

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 14A

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, For Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material Under Rule 14a-12

Enzo Biochem, Inc.

(Name of Registrant as Specified in Its Charter)

(Name of Person(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

- No fee required
- Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

Fee paid previously with preliminary materials.

Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the Form or Schedule and the date of its filing.

(1) Amount previously paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:



Information on AGM Proposal #1

February 2020

Disclaimer

The views expressed in this presentation (this "Presentation") represent the opinion of Enzo Biochem, Inc. (the "Company"). This Presentation is for informational purposes only, and it does not have regard to the specific investment objective, financial situations, suitability or particular need of any specific person who may receive this Presentation and should not be taken as advice on the merits of any investment decision. This Presentation is not a recommendation or solicitation to buy or sell any securities of the Company.

The Company has not sought or obtained consent from any third party to use any statements or information indicated in this Presentation as having been obtained or derived from a third party. Any such statements or information should not be viewed as indicating the support of such third party for the views expressed in this Presentation. Information contained in this Presentation has not been independently verified by the Company, and the Company disclaims any and all liability as to the completeness or accuracy of the information and for any omissions of material facts. The Company disclaims any obligation to correct, update or revise this Presentation or to otherwise provide any additional materials.

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>.

Except for historical information, the matters discussed in this Presentation 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 Presentation.



Background on Proposal #1

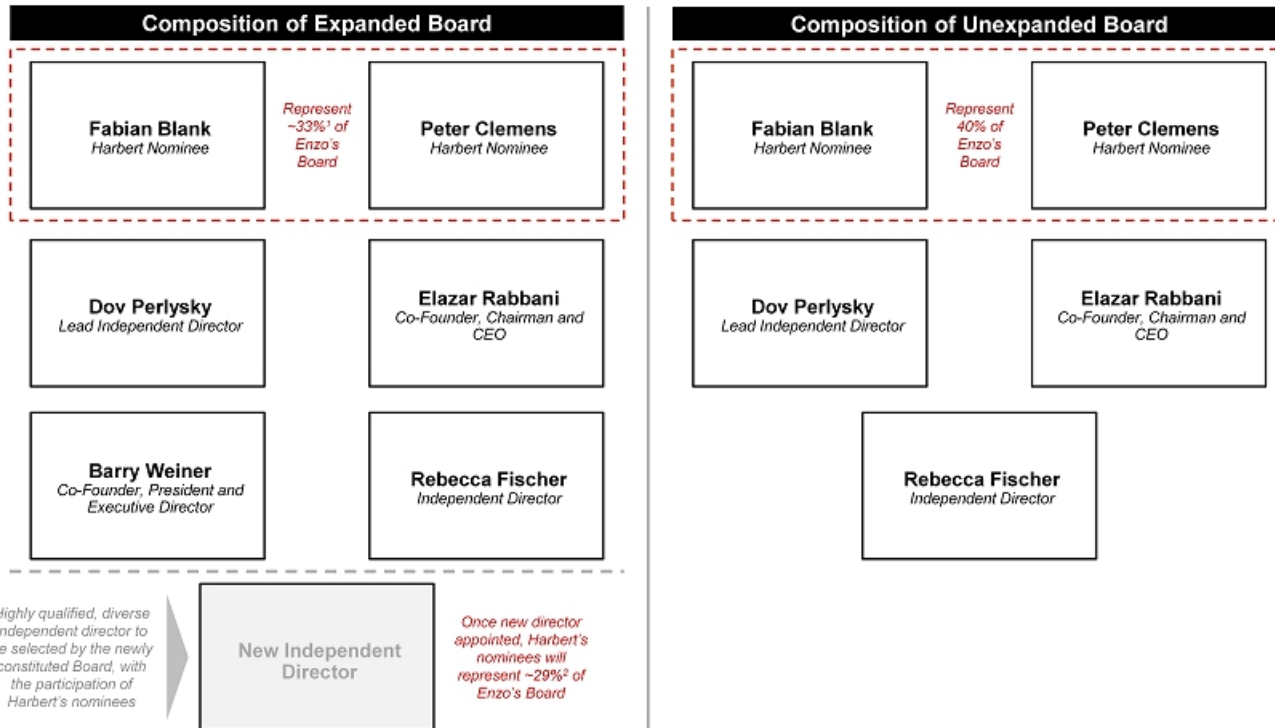
- Proposal #1 seeks to amend the By-laws to **increase the maximum size of the Board from five (5) to six (6) directors**, and provide the Board the discretion to set the size within a range between five (5) and seven (7) directors going forward
- The addition of Proposal #1 to the AGM agenda resulted from **direct and specific feedback received from shareholders** leading up to the AGM
 - While shareholders have supported Enzo's many governance enhancements, expanding the size of the Board to accommodate more perspectives and greater diversity was a commonly raised theme
 - Specific shareholder suggestions for Enzo's Board size ranged from 7 to 10 directors, while other investors requested expansion generally while not targeting a specific size
 - A larger Board would bring Enzo's Board size into closer alignment with those of peers¹ (average size of 8.4 directors) and the Russell 2000² (average size of 8.6 directors)
 - Certain other shareholders expressed a concern, shared by the Board, that **Harbert (an 11.8% shareholder) has demonstrated a desire to ultimately take control of the Company** and that Harbert having 2 of 5 seats (40% of currently sized Board) is too close to effective control
- **Both of Harbert's nominees will be elected to the Board for three-year terms regardless of the outcome of Proposal #1**
- If Proposal #1 is adopted, Barry Weiner will be elected to the Board for a 1-year term and the Board (which will include both Harbert nominees) will seek to appoint a new, highly qualified, diverse independent director to be identified in the near future

