

February 9, 2016

Enzo Biochem (NYSE/ENZ)

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BUY Multiple Shots on Goal

Enzo Biochem provides molecular diagnostic products and services

Investment Highlights

1) Enzo Biochem has successfully launched its first two in a future line of advanced molecular diagnostic assays, Ampiprobe-HCV and FlowScript HPV E6/E7. What's more, the Company is working on a flurry of potential new product introductions in this area over the next one-two years, including enhanced immunoassays for fertility determination and cardiac markers and a Women's Health Panel in the Ampiprobe platform for this year, HBV Viral Load, HIV Viral Load and IHC Detection assays for 2017, and TH1/TH2, Cancer AB Panel and Cancer Marker Panels for years beyond. The total advanced product portfolio, when cleared by the FDA, will provide a major boost for Enzo's key Life Sciences division.

2) Enzo is also showing solid growth in its clinical lab business, including an 8% year-over-year revenue increase in its most recent Q1/2016 (October) financial results, with improved gross margins. Going forward, belt-tightening measures and the new advanced molecular assays are expected to benefit Enzo's own clinical lab business, through more in-depth product offerings for its outside clients and improved margins internally through more efficient testing methodologies employed by the new diagnostic assays.

3) Last but not least, Enzo has been one of the best examples around in commercializing its large intellectual property portfolio, which is centered around nucleic acid chemistry, signal delivery, and nucleic acid analysis formats. Just recently, the Company signed two large settlement agreements, and altogether over the last five years Enzo has garnered over \$53 million in royalties and settlements, versus only \$26 million spent on legal fees, a net gain of over \$27 million flowing to the Company's cash reserves. In addition, Enzo still has eight of the original eleven patent infringement cases brought before the US District Court of Delaware pending, with good results for the three cases already settled pointing toward future success.

Current Price \$4.39

Price Target \$7.50

Estimates	F2014A	F2015A	F2016E
Revenues(\$000s)	\$95,947	\$97,599	\$103,627
1Q October	24,134	24,824	25,177 A
2Q January	22,928	23,092	24,650 E
3Q April	23,978	23,986	25,920 E
4Q July	24,907	25,697	27,880 E

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

P/E (x) N/A N/A N/A

EBITDA/Share (\$0.12) \$0.08 \$0.04

EWBITDA (x) N/A N/A N/A

Stock Data

52-Week Range	\$2.26-\$5.09
Shares Outstanding (mil.)	46.2
Market Capitalization (mil.)	\$202.8
Enterprise Value (mil.)	\$175.2
Debt to Capital (10/15)	8.0%
Book Value/Share (10/15)	\$1.02
Price/Book	4.3 x
Average Trading Volume (3-month)	141,500
Insider Ownership	15.5%
Institutional Ownership	50.1%
Short Interest	950,000
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

Conclusion

Enzo Biochem shares have fallen off recently with an overall down stock market, yet have still outperformed many of their comparable companies over the past twelve months due to solid revenue growth, recent positive news in the intellectual property area, and strong new product news and pending launches. Still, despite a strong balance sheet, deep product pipeline in the molecular diagnostics area, and several upcoming catalysts, these shares trade at a discount to other, more well-known stocks in related areas, and thus we are initiating coverage on ENZ shares with a BUY rating and 12-18 month price target of \$7.50 per share, based on a molecular diagnostics/clinical lab comparable company valuation analysis as detailed below.

Company Business

Enzo Biochem, Inc. (Enzo) is a growth-oriented biotechnology company focusing on delivering and applying advanced technology capabilities to produce affordable reliable products and services to allow customers to meet their clinical needs. Enzo develops, manufactures and sells its proprietary technology solutions and platforms to clinical laboratories, specialty clinics and researchers and physicians globally. The Company's pioneering work in genomic analysis coupled with extensive patent estate and enabling platforms have positioned it to continue to play an important role in the rapidly growing molecular medicine marketplaces. Enzo's proprietary technology platforms reduces a customers' need for multiple, specialized instruments, and the Company's 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. One example of Enzo's proprietary technology is its AmpProbe technology platform, which offers 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.

Enzo's operations are comprised of three interconnected segments which have evolved out of the Company's core competencies involving the use of nucleic acids as informational molecules. These operating segments include:

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 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 or procedures used in patient care by physicians to establish or support a diagnosis, monitor treatment or medication, and search for an otherwise undiagnosed condition. The Company's laboratory is equipped with state of the art communication and connectivity solutions enabling the rapid transmission, analysis and interpretation of generated data. Enzo operates 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.

