

ENZO BIOCHEM INC
Form DEF 14A
November 22, 2017
UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

SCHEDULE 14A

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

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Enzo Biochem, Inc.

(Name of Registrant as Specified in Its Charter)

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ENZO BIOCHEM, INC.

**527 Madison Avenue
New York, New York 10022**

NOTICE OF 2017 ANNUAL MEETING OF SHAREHOLDERS

To be held on January 5, 2018

To All Shareholders of Enzo Biochem, Inc.:

NOTICE IS HEREBY GIVEN that the 2017 Annual Meeting of Shareholders of Enzo Biochem, Inc., a New York corporation (the “Company”), will be held at The Yale Club of New York City, 50 Vanderbilt Avenue, New York, New York 10017, on January 5, 2018, at 9:00 a.m., New York City time (the “Annual Meeting”), for the following purposes:

1. to elect to the Company’s Board of Directors (the “Board”) as Class III Director, Dr. Elazar Rabbani, Ph.D., to hold office for a term of three (3) years or until his successor has been duly elected and qualified;
2. to approve, by a nonbinding advisory vote, the compensation of the Company’s Named Executive Officers;
3. to recommend, by a nonbinding advisory vote, the frequency of future advisory votes on the compensation of the Company’s named executive officers;
4. to approve the amendment and restatement of the Company’s 2011 Incentive Plan, including an increase in the number of shares of common stock authorized for grant under such plan;
5. 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, 2018; and
6. to transact such other business as may properly come before the Annual Meeting or any adjournments or postponements thereof.

All shareholders are cordially invited to attend the Annual Meeting. Please note that you will be asked to present proof that you are a shareholder of the Company as well as valid picture identification, such as a driver’s license or passport, in order to attend the Annual Meeting. The use of cameras, recording devices and other electronic devices will be prohibited at the Annual Meeting.

Whether or not you plan to attend the Annual Meeting, and regardless of the number of shares of common stock you own, you are requested to sign, date and return the enclosed proxy card promptly. 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 President of the Company so that it is received no later than 5:00 p.m. (New York City time) on January 4, 2018; (ii) submitting a duly signed proxy card bearing a later date than the previously signed and dated proxy card to the President of the Company so that it is received no later than 5:00 p.m. (New York City time) on January 4, 2018; or (iii) attending the Annual Meeting and voting in person 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., 527 Madison Avenue, New York, New York 10022, Attention: Barry W. Weiner, President. If you hold shares 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.

Your Board has fixed the close of business on November 15, 2017 as the record date for the determination of holders of record of the Company's 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 (212) 583-0100.

November 21, 2017

By Order of the Board of Directors,

/s/ Barry W. Weiner
Barry W. Weiner
President, Chief Financial Officer, Principal
Accounting Officer, Treasurer and Director

ALL HOLDERS OF RECORD OF THE COMPANY'S 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.

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ENZO BIOCHEM, INC.

PROXY STATEMENT

2017 ANNUAL MEETING OF SHAREHOLDERS

To be held on January 5, 2018

This Proxy Statement is being furnished to shareholders of record, as of November 15, 2017, of Enzo Biochem, Inc. (“Enzo”, “Enzo Biochem” or the “Company”), in connection with the solicitation of proxies by the Board of Directors of the Company (the “Board”) for the 2017 Annual Meeting of Shareholders to be held at The Yale Club of New York City, 50 Vanderbilt Avenue, New York, New York 10017, on January 5, 2018 at 9:00 a.m., New York City time (the “Annual Meeting”), and at any adjournments or postponements of the Annual Meeting, for the purposes stated in the accompanying Notice of 2017 Annual Meeting of Shareholders.

INFORMATION ABOUT THE 2017 ANNUAL MEETING

Q: Why did you send me this Proxy Statement?

A: We sent you this Proxy Statement and the enclosed proxy card because the Board is soliciting your proxy to vote at our 2017 Annual Meeting of Shareholders (the “Annual Meeting”) to be held on January 5, 2018 and at any postponements or adjournments of the Annual Meeting. This Proxy Statement summarizes information that is intended to assist you in making an informed vote on the proposals described in this Proxy Statement.

Q: Who can vote at the Annual Meeting?

A: Only shareholders of record as of the close of business on November 15, 2017 (the “Record Date”) are entitled to vote at the Annual Meeting. On that date, there were 46,925,721 shares of our common stock outstanding and entitled to vote.

Q: How many shares must be present to conduct the Annual Meeting?

A: We must have a “quorum” present in person or by proxy to hold the Annual Meeting. A quorum is a majority of the outstanding shares entitled to vote as of the Record Date. Abstentions and broker non-votes (defined below) will be counted for the purpose of determining the existence of a quorum.

Q: What matters are to be voted upon at the Annual Meeting?

A: Five proposals are scheduled for a vote:

Election of Dr. Elazar Rabbani, Ph.D., the Company nominee, as Class III Director of the Company's Board of Directors;

Approval, on an advisory basis, of the compensation of the Company's Named Executive Officers;

To recommend, by a nonbinding advisory vote, the frequency of future advisory votes on the compensation of the Company's named executive officers;

To approve an amendment and restatement of the Company's 2011 Incentive Plan, including an increase in the number of shares of common stock authorized for grant under such plan;

Ratification of the selection of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending July 31, 2018.

As of the date of this Proxy Statement, our Board does not know of any other business to be presented at the Annual Meeting. If other business is properly brought before the Annual Meeting, the persons named on the enclosed proxy card will vote on these other matters in their discretion.

Q: How does the Board recommend that I vote?

A: The Board recommends that you vote:

1. **FOR** the election of Dr. Elazar Rabbani, Ph.D. who is the director nominee of the Company;
2. **FOR** the proposal to approve on an advisory basis the compensation of the Company's Named Executive Officers;
3. **FOR** the proposal to recommend, by a nonbinding advisory vote, the frequency of future advisory votes on the compensation of the Company's named executive officers;
4. **FOR** the proposal to approve the amendment and restatement of the Company's 2011 Incentive Plan, including an increase in the number of shares common stock authorized for grant under such plan; and
5. **FOR** the proposal to ratify the selection of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending July 31, 2018.

Q: How do I vote before the Annual Meeting?

You may vote your shares by mail by filling in, signing, dating and returning the enclosed proxy card or voting instruction form you receive from your broker. For your convenience, you may also vote your shares by telephone or via Internet by following the instructions on the enclosed proxy card or your voting instruction form. If you vote by telephone or via the Internet, you do not need to return your proxy card or voting instruction form. With respect **A:** to the election of directors, you may vote "FOR" the nominee to the Board of Directors of the Company, you may withhold authority to vote for any nominee you specify and you may withhold authority to vote for the nominees as a group. For the advisory vote on the compensation of the Company's Named Executive Officers and the ratification of the selection of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending July 31, 2018, you may vote "FOR" or "AGAINST" or abstain from voting.

