

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Schedule 14A
Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934
(Amendment No. 1)

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 § 240.14a-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 all boxes that apply):

- No fee required
- Fee paid previously with preliminary materials.
- Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11

ENZO BIOCHEM, INC.
81 Executive Blvd. Suite 3
Farmingdale, New York 11735

NOTICE OF 2022 ANNUAL MEETING OF SHAREHOLDERS
To be held on January 31, 2023

To All Shareholders of Enzo Biochem, Inc.:

NOTICE IS HEREBY GIVEN that the 2022 Annual Meeting of Shareholders (the “Annual Meeting”) of Enzo Biochem, Inc., a New York corporation (“we” or the “Company”), will be held virtually over the internet using the link, www.virtualshareholdermeeting.com/ENZ2023, on January 31, 2023 at 9:00 a.m., EST, for the following purposes.

1. To elect Hamid Erfanian, Bradley L. Radoff, and Mary Tagliaferri, M.D. to the Company’s Board of Directors (the “Board”) to hold office for a term ending as of our 2023 annual meeting of shareholders, and until each such director’s successor is elected and qualified;
2. To approve, by a nonbinding advisory vote, the compensation of the Company’s Named Executive Officers (the “Advisory Proposal”);
3. To ratify the Company’s appointment of EisnerAmper LLP to serve as the Company’s independent registered public accounting firm for the Company’s fiscal year ending July 31, 2023 (the “Auditor Proposal”); and
4. To transact such other business as may properly come before the Annual Meeting.

Only shareholders of record as of the close of business on December 8, 2022, the date fixed by the Board as the record date for the meeting, are entitled to notice of, and to vote at, the meeting. This annual meeting will be a completely virtual meeting. There will be no physical meeting location. The meeting will be conducted via live webcast. Shareholders will have the same rights and opportunities to participate in our virtual annual meeting as they would at an in-person meeting. For more information on our virtual annual meeting, including details on how to attend the meeting, see the instructions under “Instructions for the Virtual Annual Meeting” on page 1 of this Proxy Statement.

Whether or not you plan to attend the Annual Meeting, and regardless of the number of shares of Common Stock you own, please vote as soon as possible. We urge you to date, sign and return the proxy card in the envelope provided to you, or to use the telephone or Internet method of voting described on your proxy card, even if you plan to attend the Annual Meeting, so that if you are unable to attend the Annual Meeting, your shares can be voted. Any shareholder of record who submits a proxy card retains the right to revoke such proxy card by: (i) submitting a written notice of such revocation to the Chief Executive Officer of the Company so that it is received no later than 5:00 p.m., EST on January 30, 2023; (ii) submitting a duly signed proxy card bearing a later date than the previously signed and dated proxy card to the Chief Executive Officer of the Company so that it is received no later than 5:00 p.m., EST on January 30, 2023; or (iii) attending the Annual Meeting virtually and voting thereat the shares represented by such proxy card. Attendance at the Annual Meeting will not, in and of itself, constitute revocation of a completed, signed and dated proxy card previously returned. All such later-dated proxy cards or written notices revoking a proxy card should be sent to Enzo Biochem, Inc., 81 Executive Blvd. Suite 3, Farmingdale, NY 11735, Attention: Hamid Erfanian, CEO. If you hold shares of Common Stock in street name, you must contact the firm that holds your shares to change or revoke any prior voting

instructions.

Please read carefully the enclosed Proxy Statement, which explains the proposals to be considered by you and acted upon at the Annual Meeting.

The Board has fixed the close of business on December 8, 2022 as the record date for the determination of holders of record of Common Stock entitled to notice of, and to vote at, the Annual Meeting. A list of shareholders of record of the Company as of the record date will remain open for inspection during the Annual Meeting until the closing of the polls thereat.

If you have any questions about the procedures for admission to the Annual Meeting, please contact Investor Relations at (631)-755-5500.

December 20, 2022

By Order of the Board of Directors,

/s/ Hamid Erfanian
Hamid Erfanian
Chief Executive Officer

ALL HOLDERS OF RECORD OF COMMON STOCK (WHETHER THEY INTEND TO ATTEND THE ANNUAL MEETING OR NOT) ARE STRONGLY ENCOURAGED TO COMPLETE, SIGN, DATE AND RETURN PROMPTLY THE PROXY CARD ENCLOSED WITH THE ACCOMPANYING PROXY STATEMENT.

**ENZO BIOCHEM, INC.
PROXY STATEMENT
2022 ANNUAL MEETING OF SHAREHOLDERS
To be held on January 31, 2023**

This Proxy Statement is being furnished in connection with the solicitation of proxies by and on behalf of the Board of Directors (the "Board") of Enzo Biochem, Inc., a New York corporation ("we" or the "Company"), for use at the 2022 Annual Meeting of Shareholders (the "Annual Meeting") to be held virtually over the internet using the link, www.virtualshareholdermeeting.com/ENZ2023, on January 31, 2023 at 9:00 a.m., EST, or any adjournment or adjournments thereof. This Proxy Statement, together with the accompanying Annual Report on Form 10-K for the fiscal year ended July 31, 2022 and the Proxy Card, are first being mailed to shareholders on or about December 21, 2022. Only shareholders of record as of the close of business on December 8, 2022 are entitled to notice of, and to vote at, the Annual Meeting.

The Board may use the services of the Company's directors, officers and other regular employees to solicit proxies personally or by telephone and may request brokers, fiduciaries, custodians and nominees to send proxies, proxy statements and other materials to their principals and reimburse them for their out-of-pocket expenses in so doing. The cost of solicitation of proxies, estimated to be approximately \$25,000, will be borne by the Company. Each proxy duly executed and returned to the Company is revocable. The procedure a shareholder must follow to revoke its proxy depends on how such shareholder holds its shares. Registered holders of our Common Stock may revoke a previously submitted proxy by submitting another valid later dated proxy or by providing a signed letter of revocation to the Corporate Secretary of the Company before the closing of the polls at the Annual Meeting. Only the latest dated validly executed proxy will count. Shareholders also may revoke any previously submitted proxy by attending the Annual Meeting and voting their shares during the Annual Meeting. Note that simply attending the Annual Meeting without taking one of the above actions will not revoke a proxy. In general, shareholders holding shares in "street name" may revoke previously submitted voting instructions by submitting to their custodian another valid voting instruction or a signed letter of revocation. Shareholders holding shares in "street name" should contact their custodian for detailed instructions on how to revoke their voting instruction and the applicable deadlines.

Instructions for the Virtual Annual Meeting

The Annual Meeting will be a completely virtual meeting. There will be no physical meeting location. The Annual Meeting will be conducted via live webcast. Shareholders will have the same rights and opportunities to participate in the virtual Annual Meeting as they would at an in-person meeting.

To attend the virtual Annual Meeting, visit www.virtualshareholdermeeting.com/ENZ2023 and enter the 16-digit control number included on your proxy card or voting instruction form. The meeting will start at 9:00 a.m., EST on January 31, 2023. We encourage you to access the virtual Annual Meeting prior to the start time to familiarize yourself with the virtual platform and ensure you can hear the streaming audio. Online access will be available starting at 8:30 a.m., EST on January 31, 2023.

The virtual Annual Meeting platform is fully supported across browsers (Internet Explorer, Firefox, Chrome, and Safari) and devices (desktops, laptops, tablets and cell phones) running the most updated version of applicable software and plugins. Participants should ensure that they have a strong WiFi connection from wherever they intend to participate in the virtual Annual Meeting.

While we strongly encourage you to vote your shares prior to the virtual Annual Meeting, shareholders may also vote during the meeting. Once logged in, you will be able to vote your shares by clicking the "Vote Here!" button.

Shareholders may submit written questions once logged into the virtual Annual Meeting platform. Questions pertinent to meeting matters will be answered during the question and answer portion of the virtual Annual Meeting, subject to a time limit prescribed by the Rules of Conduct that will be posted to the virtual Annual Meeting platform on the day of the meeting. The Rules of Conduct will also provide additional information about the relevancy of questions to meeting matters.

If you encounter any difficulties accessing the virtual Annual Meeting during the check-in or meeting time, you should call the technical support number that will be posted on the virtual shareholder meeting login page.

Voting Securities and Votes Required

The Board has fixed the close of business on December 8, 2022 as the record date for determination of shareholders entitled to notice of, and to vote at, the Annual Meeting (the "Record Date"). As of the Record Date, the Company had outstanding 48,720,454 shares of Common Stock. Each share of Common Stock entitles the record holder thereof to one vote on each matter brought before the Annual Meeting. No shares of preferred stock were outstanding as of the Record Date. A majority of the outstanding shares of Common Stock, represented in person or by proxy, constitutes a quorum. Rights of appraisal or similar rights of dissenters are not available to shareholders of the Company with respect to any matter to be acted upon at the Annual Meeting.

A shareholder who abstains from voting on any or all proposals will be included in the number of shareholders present at the Annual Meeting for the purpose of determining the presence of a quorum. A “broker non-vote” will also be counted for the purpose of determining the presence of a quorum. A “broker non-vote” occurs when a beneficial owner whose shares are held of record by a broker does not instruct the broker how to vote those shares and the broker does not otherwise have discretionary authority to vote on a particular matter. Brokers are not permitted to vote shares without instructions on proposals that are not considered “routine.” Accordingly, brokers are entitled to vote on Proposal Number 3 (the ratification of the independent registered public accounting firm), which is considered a “routine” matter, but brokers are not entitled to vote on Proposal Number 1 (the Director Proposal), or Proposal Number 2 (the Advisory Proposal). In order to avoid a broker non-vote on these proposals, a beneficial owner whose shares are held of record by a broker must send voting instructions to that broker.

The election of each nominee for Director (Proposal 1), which is an uncontested election, will require the affirmative vote of the majority of the votes cast either “for” or “against” the nominee’s election by holders of shares of Common Stock present, in person or represented by proxy, at the Annual Meeting and entitled to vote on such proposal. This means that the number of votes cast “for” the nominee’s election must exceed the number of votes cast “against” their election in order for that candidate to be elected to serve as a Director of the Company. Shareholders may vote “for,” “against” or “abstain” to vote for the Director-nominee. A properly executed proxy card marked “abstain” and broker non-votes with respect to a Director-nominee will not be voted with respect to the election of that Director-nominee, although they will be counted for purposes of determining whether there is a quorum present at the Annual Meeting for the transaction of business. As a result, such votes will have no effect on the Director election since only votes “for” or “against” a nominee will be counted. An incumbent director who does not receive more votes cast “for” than “against” in his or her election in an uncontested election must tender his or her resignation to our Board and our Board will decide, through a process managed by the Nominating/Governance Committee, whether to accept such resignation or to have such director serve on a holdover basis until a successor is appointed.

