



July 18, 2023

VIA EDGAR AND EMAIL

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
Office of Industrial Applications and Services  
100 F Street, N.E.  
Washington, D.C. 20549

Attention: Jessica Ansart  
Katherine Bagley

**Re: ENZO BIOCHEM INC  
Amendment No. 1 to Registration Statement on Form S-3  
Filed July 10, 2023  
File No. 333-272727**

Dear Ms. Ansart and Ms. Bagley:

I am writing to submit the responses of Enzo Biochem, Inc. (the "Company") to the comments of the staff (the "Staff") of the Division of Corporation Finance of the Securities and Exchange Commission (the "Commission") dated July 14, 2023 (the "Comment Letter"), relating to the above referenced Amendment No. 1 to Registration Statement on Form S-3 (File No. 333-272727) filed by the Company on July 10, 2023 ("Amendment No. 1").

Concurrent with the submission of this letter, the Company is filing via EDGAR Amendment No. 2 to the Registration Statement ("Amendment No. 2"), which reflects the Company's responses to the comments received by the Staff and certain updated information. I have also enclosed a courtesy copy of Amendment No. 2, marked to indicate changes from Amendment No. 1, as Exhibit A. For your convenience, the Company is also delivering via email a copy of this letter and its enclosures.

For ease of review, I have set forth below each of the numbered comments of your letter and the Company's responses thereto. Capitalized terms used herein but not defined herein have the meanings given to such terms in Amendment No. 2.

Amendment No. 1 to Registration Statement on Form S-3

Cover Page

1. **We note your amended disclosure in response to comments 1 and 2, including that the occurrence of an event of default, including failing to consummate the asset sale, may result in the acceleration of the your obligations under the Debentures, and if this were to occur, you may neither have sufficient cash on hand nor have access to liquidity to be able to repay such obligations, which could result in you pursuing, among other options, bankruptcy and liquidation. Please amend your disclosure to clarify the impact on equity holders if you were to file for bankruptcy, including whether equity holders could expect any recovery in bankruptcy.**

Response: In response to the Staff's comment, we have revised our Cover Page to clarify that our equity holders would likely receive no recovery at all in the case of a bankruptcy or liquidation. We have also added this disclosure to the Summary section on page 3, two Risk Factors on page 6, and the Private Placement of Securities section on page 14.

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Please contact me at (631) 755-5500 if you have any questions or require any additional information in connection with this letter.

Sincerely,

/s/ Hamid Erfanian  
Hamid Erfanian, Chief Executive Officer

cc: Dan Woodard, McDermott Will & Emery

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