Q: May I vote at the Annual Meeting?

Yes, you may vote your shares at the Annual Meeting if you attend in person and are the shareholder of record. Even if you plan to attend the Annual Meeting in person, we recommend that you also submit your proxy **A:** or voting instructions as described above, or as directed by your broker if you hold your shares through a broker, so that your vote will be counted if you later decide not to attend the Annual Meeting in person.

Q: What is the difference between holding shares as a shareholder of record and as a beneficial owner?

A: If your shares are registered in your name with our transfer agent, American Stock Transfer & Trust Company, you are the "shareholder of record" of those shares and this Notice of Annual Meeting and Proxy Statement and any accompanying documents have been provided directly to you by us. In contrast, if you purchased your shares through a brokerage or other financial intermediary, the brokerage or other financial intermediary will be the "shareholder of record" of those shares. Generally, when this occurs, the brokerage or other financial intermediary will automatically put your shares into "street name," which means that the brokerage or other financial intermediary will hold your shares in its name or another nominee's name and not in your name, but will keep records showing you as the real or "beneficial owner." If you hold shares beneficially in street name, this Notice of Annual Meeting and Proxy Statement and any accompanying documents have been forwarded to you by your broker, bank or other

holder of record.

Q:How do I vote if my bank or broker holds my shares in “street name”?

A: If you hold shares beneficially in street name, you may vote by submitting the enclosed voting instruction form. Telephone and Internet voting may be available—please refer to the voting instruction card provided by your broker.

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Q: What should I do if I receive more than one proxy card or other set of proxy materials from the Company?

If you hold your shares in multiple accounts or registrations, or in both registered and street name, you will receive a proxy card for each account. Please sign, date and return all proxy cards you receive from the Company. If you choose to vote by phone or by Internet, please vote once for each proxy card you receive. Only your latest dated proxy for each account will be voted.

Q: How many votes do I have?

Each share of common stock that you own as of the close of business on the Record Date (November 15, 2017) entitles you to one vote on each matter voted upon at the Annual Meeting. As of the close of business on the Record Date, there were 46,925,721 shares of our common stock outstanding.

Q: May I change my vote?

Yes, you may change your vote or revoke your proxy at any time before the vote at the Annual Meeting by: (i) submitting a written notice of such revocation to the President of the Company so that it is received no later than 5:00 p.m. (New York City time) on January 4, 2018; (ii) submitting a duly signed proxy card bearing a later date than the previously signed and dated proxy card to the President of the Company so that it is received no later than 5:00 p.m. (New York City time) on January 4, 2018; or (iii) attending the Annual Meeting and voting in person thereat the shares represented by such proxy card. All such later-dated proxy cards or written notices revoking a proxy card should be sent to Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022, Attention: Barry W. Weiner, President. If you hold shares in street name, you must contact the firm that holds your shares to change or revoke any prior voting instructions. Attendance at the meeting will not by itself revoke a previously granted proxy.

Q: How are my shares voted if I submit a proxy card but do not specify how I want to vote?

If you submit a properly executed proxy card but do not specify how you want to vote, your shares will be voted “FOR” the election of the Company’s nominee for director; “FOR” advisory approval of the compensation of the Company’s Named Executive Officers; “FOR” the proposal to recommend, by a nonbinding advisory vote, the annual frequency of future advisory votes on the compensation of the Company’s named executive officers; “FOR” the proposal to approve the amendment and restatement of the Company’s 2011 Incentive Plan, including an increase in the number of shares of common stock authorized for grant under such plan; and “FOR” the ratification of the selection of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending July 31, 2018. If you hold your shares beneficially, such as through a broker, and not of record, see the question above titled “How do I vote if my bank or broker holds my shares in “street name”?” and immediately below.

Q: Will my shares be voted if I don’t provide instructions to my broker?

If you are the beneficial owner of shares held in “street name” by a broker, you must instruct your broker how to vote your shares. If you do not provide voting instructions at least ten days prior to the Annual Meeting date, your broker will be entitled to vote the shares with respect to “discretionary” items but will not be permitted to vote the shares with respect to “non-discretionary” items (we refer to the latter case as a broker non-vote). In the case of a broker non-vote, your broker can register your shares as being present at the Annual Meeting for purposes of determining the presence of a quorum, but will not be able to vote on those matters for which specific authorization is required under the rules of the New York Stock Exchange (NYSE).

Under NYSE rules, the proposal to elect directors, the advisory vote relating to executive compensation, the advisory vote relating to the frequency of future advisory votes on the compensation of the Company’s named executive officers, and the proposal to approve the amendment and restatement of the Company’s 2011 Incentive

Plan are non-discretionary matters for which specific instructions from beneficial owners are required. The proposal to ratify the appointment of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending July 31, 2018 is a discretionary item. As a result, your broker

will not be allowed to vote with respect to the election of directors, the proposal to approve on an advisory basis the compensation of the Company's Named Executive, the advisory vote relating to the frequency of future advisory votes on the compensation of the Company's named executive officers, and the proposal to approve the amendment and restatement of the Company's 2011 Incentive Plan on your behalf if you do not provide your broker with specific voting instructions on the proposals, but it will be able to vote on the proposal to ratify EisnerAmper LLP's appointment as our independent registered public accounting firm.

Your vote is important and we strongly encourage you to vote your shares by following the instructions provided on the enclosed voting instruction form. Please vote promptly.

Q: What vote is required to elect the director?

A: As provided in the Company's Bylaws, directors are elected on a plurality basis. This means that any two candidates receiving the highest number of "FOR" votes will be elected. A properly executed proxy card marked "WITHHOLD" with respect to the election of a director nominee will be counted for purposes of determining if there is a quorum at the Annual Meeting, but will not be considered to have been voted for or against the director nominee. Withhold votes and broker non-votes will have no effect on the outcome of the election. This year, only one director is up for election.

Q: What vote is required to approve, on an advisory basis, the compensation of the Company's Named Executive Officers?

A: This matter is being submitted to enable shareholders to approve, on an advisory basis, the compensation of the Company's Named Executive Officers. In order to be approved on an advisory basis, this proposal must receive the "FOR" vote of a majority of the votes cast on the matter at the meeting. Abstentions will have the same effect as a vote against the proposal. Broker non-votes will have no effect on this proposal as brokers are not entitled to vote on such proposals in the absence of voting instructions from the beneficial owner.