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. Enzo Life Sciences is 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. Enzo's life science group is supported by global operations allowing for the efficient marketing and delivery of the Company's 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, shown in the graphic below, as well as more than 111 patents and patent applications:



Source: Enzo Biochem

Intellectual Property

A broad portfolio of issued patents and pending patent applications supports Enzo's core technology platforms and is expected to be a key asset and a major strategic component to the execution of the Company's business strategy in the future. Enzo's past and ongoing policy is to seek patent protection for its core technology platforms, as well as for ancillary technologies that support these platforms and provide a competitive advantage. At the end of fiscal 2015 Enzo owned or licensed 245 patents relating to its products, methods and procedures, an intellectual property portfolio that can be divided into patents that provide claims in three primary categories, including **Nucleic Acid Chemistry**, covering products that incorporate a signaling moiety into a nucleic acid attached to a sugar or phosphate for the purpose of nucleic acid detection or quantification, including sequencing and real time nucleic acid amplification; **Signal Delivery**, such as analyte detection using non-radioactive signaling entities; and **Nucleic Acid Analysis Format**, for example the use of arrays of single-stranded nucleic acids fixed or immobilized in hybridizable form to a non-porous solid support. Enzo has defended and commercialized its patents in a number of ways, including through royalty agreements with collaborating research parties in consideration for the commercial use, and patent licensing or patent infringement litigation with outside parties. Among the patent litigation actions initiated by Enzo include:

Applera Corporation and its wholly-owned subsidiary Tropix, which became Life Technologies, and was acquired by Thermo Fisher Scientific (NYSE/TMO/Not Rated) in February 2014. The complaint alleged infringement of six patents relating to DNA sequencing systems, labeled nucleotide products, and other

technology. On November 12, 2012, a jury in New Haven, Connecticut found that one of these patents (US Patent #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 March 16, 2015, however, the Court of Appeals for the Federal Circuit vacated that judgment in a decision remanding the matter to the district court for further proceedings. Enzo has moved for reconsideration of that decision by the panel and for *en banc* rehearing by the full Court.

On April 22, 2014, the Company as plaintiff finalized and executed a settlement agreement with **Affymetrix** (Nasdaq/AFFX/NR) to settle a patent litigation lawsuit in the amount of \$5.1 million, of which Affymetrix paid \$4.3 million to Enzo and paid \$0.8 million to the Company's attorneys.

On June 20, 2014, the Company, as plaintiff finalized and executed a settlement agreement with **PerkinElmer** (NYSE/PKI/NR) and PerkinElmer Health Sciences, under which PerkinElmer paid \$7.0 million in escrow pursuant to the agreement.

On July 2, 2015, the Company as Plaintiff executed a settlement agreement with **Luminex Corporation** (Nasdaq/LMNX/NR) with respect to an action between the Company and Abbott Laboratories and Abbott Molecular, Inc. (Defendants) and Luminex Corporation (Intervening Defendant) before the U.S. District Court for the District of Delaware for alleged patent infringement. Luminex paid the Company a total of \$7.1 million as consideration for this agreement and the dismissal of the litigation against Luminex.

On July 20, 2015, the Company as Plaintiff finalized and executed a settlement agreement with **Siemens Healthcare Diagnostics** to settle a patent litigation lawsuit before the U.S. District Court for the District of Delaware in the amount of \$9.5 million. Under terms of the agreement, Siemens will also pay the Company additional royalties of \$1.0 million per year on sales of its molecular products manufactured and/or sold in the United States during the its fiscal years 2015 through 2019 if sales of such products exceed a contractual amount.

On October 9, 2015, the Company reached and finalized a settlement with Affymetrix in the amount of \$10 million in an infringement action brought by the Company regarding its US Patent #7,064,197. The case was originally brought by the Company in the United States District Court for the District of Delaware.

On January 6, 2016, Enzo reached and finalized a settlement with **Agilent Technologies** (NYSE/A/NR) involving payment of \$9 million to Enzo in an infringement action brought by Enzo regarding its US Patent #7,064,197.