The approval of the compensation of the Company’s Named Executive Officers (Proposal 2) will require the affirmative vote of a majority of the votes cast by holders of shares of Common Stock present, in person or represented by proxy, at the Annual Meeting and entitled to vote on such proposal. Shareholders may vote “for,” “against” or “abstain” with respect to Proposal 2. While our Board intends to carefully consider the shareholder vote resulting from Proposal 2, the vote is not binding on us and is advisory in nature. Under the rules of the New York Stock Exchange (“NYSE”), abstentions will be counted as “votes cast” and will have the same effect as a vote “against” for the purpose of determining whether a majority of the votes cast have been voted “for” Proposal 2. Broker non-votes will not be counted as “votes cast” on Proposal 2 and will have no effect on the outcome of the vote with respect to Proposal 2.

The ratification and approval of the Company’s appointment of EisnerAmper LLP to serve as the Company’s independent registered public accounting firm for the Company’s fiscal year ending July 31, 2023 (Proposal 3) will require the affirmative vote of a majority of the votes cast by holders of shares of Common Stock present, in person or represented by proxy, at the Annual Meeting and entitled to vote on such proposal. Shareholders may vote “for,” “against” or “abstain” with respect to Proposal 3. Under the rules of the NYSE, abstentions will be counted as “votes cast” and will have the same effect as a vote “against” for the purpose of determining whether a majority of the votes cast have been voted “for” Proposal 3. Proposal 3 is considered a “routine” matter and thus brokers are entitled to vote on Proposal 3 even if a shareholder does not instruct the broker how to vote. Therefore, we do not expect that there will be any broker non-votes for Proposal 3.

2

If you are a shareholder whose shares are registered directly in your name with American Stock Transfer & Trust Company, LLC, our transfer agent, and you return a signed Proxy Card without giving specific voting instructions, then the individuals designated as proxy holders on the Proxy Card will vote your shares in accordance with the recommendations of the Board: (i) “FOR” Proposal 1, (ii) “FOR” Proposal 2 and (iii) “FOR” Proposal 3.

Please vote your proxy so your vote can be counted.

Company shareholders who have questions about matters to be voted on at the annual meeting or who desire additional copies of this Proxy Statement or additional proxy or voting instruction cards should contact:

Enzo Biochem, Inc.
81 Executive Blvd. Suite 3
Farmingdale, New York 11735
(631)-755-5500
Attn.: Investor Relations

or



Kingsdale Advisors
1-888-518-1554 (toll-free in North America)
646-586-9580 (collect outside of North America)
e-mail: contactus@kingsdaleadvisors.com

IMPORTANT NOTICE REGARDING AVAILABILITY OF PROXY MATERIALS

This Proxy Statement, the form of proxy card, our 2022 Annual Report to Shareholders and our Annual Report on Form 10-K for our fiscal year ended July 31, 2022, are available to you on our website at www.enzo.com. Shareholders may also obtain a copy of these materials by writing to Enzo Biochem, Inc., 81 Executive Blvd. Suite 3, Farmingdale, New York 11735, Attention: Hamid Erfanian, Chief Executive Officer. Upon payment of a reasonable fee, shareholders may also obtain a copy of the exhibits to our Annual Report on Form 10-K for our fiscal year ended July 31, 2022.

3

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Set forth below is information, as of December 8, 2022, the Record Date, concerning stock ownership of all persons known by the Company to own beneficially 5% or more of the shares of Common Stock of the Company, the executive officers named in the “Summary Compensation Table” as “Named Executive Officers,” and all current directors, executive officers and key employees of the Company as a group, based upon the number of outstanding shares of Common Stock as of the close of business on December 8, 2022.

The percentages in the “Percent of Class” column are calculated in accordance with the rules of the SEC, under which a person may be deemed to be the beneficial owner of shares if that person has or shares the power to vote or dispose of those shares or has the right to acquire beneficial ownership of those shares within 60 days (for example, through the exercise of an option or warrant). The shares shown in the table as beneficially owned by certain individuals may include shares owned by certain members of their respective families. Because of these rules, more than one person may be deemed to be the beneficial owner of the same shares. The inclusion of the shares shown in the table is not necessarily an admission of beneficial ownership of those shares by the person indicated. Except as otherwise indicated, each of the persons named has sole voting and investment power with respect to the shares shown.

Title of Class	Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership⁽¹⁾	Percent of Class⁽²⁾
Common Stock	Elazar Rabbani, Ph.D.	2,268,434 ⁽³⁾	4.6%
Common Stock	Hamid Erfanian	334,600 ⁽⁴⁾	*
Common Stock	Kara Cannon	198,581 ⁽⁵⁾	*
Common Stock	David Bench	47,071 ⁽⁶⁾	*
Common Stock	Bradley L. Radoff	4,624,663 ⁽⁷⁾	9.3%
Common Stock	Mary Tagliaferri, M.D.	25,700 ⁽⁸⁾	*
Common Stock	Ian B. Walters, M.D.	25,700 ⁽⁹⁾	*
Common Stock	Harbert Management Corp	5,175,913 ⁽¹⁰⁾	10.6%
Common Stock	Renaissance Technologies, LLC	2,909,664 ⁽¹¹⁾	6.0%
Common Stock	James G. Wolf	4,168,500 ⁽¹²⁾	8.6%
Common Stock	All directors, executive officers and key employees as a group (10 persons)	7,736,691 ⁽¹³⁾	15.5%

* Represents beneficial ownership of less than 1%.

- (1) Except as otherwise noted in the footnotes to the table, all shares of Common Stock are beneficially owned and the sole investment and voting power is held by the persons named, and such persons’ address is c/o Enzo Biochem, Inc., 81 Executive Blvd., Suite 3 Farmingdale, NY 11735.
- (2) For directors, executive officers and key employees, based upon 48,720,454 shares of Common Stock of the Company considered outstanding as of the close of business on November 23, 2022. Common Stock not outstanding but deemed beneficially owned by virtue of the right of an individual to acquire shares within 60 days from November 23, 2022 is treated as outstanding when determining the amount and percentage of Common Stock owned by directors and executive officers individually and as a group.

4

- (3) Includes (i) 348,100 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from November 23, 2022, (ii) 5,308 shares of Common Stock held in the name of Dr. Rabbani as custodian for certain of his children, (iii) 18,794 shares of Common Stock held in the name of Dr. Rabbani’s wife as custodian for certain of their children, and (iv) 46,664 shares of Common Stock held in the Company’s 401(k) plan.
- (4) Includes (i) 233,333 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from November 23, 2022, and (ii) 86,667 shares of Common Stock vested but not yet issued under Mr. Erfanian’s restricted stock unit award made November 8, 2021.
- (5) Includes (i) 160,867 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from November 23, 2022, (ii) 12,600 shares of common stock earned for performance but not yet issued, and (iii) 25,114 shares of Common Stock held in the Company’s 401(k) plan.
- (6) Includes 36,933 shares of Common Stock issuable upon the exercise of vested options which are exercisable within 60 days from November 23, 2022. Mr. Bench resigned effective November 14, 2022.
- (7) Includes 430,000 shares of Common Stock held by The Radoff Family Foundation of which Mr. Radoff is deemed to be the beneficial owner. The address of Bradley L. Radoff is 2727 Kirby Drive Unit 29L Houston, Texas 77098.
- (8) Includes 25,700 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from November 23, 2022.
- (9) Includes 25,700 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from November 23, 2022.
- (10) The address of Harbert Management Corp. is 2100 Third Avenue North, Suite 600, Birmingham, AL 35203. This information is based solely on a Schedule 13F filed for the period ended September 30, 2022.
- (11) The address of Renaissance Technologies, LLC is 800 Third Avenue, New York, NY 10022. This information is based solely on a Schedule 13F filed for the period ended September 30, 2022.
- (12) The address of James G. Wolf is 105, Flyway Drive, Kiawah Island, SC 29455. This information is based solely on a Schedule 13D/A filed on November 23, 2022.
- (13) Includes 956,834 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from November 23, 2022.

Delinquent Section 16(A) Reports

Section 16(a) of the Exchange Act requires our directors and executive officers, and persons who own more than 10% of a registered class of our equity securities, to file with the SEC initial reports of ownership and reports of changes in ownership of common stock and other equity securities of the company. Officers, directors and greater than 10% shareholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file.

To our knowledge, based solely on a review of the copies of such reports furnished to us and written representations that no other reports were required, during the fiscal year ended July 31, 2022, all Section 16(a) filing requirements applicable to our officers, directors and greater than 10% stockholders were complied with.

5

**PROPOSAL 1
ELECTION OF DIRECTORS**

Board Nominees for Election at the Annual Meeting

Each of the three (3) director nominees named below, upon election, will serve for a one-year term ending at the next annual meeting of shareholders or until their successors are elected and qualified. Unless otherwise instructed, the shares represented by validly submitted proxy cards will be voted “FOR” the election of the below-listed Board nominees to serve as directors of the Company. Our management has no reason to believe that the below-listed Board nominees will not be candidates or will be unavailable for election at the date of the Annual Meeting. However, in the event that the below-listed Board nominees should become unable or unwilling to serve as directors of the Company, the proxy cards will be voted for the election of such alternate person as shall be designated by the directors of the Company in their judgment. If any alternate person is designated by the directors of the Company to serve as director-nominees, the Company will publicly notify shareholders by press release and will promptly distribute to shareholders revised proxy materials (including a revised proxy card) that (i) identify each such substitute nominee, (ii) disclose whether such substitute nominee has consented to being named in the revised proxy statement and to serve if elected and (iii) include certain other disclosure required by applicable federal proxy rules and regulations with respect to each such substitute nominee.

The total cumulative length of time that any “Outside Director” (a member of the Board who is not an officer or employee of the Company) may serve on the Board is limited to a maximum of nine, one-year terms. The term limit set forth above may be extended for up to a maximum of one additional term if such individual is renominated by the unanimous agreement of the Board.

Biographical Information for Nominees

**DIRECTOR NOMINEES TO SERVE UNTIL
THE 2023 ANNUAL MEETING, IF ELECTED:**

Name	Year First Became A Director
Hamid Erfanian (age 53)	2022
Bradley L. Radoff (age 49)	2022
Mary Tagliaferri, M.D. (age 56)	2020

HAMID ERFANIAN is the Company’s Chief Executive Officer as of November 2021 and a director of the Company since January 2022. Mr. Erfanian has over 29 years of experience as a seasoned healthcare executive specializing in the diagnostic, medical devices, and life sciences industry. Prior to his appointment as Chief Executive Officer of the Company, Mr. Erfanian was most recently Chief Commercial Officer of EUROIMMUN, a PerkinElmer Company. He previously served as Chief Executive Officer of its US subsidiary, a position he held from June 2014 through August 2021. Prior to EUROIMMUN, Mr. Erfanian held executive and senior positions at several notable diagnostics companies including Diagnostica Stago, Beckman Coulter, and Abbott Laboratories. Earlier in his career, Mr. Erfanian worked at leading diagnostic laboratory testing companies, Quest Diagnostics and Laboratory Corporation of America. He received his Bachelor’s Degree in Science and Mathematics from North Dakota State University and a Masters of Business Administration from the Cox School of Business at Southern Methodist University.

We believe that Mr. Erfanian’s qualifications to serve on the Board are demonstrated by his experience at Enzo and EUROIMMUN, his ability with regards to diagnostics commercialization and his keen understanding of the global biotech market.

