>	<b>4,521</b>	<b>7,039</b>	<b>(3,180)</b>	<b>(3,410)</b>	<b>4,970</b>	<b>(6,780)</b>
Income tax expense (benefit)	137	(1,652)	(712)	72	123	(115)	(96)	81	(7)	87	207	10	10	314	200
<b>Net income (loss)</b>	<b>(12,960)</b>	<b>(39,269)</b>	<b>(18,237)</b>	<b>(9,977)</b>	<b>(3,729)</b>	<b>(4,091)</b>	<b>(2,907)</b>	<b>8,442</b>	<b>(2,285)</b>	<b>4,434</b>	<b>6,832</b>	<b>(3,190)</b>	<b>(3,420)</b>	<b>4,656</b>	<b>(6,980)</b>
<b>Basic income per share</b>	<b>(\$0.34)</b>	<b>(\$1.01)</b>	<b>(\$0.46)</b>	<b>(\$0.23)</b>	<b>(\$0.08)</b>	<b>(\$0.09)</b>	<b>(\$0.06)</b>	<b>\$0.18</b>	<b>(\$0.05)</b>	<b>\$0.10</b>	<b>\$0.15</b>	<b>(\$0.07)</b>	<b>(\$0.07)</b>	<b>\$0.10</b>	<b>(\$0.15)</b>
<b>Diluted income per share</b>	<b>(\$0.34)</b>	<b>(\$1.01)</b>	<b>(\$0.46)</b>	<b>(\$0.23)</b>	<b>(\$0.08)</b>	<b>(\$0.09)</b>	<b>(\$0.06)</b>	<b>\$0.18</b>	<b>(\$0.05)</b>	<b>\$0.10</b>	<b>\$0.15</b>	<b>(\$0.07)</b>	<b>(\$0.07)</b>	<b>\$0.10</b>	<b>(\$0.15)</b>
<b>Basic shares outstanding</b>	<b>38,357</b>	<b>38,798</b>	<b>39,607</b>	<b>42,561</b>	<b>44,564</b>	<b>45,000</b>	<b>45,797</b>	<b>45,997</b>	<b>45,355</b>	<b>46,068</b>	<b>46,077</b>	<b>46,100</b>	<b>46,300</b>	<b>46,136</b>	<b>46,700</b>
<b>Diluted shares outstanding</b>	<b>38,357</b>	<b>38,798</b>	<b>39,607</b>	<b>42,561</b>	<b>44,564</b>	<b>45,000</b>	<b>45,797</b>	<b>45,997</b>	<b>45,355</b>	<b>46,193</b>	<b>46,518</b>	<b>46,700</b>	<b>46,900</b>	<b>46,578</b>	<b>47,300</b>
<b>Key ratios:</b>															
Revenue growth		1.0%	-9.1%	2.4%	2.9%	0.7%	0.0%	3.2%	4.2%	1.4%	6.4%	1.9%	0.8%	2.5%	8.3%
Gross margin - lab services	40.0%	38.9%	31.6%	33.6%	36.0%	37.2%	37.9%	39.1%	37.6%	39.5%	39.9%	40.0%	39.5%	39.7%	40.0%
Gross margin - product sales	47.1%	47.9%	49.0%	53.4%	53.8%	50.6%	52.2%	51.7%	52.1%	53.0%	51.3%	52.0%	53.0%	52.4%	53.0%
R&D/revenues	7.7%	6.1%	4.2%	3.3%	3.2%	3.6%	3.4%	3.6%	3.4%	3.4%	3.5%	3.7%	3.7%	3.6%	3.5%
S, G & A/ revenues	44.3%	46.5%	46.6%	43.6%	41.4%	41.9%	42.3%	42.7%	42.1%	40.6%	45.9%	42.0%	42.0%	42.6%	41.0%
Tax Rate	-1.1%	4.0%	3.8%	-0.7%	-3.4%	2.7%	3.2%	1.0%	0.3%	1.9%	2.9%	-0.3%	-0.3%	6.3%	-2.9%
Deprec, amort & non-cash comp.	6,208	5,845	5,793	5,284	1,200	1,200	1,200	1,200	5,284	1,200	1,200	1,200	1,200	4,800	4,800
Cash Flow/share	(\$0.17)	(\$0.90)	(\$0.33)	(\$0.11)	(\$0.05)	(\$0.07)	(\$0.04)	\$0.21	\$0.07	\$0.12	\$0.18	(\$0.04)	(\$0.05)	\$0.21	(\$0.04)
EBITDA/share	(\$0.18)	(\$0.85)	(\$0.31)	(\$0.12)	(\$0.04)	(\$0.06)	(\$0.04)	\$0.21	\$0.09	\$0.13	\$0.19	(\$0.03)	(\$0.04)	\$0.23	(\$0.01)