Recently, in an annual corporate review, Company management stated that the latest Agilent settlement impacts only one of the 11 cases originally brought by Enzo in the United States District Court for the District of Delaware alleging patent infringements against various companies, with eight of the original cases still pending.

Revenues for Enzo's three operating segments for the past three fiscal years (ending July) were:

Revenues (\$000s) Fiscal year Ending July 31	2013	%	2014	%	2015	%
Clinical laboratory services	\$55,889	59.6%	\$58,689	61.2%	\$63,414	65.0%
Product sales	32,526	34.7%	32,850	34.2%	31,690	32.5%
Royalty and license fee income	5,292	5.6%	4,408	4.6%	2,495	2.6%
Total revenues	\$93,707		\$95,947		\$97,599	

Recent Results and Balance Sheet/Cash Flow

Enzo reported financial results for their Q1/2016 quarter ending October 31st in early December, including total revenues of \$25.2 million and net income of \$4.4 million or \$0.10 per share, as compared to revenues of \$24.8 million and a net loss of \$3.7 million or (\$0.08) per share in Q1/2015. Results for Q1 were led by an 8% increase in revenues for Enzo's clinical laboratory group to \$17.1 million, or 68% of total revenues, fueled by success in marketing higher-margin, internally-developed molecular-based assays. Revenues for life science products declined slightly in the quarter, by 4% to \$7.7 million or 30% of total revenues, due primarily to negative international currency exchange effects as unit volumes remained steady year-over-year. Royalty and license fee income declined to \$400,000 in the quarter from \$1.0 million in the prior year period, although recent positive patent litigation settlements could help return this segment to positive growth later this fiscal year. Gross margins overall for the quarter improved to 45% from 44% in the prior year, led by improved margins for the lab group, to 39.5% from 36.0%, as this all-domestic segment benefitted from higher-margin in-house developed assays and economies of scale from higher volumes. Selling, general and administrative costs decreased slightly during the quarter due to tight cost controls, while R&D costs increased slightly due to increases in product development for the Life Sciences segment, and bad debt expenses increased slightly due to an increase in self-pay patient revenues during the quarter. Although legal expenses declined in Q1/2016 due to the timing of litigation activity, a gain from the recent settlement with Affymetrix helped bring net income into the positive this year for Enzo. Adjusted Non-GAAP earnings improved to a negative \$2.5 million in Q1/2016, or (\$0.05) per share, from a negative \$3.7 million, or (\$0.08) per share in the prior year period, while cash from operations (including legal settlements) improved to \$13.1 million in the first quarter, helping increase Enzo's cash on hand to \$30.6 million at the end of October.

Outlook/Growth Drivers

Enzo recently provided their corporate strategy and outlook for this calendar year. Goals going forward are clearly focused on the molecular diagnostic area, including these technology platforms under development:

- **AmpiProbe**– low cost, real time DNA amplification and detection;
- **FlowScript** – enhanced flow cytometry for signal cell analysis and RNA expression;
- **Enhanced Immunohistochemistry with enhanced detection** – moving Pathology to the next generation;
- **Enhanced Immunoassays, such as In-situ Hybridization (ISH)** – Pushing sensitivity to expand immunoassay applications;
- **Super-CGHTM** for genomics studies; and
- **Super-sensitive ELISA** for immunochemistry

Enzo's first product launched in the advanced molecular diagnostic area was its **FlowScript HPV E6/E7** assay in February 2015, developed by cross-functional teams at Enzo for the identification of gene expression in clinical samples in detection of mRNA from Human papillomavirus (HPV) oncogenes, E6 and E7, to reach the \$1 billion cervical cancer diagnostic market. More recently, in November Enzo Clinical Labs received approval from the New York State Department of Health for its **AmpiProbe-HCV** assay for the quantitative detection of the Hepatitis C virus, clearing the way for Enzo to begin offering this assay to the market on a national basis. In addition, Enzo Life Sciences will commence marketing relevant reagents globally, as well as providing relevant

product support for this validated assay. Ampiprobe-HCV is expected to be the first in a line of products developed at Enzo to address the critical needs of clinical laboratories, which are under increasing financial pressure from declining reimbursement rates. Enzo is introducing Ampiprobe-based tests for both its own lab as well as for third-party labs, and the Company is currently working to expand the product line of the Ampiprobe platform to such areas as Hepatitis B virus and HIV viral loads, as well as through the development of a comprehensive panel of assays designed to identify a number of infectious diseases related to women's health, one of the fastest growing segments of that market. Together, these markets are estimated to represent more than \$2 billion worth of laboratory service revenue. The chart below portrays the Company's molecular diagnostic assay development pipeline:

Enzo's MDx Pipeline

<u>Test Description</u>	<u>Expected Availability</u>	<u>Platform</u>
HPV E6/E7	Available	FlowScript Gene Expression
HCV Viral Load	Available	Ampiprobe
Fertility Assay	Q1/2016	Enhanced Immunoassay
Cardiac Marker	Q2/2016	Enhanced Immunoassay
Women's Health Panel	Q3/2016	Ampiprobe
HBV Viral Load	2017	Ampiprobe
HIV Viral Load	2017	Ampiprobe
IHC Detection	2017	Enhanced Detection
TH1/TH2	In development	FlowScript Gene Expression
Cancer AB Panel	In development	Ampiflow enhanced detection label
Cancer Marker Panel	In development	FlowScript Gene Expression

Source: Enzo Biochem Company Strategy and Review November 2015

For the upcoming Q2/2016 quarter (ending January), we are estimating that Enzo will post revenues of \$24.7 million, or a 6.7% year-over-year increase, with a net loss of \$2.6 million or (\$0.06) per share, as compared with a net loss of \$2.9 million, also (\$0.06) per share in Q2/2015. Leading revenue growth in the current quarter is expected to be the Enzo Clinical Labs group. Results for Enzo's Q2/2016 quarter are expected to be released in early March. For the 2016 fiscal year as a whole (ending July), we are estimating that Enzo will accrue revenues of \$103.6 million, up 6.2% year-over-year, with a net loss of \$3.1 million or (\$0.07) per share, including the \$6.8 million gain on litigation settlement recorded in the first quarter of fiscal 2016, equal to \$0.15 per share. The Company posted a net loss of \$13.8 million in fiscal 2015, or (\$0.29) per share, before gains from litigation settlements. Our estimates for fiscal 2016E include improved overall gross margins, to 39.5% from 37.6% for fiscal 2015, and revenue growth contributions primarily coming from the laboratory services area. Our forecast for operating cash burn for the remainder of fiscal 2016 (nine months remaining through July) is approximately \$4-\$6 million, well within the range of current cash on hand of over \$30.6 million.

Management

Dr. Elazar Rabbani is a founder of Enzo Biochem and has served as the Company's Chairman of the Board and Chief Executive Officer since its inception in 1976 and Secretary since 2009. Dr. Rabbani has authored numerous scientific publications in the field of molecular biology, in particular, nucleic acid labeling and detection. He is also the lead inventor of many of the Company's pioneering patents covering a wide range of technologies and products. Dr. Rabbani received his Bachelor of Arts degree from New York University in Chemistry and his Ph.D. in Biochemistry from Columbia University. He is a member of the American Society for Microbiology.

Barry W. Weiner is a founder of Enzo and serves as President, Chief Financial Officer, Principal Accounting Officer and Director of the Company. Prior to joining Enzo, he worked in several managerial and marketing positions at the Colgate Palmolive Company (NYSE/CL/NR). Mr. Weiner is a member of the New York Biotechnology Association. He received his Bachelor of Arts degree in Economics from New York University and a Master of Business Administration in Finance from Boston University.

David C. Goldberg serves as General Manager Enzo Clinical Labs and Vice President Corporate Development for Enzo Biochem and has been employed with the Company since 1985. Prior to joining the Company, Mr. Goldberg held management and marketing positions with DuPont-NEN and Gallard Schlesinger Industries. He received a Master of Science degree in Microbiology from Rutgers University and a Master of Business Administration in Finance from New York University.

James M. O'Brien is Enzo's Executive Vice President, Finance and is responsible for leading and managing all activities for the Company's Corporate and Business Unit Financial functions. Mr. O'Brien joined Enzo in 2014 as Senior Vice President, Finance and brings over fifteen years of direct experience leading and managing all financial functions for a number of diverse global organizations, including large and small multi-national public companies in the pharmaceutical, consumer products and manufacturing industries. Most recently Mr. O'Brien was Vice President and Corporate Controller for Allergan, plc. (NYSE/ACT/NR) and has held financial management positions at Nycomed US, Aptuit, Purdue Pharma LLP and Bristol Myers Squibb Company (NYSE/BMY/NR). Mr. O'Brien began his career in public accounting with PricewaterhouseCoopers LLP and holds a BA from George Washington University and an MBA from Fordham University. Mr. O'Brien achieved his CPA in 1992.