Q: What vote is required to approve, on an advisory basis, the frequency of future advisory votes on the compensation of the Company's named executive officers?

A: This matter is being submitted to enable shareholders to approve, on an advisory basis, the frequency of future advisory votes on the compensation of the Company's named executive officers. In order to be approved on an advisory basis, if none of the frequency options receives a majority of the votes cast, because this vote is advisory and non-binding, the option receiving the greatest number of votes will be considered the frequency recommended by the Company's stockholders. Abstentions will have the same effect as a vote against the proposal. Broker non-votes will have no effect on this proposal as brokers are not entitled to vote on such proposals in the absence of voting instructions from the beneficial owner.

Q: What vote is required to approve the amendment and restatement of the Company's 2011 Incentive Plan, including an increase in the number of shares of common stock authorized for grant under such plan?

A: This matter is being submitted to enable shareholders to approve, the amendment and restatement of the Company's 2011 Incentive Plan, including an increase in the number of shares of common stock authorized for grant under such plan. In order to be approved, this proposal must receive the "FOR" vote of a majority of votes cast on the matter at the meeting. Abstentions will have the same effect as a vote against the proposal. Broker non-votes will have no effect on this proposal as brokers are not entitled to vote on such proposals in the absence of voting instructions from the beneficial owner.

Q: What vote is required to ratify the selection of EisnerAmper LLP as Enzo Biochem's independent registered public accounting firm for the fiscal year ending July 31, 2018?

A: For approval of this proposal, the proposal must receive the "FOR" vote of a majority of the votes cast on the matter at the meeting. Abstentions will have the same effect as a vote against the proposal. Broker non-votes will have no effect on this proposal as brokers are not entitled to vote on this proposal in the absence of voting instructions from the beneficial owner.

Q: Who will count the votes?

A: Votes will be counted by an independent inspector of election appointed for the Annual Meeting by the Chairman of the Annual Meeting.

Q: Do shareholders have any appraisal or dissenters' rights on the matters to be voted on at the Annual Meeting?

A: No, shareholders of the Company will not have rights of appraisal or similar dissenters' rights with respect to any of the matters identified in this Proxy Statement to be acted upon at the Annual Meeting.

Q: What do I need for admission to the Annual Meeting?

A: Attendance at the Annual Meeting or any adjournment or postponement thereof will be limited to record and beneficial holders of Common Stock as of the Record Date, individuals holding a valid proxy from a record holder, and other persons authorized by the Company. If you are a shareholder of record, your name will be verified against the list of shareholders of record prior to your admittance to the Annual Meeting or any adjournment or postponement thereof. You should be prepared to present photo identification for admission. If you hold your shares in street name, you will need to provide proof of beneficial ownership on the Record Date, such as a brokerage account statement showing that you owned our stock as of the Record Date, a copy of a voting instruction form provided by your broker, bank or other nominee, or other similar evidence of ownership as of the Record Date, as well as your photo identification, for admission. If you do not provide photo identification or comply with the other procedures described above upon request, you will not be admitted to the Annual Meeting or any adjournment or postponement thereof. For security reasons, you and your bags will be subject to search prior to your admittance to the Annual Meeting.

Q: How can I find out the results of the voting at the Annual Meeting?

A: We will announce results promptly once they are available and will report final results in a filing with the Securities and Exchange Commission ("SEC") on Form 8-K.

Q: What is "householding" and how does it work?

A: Some brokers and other nominee record holders may be participating in the practice of "householding" this Proxy Statement and other proxy materials. This means that only one copy of this Proxy Statement and other proxy materials may have been sent to multiple shareholders in a shareholder's household. The Company will promptly deliver additional copies of the Proxy Statement and other proxy materials to any shareholder who contacts (i) the Company's principal corporate office at 527 Madison Avenue, New York, New York 10022, Attention: Investor Relations or at (212) 583-0100 requesting such additional copies or (ii) Kingsdale Advisors, the Company's proxy solicitor, at (888) 518-6799. If a shareholder is receiving multiple copies of the Proxy Statement and other proxy materials at the shareholder's household and would like to receive only a single copy of the Proxy Statement and other proxy materials for a shareholder's household in the future, such shareholder should contact their broker, other nominee record holder, or the Company's investor relations department to request the future mailing of only a single

copy of the Company's Proxy Statement and other proxy materials.

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Q: Who is soliciting the proxy and who pays the costs?

The enclosed proxy for the Annual Meeting is being solicited by the Board of Directors. The cost of soliciting the proxies on the enclosed form will be paid by us. Our Board of Directors has engaged Kingsdale Advisors to assist in the solicitation of proxies for a fee of \$8,500, plus an additional per holder fee for any solicitation of individual holders and reimbursement of out-of-pocket expenses. In addition to the use of the mail, proxies may be solicited by the directors and their agents (who will receive no additional compensation for those services) by means of personal interview, telephone, facsimile, e-mail or other electronic means, and it is anticipated that banks, brokerage firms and other institutions, nominees or fiduciaries will be requested to forward the soliciting material to their principals and to obtain authorization for the execution of proxies. We may, upon request, reimburse banks, brokerage firms and other institutions, nominees and fiduciaries for their expenses in forwarding proxy material to their principals.

A:

Q: Who can help answer my questions?

Enzo Biochem stockholders 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:

A:

Enzo Biochem, Inc.

527 Madison Avenue

New York, New York 10022

(212) 583-0100

Attn.: Investor Relations

or

Kingsdale Advisors

(888) 518-6799 (toll-free in North America)

(416) 867-2272 (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 2017 Annual Report to Shareholders and our Annual Report on Form 10-K for our fiscal year ended July 31, 2017, 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., 527 Madison Avenue, New York, New York 10022, Attention: Barry W. Weiner, President. 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, 2017.

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THE 2017 ANNUAL MEETING

Who is Entitled to Vote at the Annual Meeting

Only holders of record of the Company's common stock, par value \$.01 per share (the "Common Stock"), as of the close of business on November 15, 2017 (the "Record Date") are entitled to notice of, and to vote at, the Annual Meeting. On the Record Date there were issued and outstanding 46,925.721 shares of Common Stock. Each outstanding share of Common Stock is entitled to one (1) vote upon all matters to be acted upon at the Annual Meeting.

How You May Vote

If you are a holder of record of Common Stock as of the Record Date, you may vote by completing, signing, dating and returning the enclosed proxy card by mail. To vote by using the enclosed proxy card, mark your selections on the enclosed proxy card, date the proxy card and sign your name exactly as it appears on your proxy card, and return your proxy card by mail to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, New York 11717.