BRADLEY L. RADOFF has been a director of the Company since January 2022. Mr. Radoff is currently chair of the Company’s Audit Committee and a member of the Company’s Nominating and Governance Committee and Compensation Committee. Mr. Radoff is a private investor and has also served as Principal of Fondren Management LP, a private investment management company, since 2005. Mr. Radoff previously served as a Portfolio Manager at Third Point LLC, a registered investment advisory firm, from 2006 to 2009. He also served as Managing Director of Lonestar Capital Management LLC, a registered investment advisory firm, from 2003 to 2004. Mr. Radoff also previously served as a director of Citadel Investment Group LLC, a global financial institution, from 2000 to 2003. Mr. Radoff has served as a director of VAALCO Energy, Inc. (NYSE:EGY), a Texas-based independent energy company, since June 2020, and Harte Hanks, Inc. (NASDAQ: HHS), a leading global customer experience company, since May 2021. Mr. Radoff previously served as a director of Support.com, Inc. (formerly NASDAQ:SPRT), a leading provider of cloud-based software and services, from June 2016 until its merger in September 2021, and Pogo Producing Company (formerly NYSE:PPP), an oil and gas exploration, development and production company, from March 2007 until the completion of its sale to Plains Exploration & Production Company in November 2007. Mr. Radoff graduated summa cum laude with a B.S. in Economics from The Wharton School at the University of Pennsylvania.

We believe that Mr. Radoff’s qualifications to serve on the Board are demonstrated by his financial and investment expertise together with his perspective as a significant shareholder of the Company.

MARY TAGLIAFERRI, M.D., has been a director of the Company since November 2020 and Chair of the Board since January 2022. Dr. Tagliaferri is currently chair of the Company’s Nominating & Governance Committee and a member of both the Company’s Audit Committee and Compensation Committee. Dr. Tagliaferri has been serving on the board of directors of RayzeBio, Inc., a biotechnology company, since October 2021. Dr. Tagliaferri has been serving as Senior Vice President and Executive Clinical Fellow for Nektar Therapeutics, a Nasdaq-listed company, since March 2020 and previously served as Chief Medical Officer from November 2017 to March 2020, Senior Vice President, Clinical Development from April 2017 to October 2017 and Vice President of Clinical Development from January 2015 to March 2017. Dr. Tagliaferri served as Consultant for InterMune from March 2014 to December 2014. Dr. Tagliaferri served as Chief Medical Officer of Kanglaite, Inc. from October 2012 to April 2014. Dr. Tagliaferri was the co-founder of Bionovo, Inc. and served as its Chief Medical Officer, Chief Regulatory Officer, Secretary and Treasurer and a member of the Board of Directors from February 2002 to June 2012 and President from May 2007 to June 2012. Dr. Tagliaferri received her Bachelor of Science Degree in Agricultural Economics and Business Management from Cornell University in 1988, Post Baccalaureate Degree in Science from Bryn Mawr College in 1996, Master of Science Degree, Oriental Medicine from the American College of Traditional Chinese Medicine, San Francisco, California in 1995 and Medical Degree from the University of California, San Francisco in 2002. Dr. Tagliaferri completed her residency in internal medicine at Alameda County Medical Center, Oakland, California, in 2003 and a research fellowship in translational science at the University of California, San Francisco in 1999. She has contributed to approximately 70 publications.

We believe that Dr. Tagliaferri’s qualifications to serve on the Board are demonstrated by her professional background, experience in the healthcare field and past board position, making her well qualified as a member of our Board.

THE MAJORITY OF THE BOARD RECOMMENDS THAT YOU VOTE “FOR” THE ELECTION OF THE ABOVE-NAMED BOARD NOMINEES TO SERVE AS DIRECTORS OF THE COMPANY.

The person named as proxy intends to vote the proxies “FOR” the election of this nominee unless you indicate on the proxy card a vote “AGAINST” or “ABSTAIN” to vote with respect to the nominee. If for some reason the director nominee is unable to serve, or for good cause will not serve if elected, the person named as proxy may vote for a substitute nominee recommended by the Board. If a substitute nominee is designated, we will file an amended proxy statement that, as applicable, identifies the substitute nominees, discloses that such nominees have consented to being named in the revised proxy statement and to serve if elected, and includes certain biographical and other information about such nominees required by SEC rules.

DIRECTORS WHO ARE CONTINUING IN OFFICE:**Term to Expire at the 2023 Annual Meeting in 2024**

Name	Age	Year First Became a Director
Elazar Rabbani, Ph.D.	79	1976
Ian B. Walters, M.D.	55	2020

DIRECTORS, EXECUTIVE OFFICERS AND KEY EMPLOYEES

The current directors, executive officers and key employees of the Company and its subsidiaries are identified in the table below.

Name	Age	Year Became a Director, Executive Officer or Key Employee	Position
Hamid Erfanian ⁽¹⁾	53	2021	Chief Executive Officer and Director
Kara Cannon	54	2018	Chief Operating Officer
David Bench ⁽²⁾	49	2019	Chief Financial Officer
Patricia Eckert ⁽²⁾	45	2022	Interim Chief Financial Officer
Matthew Kupferberg ⁽³⁾	57	2022	General Counsel, Secretary
Dieter Schapfel, M.D.	59	2014	Chief Medical Director, Enzo Clinical Labs
Elazar Rabbani, Ph.D. ⁽¹⁾	79	1976	Former Chief Executive Officer and Secretary
Ian B. Walters, M.D.	55	2020	Director
Bradley L. Radoff	49	2022	Director
Mary Tagliaferri, M.D.	56	2020	Director and Chair of the Board

(1) Mr. Erfanian started his tenure as our Chief Executive Officer in November 2021. Dr. Rabbani served as Chief Executive Officer from the Company's inception in 1976 to November 2021, Secretary from November 2009 to April 2022 and Chairman of the Board from the Company's inception in 1976 to January 2022.

(2) Mr. Bench resigned from the Company effective November 14, 2022. Ms. Eckert became interim Chief Financial Officer effective on that date.

(3) Mr. Kupferberg was hired as General Counsel on August 1, 2022.

Biographical Information Regarding Other Directors, Executive Officers and Key Employees

KARA CANNON is Chief Operating Officer and has been employed with the Company since 2011. She is responsible for strategic and tactical marketing, sales, manufacturing and general management of the operations. Ms. Cannon previously held executive positions at Pall Corporation, where she focused on commercial operations within the areas of diagnostics, biotechnology and biosciences. She has also held marketing and technical positions at Dynal Biotech (now ThermoFisher Scientific). She has had extensive experience in the marketing and selling of innovative platforms for the diagnostics markets, as well as, the development and execution of strategic plans for the growth and sustainability of diagnostic-related businesses. Ms. Cannon holds a BA from Franklin and Marshall College.

PATRICIA ECKERT is interim Chief Financial Officer and has been employed with the Company since 2017 in various finance roles. Ms. Eckert previously served as accounting director at Pall Corporation, where she advanced through multiple accounting and finance roles, ultimately managing a broad team and directly leading all aspects of implementation of the ASC 606 Revenue Recognition standard, overseeing matters relating to SOX compliance and driving multiple operational and finance cost savings initiatives. Prior to her tenure at Pall Corporation, Ms. Eckert served as senior accountant at a midsize accounting firm based in New York. She graduated cum laude with a BBA in accounting and an MBA in finance, both from Hofstra University in Hempstead, NY.

MATTHEW KUPFERBERG has been the Company General Counsel since August 1, 2022. Mr. Kupferberg was most recently General Counsel, Chief Compliance Officer and Privacy Officer of Digital Medical Technologies, LLC (dba AdhereTech), a medication adherence technology company. His previous experience includes Health Delegates, LLC, RxEDO, Inc. and DaVita, Inc. At DaVita, he was Assistant General Counsel to DaVita Rx, DaVita's pharmacy subsidiary. He also served as Assistant General Counsel at Humana, Inc., a managed health care company that markets and administers health insurance. Earlier in his career Mr. Kupferberg worked at the law firms ArentFox Schiff LLP and McDermott, Will & Emery LLP. He received his B.A. from Binghamton University (Phi Beta Kappa) and his J.D. from Boston College Law School. Mr. Kupferberg is licensed in the states of New York, New Jersey, and Massachusetts.

DIETER SCHAPFEL, M.D. is the Chief Medical Director for Enzo Clinical Labs and has been employed with the Company since 2012, initially as a consulting pathologist. Dr. Schapfel served as Medical Director of Pathology at Southside Hospital-North Shore/Long Island Jewish Health System from 2006 to 2012. He served as a staff pathologist at Huntington Hospital from January 2004 to June 2006. Dr. Schapfel served as director of Pathology and Medical Affairs and the College of American Pathologists director of Pathology, Dublin, Ireland and Farmingdale, New York for Icon Laboratories from February 2002 to October 2003. Dr. Schapfel is a graduate of the State University of New York at Stony Brook, College of Medicine, where he also served his residency. He is a diplomat of the American Board of Pathology with certification in Anatomic and Clinical Pathology and is also a diplomat of The National Board of Medical Examiners.

ELAZAR RABBANI, Ph.D., is an Enzo Biochem founder and served as the Company's Chairman of the Board from its inception in 1976 to January 2022 and as Secretary from November 2009 to April 2022. Dr. Rabbani also served as the Company's Chief Executive Officer from 1976 until November 2021. Dr. Rabbani has authored numerous scientific publications in the field of molecular biology, in particular, nucleic acid labeling and detection. He is also the lead inventor of many of the Company's pioneering patents covering a wide range of technologies and products. Dr. Rabbani received his Bachelor of Arts degree from New York University in Chemistry and his Ph.D. in Biochemistry from Columbia University. He is a member of the American Society for Microbiology.

We believe that Dr. Rabbani's qualifications to serve on the Board are demonstrated by his extensive knowledge of our industry and his accomplishments over the last 45 years, including building our intellectual property estate and the commercialization of technology, which has generated significant revenues for the Company.

IAN B. WALTERS, M.D. has been a director of the Company since November 2020. Mr. Walters is currently chair of the Company's Compensation Committee and a member of the Company's Audit Committee and Nominating & Governance Committee. Dr. Walters is an experienced entrepreneur and drug developer with leadership in the development of over 30 drugs in multiple therapeutic areas involving diverse technologies, leading to five new oncology drug approvals. His previous roles include Executive

Director of Global Oncology Clinical Research, and Business Development for Bristol-Myers Squibb and Medical Director at Millennium Pharmaceuticals. Dr. Walters is currently CEO and Director of Portage Biotech, a publicly traded clinical stage biopharmaceutical company developing an innovative portfolio of immuno-oncology assets. He is also founder of seven of Portage's portfolio companies. Dr. Walters holds an MBA from the Wharton School of the University of Pennsylvania. He received his MD at the Albert Einstein College of Medicine and completed doctoral training in experimental medicine at The Rockefeller University. Dr. Walters has been the lead author or contributor to approximately 60 journal publications.