¹ Peers include: DGX, FLDM, HBIO, LH, LMNX, MACK, MNTA, MYGN, NEO, NSTG, NTRA, NVTA, OPK, OSUR, OXFD, PACB, QDEL, RGEN, SPPI, and VIVO.
² Based on the constituents of the iShares Russell 2000 ETF (IWM-US).



Two Options for Shareholders

In response to direct and specific shareholder feedback, Enzo is seeking approval to expand the Board to accommodate a greater number and diversity of perspectives



1 Assuming a 6 person Board of Directors.
2 Assuming a 7 person Board of Directors.



Why Support Proposal #1?

- Responsive to specific and direct investor feedback regarding desired Board expansion
- Brings Enzo's Board size into closer alignment with governance best practices and averages for both peers and the broader market
- Broadens range of perspectives represented on the Board
- Increases number of independent directors on the Board
- Increases number of diverse directors on the Board
- Harbert nominees will be able to participate in the process of identifying a new seventh director
- Reduced risk of Harbert obtaining effective control, which we believe they have signaled as their true ultimate objective by:
 - Filing a lawsuit to disenfranchise shareholders
 - Spurning the Company's continued overtures to amicably resolve the situation (including by the Company's offer, made at a time when only 25% of the outstanding shares had voted, to elect both Harbert nominees to the Board) and instead issuing press releases attacking the Board
 - Making unreasonable demands in settlement negotiations that would provide an atypical level of control to an activist, including: naming the Lead Independent Director, naming the Chairs of two of the three Board committees, having approval rights over additional directors, veto rights over Board expansion, and forcing the resignations of both Enzo nominees (one immediately and one in a year) – in addition to expense reimbursement and other demands



✓ Why the Board's Actions Are NOT Disenfranchising Shareholders

- The **Board has not taken any unilateral action**; it has only given shareholders an additional choice as to how they want to constitute their Board, a choice that was informed by specific shareholder feedback
- The Board has the authority to unilaterally amend the bylaws to set the size of the Board.¹ However, due to the circumstances surrounding the proposed increase in Board size, **the Board decided to put this proposed change in the hands of shareholders to let them decide the outcome**
 - Shareholders have the right to enable Enzo to benefit from the additional perspectives of an expanded Board, **if they choose to**, by voting in favor of Proposal #1

The decision as to whether to expand the Board will be decided by a vote of the shareholders. It is disingenuous and illogical to characterize offering this choice to shareholders as disenfranchising

✗ Why Harbert's Actions Are Disenfranchising Shareholders

- In its lawsuit, among other things, Harbert is seeking one of two outcomes:
 - To get the court to **prevent shareholders from voting** on Proposal #1
 - If the court does not stop the vote on Proposal #1, to require a supermajority vote threshold of 80% of the outstanding shares¹ in order for the proposal to pass, which would result in the failure of the proposal **even if it is supported by an overwhelming majority of Enzo shareholders**

Obstructing shareholders from voting on a legitimate proposal (added based on shareholder feedback) and preventing the Company from adopting such proposal even if supported by a large majority of shareholders are indisputable acts of disenfranchisement

¹ In the opinion of Sidley Austin LLP, outside counsel to the Company, a majority vote standard applies to Proposal #1 and Harbert's assertion that an 80% supermajority threshold applies is without merit. Additional information about the applicable vote standard is set forth on page 4 of the Company's definitive proxy supplement filed with the SEC on February 14, 2020.



The Choice for Shareholders Is Clear:
Vote Enzo's GOLD Card