If you are a holder of record of Common Stock as of the Record Date, you may also vote via the Internet or via telephone. The website for Internet voting is www.proxyvote.com. As with telephone voting, you can confirm that your instructions have been properly recorded. If you vote via the Internet, you also can request electronic delivery of future proxy materials. If you vote via the Internet, please note that there may be costs associated with electronic access, such as usage charges from Internet access providers and telephone companies, for which you will be responsible. You can vote by calling the toll-free telephone number on your proxy card. Easy-to-follow voice prompts allow you to vote your shares and confirm that your instructions have been properly recorded.

If you are a holder of record of Common Stock as of the Record Date, you may also vote by attending the Annual Meeting and voting thereat in person. Votes at the Annual Meeting will be taken by written ballot. At the commencement of the Annual Meeting, we will distribute a written ballot to any shareholder of record who attends the Annual Meeting and wishes to vote thereat in person.

If your shares are held in "street name," whether through a broker, bank or other nominee, only they can sign a proxy card with respect to your shares. You are therefore urged to contact the person responsible for your account and give them instructions for how to complete a proxy card representing your shares so that it can be timely returned on your behalf. You also should confirm in writing your instructions to the person responsible for your account and provide a copy of those instructions to us so that we can attempt to ensure that your instructions are followed. If you wish instead to vote in person at the Annual Meeting, you must obtain a valid proxy from your broker, bank or other nominee.

If you are a holder of record of Common Stock as of the Record Date and plan to attend the Annual Meeting, please be sure to bring with you valid government-issued personal identification with a picture (such as a driver's license or passport) in order to gain admission to the meeting. If your shares are held in "street name" through a bank, broker or other nominee, you will have to bring evidence of your beneficial ownership of Common Stock as of the Record Date, in addition to valid government-issued personal identification, if you wish to attend the meeting. Examples of proof of Common Stock ownership include: a signed letter from your bank or broker stating that you owned your shares as of the Record Date; a brokerage account statement indicating that you owned your shares as of the Record Date; or a copy of the voting instruction card provided by your broker indicating that you owned your shares as of the Record Date. If you are a proxy holder for a holder of record of Common Stock as of the Record Date, then you must also bring the validly executed proxy naming you as the proxy holder, signed by the shareholder of record who owned such shares of Common Stock as of the Record Date.

If you have any questions about the procedures for admission to the Annual Meeting, please contact Investor Relations at (212) 583-0100. Please see "Revocation of Proxies" below for a discussion of how to revoke your proxy.

Quorum; Vote Required

The holders of a majority of the outstanding shares of Common Stock as of the Record Date must be present, in person or represented by proxy, at the Annual Meeting to constitute a quorum for the transaction of business at the Annual Meeting. Abstentions and “broker non-votes” (described below) will be counted for purposes of determining whether there is a quorum for the transaction of business at the Annual Meeting.

The election of a nominee for Director (Proposal 1) requires a plurality of votes cast. This means that so long as a quorum is present, in person or represented by proxy, at the Annual Meeting for the transaction of business, the candidate receiving the most affirmative votes “FOR” his or her election will be elected to serve as a Class III Director of the Company. Shareholders may either vote “FOR” or “WITHHOLD AUTHORITY” to vote for the Director-nominee. A properly executed proxy card marked “WITHHOLD AUTHORITY” 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” a nominee will be counted.

The approval of Proposals 2 and 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 either vote “for,” “against” or “abstain” with respect to Proposals 2 and 3. While our Board intends to carefully consider the stockholder vote resulting from Proposals 2 and 3, 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” Proposals 2 and 3. Broker non-votes will not be counted as “votes cast” on Proposals 2 and 3 and will have no effect on the outcome of the vote with respect to Proposals 2 and 3.

The ratification and approval of Proposals 4 and 5 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 either vote “for,” “against” or “abstain” with respect to Proposals 4 and 5. 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” Proposals 4 and 5. Broker non-votes will not be counted as “votes cast” on Proposals 4 and 5 and will have no effect on the outcome of the vote with respect to Proposals 4 and 5.

If you hold your shares (i.e., they are registered) through a bank, broker or other nominee in “street name” but you do not provide the firm that holds your shares with your specific voting instructions, it will only be allowed to vote your shares on your behalf in its discretion on “routine” matters, but it cannot vote your shares in its discretion on your behalf on any “non-routine” matters. Under the applicable rules of the NYSE, at the Annual Meeting, Proposal 1 relating to the election of Directors, Proposal 2 relating to the nonbinding advisory vote on the Company’s executive compensation, Proposal 3 relating to the nonbinding advisory vote on the frequency on future advisory votes and Proposal 4 relating to the amendment and restatement of the Company’s 2011 Incentive Plan are considered “non-routine” matters. Proposal

5 relating to the appointment of the Company's independent registered public accounting firm for our fiscal year ending July 31, 2018 is considered a "routine" matter. Therefore, you must give specific instructions to your broker for your shares to be voted on the election of Directors (Proposal 1), the nonbinding advisory vote on the Company's executive compensation (Proposal 2), the nonbinding advisory vote on the frequency on future advisory votes (Proposal 3), and the amendment and restatement of the Company's 2011 Incentive Plan (Proposal 4) at the Annual Meeting.

If you do not give specific instructions to your broker how to vote your shares on your behalf with respect to the election of the Director at the Annual Meeting (Proposal 1) or the nonbinding advisory vote on the Company's executive compensation (Proposal 2) or the nonbinding advisory vote on the frequency on future advisory votes (Proposal 3) or the proposal relating to the amendment and restatement of the Company's 2011 Incentive Plan (Proposal 4) prior to the 10th day prior to the Annual Meeting, your broker will have no discretionary authority to vote your shares on your behalf with respect to the election of the Director at the Annual Meeting or the nonbinding advisory vote on the Company's executive compensation or the nonbinding advisory vote on the frequency on future advisory votes or the amendment and restatement of the Company's 2011 Incentive Plan. Such "uninstructed" shares are commonly referred to as "broker non-votes".

With respect to Proposal 5, your broker will have discretionary authority to vote your uninstructed shares “for”, or “against”, or to “abstain” from voting, on the ratification of the appointment of the Company’s independent registered public accounting firm.

Proxy ballots will be received, tabulated and certified at the Annual Meeting by the inspector of election appointed by the Board. The inspector will also determine whether a quorum is present at the Annual Meeting.