We believe that Dr. Walter's qualifications to serve on the Board are demonstrated by his professional background, experience in the healthcare field, and other current and past board and management positions, making him well qualified as a member of our Board

Family Relationships

There are no family relationship of first cousins or closer, among the Company's directors and executive officers, by blood, marriage or adoption, except that Dr. Elazar Rabbani and Barry W. Weiner, President of Enzo until April 2022 are brothers-in-law.

Director Independence

Dr. Mary Tagliaferri, Dr. Ian B. Walters, and Mr. Radoff qualify as "Independent Directors" under the criteria established by the NYSE.

CORPORATE GOVERNANCE

Corporate Governance Review and Shareholder Engagement

The Board and management are committed to responsible corporate governance to ensure that the Company is managed for the long-term benefit of its shareholders. To that end, for the past three years the Company has conducted regular outreach to its top shareholders as part of its commitment to be responsive to shareholder concerns. In 2022, we engaged with many of our top institutional shareholders that collectively own over 60% of our Common Stock. During the past year, as in prior years, the Board and management have reviewed and updated, as appropriate, the Company's corporate governance policies and practices, including the Company's Amended and Restated By-Laws, as amended (the "By-Laws"), incorporating feedback received during the course of the Company's engagements, which have become more focused on Board and governance matters over the past year.

Corporate Governance Policies and Practices

The Company has a variety of policies and practices to foster and maintain responsible corporate governance, including the following:

Corporate Governance Guidelines - The Board adopted Corporate Governance Guidelines, which collect in one document many of the corporate governance practices and procedures that had evolved over the years. These guidelines address the duties of the Board, director qualifications and selection process, Board operations, Board committee matters and continuing education. The guidelines also provide for annual self-evaluations by the Board and its committees. The Board reviews these guidelines on an annual basis. The guidelines are available on the Company's website at www.enzo.com and in print by contacting Investor Relations at (631) 755-5500.

Corporate Code of Business Conduct and Ethics - The Company has a Code of Business Conduct and Ethics that applies to all of the Company's employees, officers and members of the Board. The Code of Business Conduct and Ethics is available on the Company's website at www.enzo.com and in print by contacting Investor Relations at (631) 755-5500.

Board Committee Charters - Each of the Company's Audit, Compensation and Nominating/ Governance Committees has a written charter adopted by the Board that establishes practices and procedures for such committee in accordance with applicable corporate governance rules and regulations. The charters are available on the Company's website at www.enzo.com and in print by contacting Investor Relations at (631) 755-5500.

Diversity Policy - As part of the Company's commitment to improved governance and in connection with the Company's shareholder engagement program, the Board adopted a diversity policy in 2019. The Nominating & Governance Committee shall consider diversity in its evaluation of candidates for Board membership in accordance with this policy. To reflect this policy, the Nominating & Governance Committee seeks to include diverse candidates in all director searches, taking into account diversity of age, gender, race, culture, business experience, education, skills, character and judgment, including by affirmatively instructing any search firm retained to assist the Nominating & Governance Committee in identifying director candidates, to seek to include diverse candidates from traditional and non-traditional candidate groups.

Director Term Limits - The total cumulative length of time an Outside Director may serve on the Board is limited to a maximum of nine one-year terms, whether consecutively or in total, plus any portion of an earlier term that such Outside Director may have been appointed to serve. The limit set forth above may be extended for a maximum of one year if such individual is re-nominated by the unanimous agreement of the Board.

Lead Independent Director Charter - As part of the Company's ongoing commitment to improved governance and in connection with the Company's shareholder engagement program, the Company amended the Lead Independent Director Charter in 2019 to strengthen the duties of the Lead Independent Director role. The duties of the Lead Independent Director, as set forth in the amended Lead Independent Director Charter, among other things, are to:

- develop the agendas for and serve as chairman of the executive sessions of the independent directors of the Company;
- serve as principal liaison between the independent directors of the Company and the Chairman of the Board and between the independent directors and senior management;
- approve the agendas for Board meetings;
- call meetings of the independent directors;
- approve the appropriate schedule of Board meetings; advise the Chairman of the Board as to the quality, quantity and timeliness of the information submitted by the Company's management that is necessary or appropriate for the independent directors to effectively and responsibly perform their duties;

- ensure that independent directors have adequate opportunities to meet and discuss issues in executive sessions without management present; if the Chairman of the Board is unable to attend a Board meeting, act as chairman of such Board meeting;
- ensure that he or she may be available for consultation and direct communication with major shareholders, if deemed appropriate, and act as a contact for other interested persons, if other Company spokespersons are not available;
- share with other directors, as he or she deems appropriate, letters and other communications and contact that he or she receives;
- and perform such other duties as the Board shall from time to time delegate.

In addition, the Lead Independent Director may require information relating to any matter be distributed to the Board. The Lead Independent Director role was established in October 2005. Currently, there is no Lead Independent Director, as the Board Chair, Mary Tagliaferri, M.D. is considered an independent director.

The Lead Independent Director Charter, as amended, is available on the Company's website at www.enzo.com, and in print by contacting Investor Relations at (631) 755-5500.

Director Independence Requirements

The Board believes that a majority of its members should be independent, non-employee directors. The Board adopted the following "Director Independence Standards," which are consistent with criteria established by the NYSE, to assist the Board in making these independence determinations:

No director can qualify as independent if he or she has a material relationship with the Company outside of his or her service as a director of the Company. A director is not independent if, within the preceding three years:

- the director was an employee of the Company;
- an immediate family member of the director was an executive officer of the Company;
- the director was affiliated with or employed by a present or former internal or external auditor of the Company;
- an immediate family member of the director was affiliated with or employed in a professional capacity by a present or former internal or external auditor of the Company;
- the director, or an immediate family member of the director, received more than \$120,000 per year in direct compensation from the Company, other than director and committee fees and pension or other forms of deferred compensation for prior services (provided such compensation is not contingent in any way on continued service);
- the director, or an immediate family member of the director, was employed as an executive officer of another company where any of the Company's executives served on that company's compensation committee of the board of directors;
- the director was an executive officer or employee, or an immediate family member of the director was an executive officer, of another company that made payments to, or received payments from, the Company for property or services in an amount which, in any single fiscal year, exceeded the greater of \$1 million or two percent (2%) of such other company's consolidated gross revenues;
- the director, or an immediate family member of the director, was an executive officer of another company that was indebted to the Company, or to which the Company was indebted, where the total amount of either company's indebtedness to the other was five percent (5%) or more of the total consolidated assets of the company he or she served as an executive officer; or
- the director, or an immediate family member of the director, was an officer, director or trustee of a charitable organization where the Company's annual discretionary charitable contributions to the charitable organization exceeded the greater of \$1 million or two percent (2%) of that organization's consolidated gross revenues.

The Board has reviewed all material transactions and relationships among each director, and any member of his or her immediate family, and the Company, its senior management and its independent auditors. Based on this review and in accordance with its independence standards outlined above, the Board has affirmatively determined that all of the non-employee directors are independent as such term is defined by the NYSE.

Board Leadership Structure and Role in Risk Oversight

During the fiscal year ended July 31, 2022, Elazar Rabbani, Ph.D., served as the Company's Chairman of the Board until January 2022 and Secretary until April 2022, and Chief Executive Officer until November 2021. In October 2021, the Company announced the appointment of Hamid Erfanian to the position of Chief Executive Officer, which appointment commenced on November 8, 2021. In January 2022, Mary Tagliaferri, M.D. became Chair of the Board.

The Company believes that this structure promotes effective oversight, strengthens our Board's independent leadership, and supports our commitment to enhancing shareholder value and strong governance. In addition, appointing Mary Tagliaferri, M.D. as Chair of the Board, with her deep industry and executive management and board experience, while also appointing a separate Chief Executive Officer is the best leadership structure for the Company at this time.

As described above, three of the Company's five directors are independent. In addition, all of the directors on each of the Audit Committee, Compensation Committee and Nominations and Corporate Governance Committee are independent directors and each of these committees is led by a committee chair. The committee chairs set the agendas for their committees and report to the full Board. All of the independent directors are highly accomplished and experienced business people in their respective fields, have demonstrated leadership in significant enterprises and are familiar with board processes. The Company's independent directors bring experience, oversight and expertise from outside the Company and industry. Dr. Rabbani, as the Company's former Chairman of the Board and former Chief Executive Officer, brings Company-specific experience and expertise.

Additionally, the Company has had a Lead Independent Director from October 2005 to January 2022, whose duties, among other things, are to approve the agendas for all Board meetings, call and lead the executive sessions of the independent directors of the Company, be available for engagement with major shareholders, serve as liaison between the independent directors of the Company on one hand and the Chairman of the Board and senior management on the other hand, advise the Chairman of the Board as

to the quality, quantity and timeliness of the information submitted by management to the independent directors; and perform such other duties as the Board shall from time to time delegate.

While the Board is responsible for overseeing the Company's risk management, the Board has delegated many of these functions to the Audit Committee. Under its charter, the Audit Committee is responsible for discussing the Company's major financial risk exposures, the guidelines and policies by which risk assessment and management is undertaken, and the steps management has taken to monitor and control risk exposure with management and the independent auditors. In addition to the Audit Committee's work in overseeing risk management, the full Board regularly engages in discussions regarding the most significant risks that the Company is facing and how those risks are being managed. The Board also receives risk management updates directly from the Company's senior management and from the chair of the Audit Committee. In addition, the Chair of the Board's extensive knowledge of the Company and experience in the industries in which we operate uniquely qualifies her to lead the Board in assessing the various risks the Company faces. The Board believes that the work undertaken by the Audit Committee, the full Board and the Chairman of the Board, enables the Board to effectively oversee the Company's risk management function.

Board Nomination Policies and Procedure

The Nominating & Governance Committee is responsible for identifying, evaluating and recommending candidates for election to the Board, with due consideration for recommendations made by other Board members, the Chief Executive Officer and other sources, including shareholders. The total cumulative length of time that any "Outside Director" (a member of the Board who is not an officer or employee of the Company) may serve on the Board is limited to a maximum of nine, one-year terms. The term limit set forth above may be extended for up to a maximum of one additional term if such individual is renominated by the unanimous agreement of the Board. The Nominating & Governance Committee also considers the appropriate balance of experience, skills and characteristics desirable among the members of the Board to maintain a diverse Board. The independent members of the Board review the Nominating & Governance Committee candidates and nominate candidates for election by the Company shareholders. The Nominating & Governance Committee will consider candidates for election to the Board recommended by shareholders of the Company. The procedures for submitting shareholder recommendations are explained below under "Shareholder Proposals."

Directors must also possess the highest personal and professional ethics, integrity and values and be committed to representing the long-term interests of all shareholders. Board members are expected to diligently prepare for, attend and participate in Board and applicable committee meetings. Each Board member is expected to ensure that other existing and future commitments do not materially interfere with the member's service as a director.

The Nominating & Governance Committee also reviews whether a potential candidate will meet the Company's independence standards and any other director or committee membership requirements imposed by law, regulation or NYSE rules.

