

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): **December 31, 2014**

**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))
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### Item 1.01 Entry into a Material Definitive Agreement.

On March 28, 2013, Enzo Biochem, Inc. (the “Company,” “we,” “us,” or “our”) entered into a Controlled Equity Offering<sup>S</sup><sup>M</sup> Sales Agreement (the “Original Agreement”), with Cantor Fitzgerald & Co. (“Cantor”), under which we may issue and sell shares of our common stock, par value \$0.01 per share (“Common Stock”), having an aggregate offering price of up to \$20,000,000 from time to time through Cantor, acting as agent. On December 31, 2014 we entered into Amendment No. 1 to the Original Agreement (the “Amendment”), which amended the Original Agreement (as so amended, the “Sales Agreement”), with Cantor to increase the amount of shares of Common Stock that may be offered and sold pursuant to the Sales Agreement by up to an additional \$20,000,000 (such shares, the “Additional Shares”). In accordance with the terms of the Sales Agreement, we may offer and sell shares of Common Stock having an additional aggregate offering price of up to \$20,000,000 from time to time through Cantor, acting as agent by methods deemed to be an “at-the-market” offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, and as otherwise permitted under the Sales Agreement.

The Additional Shares will be issued pursuant to the Company’s Registration Statement on Form S-3 (File No. 333-190321), which was declared effective on August 13, 2013, the base prospectus, filed as part of such Registration Statement, and the prospectus supplement, dated December 31, 2014, filed by the Company with the Securities and Exchange Commission.

The Amendment is filed as Exhibit 1.1 to this Current Report on Form 8-K. The description of the Amendment does not purport to be complete and is qualified in its entirety by reference to the Amendment filed herewith and the Original Agreement filed as an exhibit to our Current Report on Form 8-K filed with the Securities and Exchange Commission on March 28, 2013.

The opinion of the Company’s counsel regarding the validity of the Additional Shares that will be issued pursuant to the Sales Agreement is also filed herewith as Exhibit 5.1.

This Current Report on Form 8-K shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Common Stock in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

### Item 9.01 Financial Statements and Exhibits.

#### (d) Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
1.1	Amendment No. 1 to Sales Agreement, dated December 31, 2014, between Enzo Biochem, Inc. and Cantor Fitzgerald & Co.
5.1	Opinion of McDermott Will & Emery LLP.
23.1	Consent of McDermott Will & Emery LLP (included in Exhibit 5.1).

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**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: December 31, 2014

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

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**EXHIBIT INDEX**

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ENZO BIOCHEM, INC.  
CONTROLLED EQUITY OFFERING<sup>SM</sup>  
AMENDMENT NO. 1 TO  
SALES AGREEMENT

December 31, 2014

Cantor Fitzgerald & Co.  
499 Park Avenue  
New York, NY 10022

Ladies and Gentlemen:

Reference is made to the Sales Agreement, dated March 28, 2013, including the Schedules thereto (the "Sales Agreement"), between Cantor Fitzgerald & Co. ("CF&Co") and Enzo Biochem, Inc., a New York corporation (the "Company"), pursuant to which the Company could sell through CF&Co, as sales agent, up to \$20,000,000 of shares of common stock, par value \$0.01 per share, of the Company. All capitalized terms used in this Amendment No. 1 to Sales Agreement between CF&Co and the Company (this "Amendment") and not otherwise defined herein shall have the respective meanings assigned to such terms in the Sales Agreement. CF&Co and the Company agree as follows:

A. Amendments to Sales Agreement. The Sales Agreement is amended as follows, effective as of the date hereof:

1. The first sentence of Section 1 of the Sales Agreement is hereby deleted and replaced in its entirety with the following:

"The Company agrees that, from time to time after December 31, 2014 and during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may offer and sell through the Agent, shares (the "Placement Shares") of common stock of the Company, par value \$0.01 per share (the "Common Stock"), having an aggregate offering price of up to the sum of (x) \$20,000,000 plus (y) such amount of Placement Shares that remain unsold under this Agreement pursuant to the Prospectus Supplement dated August 13, 2013, subject to any limitations set forth in Section 5(e) hereof (the "Maximum Amount")."

2. The first sentence of Section 6(o) of the Sales Agreement is hereby deleted and replaced in its entirety with the following:

"EisnerAmper LLP (the "Accountant"), whose report on the consolidated financial statements of the Company is filed with the Commission as part of the Company's most recent Annual Report on Form 10-K filed with the Commission and incorporated by reference into the Registration Statement and the Prospectus, are and, during the periods covered by their report, were an independent registered public accounting firm within the meaning of the Securities Act and the Public Company Accounting Oversight Board (United States)."

3. The last sentence of Section 10(b) of the Sales Agreement is hereby deleted and replaced in its entirety with the following:

"The Company hereby acknowledges that the only information that the Agent has furnished to the Company expressly for use in the Registration Statement, the Prospectus or any Issuer Free Writing Prospectus (or any amendment or supplement thereto) are the statements set forth in the seventh and eighth paragraphs under the caption "Plan of Distribution" in the Prospectus."