Revocation of Proxies

If you are a shareholder of record on the Record Date and have signed, dated and returned a proxy card, you may revoke such proxy card in your discretion by:

submitting a written notice of such revocation to the President of the Company so that it is received no later than 5:00 p.m. (New York City time) on January 4, 2018;

submitting a duly signed proxy card bearing a later date than the previously signed and dated proxy card to the President of the Company so that it is received no later than 5:00 p.m. (New York City time) on January 4, 2018; or

attending the Annual Meeting and voting in person thereat the shares represented by such proxy card (but 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 of revocation of a proxy card should be sent to Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022, Attention: Barry W. Weiner, President. If you hold shares in street name, you must contact the firm that holds your shares to change or revoke any prior voting instructions.

Voting

The persons named as proxies in the enclosed proxy card will vote the shares for which such persons were thereby appointed in accordance with the voting indications marked thereon by the shareholders who signed, dated and returned such card. If, however, such proxy card is signed, dated and returned to the Company but no voting indications are marked thereon, all shares represented by such proxy card will be voted by the proxies named therein “FOR” the election of the Board’s Class III Director-nominee, Dr. Elazar Rabbani, Ph.D. (Proposal 1); “FOR” the approval, in a non-binding advisory vote, of the compensation of our Named Executive Officers, as disclosed in this Proxy Statement (Proposal 2); “FOR” the proposal to recommend, by a nonbinding advisory vote, the frequency of future advisory votes on the compensation of the Company’s named executive officers (Proposal 3); “FOR the proposal

to approve the amendment and restatement of the Company's 2011 Incentive Plan, increasing the number of authorized shares, including among others, options, restricted stock and restricted stock units from up to 3,000,000 to 5,000,000 (Proposal 4); and "FOR" the ratification of the Company's appointment of EisnerAmper LLP to serve as the Company's independent registered public accounting firm for its fiscal year ending July 31, 2018 (Proposal 5), and will be voted on any other matters as may come before the Annual Meeting in the best judgment and discretion of the persons named as proxies.

You can find the official results of voting at the Annual Meeting in our Current Report on Form 8-K to be filed within four business days after the Annual Meeting. If the official results are not available at that time, we will provide preliminary voting results in the Form 8-K and will provide the final results in an amendment to the Form 8-K as soon as they become available.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Set forth below is information, as of November 15, 2017 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,” all current Directors and the Board’s Class III Director-nominee, 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 November 15, 2017.

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.

Name and Address of Beneficial Owner	Amount and Nature of Beneficial Ownership (1)	Percent of Class (2)
Elazar Rabbani, Ph.D.	1,828,697 ⁽³⁾	3.8 %
Barry W. Weiner	1,282,309 ⁽⁴⁾	2.7 %
James M. O’Brien	21,394 ⁽⁵⁾	*
Dieter Schapfel, M.D.	32,634 ⁽⁶⁾	*
Bruce A. Dey	46,080 ⁽⁷⁾	*
Gregory M. Bortz	303,331 ⁽⁸⁾	*
Dov Perlusky	694,700 ⁽⁹⁾	1.5 %
Bruce A. Hanna, Ph.D.	22,816 ⁽¹⁰⁾	*
Wellington Management Group LLP	3,782,037 ⁽¹¹⁾	8.1 %
Blackrock Fund Advisors	3,767,165 ⁽¹²⁾	7.9 %
Evermore Global Advisors, LLC	3,685,520 ⁽¹³⁾	7.9 %
All Directors, executive officers and key employees as a group (8 persons)	4,231,961 ⁽¹⁴⁾	8.9 %

* Represents beneficial ownership of less than 1%.

Except as otherwise noted in the footnotes to the table, all shares of Common Stock are beneficially owned and (1) the sole investment and voting power is held by the persons named, and such persons’ address is c/o Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022.

(2) For directors, executive officers and key employees, based upon 47,793,851 shares of Common Stock of the Company considered outstanding as of the close of business on the Record Date. Common Stock not outstanding

but deemed beneficially owned by virtue of the right of an individual to acquire shares within 60 days from the date hereof is treated as outstanding when determining the amount and percentage of Common Stock owned by directors and executive officers individually and as a group.

(3) Includes (i) 193,254 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, (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) 31,340 shares of Common Stock held in the Company's 401(k) plan.

(4) Includes (i) 158,096 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, (ii) 3,638 shares of Common Stock that Mr. Weiner holds as custodian for certain of his children, and (iii) 31,347 shares of Common Stock held in the Company's 401(k) plan.

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- (5) Includes (i) 15,000 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, and (ii) 6,394 shares of Common Stock held in the Company's 401(k) plan.

Includes 24,666 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, and (ii) 6,800 shares of Common Stock held in the Company's 401(k) plan. This individual is considered a key employee.

- (7) Includes (i) 16,666 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, and (ii) 29,414 shares of Common Stock held in the Company's 401(k) plan. This individual is considered a key employee.

- (8) Includes 218,816 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof.

Includes (i) 218,816 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, (ii) 30,000 shares owned by Laya Perlysky (Mr. Perlysky's wife) in an IRA account of which Mr. Perlysky disclaims beneficial ownership, (iii) 18,250 shares owned by Irwin Dov Perlysky IRA, (iv) 109,237 shares owned directly by RSD 2012 GRAT, of which Mr. Perlysky is the trustee of which Mr. Perlysky disclaims beneficial ownership; (v) 45,000 shares owned by Sky Ventures LLC, of which Mr. Perlysky is the manager, (vi) 1,714 shares owned directly by Mr. Perlysky, (vii) 244,020 shares owned by Kinder Investments LLP, (viii) 6,981 shares owned by Krovim LLC and (ix) 3,225 shares owned by MidAtlantic Capital LLC.

- (10) Includes 22,816 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof.

- (11) The address of Wellington Management Group LLP is 280 Congress Street, Boston, MA 02210. This information is based solely on a Schedule 13F filed on September 30, 2017.

- (12) The address of Blackrock Fund Advisors is 400 Howard St., San Francisco, CA 94105. This information is based solely on a Schedule 13F filed on September 30, 2017.

- (13) The address of Evermore Global Advisors, LLC is 89 Summit Ave., Summit NJ 07901. This information is based solely on a review of the fund's holdings as of September 30, 2017.

- (14) Includes 868,130 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof.

**PROPOSAL 1
ELECTION OF DIRECTOR**

Board Nominee for Election at the Annual Meeting.