Paul C. O'Brien has served as Vice President of Global Human Resources for Enzo Biochem since 2009. Before joining the Company, Mr. O'Brien held management positions at Black & Decker, Stryker Spine and Tyco Healthcare. Mr. O'Brien received a Bachelor of Arts degree in General Studies from Providence College.

In addition to Dr. Rabbani and Mr. Weiner, outside directors for Enzo include **Dr. Bernard Kasten**, a diplomat of the American Board of Pathology with certification in Anatomic and Clinical Pathology and sub-specialty certification in Medical Microbiology who previously served as Chairman of the Board of Cleveland Biolabs; **Gregory M. Bortz**, the founder and managing partner of Creo Capital Partners, a private equity firm that provides capital to middle-market companies; and **Dov Perlysky**, the managing member of Neshet, LLC, a private investment firm and a director of Engex, Inc., a closed-end mutual fund, Highlands State Bank and Pharma-Bio Serv.

Stock Valuation/Comparables

We have compiled an eleven-stock comparison group for Enzo, selecting companies in the molecular diagnostics and clinical laboratory service area. The comparison group, shown in Table 1 below, portrays Enzo's shares as undervalued vis-à-vis the comparable group, particularly in respect to price/revenues valuation metrics for last calendar year (2015E) and this calendar year (2016E), as well as current price/book value. Using an industry average of 3.6X and 3.1X projected revenues for Enzo for 2015E and 2016E and 6.3X book value per share, without any incremental value for cash on hand nor intellectual property assets, we have determined a valuation for ENZ shares at \$7.50, and thus we are initiating coverage on shares of ENZ with a Buy rating and 12-18 month price target of \$7.50 per share.

Company	Symbol	Price	Shares (millions)	Market Cap (\$Millions)	Book Value	EPS 2015E	Revenues		P/E '15E	Price/Revs		Price/Book Value	Revenue Growth	Notes
							2015E (\$Millions)	2016E (\$Millions)		2015E	2016E			
Affymetrix	AFFX	\$14.06	80.5	\$1,131.8	\$4.16	\$0.42	\$57.3	\$72.3	33.5	3.17	3.04	3.38	4.2%	Geneship product line
Genomic Health	GHDX	\$26.79	32.5	\$870.7	\$4.07	(\$1.05)	287.1	328.8	N/A	3.03	2.65	6.58	14.5%	Genomic testing for oncology
Neosting Tech	NSTG	\$11.89	19.5	\$231.9	\$1.39	(\$2.48)	61.7	81.6	N/A	3.76	2.84	8.55	32.3%	DNA test type kits and analyzers
Harvard Biosciences	HBIO	\$3.00	33.9	\$101.7	\$2.78	\$0.14	106.1	107.6	21.4	0.96	0.95	1.08	1.5%	Life science research products
Techn	TECH	\$84.98	37.2	\$3,161.3	\$22.34	\$3.45	481.5	513.2	24.8	6.57	6.16	3.80	6.6%	Biotech reagents and diagnostic products
Veracyte	VCYT	\$5.51	27.7	\$152.6	\$20.90	(\$1.30)	49.7	63.0	N/A	3.07	2.42	0.26	26.9%	Genomic tests for oncology applications
Natera Health	NTRA	\$6.61	50.0	\$330.5	\$4.13	(\$2.35)	183.0	222.5	N/A	1.81	1.49	1.60	21.6%	Non-invasive DNA tests
Foundation Medicine	FMI	\$13.86	34.5	\$477.5	\$7.95	(\$2.90)	92.9	120.2	N/A	5.14	3.97	1.74	29.4	Molecular testing platform; recent IPO
NeoGenomics	NEO	\$5.94	60.6	\$360.0	\$1.02	\$0.04	99.8	243.8	148.5	3.61	1.48	5.82	144.4%	Esotech lab services
Pacific Biosciences	PACB	\$9.01	77.0	\$693.8	\$0.55	(\$0.42)	93.0	81.6	N/A	7.46	8.50	16.38	-12.3%	Genetic analysis platform
Transgenomic	TBIO	\$0.62	20.7	\$12.8	\$0.48	(\$1.45)	21.8	28.6	N/A	0.59	0.45	1.29	31.2%	Clinical lab and pharmacogenomics services
Average								118.3	148.5	3.56	3.09	6.31		
Enzo Biochem	ENZ	\$4.39	46.2	\$202.8	\$1.02	(\$0.07)	99.5	109.6	N/A	2.04	1.85	4.30	N/A	Lab testing and diagnostic products