**Balance Sheets**
**Quarterly Earnings Comparisons**

Assets:	(\$000s)		Revenues (in \$000s)					
	7/31/15	1/31/16	October	January	April	July	Total	
Cash and equivalents	\$18,109	\$37,016	2012	\$25,753	\$24,973	\$25,949	\$26,408	\$103,083
Accounts receivable, net	12,109	12,877	2013	25,630	22,210	22,598	23,269	93,707
Inventories	7,396	7,395	2014	24,134	22,928	23,978	24,907	95,947
Prepaid expenses & other	8,872	1,866	2015	24,824	23,092	23,986	25,697	97,599
Total current	46,486	59,154	2016E	25,177	24,560	24,450	25,900	100,087
Property, plant & equip., net	7,948	8,730	<b>Earnings per Share (diluted)</b>					
Goodwill	7,452	7,452	2012	(\$0.12)	(\$0.11)	(\$0.09)	(\$0.69)	(\$1.01)
Intangible assets, net	6,155	5,221	2013	(0.09)	(0.14)	(0.15)	(0.08)	(0.46)
Other assets	353	349	2014	(0.07)	(0.09)	(0.01)	(0.07)	(0.23)
<b>TOTAL ASSETS</b>	<b>\$68,394</b>	<b>\$80,906</b>	2015	(0.08)	(0.09)	(0.06)	0.18	(0.05)
<b>Liabilities:</b>			2016E	0.10	0.15	(0.07)	(0.07)	0.10
Loan payable	\$3,013	\$3,013	<b>Operating Statistics (\$Mill)</b>					
Accounts payable	8,762	9,459	<b>FYE July</b>					
Accrued liabilities	11,297	9,556	<b>2011</b>					
Other current liabilities	886	2,476	<b>2012</b>					
Total current	23,958	24,504	<b>2013</b>					
Deferred taxes	37	30	<b>2014</b>					
Other liabilities	1,793	1,925	<b>2015</b>					
Total liabilities	25,788	26,459	<b>2016E</b>					
Stockholders' equity	42,606	54,447	<b>Revenues by area:</b>					
<b>TOTAL LIAB &amp; EQ</b>	<b>\$68,394</b>	<b>\$80,906</b>	<b>US</b>					
			85,691					
			87,776					
			80,559					
			84,389					
			87,875					
			91,000					
			84%					
			85%					
			86%					
			88%					
			90%					
			91%					
			<b>International</b>					
			16,338					
			15,307					
			13,148					
			11,558					
			9,724					
			9,100					
			16%					
			15%					
			14%					
			12%					
			10%					
			9%					
			<b>Revenues by payor (Lab services):</b>					
			Medicare					
			11,856					
			12,658					
			12,497					
			12,815					
			11,981					
			13,000					
			Third-party payors					
			24,335					
			29,616					
			26,014					
			29,509					
			35,631					
			40,000					
			Patient self-pay					
			11,554					
			11,895					
			12,172					
			11,204					
			11,028					
			11,000					
			HMOs					
			5,017					
			5,234					
			5,206					
			5,161					
			4,774					
			5,900					
			<b>Total Lab services</b>					
			\$52,762					
			\$59,403					
			\$55,889					
			\$58,689					
			\$63,414					
			\$69,900					

Source: Dawson James Securities, Inc. estimates; Company documents

**Important Disclosures:**

**Price Chart:**



Price target and ratings changes over the past 3 years:

Initiated – February 9, 2016 – Price Target \$7.50

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- 2) **Neutral:** the analyst believes the price of the stock is fairly valued for the next 12-18 months;
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Ratings Distribution	Company Coverage		Investment Banking	
	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	16	67%	10	63%
Market Perform (Neutral)	8	33%	6	75%
Market Underperform (Sell)	0	0%	0	0%
<b>Total</b>	<b>24</b>	<b>100%</b>	<b>16</b>	<b>67%</b>

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