The Company's Board has three staggered classes of Directors, each of which serves for a term of three years. At the Annual Meeting, the Board's Class III Director will be elected to hold office for a term of three years or until his successor is 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 nominee to serve as Class III Director of the Company. Management has no reason to believe that the below-listed Board nominee will not be candidate or will be unable to serve as Class III Director. However, in the event that the below-listed Board nominee should become unable or unwilling to serve as Class III Director, the proxy cards will be voted for the election of such alternate person as shall be designated by the Class I and Class II Directors currently on the Board. If any alternate person is designated by the Class I and Class II Directors currently on the Board to serve as Class III Director-nominee, 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 three, three-year terms, whether consecutively or in total, plus any portion of an earlier three-year term that such Outside Director may have been appointed to serve.

Biographical Information for Nominees

CLASS III DIRECTOR NOMINEE TO SERVE UNTIL

THE 2020 ANNUAL MEETING, IF ELECTED:

Class III: Term to Expire at the 2020 Annual Meeting in 2021

Name	Age	Year First Became a Director
	74	1976

Elazar
Rabbani,
Ph.D.

ELAZAR RABBANI, Ph.D. is an Enzo Biochem founder and has served as the Company's Chairman of the Board and Chief Executive Officer since its inception in 1976 and Secretary since November 25, 2009. 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 our Board are demonstrated by his extensive knowledge of our industry, accomplishments over the last 41 years, including building our Intellectual Property estate and the commercialization of technology which has generated significant revenues for the Company.

THE BOARD OF DIRECTORS OF THE COMPANY UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" THE ELECTION OF THE ABOVE-NAMED BOARD NOMINEE TO SERVE AS CLASS III DIRECTOR OF THE COMPANY.

The persons named as proxies intend to vote the proxies "FOR" the election of the nominee unless you indicate on the proxy card a vote to "WITHHOLD" your vote with respect to the nominee. If for some reason a director nominee is unable to serve, or for good cause will not serve if elected, the persons named as proxies may vote for a

substitute nominee recommended by the Board. If any substitute nominee is designated, we will file an amended proxy statement that, as applicable, identifies the substitute nominee, discloses that such nominee has consented to being named in the revised proxy statement and to serve if elected, and includes certain biographical and other information about such nominee required by SEC rules.

DIRECTORS WHO ARE CONTINUING IN OFFICE:

Class II: Term to Expire at the 2019 Annual Meeting in 2020

Name	Age	Year First Became a Director
Barry W. Weiner	67	1972
Bruce A. Hanna, Ph.D.	71	2017

Class I: Term to Expire at the 2018 Annual Meeting in 2019

Name	Age	Year First Became a Director
Gregory M. Bortz	48	2010
Dov Perlysky	55	2012

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	Position
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		Officer or Key Employee	
Elazar Rabbani, Ph.D.	74	1976 ⁽¹⁾	Chairman of the Board, Chief Executive Officer and Secretary
Barry W. Weiner	67	1977	President, Chief Financial Officer, Principal Accounting Officer, Treasurer and Director
James M. O'Brien	51	2014	Executive Vice President, Finance
Dieter Schapfel, M.D.	54	2014	Chief Medical Director, Enzo Clinical Labs
Bruce A. Dey	59	2014	Vice President of Sales, Enzo Clinical Labs
Gregory M. Bortz	48	2010	Director
Dov Perlysky	55	2012	Director
Bruce A. Hanna, Ph.D.	74	2017	Director

(1) Director term expires at the January 5, 2018 meeting.

Biographical Information Regarding Directors, Executive Officers and Key Employees

ELAZAR RABBANI, Ph.D. is an Enzo Biochem founder and has served as the Company's Chairman of the Board and Chief Executive Officer since its inception in 1976 and Secretary since November 25, 2009. 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 our Board are demonstrated by his extensive knowledge of our industry, accomplishments over the last 41 years, including building our Intellectual Property estate and the commercialization of technology which has generated significant revenues for the Company.

BARRY W. WEINER, President, Chief Financial Officer, Principal Accounting Officer and Director is also a founder of Enzo Biochem. He has served as the Company's President since 1996, and previously held the position of Executive Vice President. Before his employment with Enzo Biochem, he worked in several managerial and marketing positions at the Colgate Palmolive Company. Mr. Weiner is a member of the New York Biotechnology Association. He received his Bachelor of Arts degree in Economics from New York University and his Master of Business Administration in Finance from Boston University.

We believe that Mr. Weiner's qualifications to serve on our Board are demonstrated by his knowledge of our businesses and the industries in which we are involved, along with his experience in finance, management and marketing, including the identification of acquisition targets, business development and partnering and raising capital.

JAMES M. O'BRIEN, Executive Vice President, Finance, joined Enzo Biochem in February 2014 as Senior Vice President, Finance and is responsible for leading and managing all activities for our Corporate and Business Unit Financial functions. From 2010 to 2013, Mr. O'Brien was Vice President and Corporate Controller for Allergan, plc. (formally Actavis, plc) a global specialty pharmaceutical company. From 1998 to 2010, Mr. O'Brien held senior level finance leadership roles at Nycomed US, Aptuit, Inc., Purdue Pharma LLP and Bristol Myers Squibb Company. From 1988 to 1998, Mr. O'Brien was with PricewaterhouseCoopers LLP. He received his Bachelor of Accounting degree from George Washington University and his Master of Business Administration from Fordham University. Mr. O'Brien is a Certified Public Accountant.

DIETER SCHAPFEL, M.D., Chief Medical Director for Enzo Clinical Labs, 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. Dr. Schapfel 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, NY 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.

BRUCE A. DEY, Vice President, Sales & Marketing, joined Enzo Clinical Labs in December, 2003, and has over 30 years' experience developing sales and commercial operations in the laboratory services industry. Prior to joining Enzo

Clinical Labs, Mr. Dey served as Vice President, Sales & Marketing for CDS Laboratories from 1989 to 2001, which was acquired by Quest Diagnostics in November 2001. He began his career with SmithKline Beecham Clinical Laboratories. Mr. Dey earned a Bachelor of Science in Economics and a Master of Business Administration from The State University of New York at Albany.

GREGORY M. BORTZ, has been a Director of the Company since January 2010. He is currently a member of the Company's Audit, Compensation and Nominating and Corporate Governance Committees and has been the chairman of the Audit Committee since November 2010. Mr. Bortz became Enzo's Lead Independent Director in 2017. Mr. Bortz is the founder of the CREO group of companies ("CREO") and serves as CREO's managing partner. CREO's interests include a combination of private equity and hedge fund investments. On the private equity side, CREO is currently investing through its third fund, CREO Capital Partners Fund III, L.P. Under Mr. Bortz's leadership, CREO has achieved successful exits from several private equity investments. CREO's success is driven by its strategy of acquiring middle market companies at reasonable prices, strengthening and improving their operations and balance sheets and adding scale through selective, accretive mergers and acquisitions. Mr. Bortz serves as a board member of the companies in CREO's private equity portfolio. In addition, Mr. Bortz serves as the Chief Investment Officer of the CREO Select Opportunities Fund, a hedge fund that focuses on investing in public fixed income and equity securities.