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4. The second notice contact for the Company in Section 13 is hereby deleted and replaced in its entirety with the following:

“and

60 Executive Blvd.  
Farmingdale, New York 11735  
Attention: James O'Brien  
Facsimile: (631) 755-5500”

5. Schedule 1 of the Sales Agreement is amended by adding the words “as amended on December 31, 2014” immediately after “March 28, 2013”.

6. Schedule 3 of the Sales Agreement is amended as follows:

(a) Under The Company, “Andrew R. Crescenzo (acrescenzo@enzo.com)” is hereby deleted and replaced in its entirety with “James O'Brien (jobrien@enzo.com)”

(b) Under The Agent, adding at the bottom:

“With copies to:

CFControlledEquityOffering@cantor.com”

7. The first sentence of the Form of Representation Date Certificate attached as Exhibit 7(l) to the Sales Agreement is amended by adding “as amended on December 31, 2014” after “March 28, 2013”.

B. Prospectus Supplement. The Company shall file a 424(b) Prospectus Supplement reflecting this Amendment within two (2) Business Days of the date hereof.

C. No Other Amendments. Except as set forth in Part A above, all the terms and provisions of the Sales Agreement shall continue in full force and effect.

D. Counterparts. This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Amendment by one party to the other may be made by facsimile or email transmission.

E. Governing Law. This Amendment shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the principles of conflicts of laws.

**[Remainder of page intentionally left blank.]**

If the foregoing correctly sets forth the understanding between us, please so indicate in the space provided below for that purpose.

Very truly yours,

**ENZO BIOCHEM, INC.**

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

ACCEPTED as of the date first above written:

**CANTOR FITZGERALD & CO.**

By:           /s/ Jeffrey Lumby            
Name: Jeffrey Lumby  
Title: Senior Managing Director

[Signature Page to Amendment No. 1 to Sales Agreement]

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[Letterhead of McDermott Will & Emery LLP]

December 31, 2014

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

Re: Enzo Biochem, Inc.  
Controlled Equity Offering<sup>SM</sup> of Common Stock

Ladies and Gentlemen:

We have acted as counsel to Enzo Biochem, Inc., a New York corporation (the "Company"), in connection with the Controlled Equity Offering<sup>SM</sup> Sales Agreement, dated March 28, 2013, between the Company and Cantor Fitzgerald & Co., as agent (the "Agent"), as amended by Amendment No. 1 to Sales Agreement, dated December 31, 2014 (the "Amended Sales Agreement"), relating to the sale by the Agent of shares of common stock, par value \$0.01 per share, of the Company to be offered and sold pursuant to the Prospectus (as defined below) (the "Securities").

In the above capacity, we have reviewed (i) the registration statement on Form S-3 (Registration No. 333-190321) for the registration of the Securities and other securities of the Company initially filed by the Company on August 1, 2013 with the Securities and Exchange Commission (the "Commission") and declared effective on August 13, 2013, pursuant to the Securities Act of 1933, as amended (the "Securities Act"), including the documents filed by the Company pursuant to the Securities Exchange Act of 1934, as amended, and incorporated by reference therein (the "Incorporated Documents"), and the information deemed to be a part of the registration statement pursuant to Rule 430B under the Securities Act (the "Registration Statement"), (ii) the prospectus, dated August 1, 2013 (the "Base Prospectus"), which forms a part of and is included in the Registration Statement, (iii) the prospectus supplement, dated December 31, 2014 (the "Prospectus Supplement" and, together with the Base Prospectus and the Incorporated Documents, the "Prospectus"), relating to the offering of the Securities, (iv) an executed copy of the Amended Sales Agreement, (v) the Certificate of Incorporation of the Company, as amended to date, (vi) the Amended and Restated By-laws of the Company, as amended to date and (vii) certain resolutions of the Board of Directors of the Company relating to the offering of the Securities (the "Board Resolutions").

In addition to the examination outlined above, we have conferred with various officers of the Company and have ascertained or verified, to our satisfaction, such additional facts as we deemed necessary or appropriate for the purposes of this opinion. In our examination, we have assumed the authenticity of all documents submitted to us as originals, the conformity to the original documents of all documents submitted to us as copies, the genuineness of all signatures on documents reviewed by us and the legal capacity of natural persons.

Based on the foregoing, we are of the opinion that all corporate proceedings necessary for the authorization, issuance and delivery of the Securities have been duly taken and, upon issuance pursuant to

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the terms of the Amended Sales Agreement and in accordance with the Board Resolutions, the Securities will be validly issued, fully paid and nonassessable by the Company.

We hereby consent to the references to our firm in the Prospectus Supplement and to the filing of this opinion by the Company as an exhibit to the Registration Statement. In giving this consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

/s/ McDermott Will & Emery LLP

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