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	2Q15	3Q15	4Q15	2015	1Q16	2Q16	3Q16	4Q16	2016	2017E
					October	January	April	July		October	January	April	July		
Revenues:															
Clinical laboratory services	\$52,762	\$59,403	\$55,889	\$58,689	\$15,822	\$14,725	\$13,657	\$17,210	\$63,414	\$17,090	\$16,200	\$17,220	\$18,990	\$69,440	\$76,400
Product sales	41,830	37,722	32,526	32,850	8,002	7,723	7,906	8,059	31,690	7,687	8,000	8,200	8,400	32,287	33,000
Royalty and license fee income	7,437	5,258	5,292	4,408	1,000	644	423	428	2,495	400	450	500	520	1,800	2,100
Total Revenues	\$102,029	\$102,383	\$93,707	\$95,947	\$24,824	\$23,092	\$23,986	\$25,697	\$97,599	\$25,177	\$24,650	\$25,920	\$27,880	\$103,627	\$111,500
Operating Expenses:															
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	9,800	10,420	11,450	42,602	45,460
Cost of product revenues	22,137	19,668	16,384	15,320	3,695	3,818	3,779	3,891	15,183	3,611	3,760	3,850	3,950	15,171	15,350
Research and development	7,806	6,293	3,889	3,141	791	834	809	916	3,350	867	900	950	1,020	3,737	3,900
Selling, general and admin	45,191	47,928	43,654	41,801	10,285	9,670	10,146	10,968	41,069	10,225	10,330	10,860	11,680	43,895	45,700
Bad debt expense	4,431	5,104	4,496	3,063	541	601	589	553	2,284	704	720	740	760	2,924	2,950
Legal fees and settlements	3,710	28,264	2,813	3,824	2,466	2,804	1,381	(9,225)	(2,670)	(2,192)	1,600	1,400	1,400	(892)	(2,300)
Total operating expenses	114,957	143,562	112,687	106,127	27,808	26,973	26,832	17,092	98,805	20,540	27,110	28,320	30,260	106,230	110,860
Operating income (loss)	(12,928)	(40,479)	(18,980)	(10,180)	(3,084)	(3,881)	(2,846)	8,605	(1,206)	4,637	(2,460)	(2,400)	(2,380)	(2,603)	640
Other (income) expense, net	105	(482)	31	275	(522)	(325)	(157)	(82)	(1,086)	(116)	(100)	(100)	(100)	(416)	(400)
Income (loss) before tax	(12,823)	(40,921)	(18,949)	(9,905)	(3,606)	(4,206)	(3,003)	8,523	(2,292)	4,521	(2,560)	(2,500)	(2,480)	(3,019)	240
Income tax expense (benefit)	117	(1,652)	(712)	72	123	(113)	(96)	81	(7)	87	10	10	10	117	200
Net income (loss)	(12,980)	(39,269)	(19,237)	(9,977)	(3,729)	(4,991)	(2,907)	8,442	(2,285)	4,634	(2,570)	(2,510)	(2,490)	(3,156)	40
Basic income per share	(\$0.34)	(\$1.01)	(\$0.46)	(\$0.23)	(\$0.08)	(\$0.09)	(\$0.06)	\$0.18	(\$0.05)	\$0.10	(\$0.06)	(\$0.05)	(\$0.05)	(\$0.07)	\$0.00
Diluted income per share	(\$0.34)	(\$1.01)	(\$0.46)	(\$0.23)	(\$0.08)	(\$0.09)	(\$0.06)	\$0.18	(\$0.05)	\$0.10	(\$0.06)	(\$0.05)	(\$0.05)	(\$0.07)	\$0.00
Basic shares outstanding	38,337	38,798	39,607	42,561	44,564	45,000	45,797	43,997	43,355	46,068	46,200	46,400	46,600	46,317	47,000
Diluted shares outstanding	38,337	38,798	39,607	42,561	44,564	45,000	45,797	43,997	43,355	46,193	46,300	46,500	46,700	46,423	47,100
Key ratios:															
Revenue growth		1.0%	-9.1%	2.4%	2.9%	0.7%	0.0%	3.2%	4.2%	1.4%	6.7%	8.1%	8.5%	6.2%	7.6%
Gross margin - lab services	40.0%	38.9%	31.6%	33.6%	36.0%	37.2%	37.9%	39.1%	37.6%	39.5%	39.3%	39.5%	39.5%	39.5%	40.5%
Gross margin - product sales	47.1%	47.9%	49.0%	53.4%	53.8%	50.6%	52.2%	51.7%	52.1%	53.0%	53.0%	53.0%	53.0%	53.0%	53.5%
R&D/revenues	7.7%	6.1%	4.2%	3.3%	3.2%	3.6%	3.4%	3.6%	3.4%	3.4%	3.7%	3.7%	3.7%	3.6%	3.5%
S, G & A/ revenues	44.3%	46.3%	46.6%	43.6%	41.4%	41.9%	42.3%	42.7%	42.1%	40.6%	41.9%	41.9%	41.9%	41.6%	41.0%
Tax Rate	-1.1%	4.0%	3.8%	-0.7%	-3.4%	2.7%	3.2%	1.0%	0.3%	1.9%	-0.4%	-0.4%	-0.4%	-3.9%	83.3%
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	(\$0.03)	(\$0.03)	(\$0.03)	\$0.04	\$0.11
EBITDA/share	(\$0.18)	(\$0.85)	(\$0.31)	(\$0.12)	(\$0.04)	(\$0.06)	(\$0.04)	\$0.21	\$0.09	\$0.13	(\$0.03)	(\$0.03)	(\$0.03)	\$0.04	\$0.11

