UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT PURSUANT
TO SECTION 13 OR 15(D) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): **February 10, 2015**

Enzo Biochem, Inc.	
(Exact Name of Registrant as Specified in Its Charter)	
New York	
(State or Other Jurisdiction of Incorporation)	
001-09974	**13-2866202**
(Commission File Number)	(IRS Employer Identification No.)
527 Madison Avenue **New York, New York**	**10022**
(Address of Principal Executive Offices)	(Zip Code)
(212) 583-0100	
(Registrant's Telephone Number, Including Area Code)	
(Former Name or Former Address, if Changed Since Last Report)	

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (*see* General Instruction A.2. below):

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 8.01 Other Events.

On February 10, 2015, Enzo Biochem, Inc. (the "Company") issued a press release announcing the development of a new novel platform with consequential and broad application for detection of genotypic and phenotypic markers via flow cytometry, as well as the first product for its use addressing the cervical cancer testing market.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

99.1 Press Release of Enzo Biochem, Inc., dated February 10, 2015.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ENZO BIOCHEM, INC.

Date: February 10, 2015

By: /s/ Barry W. Weiner
Barry W. Weiner
President

Exhibit 99.1

news release

Enzo Biochem, Inc.
527 Madison Avenue
New York, NY 10022

ENZO BIOCHEM ANNOUNCES NEW MOLECULAR PLATFORM AND FIRST PRODUCT FOR EARLY FOCUS ON CERVICAL CANCER PROGRESSION

Novel Technology Allows for Multiplex Analysis of Cell Function and Identity in Single Assay

NEW YORK, NY, February 10, 2015- Enzo Biochem, Inc. (NYSE: ENZ) today announced the development of a new novel platform with consequential and broad application for detection of genotypic and phenotypic markers via flow cytometry, as well as the first product for its use addressing the cervical cancer testing market.

The platform, FlowScript™, allows for the multiplex analysis of cell function and identity in a single assay through the simultaneous examination of thousands of individual cells.

The Enzo HPV E6/E7 assay, the first product developed for use with the FlowScript technology platform, addresses the $1 billion cervical cancer testing market. It enables the identification of certain upregulated oncogenes that can be indicative of cancer progression, allowing closer monitoring of patients exhibiting this condition. The new Enzo assay is designed to establish association between the expression of oncogenes and the progression of cervical cancer across a number of high risk HPV subtypes.

Enzo Clinical Laboratory has submitted an application to the New York State Department of Health in advance of offering services based on the FlowScript assay. Upon receiving approval, Enzo will be the first clinical laboratory to provide this assay to physicians and other clinical labs, to which it will also make available key reagents for purchase.

The FlowScript platform is the result of an integrated effort across the entire Enzo spectrum, and was developed along with key opinion leaders from both the life sciences and clinical fields. “FlowScript HPV E6/E7 represents another milestone, following the development of our AmpiProbe™ platform, in the execution of Enzo’s strategic plan of developing, producing and providing clinically relevant products and services built upon Enzo’s proprietary technology, underscored by numerous patents and patent applications,” said Elazar Rabbani, Ph.D., Chairman and CEO.

“Both the platform and the first product were developed in under two years from the initial effort to clinical submission” added Kara Cannon, Global Head of Marketing and Sales for Enzo Life Sciences. “To have been able to execute research and development, process optimization, design manufacturing and quality assurance protocols, produce multiple test lots, validation and to coordinate key opinion leader input for this project in such a relatively short time period highlights Enzo’s integrated capabilities in developing technology platforms and bringing commercially relevant products to market. Enzo will utilize a bifurcated marketing approach offering both products and services based upon this key platform.”

“Enzo’s HPV E6/E7 assay is the result of an intense product development and validation effort by the Enzo Life Science and Clinical Lab team,” said Dieter Schapfel, MD, Medical Director of Enzo Clinical Labs. “To provide a sense of the project, we analyzed more than two hundred different nucleic acid sequences to address a complex number of HPV targets detected in the assay interpretation. Optimization of reaction conditions and ancillary components has resulted in a product with high quality, well-designed controls resulting in fail-safe functionality. Evaluation of the assay and clinical validation performed for this project involved more than 1500 clinical samples and the combined efforts of both our technical groups, along with outside collaborators. The result is that we have taken an extremely complex analytical procedure and have distilled it down to a user-friendly, simple to implement protocol that fits the clinical laboratories’ standard workflow. “

In effect, Enzo has positioned the new product as “a snapshot cell query” by allowing the analysis of mRNA transcript expression in individual cells in a mixed cell population. By studying whether a gene or a set of genes is turned on or off, rather than whether they are present, it is possible to obtain clinically relevant information at the single cell level. Such analysis provides comparative, actionable data examining disease versus healthy state. Currently Enzo has FlowScript based products under development for the identification of specific biomarkers related to cancer as well as those related to autoimmune diseases.

FlowScript HPV E6/E7 contains controls for assuring operator consistency as well as a technical design to cover numerous aspects of the procedure, from the initial assay setup though the instrumentation settings and interpretation of the data. It improves efficiency by reducing the hands-on time required in other flow-based assays, in addition to being adaptable for use with virtually any flow cytometer on the market as well as any sample collection device.

The FlowScript platform is anticipated to be further utilized for applications related to women’s health, oropharyngeal and anal cancer, infectious disease, immune-mediated disorders including autoimmunity, metabolic disorders, drug responsiveness, patient monitoring and drug development.

About Enzo Biochem

Enzo Biochem is a pioneer in molecular diagnostics, leading the convergence of clinical laboratories, life sciences and therapeutics through the development of unique diagnostic platform technologies that provide numerous advantages over previous standards. A global company, Enzo Biochem utilizes cross-functional teams to develop and deploy products systems and services that meet the ever-changing and rapidly growing needs of health care both today and into the future. Underpinning Enzo Biochem’s products and technologies is a broad and deep intellectual property portfolio, with patent coverage across a number of key enabling technologies.

Except for historical information, the matters discussed in this news release may be considered “forward-looking” statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended. Such statements include declarations regarding the intent, belief or current expectations of the Company and its management, including those related to cash flow, gross margins, revenues, and expenses are dependent on a number of factors outside of the control of the company including, inter alia, the markets for the Company’s products and services, costs of goods and services, other expenses, government regulations, litigations, and general business conditions. See Risk Factors in the Company’s Form 10-K for the fiscal year ended July 31, 2014. Investors are cautioned

that any such forward-looking statements are not guarantees of future performance and involve a number of risks and uncertainties that could materially affect actual results. The Company disclaims any obligations to update any forward-looking statement as a result of developments occurring after the date of this press release.

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