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): April 24, 2018

Enzo Biochem, Inc.

(Exact Name of Registrant as Specified in Its Charter)

New York

(State or Other Jurisdiction of Incorporation)

001-09974

(Commission File Number)

13-2866202 (IRS Employer Identification No.)

527 Madison Avenue New York, New York

(Address of Principal Executive Offices)

10022

(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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 450 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-1 of this chapter). 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.

Item 8.01 Other events

On April 24, 2018, Enzo Biochem, Inc. (the "Company") issued a press release titled "Patent Trial and Appeal Board Denies Hologic Challenge to Enzo Biochem Patent Involved in Delaware Infringement Case."

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

99.1 Press Release of Enzo Biochem, Inc., dated April 24, 2018.

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: April 24, 2018

By: /s/ Barry W. Weiner

Barry W. Weiner President



Exhibit 99.1

news release

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

FOR IMMEDIATE RELEASE

PATENT TRIAL AND APPEAL BOARD DENIES HOLOGIC CHALLENGE TO ENZO BIOCHEM PATENT INVOLVED IN DELAWARE INFRINGEMENT CASE

NEW YORK, NY, April 24, 2018 -- Enzo Biochem, Inc. (NYSE: ENZ) and its subsidiary Enzo Life Sciences, Inc. today announced that the Patent Trial and Appeal Board has denied a petition filed by Hologic, Inc. (Nasdaq: HOLX) for inter partes review, a procedure for challenging the validity of patent claims, against U.S. Patent 6,221,581. Enzo Life Sciences, Inc. is asserting U.S. Patent 6,221,581 in patent infringement litigation against Hologic, Inc., Grifols Diagnostic Solutions, Inc., and Grifols S.A. in the U.S. District Court for the District of Delaware.

About Enzo Biochem

Enzo Biochem is a pioneer in molecular diagnostics, leading the convergence of clinical laboratories, life sciences and intellectual property 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 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 which 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, litigation, and general business conditions. See Risk Factors in the Company's Form 10-K for the fiscal year ended July 31, 2017. 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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or