The Nominating & Governance Committee will consider, among other factors, the following to evaluate recommended nominees:

- the Board's current composition, including expertise, diversity, balance of management and non-management directors;
- independence and other qualifications required or recommended by applicable laws, rules and regulations (including NYSE requirements) and the Company's policies and procedures; and
- the general qualifications of potential nominees, including, but not limited to: personal integrity, loyalty to the Company and concern for its success and welfare; experience with strategy and policy setting; high-level leadership experience in business; breadth of knowledge about issues affecting the Company; an ability to work effectively with others; sufficient time to devote to the Company; and freedom from conflicts of interest.

Director candidates recommended to the Nominating & Governance Committee are subject to full Board approval and subsequent election by the shareholders. The Board is also responsible for electing directors to fill vacancies on the Board that occur due to retirement, resignation, expansion of the Board or other reasons between the annual meetings of shareholders. The Nominating & Governance Committee may retain a recruitment firm, from time to time, to assist in identifying and evaluating director candidates. When a firm is used, the Nominating & Governance Committee provides specified criteria for director candidates, tailored to the needs of the Board at that time, and pays the firm a fee for these services. Suggestions for director candidates are also received from Board members, management, shareholders and may be solicited from professional associations as well.

Board Committees

All members of each of the Company's three standing committees - Audit, Compensation and Nominating & Governance - are required to meet the Company's Director Independence Standards as well as the independent director standards established by NYSE. See below for a description of the responsibilities of the Board's standing committees.

Executive Sessions of Non-Management Directors

The Board periodically holds meetings of only the independent directors without management or other board members present.

Board Access to Independent Advisors

The Board as a whole, and each of the Board committees separately, has authority to retain and terminate such independent consultants, counselors or advisors to the Board as each shall deem necessary or appropriate.

Communications with the Board

Direct Communications - Any interested party desiring to communicate with the Board or with any director regarding the Company may write to the Board or the Secretary, c/o Office of the Secretary, Enzo Biochem, Inc., 81 Executive Blvd., Suite 3, Farmingdale, New York 11735. The Office of the Secretary will forward all such communications to the director(s). Interested parties may also submit an email by filling out the email form on the Company's website at www.enzo.com. Moreover, any interested party may contact the non-management directors of the Board by emailing or asking the Board Chair to share information with the non-management members.

Annual Meeting - The Company encourages its directors to attend the annual meeting of shareholders each year. All directors attended the Annual Meeting of Shareholders held in March 2022.

Meetings of the Board and its Committees

During the fiscal year ended July 31, 2022, there were twenty five formal meetings of the Board, and several informal meetings. None of the directors attended less than 75% of the meetings of the Board (including committee meetings).

Currently, the Board has a Nominating & Governance Committee, an Audit Committee and a Compensation Committee, and since July 2022, the M&A subcommittee. The

Board established this independent subcommittee of the Board to be tasked with oversight of the merger and acquisition process (the “M&A Committee”) which will report to the broader board. The subcommittee is made up of the three independent Board members: Bradley L. Radoff, Mary Tagliaferri, M.D. and Ian Walters, M.D.

The Nominating & Governance Committee, which includes a Succession subcommittee had three formal meetings, the Audit Committee had four formal meetings and the Compensation Committee had six formal meetings. Each of the committees also had informal meetings.

The Audit Committee was established by and among the Board for the purpose of overseeing the accounting and financial reporting processes of the Company and audits of the financial statements of the Company as defined in Section 3(a)(58)(A) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). The Audit Committee is authorized to review proposals of the Company’s auditors regarding the annual audit, recommend the engagement or discharge of the auditors, review recommendations of such auditors concerning accounting principles and the adequacy of internal controls and accounting procedures and practices, review the scope of the annual audit, approve or disapprove each professional service or type of service other than standard auditing services to be provided by the auditors, and review and discuss the audited financial statements with the auditors. The current members of the Audit Committee are Dr. Walters, Dr. Tagliaferri and Mr. Radoff. Mr. Radoff has been the Chair since January 2022. The Board has determined that each of the Audit Committee members is independent, as defined in the NYSE’s listing standards and applicable SEC Rules. The Board has further determined that Mr. Radoff is an “audit committee financial expert” as such term is defined under Item 407(d)(5)(ii) of Regulation S-K promulgated under the Exchange Act, and that each director is financially literate as required under the NYSE listing standards.

The Compensation Committee has the power and authority to (i) establish a general compensation policy for the officers and employees of the Company, including to establish and at least annually review executive officers’ salaries and non-equity incentive compensation plan program and levels of officers’ participation in the benefit plans of the Company, (ii) prepare any reports that may be required by the regulations of the SEC or otherwise relating to officer compensation, (iii) approve any increases in directors’ fees, (iv) grant stock options and/or other equity instruments authorized by senior executives for non-executive officers and (v) exercise all other powers of the Board with respect to matters involving the compensation of employees and the employee benefits of the Company as shall be delegated by the Board to the Compensation Committee. The current members of the Compensation Committee are Mr. Radoff, Dr. Tagliaferri and Dr. Walters. The Board has determined that each member of the Compensation Committee is independent, as defined in the NYSE listing standards. Dr. Walters has been the Chair of the Compensation Committee since January 2021.

The Nominating & Governance Committee has the power to recommend to the Board prior to each annual meeting of the shareholders of the Company: (i) the appropriate size and composition of the Board; and (ii) nominees: (1) for election to the Board for whom the Company should solicit proxies; (2) to serve as proxies in connection with the annual meeting of shareholders; and (3) for election to all committees of the Board other than the Nominating & Governance Committee. The Nominating & Governance Committee will consider nominations from the shareholders, provided that they are made in accordance with the By-Laws. When evaluating prospective director candidates, the Nominating & Governance Committee conducts individual evaluations against the criteria stated in the Nominating and Corporate Governance guidelines. All director candidates, regardless of the source of their nomination, are evaluated using the same criteria. The current members of the Nominating & Governance Committee are Mr. Radoff, Dr. Walters and Dr. Tagliaferri, who has been Chair of the committee since January 2021.

AUDIT COMMITTEE REPORT

In connection with the preparation and filing of the Company’s Annual Report on Form 10-K for its fiscal year ended July 31, 2022:

1. The Audit Committee reviewed and discussed the audited financial statements and related footnotes with management and EisnerAmper LLP, the current independent registered public accounting firm. Management represented to the Audit Committee that the Company’s financial statements were prepared in accordance with U.S. generally accepted accounting principles (“GAAP”);
2. The Audit Committee discussed with the independent registered public accountants matters required to be discussed under the Public Company Accounting Oversight Board (the “PCAOB”) Auditing Standard No. 1301, *Communications with Audit Committees*;
3. The Audit Committee reviewed the written disclosures and the letter from the independent registered public accountants required by the applicable requirements of the PCAOB, as may be modified or supplemented, regarding the independent registered public accounting firm’s communication with the Audit Committee concerning independence and discussed with EisnerAmper LLP their independence;
4. The Audit Committee discussed with the Company’s independent registered public accountants the overall scope and plans for its audit. The Audit Committee met with the independent registered public accountants with and without management present, to discuss the results of their examinations, their evaluations of the Company’s internal controls, and the overall quality (and not merely the acceptability) of the Company’s accounting principles and financial reporting, the reasonableness of significant estimates and judgments, and the disclosures in the Company’s financial statements, including the disclosures relating to critical accounting policies. The Audit Committee held four formal meetings during the fiscal year ended July 31, 2022 with the independent registered public accounting firm; and
5. Based on the review and discussions referred to above, the Audit Committee recommended to the Board that the audited financial statements be included in the Company’s Annual Report on Form 10-K for the fiscal year ended July 31, 2022 for filing with the SEC. We also selected EisnerAmper LLP as the independent registered public accounting firm for fiscal 2023. The Board is recommending that shareholders ratify that selection at the Annual Meeting.

Submitted by the members of the Audit Committee on October 7, 2022:

Bradley L. Radoff, Chair
Dr. Ian Walters
Dr. Mary Tagliaferri

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

It is the responsibility of the Nominating & Governance Committee to consider questions of possible conflicts of interest of directors and of the Company’s senior executives, which includes the consideration of all transactions required to be disclosed pursuant to the SEC’s related person disclosure requirements. In addition, the Board has a Related

Persons Policy which states that all related person transactions shall be in the best interests of the Company and, unless different terms are specifically approved or ratified by disinterested members of the Board, must be on terms that are (i) no less favorable to the Company than would be obtained in a similar transaction with an unaffiliated third party under the same or similar circumstances, or (ii) generally available to substantially all employees of the Company. In addition, if any non-material or material related person transaction relates to any executive officer or director, it must be reviewed by the Nominating & Governance Committee who shall determine whether the transaction is in compliance with the Company's Related Person Policy.

Enzo Clinical Labs, Inc., a subsidiary of the Company ("Enzo Lab"), leases a facility located in Farmingdale, New York from Pari Management Corporation ("Pari"). Pari is owned equally by Elazar Rabbani, Ph.D., the former Chairman and Secretary of the Company and a current director; Shahram K. Rabbani, a former officer and former director of the Company; and Barry Weiner, the former President and Treasurer of the Company, and his wife. The lease originally commenced on December 20, 1989, was amended and extended in October 2015 and now terminates on March 31, 2027. During the fiscal year ended July 31, 2022, Enzo Labs paid approximately \$1,867,000 to Pari with respect to such facility and future payments are subject to cost of living adjustments.

The non-interested members of the Board, at the time of the execution of the lease reviewed and approved the transaction in accordance with the Company's procedures for reviewing related party transactions. The Nominating & Governance Committee obtained a third-party appraisal to determine the value of the lease. Based on that appraisal, the Company, which has guaranteed Enzo Lab's obligations to Pari under the lease, believed that the existing lease terms were as favorable to the Company as it would be to an unaffiliated party.

Director Independence

The Board believes that a majority of its members are independent non-employee directors and meet the "Director Independence Standards" that the Company has adopted. The Board has determined that each member of the Compensation and Nominating Committees is independent, as defined in the NYSE listing standards. The Board has determined that each of the Audit Committee members is independent, as defined in the NYSE's listing standards and applicable SEC Rules. The Board has further determined that Mr. Radoff is an "audit committee financial expert" as such term is defined under Item 407(d)(5)(ii) of Regulation S-K promulgated under the Exchange Act, and that each director is financially literate as required under the NYSE listing standards.

CODE OF BUSINESS CONDUCT AND ETHICS

The Company has adopted a Code of Business Conduct and Ethics (as such term is defined in Item 406 of Regulation S-K). The Code of Business Conduct and Ethics is available on the Company's website at www.enzo.com, and in print by contacting Investor Relations at (631) 755-5500. The Code of Business Conduct and Ethics applies to the Company's employees, officers and members of the Board. The Code of Business Conduct and Ethics has been designed to deter wrongdoing and to promote:

- Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- Full, fair, accurate, timely and understandable disclosure in reports and documents that the Company files with, or submits to, the SEC and in other public communications made by the Company;
- Compliance with applicable governmental laws, rules and regulations;
- The prompt internal reporting or violations of the Code of Business Conduct and Ethics to an appropriate person or persons identified in the Code of Business Conduct and Ethics; and
- Accountability for adherence to the Code of Business and Conduct and Ethics.