Balance Sheets

	7/31/15	10/31/15
Assets:		
Cash and equivalents	\$18,109	\$30,642
Accounts receivable, net	12,109	12,763
Inventories	7,396	7,582
Prepaid expenses & other	8,872	1,780
Total current	46,486	52,767
Property, plant & equip., net	7,948	8,132
Goodwill	7,452	7,452
Intangible assets, net	6,155	5,707
Other assets	353	338
TOTAL ASSETS	\$68,394	\$74,396
Liabilities:		
Loan payable	\$3,013	\$3,013
Accounts payable	8,762	9,450
Accrued liabilities	11,297	12,357
Other current liabilities	886	869
Total current	23,958	25,789
Deferred taxes	37	37
Other liabilities	1,783	1,327
Total liabilities	25,788	27,183
Stockholders' equity	42,606	47,213
TOTAL LIAB & EQ	\$68,394	\$74,396

Quarterly Earnings Comparisons

	October	January	April	July	Total
Revenues (in \$000s)					
2012	\$25,755	\$24,973	\$25,949	\$26,408	\$103,083
2013	25,630	22,210	22,598	23,269	93,707
2014	24,134	22,928	23,978	24,907	95,947
2015	24,824	23,092	23,986	25,697	97,599
2016E	25,177	24,650	25,920	27,880	103,627
Earnings per Share (diluted)					
2012	(\$0.12)	(\$0.11)	(\$0.09)	(\$0.69)	(\$1.01)
2013	(0.09)	(0.14)	(0.15)	(0.08)	(0.46)
2014	(0.07)	(0.09)	(0.01)	(0.07)	(0.23)
2015	(0.08)	(0.09)	(0.06)	0.18	(0.05)
2016E	0.10	(0.06)	(0.05)	(0.05)	(0.07)

Operating Statistics (\$Mill)

FYE July	2011	2012	2013	2014	2015	2016E
Revenues by area:						
US	85,691	87,716	80,559	84,389	87,875	92,900
%	84%	85%	86%	88%	90%	89%
International	16,338	15,307	13,148	11,558	9,724	11,627
%	16%	15%	14%	12%	10%	11%
Revenues by payer (Lab services):						
Medicare	11,836	12,638	12,497	12,813	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	5,400
Total Lab services	\$52,762	\$59,403	\$55,889	\$58,689	\$63,414	\$69,440

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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The following chart reflects the range of current research report ratings for all companies followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

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%
Total	24	100%	16	67%

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