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 19, 2020**

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))

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $.01 par value	ENZ	The New York Stock Exchange

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 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 February 19, 2020, Enzo Biochem, Inc., ("***Enzo***") issued a press release.

A copy of the press release is attached hereto as Exhibit 99.1 and is incorporated by reference herein.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

Exhibit Number	Description
99.1	Press Release, dated February 19, 2020.

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 19, 2020

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

Exhibit 99.1

For Immediate Release

Enzo Biochem Reports Publication of Study Detailing Promising Activity of Drug Candidate SK1-I in a Model of Lupus

Drug Candidate SK1-I Shown to Markedly Decrease Lupus-Associated Immune Criteria and Kidney Inflammation in Preclinical Study

Study is Further Confirmation of Enzo Biochem's Proprietary Compound's Potential for Treatment of this and other Autoimmune Diseases

NEW YORK, NY, February 19, 2020 – Enzo Biochem, Inc. (NYSE:ENZ) today announced the publication of a study in The FASEB Journal by academic researchers that shows drug candidate "SK1-I," the company's proprietary Sphingosine Kinase 1 inhibitor, markedly reduced Lupus-associated parameters in a recognized, chemically-induced animal model of Systemic Lupus Erythematosus, commonly known as "Lupus." This treatment resulted in reductions in interferon (IFN) signature, pDC activation and glomerulonephritis, the inflammation of the filtration units of the kidney. Significantly, SK1-I was not only effective when administered simultaneously with the chemical induction of Lupus in this model, but was also effective when administered thirty (30) days after the chemical induction of the disorder. In further confirmation that the effects of SK1-I in the Lupus model are the result of inhibiting the enzyme Sphingosine Kinase 1, the effects were mirrored by genetic deletion of the enzyme. These results suggest that SK1-I may have potential in the treatment of Lupus.

Enzo CEO Dr. Elazar Rabbani commented: "The promising results shown by SK1-I, Enzo's Sphingosine Kinase 1 inhibitor drug candidate, in this preclinical model of Lupus further confirms its potential for the treatment of autoimmune diseases where, in addition to Lupus, SK1-I has already shown activity in animal models of autoimmune hepatitis and ulcerative colitis."

Lupus is a common autoimmune disease that has a profound impact on the quality of life of affected individuals. Common symptoms include pain, extreme fatigue, hair loss, cognitive issues, and physical impairments. Many suffer from cardiovascular disease, strokes, disfiguring rashes, and painful joints. The Lupus Foundation of America estimates that 1.5 million Americans, and at least five million people worldwide, have a form of Lupus, with Systemic Lupus accounting for 70% of all cases. While anyone can develop Lupus, 90% of people living with the disease are women. Currently, there is no cure for Lupus and treatment options are limited.

"This published study demonstrates the important clinical work being done in our Therapeutics subsidiary and its inherent value," continued Elazar Rabbani. "The treatment of Lupus and other autoimmune diseases represents a large unmet medical need and commercial opportunity for Enzo. We have initiated toxicology work on this compound as a preclinical effort in support of our program. As Enzo considers alternatives to unlock value in its Therapeutics subsidiary, we are exploring partnership approaches for the continued development of SK1-I in this therapeutic area with the intention of moving to human trials."

In December 2019, Enzo announced it will consider various avenues to unlock value in Enzo Therapeutics, a biopharmaceutical subsidiary of Enzo Biochem. Alternatives under consideration include a possible spin-off, sale, joint venture or licensing of its intellectual property.

Sphingosine Kinase 1 is a key enzyme in the Sphingosine pathway that has been implicated in tumor cell growth and pathological inflammation. The enzyme acts by phosphorylating the intra-cellular Sphingosine to Sphingosine 1-Phosphate ("S1P"), an important biological mediator of tumor cell proliferation and drug resistance in various cancers, and of immune function.

SK1-I is a small molecule that specifically inhibits Sphingosine Kinase 1 and has shown activity in various animal models of cancers and autoimmune diseases. SK1-I and related compounds, as well as pharmaceutical uses of the compounds, are covered by a family of issued U.S. patents co-owned by Enzo and Virginia Commonwealth University and exclusively licensed by VCU to Enzo. Foreign patent family members have also issued or been allowed.

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.

Important Additional Information and Where to Find It

Enzo Biochem, Inc. (the "Company") has filed and mailed to shareholders a definitive proxy statement and proxy supplement on Schedule 14A and accompanying proxy card with the Securities and Exchange Commission (the "SEC") in connection with the solicitation of proxies from the Company's shareholders with respect to its 2019 Annual Meeting of Shareholders. The Company has filed and is mailing to shareholders a new definitive proxy supplement and new GOLD proxy card. Shareholders are strongly encouraged to read the Company's proxy statement, proxy supplements, accompanying GOLD proxy card and all other documents filed with the SEC as they become available carefully and in their entirety as they contain important information.

Certain Information Regarding Participants to the Solicitation

The Company, its directors and certain of its executive officers are participants in the solicitation of proxies from shareholders in connection with the Company's 2019 Annual Meeting of Shareholders. Information regarding the direct and indirect interests, by security holdings or otherwise of the Company's participants is set forth in the Company's definitive proxy statement and proxy supplements for the 2019 Annual Meeting of Shareholders filed with the SEC on December 5, 2019, December 31, 2019 and February 14, 2020, respectively. The Company's definitive proxy statement and proxy supplements can be found on the SEC's website at www.sec.gov or the Company's website at http://www.enzo.com/corporate/investor-information.

Forward-Looking Statements

Except for historical information, the matters discussed in this 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, 2019. 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 release.

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Contact:

For: Enzo Biochem, Inc.

David Bench, CFO

212-583-0136

dbench@enzo.com

or

ESPR LLC

917-291-0833

Elliot.espr@gmail.com