COMPENSATION OF DIRECTORS

Each Outside Director receives an annual directors fee of \$50,000. The Chair of the Board receives an additional annual fee of \$25,000. When there was a Lead Independent Director, such Director received an additional annual director's fee of \$25,000. Each Outside Director who serves on the Audit Committee also receives an annual fee of \$10,000 and those who serve on the Compensation Committee or the Nominating & Governance Committee also receive an annual fee of \$7,500. The Chairman of the Audit Committee receives an additional \$20,000, the Chairman of the Compensation Committee receives an additional \$15,000 and the Chairman of the Nominating & Governance Committee receives an additional \$10,000. The Outside Directors receive either stock options or restricted stock units following the Annual Meeting, provided such person is a director of the Company at such time. The annual number of stock options or restricted stock units that the Outside Directors will be granted will not exceed a fair market value of \$100,000 at the time of grant. Either the stock options or restricted stock units shall be subject to a two-year vesting period; provided that at the time any non-employee director ceases to be a director of the Company (other than due to such director's resignation), such non-employee director's stock options and restricted stock units will become fully vested at such time. The equity instruments are granted at the Black-Scholes value in the case of options, or at the market price of the Common Stock on the date of grant in the case of restricted stock units. Stock options have a term of up to five (5) years. The Company reimburses directors for their travel and related expenses in connection with attending meetings of the Board and Board-related activities. Independent directors may also receive additional compensation for attendance at additional meetings and other extraordinary matters and for being members of a subcommittee.

Director Compensation Table

The following table sets forth the information concerning compensation earned during our fiscal year ended July 31, 2022 by all non-employee Directors:

Name	Fees Earned or Paid in Cash	Restricted Stock Unit Awards ⁽¹⁾	Total
Mary Tagliaferri, M.D. <i>Chair of the Board</i>	\$ 95,000	\$ 200,000	\$ 295,000
Ian B. Walters, M.D. <i>Director</i>	\$ 75,000	\$ 200,000	\$ 275,000
Elazar Rabbani ⁽³⁾ <i>Director</i>	\$ 12,500	—	\$ 12,500

Bradley L Radoff Director	\$	72,500	\$	200,000	\$	272,500
Dov Perlysky ⁽²⁾ Lead Independent Director	\$	7,500	—	\$	7,500	
Rebecca J. Fischer ⁽²⁾ Director	\$	7,500	—	\$	7,500	

(1) Represents the grant fair value on the respective grant dates for the fiscal year ended July 31, 2022, in accordance with accounting authoritative guidance. The assumptions used in calculating these amounts are set forth in Note 12 to the Company's consolidated financial statements for the fiscal year ended July 31, 2022, included in the Company's Annual Report on Form 10-K for the fiscal year ended July 31, 2022 filed with the SEC on October 14, 2022.

(2) Dov Perlysky and Rebecca J. Fischer resigned from the Board in January 2022.

(3) Elazar Rabbani became a non-employee director upon his termination in April 2022.

20

COMPENSATION OF EXECUTIVE OFFICERS

Summary Compensation Table

The following table sets forth summary information concerning compensation awarded to, paid to or earned by each of our named executive officers for each of the fiscal years ended July 31, 2022 and 2021.

Name and Principal Position	Year	Salary ⁽¹⁾	Bonus ⁽²⁾	Stock awards ⁽³⁾	Option awards ⁽⁴⁾	Non-equity incentive plan compensation ⁽⁵⁾	All other Compensation ⁽⁶⁾	Total
Hamid Erfanian ⁽⁷⁾ Chief Executive Officer	2022	\$ 415,385	\$ -	\$ 881,400	\$ 1,246,000	\$ 360,000	\$ 382	\$ 2,903,167
Elazar Rabbani, Ph.D. ⁽⁷⁾ Former Chief Executive Officer and Secretary	2022	\$ 467,650	-	-	-	-	\$ 2,748,971	\$ 3,216,621
	2021	\$ 611,000	-	-	-	-	\$ 219,901	\$ 830,901
Kara Cannon Chief Operating Officer	2022	\$ 269,731	\$ 40,000	-	\$ 294,875	\$ 140,000	\$ 24,552	\$ 769,158
	2021	\$ 265,000	-	-	\$ 72,131	\$ 60,000	\$ 13,552	\$ 410,683
David Bench ⁽⁸⁾ Former Chief Financial Officer, Secretary and Treasurer	2022	\$ 279,462	\$ 55,000	-	\$ 294,875	-	\$ 21,110	\$ 650,447
	2021	\$ 270,000	-	-	\$ 72,131	\$ 75,000	\$ 5,206	\$ 422,337

(1) Base salaries set as of January 1 each year and reflect any subsequent salary increases.

(2) Sign on bonus.

(3) Represents the grant date fair value of restricted stock units on November 8, 2021, the date of grant.

(4) Represents the fair market value of incentive stock option awards granted to Named Executive Officers on the date of grant, calculated in accordance with FASB ASC Topic 718 for all awards of stock options granted during the relevant fiscal year. Assumptions used in the calculation of these amounts are included in Note 12 to the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended July 31, 2022.

(5) Represents awards accrued under the Pay for Performance Plan for the years ended July 31, 2022 and 2021.

(6) See the "All Other Compensation" table below for additional information.

(7) Dr. Rabbani served as Chief Executive Officer during our entire fiscal year ended July 31, 2021 and until November 2021 when Mr. Hamid Erfanian started his tenure as our Chief Executive Officer.

(8) David Bench served as Chief Financial Officer during our entire fiscal year ended July 31, 2022 until his resignation on November 14, 2022. Ms. Patricia Eckert became interim Chief Financial Officer effective on that date.

21

All Other Compensation

The following table contains information regarding each component of "All Other Compensation" in the Summary Compensation Table to the Named Executive Officers for the fiscal years ended July 31, 2022 and 2021.

Name	Year	401(k) ⁽¹⁾	Life insurance ⁽²⁾⁽³⁾	Medical & disability insurance ⁽⁴⁾	Personal use of auto ⁽⁵⁾	Severance ⁽⁶⁾	Total all other compensation
Hamid Erfanian	2022	\$ -	\$ 382	\$ -	\$ -	\$ -	\$ 382
Elazar Rabbani, Ph.D.	2022	\$ 13,000	\$ 112,808	\$ 39,878	\$ 29,453	\$ 2,553,832	\$ 2,748,971
	2021	\$ 13,000	\$ 105,212	\$ 78,779	\$ 22,910	-	\$ 219,901
Kara Cannon	2022	\$ 13,000	\$ 552	-	\$ 11,000	-	\$ 24,552
	2021	\$ 13,000	\$ 552	-	-	-	\$ 13,552
David Bench	2022	\$ 9,750	\$ 360	-	\$ 11,000	-	\$ 21,110
	2021	\$ 4,846	\$ 360	-	-	-	\$ 5,206

- (1) Represents Company matches under our 401(k) plan.
- (2) Represents premiums of term policies of which the Named Executive Officer or other party is the beneficiary.
- (3) Represents the contractual payment for life insurance reimbursement for Dr. Rabbani.
- (4) Represents supplemental medical and disability benefits costs.
- (5) Represents the personal use of Company-provided auto or car allowance.
- (6) Represents severance paid to Dr. Rabbani for termination of his employment effective April 21, 2022.

Employment Agreements

Hamid Erfanian and Kara Cannon are “at will” employees but are parties to employment agreements which provide for twelve-month severance and payment of an Annual Bonus if termination occurs subsequent to the conclusion of the fiscal year but prior to the payment of the Annual Bonus to which the fiscal year relates, if they are terminated by the Company without cause or resign for Good Reason, as defined. They are also entitled to a Transaction Bonus in the event of a change in control of the Company or the sale of an operating subsidiary. Also, certain of their equity award agreements provide for the acceleration of unvested awards after a change of control. Dieter Schapfel, M.D. is an “at will” employee and not party to any employment agreement.

Former executives Mr. Barry Weiner and Dr. Elazar Rabbani (each, an “Executive”) are parties to employment agreements with the Company, effective May 4, 1994, as subsequently amended (the “Employment Agreements”). Each Executive also receives a non-equity incentive plan bonus - the amount of which shall be determined by the Compensation Committee and/or the Board based on approved financial and non-financial objectives. Each Employment Agreement provides that, in the event of termination of employment by the Executive for “good reason,” or a termination of employment by the Company without “cause”, change in control or nonrenewal, as such terms are defined in the Employment Agreement, each Executive shall be entitled to receive: (i) a lump sum in an amount equal to three years of the Executive’s base annual salary; (ii) a lump sum in an amount equal to the annual bonus paid by the Company to the Executive for the last fiscal year of the Company ending prior to the date of termination multiplied by three; (iii) insurance coverage for the Executive and his dependents, at the same level and at the same charges to the Executive as immediately prior to his termination, for a period of three (3) years following his termination from the Company; (iv) all accrued obligations, as defined therein; and (v) with respect to each incentive pay plan (other than stock option or other equity plans) of the Company in which the Executive participated at the time of termination, an amount equal to the amount the Executive would have earned if he had continued employment for three additional years. If the Executive is terminated by reason of his disability, he shall be entitled to receive, for three years after such termination, his base annual salary less any amounts received under a long-term disability plan. If the Executive’s employment with the Company is terminated by reason of his death, his legal representatives shall receive the balance of any remuneration due him under the terms of his Employment Agreement. The Employment Agreements were amended on January 5, 2017 and automatically renewed for successive two-year periods unless notice was given to the Company within 180 days of the end of such successive term.

Former Executives Arbitration

The Company terminated the employment of Elazar Rabbani, Ph.D. the Company’s former Chief Executive Officer, effective April 21, 2022. Dr. Rabbani remains a board director of the Company. Dr. Rabbani is a party to an employment agreement with the Company, which entitles him to certain termination benefits, including severance pay, acceleration of vesting of share-based compensation, and continuation of benefits. Based on the terms of his employment agreement, the Company estimated and accrued a charge of \$2,600,000 in fiscal 2022 which is included in selling, general and administrative expenses. The charge was partially offset by the reversal of bonus accruals. In May 2022, the Company paid Dr. Rabbani \$2,123,000 in accordance with terms of the employment contract. In July 2022, the Company paid income and other withholding taxes of \$1,024,000 related to that payment on Dr. Rabbani’s behalf, which is included in “prepaid expense and other current assets” as of July 31, 2022, as the payment is reimbursable from Dr. Rabbani. In July 2022 the Company paid Dr. Rabbani an additional \$431,000 in accordance with terms of the employment contract. Dr. Rabbani disputed the Company’s decision to not award him a bonus for fiscal year 2021 and the amount of severance that was owed to him under his employment agreement. On July 8, 2022, the Company filed a demand for arbitration with the American Arbitration Association (the “AAA”) seeking, among other things, a declaration that the Company has fully satisfied its contractual obligations to Dr. Rabbani. On August 4, 2022, Dr. Rabbani filed counterclaims in the arbitration seeking, among other things, a bonus for fiscal year 2021 and additional severance that he asserts is owed to him. The parties have chosen an arbitrator from the AAA’s panel and a hearing is scheduled for June 8-16, 2023.