From October 2000 to February 2005, Mr. Bortz was Senior Vice President, Investment Banking Division, of Lehman Brothers, Inc., an international investment bank. During his tenure at Lehman Brothers, Mr. Bortz was involved in numerous public and private debt and equity offerings, mergers and acquisitions, and restructurings. Prior to joining Lehman Brothers, Mr. Bortz held the position of Vice President of Investment Banking at Credit Suisse First Boston, an international investment bank, from January 1998 to October 2000. Mr. Bortz also previously held the position of Manager at the accounting firm of Ernst and Young (1994–1997) and Senior at the public accounting firm of Arthur Andersen (1993–1994), both in those firms' respective audit groups. Mr. Bortz was qualified as a chartered accountant in England and Wales as well as in South Africa. He graduated with honors from the University of Cape Town with a Bachelors of Business Science in Finance and holds a Postgraduate Diploma in Accounting from that same institution.

We believe that Mr. Bortz's qualifications to serve on our Board are demonstrated by his more than 23 years of accounting, auditing, financial and investment banking experience as well as his experience as a board member of CREO's portfolio companies.

DOV PERLYSKY has been a Director of the Company since September 2012. He is currently a member of the Company's Audit, Compensation and Nominating and Corporate Governance Committees. Mr. Perlysky became the chairman of the Compensation Committee in 2017. Mr. Perlysky has been a member of the Board of Directors of Pharma-Bio Serv, Inc. since 2004, Highlands State Bank since 2010 and News Communications since 2007. Mr. Perlysky has also been the managing member of Nesher, LLC, a private investment firm, since 2000 and a director of Engex, Inc., a closed-end mutual fund, since 1999. From 1998 until 2002, Mr. Perlysky was a vice president in the private client group of Laidlaw Global Securities, a registered broker-dealer. Mr. Perlysky received his Bachelor of Science in Mathematics and Computer Science from the University of Illinois in 1985 and his Master of Science in Management Studies from the J.L. Kellogg School of Management of Northwestern University in 1991.

We believe that Mr. Perlysky's qualifications to serve on our Board are demonstrated by his professional background, experience in the healthcare field (including his director position at Pharma-Bio Serv, Inc.), other current and past board positions and finance background, making him well qualified as a member of our Board.

BRUCE A. HANNA, Ph.D., has been a director of the Company since January 2017. He is currently a member of the Company's Audit, Compensation and Nominating and Corporate Governance Committees and is the chairman of the Nominating and Corporate Governance Committee. He is currently a Clinical Professor of Pathology and Clinical Professor of Microbiology at the New York University School of Medicine, Adjunct Professor of Science at New York University College of Dentistry, and Adjunct Professor of Biology, Long Island University. From 2006 to 2015, he served on the ASM International Committee and WHO Global Committee, from 2000-2012 he served as the Editor of the Clinical Microbiology Review, and 2008-2010 was Interim Director of Pathology, Bellevue Hospital Center. Dr. Hanna earned a Bachelor of Science in Biology from Saint Bonaventure University, a Masters in Science in Microbiology from Northeastern University, and a Ph.D. in Microbiology from Saint John's University. Dr. Hanna's post-doctorate work in Clinical Microbiology was at Mt. Sinai Hospital.

We believe that Dr. Hanna's qualifications to serve on our Board are demonstrated by his professional background, experience in the healthcare field, including his academic background and technical experience.

Family Relationships

Dr. Elazar Rabbani and Barry W. Weiner are brothers-in-law.

Director Independence

Messrs. Gregory M. Bortz, Dov Perlisky and Dr. Bruce A. Hanna, Ph.D. qualify as “Independent Directors” under the criteria established by the NYSE.

THE BOARD OF DIRECTORS OF THE COMPANY UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR” THE ELECTION OF THE ABOVE-NAMED BOARD NOMINEE TO SERVE AS CLASS III DIRECTOR OF THE COMPANY.

CORPORATE GOVERNANCE

Our 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, during the past year, as in prior years, the Board and management have periodically reviewed and updated, as appropriate, the Company's corporate governance policies and practices. During the past year, the Board has also continued to evaluate and, when appropriate, update the Company's corporate governance policies and practices in accordance with the requirements of the Sarbanes-Oxley Act of 2002 and the rules and listing standards issued by the Securities and Exchange Commission and the NYSE.

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 to any interested party that requests them by contacting Investor Relations at (212) 583-0100.

Corporate Code of Ethics—The Company has a Code of Ethics that applies to all of the Company's employees, officers and members of the Board. The Code of Ethics is available on the Company's website at www.enzo.com, and in print to any interested party that requests it.

Board Committee Charters—Each of the Company's Audit, Compensation and Nominating and Corporate Governance Committees has a written charter adopted by the Company's 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 to any interested party that requests them.

Director Term Limits—The total cumulative length of time that any member of the Board who is not an officer or employee of the Company (an "Outside Director") may serve on the Board is limited to a maximum of three, three-year terms, whether consecutively or in total, plus any portion of an earlier three-year term that such Outside Director may have been appointed to serve.

Lead Independent Director Charter—The duties of the Lead Independent Director, as set forth in the 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; provide the Chairman of the Board with input as to the preparation of the agendas for 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; and perform such other duties as the Board shall from time to time delegate.

Gregory M. Bortz has served as Lead Independent Director since January 2017. The Lead Director role was established in October 2005.

The Lead Independent Director Charter is available on the Company's website at www.enzo.com, and in print to any interested party that requests it by contacting Investor Relations at (212) 583-0100.

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;

A Director was affiliated with or employed by a present or former internal or external auditor of the Company;

An immediate family member of a Director was affiliated with or employed in a professional capacity by a present or former internal or external auditor of the Company;

A 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, or 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 New York Stock Exchange.