On February 25, 2022, Barry Weiner, the Company’s co-founder and President, notified the Company that he was terminating his employment as President of the Company for “Good Reason” as defined in his employment agreement. The Company accepted Mr. Weiner’s termination, effective April 19, 2022 but disagrees with Mr. Weiner’s assertion regarding “Good Reason.” On July 20, 2022, Mr. Weiner filed a demand for arbitration with the AAA asserting, among other things, that his annual bonus for fiscal year 2021 was too low and that his resignation (effective April 19, 2022) was for “Good Reason” under the terms of his employment agreement. He seeks, among other things, payment of a higher 2021 bonus, and severance payments and benefits. The parties have chosen an arbitrator from the AAA’s panel and a hearing is scheduled for July 18-21, and 24, 2023. As of July 31, 2022, the Company had not accrued any charges related to Mr. Weiner’s termination.

Benefits and All Other Compensation

We maintain broad-based benefits that are provided to all employees, including health and dental insurance, group life insurance and a 401(k) plan. Named Executive Officers and Key Employees are eligible to participate in our employee benefit plans. The annual Company match for our Named Executive Officers and other employees is up to \$13,000 if over 50 years old, or limited to 50% of the maximum contribution made.

Certain of our Named Executive Officers may be entitled to benefits that are not otherwise available to all of our employees, including supplemental health, life insurance and disability benefits. We do not provide post-retirement health coverage to our Named Executive Officers or our employees. Our health and insurance plans are substantially the same among all management levels at the Company. Dr. Rabbani and Mr. Weiner were provided life insurance benefits in connection with their total compensation arrangements.

In particular circumstances, we may provide relocation allowances when executives first join us. The purpose of this program is to attract talented executives outside our geographic area. Certain Named Executives Officers and Key Employees are provided use of a Company-owned vehicle for business and personal use or provided a car allowance.

Severance and Change in Control Benefits

Hamid Erfanian and Kara Cannon are “at will” employees but are parties to employment agreements that provide for severance or change of control benefits and have certain equity award agreements that provide for the acceleration of unvested awards upon a change of control. We have provided more information about these benefits in the description of the Employment Agreements above.

Dieter Schapfel, M.D., Matthew Kupferberg and Patricia Eckert are “at will” employees and not parties to any agreements with the Company that provides for severance or change of control benefits other than certain equity award agreements that provide for the acceleration of unvested awards upon a change of control.

Pursuant to Employment Agreements entered into with Dr. Rabbani and Mr. Weiner, these executives were entitled to specified benefits upon termination of their employment under specified circumstances, including termination for good reason, termination for cause, and termination following a change of control of our Company (as defined in each executive’s Employment Agreement). We have provided more information about these benefits in the description of the Employment Agreements above.

Outstanding Equity Awards at Fiscal Year End—July 31, 2022

The following table sets forth summary information regarding the outstanding equity awards made to the Named Executive Officers and Key Employees at July 31, 2022.

Name	Options awards				Stock awards			
	Number of securities underlying unexercised options exercisable	Number of securities underlying unexercised options unexercisable ⁽¹⁾	Option exercise price	Options expiration date	Number of shares or units of stock that have not vested ⁽²⁾	Market value of shares or units of stock that have not vested ⁽³⁾	Equity incentive awards: Number of unearned shares, units or other rights that have not vested ⁽⁴⁾	Equity incentive awards: Market or payout value of Unearned shares, units or other rights that have not vested ⁽⁵⁾
Hamid Erfanian	—	700,000	\$ 3.39	11/8/2026	260,000	\$ 616,200	—	—
Elazar Rabbani, Ph.D.	90,000	—	\$ 4.42	7/31/2023	—	—	—	—
	128,000	—	\$ 2.80	1/3/2024	—	—	—	—
	65,000	—	\$ 2.20	2/24/2025	—	—	—	—
Kara Cannon	35,000	—	\$ 4.42	7/31/2023	—	—	—	—
	52,000	—	\$ 2.80	1/3/2024	—	—	—	—
	55,400	—	\$ 2.20	2/24/2025	—	—	—	—
	55,400	—	\$ 2.63	01/11/26	—	—	13,300	\$ 37,825
	—	87,500	\$ 3.36	02/11/27	—	—	—	—
David Bench	—	87,500	\$ 2.98	03/24/27	—	—	—	—
	36,933	18,467	\$ 2.20	2/24/2025	—	—	—	—
	18,467	36,933	\$ 2.63	01/11/26	—	—	—	—
	—	87,500	\$ 3.36	02/11/27	—	—	—	—
	—	87,500	\$ 2.98	03/24/27	—	—	—	—

- (1) Each option award vests in equal amounts on the first, second and third anniversaries of the award which was July 31, 2018 for the options granted at \$4.42 per share, January 3, 2019 for the options granted at \$2.80 per share, February 24, 2020 for the options granted at \$2.20 per share, January 11, 2021 for the options granted at \$2.63 per share, and is November 11, 2024 for the options granted at \$3.39 per share, February 11, 2025 for the options granted at \$3.36 per share, and March 24, 2025 for the options granted at \$2.98 per share. For Dr. Rabbani, options vested in equal amounts on the first and second anniversary dates and are fully vested.
- (2) The number of unearned restricted stock units (“RSUs”) in this column is based on awards made during the 2022 fiscal year awarded to Mr. Erfanian on November 11, 2021 as part of his employment agreement. They vest in equal amounts on the first, second and third anniversaries of the award.
- (3) Calculated using the closing market price of the Common Stock on July 31, 2022 of \$2.37 per share.
- (4) Represents PSUs granted on February 24, 2020 that will vest, subject to the achievement of the Company’s Revenue and Adjusted EBITDA performance goals for the fiscal years 2020-2023 performance period, on October 19, 2023, the third anniversary of the grant measurement date.
- (5) Calculated using the closing market price of the Common Stock on July 31, 2022 of \$2.36 per share on a maximum performance basis and after applying the minimum relative total shareholder return (TSR) modifier.

PROPOSAL 2

ADVISORY VOTE ON THE COMPANY’S NAMED EXECUTIVE OFFICER COMPENSATION

The Exchange Act, and more specifically, Section 14A of the Exchange Act, which was added under the Dodd-Frank Wall Street Reform and Consumer Protection Act enacted in July 2010, requires that we provide shareholders with the opportunity to vote to approve, on a nonbinding advisory basis, the compensation of our Named Executive Officers as disclosed in this Proxy Statement in accordance with the SEC’s rules (commonly referred to as “Say-on-Pay”).

At our 2017 annual meeting of shareholders, a majority of our shareholders who voted supported an annual vote on our executive compensation and, in response, our Compensation Committee determined to hold an annual vote on the matter. As such, the shareholder advisory vote on executive compensation is occurring at the Company’s Annual Meeting. We are pleased that two leading proxy advisory firms at the last meeting supported the company’s executive compensation approach. As such, the approach has remained unchanged.

Our compensation program for Named Executive Officers is intended to link compensation to performance; to provide competitive compensation levels to attract, retain and

reward executives; and to align management's interests with those of our clients and shareholders. The compensation provided to the Named Executive Officers is dependent on the Company's financial, operational and strategic performance and the Named Executive Officer's individual performance. It is intended to drive creation of long-term shareholder value.

We encourage shareholders to read the 2022 Summary Compensation Table and the other related tables and disclosure for a detailed description of the fiscal year 2022 compensation of our Named Executive Officers. The Compensation Committee and the Board believe that the compensation of our Named Executive Officers reported in this Proxy Statement appropriately reflects our results during the fiscal year.

The vote on this resolution is not intended to address any specific element of compensation; rather, the advisory vote relates to the overall compensation of our Named Executive Officers. This vote is advisory, which means that it is not binding on the Company, the Board or the Compensation Committee. However, we value the opinion of shareholders and the Board and the Compensation Committee will review the voting results and will take into account the outcome of the vote when considering future compensation decisions for the Named Executive Officers.

Accordingly, we ask our shareholders to vote on the following resolution:

“RESOLVED, that the Company's shareholders approve, on a nonbinding advisory basis, the compensation paid to the Company's Named Executive Officers, as disclosed in the Company's Proxy Statement for the Annual Meeting of Shareholders pursuant to the compensation disclosure rules of the SEC, including the Summary Compensation Table and the other related compensation tables and narrative discussion.”

THE MAJORITY OF THE BOARD RECOMMENDS A VOTE “FOR” SUPPORTING THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS.

PROPOSAL 3

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has selected and the Board has appointed EisnerAmper LLP, an independent registered public accounting firm (“EisnerAmper”), to audit the Company's financial statements for the fiscal year ending July 31, 2023. The Company is submitting its selection of EisnerAmper for ratification by the shareholders at the Annual Meeting. A representative of EisnerAmper is expected to be present at the Annual Meeting, will have the opportunity to make a statement and is expected to be available to respond to appropriate questions. EisnerAmper has served as our independent registered public accounting firm since April 19, 2013.

Although the selection and appointment of an independent registered public accounting firm is not required to be submitted to a vote of shareholders, the Board deems it desirable to obtain the shareholders' ratification and approval of this appointment. If the appointment is not ratified by shareholders, then the adverse vote will be considered as an indication to the Audit Committee that it should consider selecting another independent registered public accounting firm for the following fiscal year, but the Audit Committee is not required to do so. Even if the appointment is ratified, the Audit Committee, in its discretion, may select a new independent registered public accounting firm at any time during the year if it believes that such a change would be in the Company's best interest.

In making its recommendation to ratify the appointment of EisnerAmper as the Company's independent registered public accounting firm for the fiscal year ending July 31, 2023, the Audit Committee has considered whether the services provided by EisnerAmper are compatible with maintaining the independence of EisnerAmper.

Principal Accountant Fees and Services

EisnerAmper billed the Company for services for fiscal 2022 and 2021, as set forth in the table below. The fees listed are aggregate fees for services performed for the year—regardless of when the fee was actually billed and paid.

	FY 2022	FY 2021
Audit Fees	\$ 590,000	\$ 505,000
Audit-related Fees	67,000	95,900
Tax Fees	-	-
All Other Fees	-	-
Total	\$ 657,000	\$ 600,900

Audit Fees—Consists of fees for professional services necessary to perform an audit or review in accordance with the Public Company Accounting Oversight Board, including services rendered for the audit of our annual financial statements (including services incurred with rendering an opinion under Section 404 of the Sarbanes-Oxley Act of 2002) and quarterly reviews of the Company's interim financial statement.

Audit-Related Fees—EisnerAmper performed certain Audit services for an employee benefit plan for the years ended December 31, 2021 and 2020, for which the Company is the plan sponsor; these fees were \$43,000 and \$41,600, respectively. EisnerAmper performed other Audit-Related services during the fiscal year ended July 31, 2022 and 2021; the fees for these services were \$4,000 and \$54,000, respectively.

Tax Fees—There were no tax fees for fiscal years 2022 and 2021.

All Other Fees—There were no other fees for fiscal years 2022 and 2021.

Pre-Approval Policies and Procedures—The Audit Committee has adopted a policy that requires advance approval of all audit, audit-related, tax services and other services performed by the independent registered public accounting firm. The policy provides for pre-approval by the Audit Committee of specifically defined audit and non-audit services.

Unless the specific service has been previously pre-approved with respect to that year, the Audit Committee must approve the permitted service before the independent auditor is engaged to perform it. The Audit Committee has delegated to the Chair of the Audit Committee authority to approve permitted services, provided that the Chair reports any decisions to the Audit Committee at its next scheduled meeting.

THE BOARD RECOMMENDS THAT YOU VOTE “FOR” RATIFICATION OF EISNERAMPER LLP AS THE COMPANY’S INDEPENDENT AUDITORS FOR FISCAL YEAR ENDING JULY 31, 2023.

OTHER MATTERS

Except as discussed in this Proxy Statement, the Board does not know of any matters that are to be properly presented at the Annual Meeting other than those stated in the Notice of Annual Meeting of Shareholders and referred to in this Proxy Statement.

If other matters properly come before the Annual Meeting, it is the intention of the persons named in the enclosed proxy card to vote thereon in accordance with their best judgment. Moreover, the Board reserves the right to adjourn or postpone the Annual Meeting for failure to obtain a quorum, for legitimate scheduling purposes or based on other circumstances that, in the Board’s belief, would cause such adjournments or postponements to be in the best interests of all shareholders.

ANNUAL REPORT

The Notice that you received in the mail contains instructions on how to access both the Company’s Annual Report to Shareholders, which includes the Company’s Annual Report on Form 10-K for its fiscal year ended July 31, 2022 and this Proxy Statement.

The Company will provide, without charge to each person being solicited by this Proxy Statement, upon request, a copy of its 2022 Annual Report to Shareholders, which includes the Company’s Annual Report on Form 10-K for its fiscal year ended July 31, 2022. Upon payment of a reasonable fee, shareholders may also obtain a copy of the exhibits to our Annual Report on Form 10-K for our fiscal year ended July 31, 2022. All such requests should be directed to the General Counsel, c/o Enzo Biochem, Inc., 81 Executive Blvd. Suite 3, Farmingdale, New York 11735.

ENZO WEBSITE

In addition to the information about the Company and its subsidiaries contained in this Proxy Statement, additional information about the Company can be found on our website located at www.enzo.com, including information about our management team, products and services and corporate governance practices.

The corporate governance information on our website includes the Company’s Corporate Governance Guidelines, the Code of Business Conduct and Ethics, and the charters of each of the Committees of the Board. These documents can be accessed at www.enzo.com. Printed versions of our Corporate Governance Guidelines, our Code of Conduct and the charters for our Board Committees can be obtained, free of charge, by writing to the Company at: 81 Executive Blvd. Suite 3, Farmingdale, New York 11735, Attn: Matthew Kupferberg, General Counsel.

This information about the Company’s website and its content, together with other references to the website made in this Proxy Statement, is for informational purposes only and the content of the Company’s website is not deemed to be incorporated by reference in this Proxy Statement or otherwise filed with the SEC.

27

SHAREHOLDER PROPOSALS

Shareholder Proposals for the 2023 Annual Meeting

Proposals of shareholders intended to be included in the Company’s Proxy Statement and form of proxy for use in connection with the Company’s 2023 Annual Meeting must be received by the Company’s Secretary at the Company’s principal executive offices at 81 Executive Blvd. Suite 3, Farmingdale, New York 11735, Attention: Secretary, no later than August 23, 2023 (120 calendar days preceding the one-year anniversary of the date this Proxy Statement was first mailed to our shareholders for the Annual Meeting), and must otherwise satisfy the procedures prescribed by Rule 14a-8 under the Exchange Act. It is suggested that any such proposals be submitted by certified mail with return receipt requested.

Pursuant to Rule 14a-4 under the Exchange Act, shareholder proxies obtained by our Board in connection with our Annual Meeting will confer on the proxies and attorneys-in-fact named therein discretionary authority to vote on any matters presented at such annual meeting which were not included in the Company’s Proxy Statement in connection with such annual meeting, unless notice of the matter to be presented at such annual meeting is provided to the Company’s Secretary before November 6, 2023 (the 45th day preceding the one-year anniversary of the date this Proxy Statement was first mailed to our shareholders for the Annual Meeting).

Householding of Proxy Materials

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for proxy statements and annual reports with respect to two or more shareholders sharing the same address by delivering a single Notice or Proxy Statement addressed to those shareholders. This process, which is commonly referred to as “householding,” potentially means extra convenience for shareholders and cost savings for companies.

Brokers with account holders who are shareholders may be “householding” our proxy materials. A single Notice or Proxy Statement may be delivered to multiple shareholders sharing an address unless contrary instructions have been received from the affected shareholders. Once you have received notice from your broker that it will be “householding” communications to your address, “householding” will continue until you are notified otherwise or until you notify your broker or the company that you no longer wish to participate in “householding.”

If, at any time, you no longer wish to participate in “householding” and would prefer to receive a separate proxy statement and annual report, you may (1) notify your broker, (2) direct your written request to: Enzo Biochem, Inc., 81 Executive Blvd., Suite 3, Farmingdale, New York 11735, Attention: Secretary. Shareholders who currently receive multiple copies of the proxy statement at their address and would like to request “householding” of their communications should contact their broker. In addition, we will promptly deliver, upon written or oral request to the address or telephone number above, a separate copy of the annual report and proxy statement to a shareholder at a shared address to which a single copy of the documents was delivered.

28

Director Nominations

Under the By-Laws, shareholders intending to nominate one or more candidates for election to our Board at our 2023 Annual Shareholder Meeting may do so only if written notice of the intent to make such nomination(s) has been given, either by personal delivery or by United States mail, postage prepaid, to the Secretary of the Company, at the Company’s principal executive offices at 81 Executive Blvd. Suite 3, Farmingdale, New York 11735, Attention: Secretary, not less than ninety (90) days nor more than one hundred twenty (120) days prior to the earlier of the date of such annual meeting or the corresponding date on which the immediately preceding year’s annual meeting of

shareholders was held. Such notice must contain all of the information required by the By-Laws, including, without limitation, all information that would be required in connection with such nomination(s) under the SEC's proxy rules if such nomination were the subject of a proxy solicitation and the written consent of each nominee for election to our Board named therein to serve if elected. The chairman of the meeting may refuse to acknowledge the nomination of any person not made in compliance with the By-Laws.

The contents and sending of this Proxy Statement have been approved by all of the directors of the Company.

Dated as of the 20th day of December 2022.

ENZO BIOCHEM, INC.

/s/ Hamid Erfanian
Chief Executive Officer

Questions? Need Help Voting?

Please contact our Strategic Shareholder Advisor and Proxy Solicitation Agent, Kingsdale Advisors

CONTACT US:



Kingsdale Advisors

1-888-518-1554 (toll-free in North America)
646-586-9580 (collect outside of North America)
e-mail: contactus@kingsdaleadvisors.com

ENZO BIOCHEM, INC.
81 EXECUTIVE BLVD., SUITE 3
FARMINGDALE, NY 11735



VOTE BY INTERNET

Before The Meeting - Go to www.proxyvote.com or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information. Vote by 11:59 p.m. Eastern Time on January 30, 2023 for shares held directly and by 11:59 p.m. Eastern Time on January 26, 2023 for shares held in a 401(k) Plan. Have your proxy card in hand when you access the web site and follow the instructions to obtain your records and to create an electronic voting instruction form.

During The Meeting - Go to www.virtualshareholdermeeting.com/ENZ2023

You may attend the meeting via the Internet and vote during the meeting. Have the information that is printed in the box marked by the arrow available and follow the instructions.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions. Vote by 11:59 p.m. Eastern Time on January 30, 2023 for shares held directly and by 11:59 p.m. Eastern Time on January 26, 2023 for shares held in a 401(k) Plan. Have your proxy card in hand when you call and then follow the instructions.

VOTE BY MAIL

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Englewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

D94386-P82881

KEEP THIS PORTION FOR YOUR RECORDS

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

DETACH AND RETURN THIS PORTION ONLY

ENZO BIOCHEM, INC.

The Board of Directors recommends you vote "FOR" Proposals 1, 2 and 3.

1. Election of Directors for a term ending as of our 2023 annual meeting of shareholders, and until each such director's successor is duly elected and qualified.

Nominees:

For Against Abstain

- | | | | |
|----------------------------|--------------------------|--------------------------|--------------------------|
| 1a. Hamid Erfanian | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1b. Bradley L. Radoff | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1c. Mary Tagliaferri, M.D. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

For Against Abstain

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 2. To approve, by a nonbinding advisory vote, the compensation of the Company's Named Executive Officers (the "Advisory Proposal"), and | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. To ratify the Company's appointment of EisnerAmper LLP to serve as the Company's independent registered public accounting firm for the Company's fiscal year ending July 31, 2023 (the "Auditor Proposal"). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

NOTE: Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, trustee, guardian, custodian or other fiduciary, please give full title as such. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by authorized officer.

Signature [PLEASE SIGN WITHIN BOX] Date

Signature (Joint Owners) Date

PLEASE VOTE TODAY!

SEE REVERSE SIDE

FOR THREE EASY WAYS TO VOTE.

Important Notice Regarding the Availability of Proxy Materials for the Annual Meeting:

The Notice and Proxy Statement and Annual Report are available at www.proxyvote.com.

D94387-P82881

**THIS PROXY IS SOLICITED ON BEHALF OF
THE BOARD OF DIRECTORS OF ENZO BIOCHEM, INC.
2022 ANNUAL MEETING OF SHAREHOLDERS**

The undersigned hereby appoints Ian Walters, M.D. as proxy, with full power of substitution, revoking all proxies previously given, and hereby authorizes him to represent and to vote, as designated on the reverse side of this form, all shares of common stock of Enzo Biochem, Inc. that the undersigned would be entitled to vote if present at the 2022 Annual Meeting of Shareholders to be held at 9:00 a.m. Eastern Time on January 31, 2023 virtually at www.virtualshareholdermeeting.com/ENZ2023, and at any adjournment or postponement thereof (the "Annual Meeting").

This proxy, when properly executed, will be voted in the manner specified on the reverse side. **IF THIS PROXY IS EXECUTED, BUT NO INSTRUCTION IS GIVEN, THIS PROXY WILL BE VOTED "FOR" PROPOSALS 1, 2 AND 3.** The proposals are more fully described in the Proxy Statement. If a matter is not timely submitted pursuant to Rule 14a-4(c)(1), the proxy appointed in this proxy card will have discretionary authority to vote with respect to any such matter subsequently and properly raised at the Annual Meeting. Only shareholders of record as of the close of business on December 8, 2022 may vote at the Annual Meeting.

PLEASE MARK, SIGN, DATE AND RETURN THE PROXY CARD, USING THE ENCLOSED ENVELOPE.

YOUR VOTE IS IMPORTANT - PLEASE VOTE TODAY

Continued and to be signed and dated on reverse side