Board Leadership Structure and Role in Risk Oversight

Elazar Rabbani, Ph.D. has been the Company's Chairman of the Board and Chief Executive Officer since the Company's inception in 1976. The Company believes that having one person, particularly Dr. Rabbani with his deep industry and executive management experience, his extensive knowledge of the operations of the Company and his own history of innovation and strategic thinking, serve as both Chief Executive Officer and Chairman is the best leadership structure for the Company because it demonstrates to employees, customers and shareholders that the Company is under strong leadership, with a single person setting the tone and having primary responsibility for managing the Company's operations. This unity of leadership promotes strategy development and execution, timely decision-making and effective management of Company resources. The Company believes that it has been well served by this structure.

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, while the Company's Chairman and Chief Executive Officer and Mr. Weiner, as President and Chief Financial Officer bring company-specific experience and expertise.

Additionally, the Company has had a Lead Independent Director since October 2005, whose duties, among other things, are to lead the executive sessions of the independent Directors of the Company; 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 the Company's 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 with management and the independent auditors 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. 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, and the Board receives risk management updates directly from senior management of the Company and from the chair of the Audit Committee. In addition, the Chairman and Chief Executive Officer's extensive knowledge of the Company and experience in the industries in which we operate uniquely qualifies him to lead the Board in assessing the whole panoply of risks to the Company. The Board believes that the work undertaken by the Audit Committee, the full Board and the Chairman and Chief Executive Officer, enables the Board to effectively oversee the Company's risk management function. Gregory M. Bortz has served as Lead Independent Director since January 2017.

Board Nomination Policies and Procedure

Nomination Procedure—The Nominating and Corporate 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 CEO 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 three three-year terms, whether consecutively or in total, plus any portion of an earlier three-year term that such Outside Director may have been appointed to serve. The Nominating and Corporate Governance Committee also considers the appropriate balance of experience, skills, and characteristics desirable among the members of the Board to maintain a diverse Board of Directors. The independent members of the Board review the Nominating and Corporate Governance Committee candidates and nominate candidates for election by the Company shareholders. The Nominating and Corporate 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" on page 56.

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 and Corporate 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 stock exchange rules.

The Nominating and 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 at strategy and policy setting; high-level leadership experience in business; breadth of knowledge about issues affecting Enzo Biochem; 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 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 Shareholders' annual meetings. The Nominating and Corporate 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 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 and management 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 be independent in accordance with NYSE criteria. See below for a description of the responsibilities of the Board's standing committees.

Executive Sessions of Non-Management Directors

The Board and each of the Audit, Compensation and Nominating/Governance Committees periodically hold meetings of only the independent Directors or Committee members without management 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 Board of Directors

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 Elazar Rabbani, Office of the Secretary, Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022. 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 and/or the Lead Director.

Annual Meeting—The Company encourages its outside Directors to attend the annual meeting of shareholders each year. Mr. Perlysky and Dr. Hanna attended the Annual Meeting of Shareholders held in January 2017.

Meetings of the Board of Directors and its Committees

During the fiscal year ended July 31, 2017, there were five formal meetings of the Board of Directors, and several informal meetings. None of the Directors attended less than 75% of the meetings of the Board (including Committee meetings). Currently, the Board of Directors has a Nominating and Corporate Governance Committee, an Audit Committee and a Compensation Committee. The Nominating and Corporate Governance Committee had

one formal meeting, the Audit Committee had four formal meetings and the Compensation Committee had two formal meetings. Each of the Committees had additional informal meetings and three separate Board consents.

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 in accordance with 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 Messrs. Bortz and Perlysky and Dr. Hanna. Mr. Bortz has been the Chairman since November 2010. 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. Bortz 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 Messrs. Bortz and Perlysky and Dr. Hanna. The Board has determined that each member of the Compensation Committee is independent, as defined in the NYSE listing standards. Mr. Perlysky has been the Chairman of the Compensation Committee since January 2017.

The Nominating and Corporate 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 shareholders’ meeting; and (3) for election to all Committees of the Board other than the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee will consider nominations from the shareholders, provided that they are made in accordance with the Company’s By-laws. When evaluating prospective Director candidates, the Nominating and Corporate Governance Committee conducts individual evaluations against the criteria stated in the Committee’s 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 and Corporate Governance Committee are Dr. Hanna and Messrs. Bortz and Perlysky. Dr. Hanna has been the Chairman since January 2017.

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, 2017:

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;
2. The Audit Committee discussed with the independent registered public accountants matters required to be discussed under PCAOB Auditing Standard No. 16;

3. The Audit Committee reviewed the written disclosures and the letter from the independent registered public accountants required by the applicable requirements of the Public Company Accounting Oversight Board, 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, 2017 with the independent registered public accounting firms; 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, 2017 for filing with the SEC. We also selected EisnerAmper LLP as the independent registered public accounting firm for fiscal 2018. The Board is recommending that shareholders ratify that selection at the Annual Meeting.

Submitted by the members of the Audit Committee on September 11, 2017:

Gregory M. Bortz, Chairman

Dov Perlysky

Dr. Bruce A. Hanna, Ph.D.

SECTION 16(A) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires the Company's executive officers, Directors and persons who beneficially own more than 10% of a registered class of the Company's equity securities (collectively, "Reporting Persons") to file with the Securities and Exchange Commission initial reports of ownership and reports of changes in ownership of common stock and other equity securities of the Company within two business days. Such executive officers, Directors and greater than 10% beneficial owners are required by Securities and Exchange Commission regulation to furnish the Company with copies of all Section 16(a) forms filed by such Reporting Persons. Based solely on a review of the copies of such forms furnished to us and on written representations that no Form 5 was required to be filed, we believe that, during the fiscal year ended July 31, 2017, all of our directors and executive officers timely complied with the Section 16(a) filing requirements.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

It is the responsibility of the Nominating and Corporate 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 and Corporate 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 Chairman and Chief Executive Officer of the Company; Shahram K. Rabbani, a former officer and Director of the Company; and Barry Weiner, the President, Chief Financial Officer and a Director 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, 2017, Enzo Lab paid approximately \$1,752,000 to Pari with respect to such facility and future payments are subject to cost of living adjustments.

The non-interested members of the Board of Directors, at the time of the execution of the lease and each extension, reviewed and approved the transaction in accordance with the Company's procedures for reviewed related party transactions. The Nominating and Corporate 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, believes that the existing lease terms are as favorable to the Company as would be available from an unaffiliated party.

CODE OF ETHICS

The Company has adopted a Code of Ethics (as such term is defined in Item 406 of Regulation S-K). The Code of Ethics is available on the Company's website at www.enzo.com, and in print to any shareholder that requests it by contacting Investor Relations at (212) 583-0100. The Code of Ethics applies to the Company's employees, officers and members of the Board. The Code of 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;

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Full, fair, accurate, timely, and understandable disclosure in reports and documents that the Company files with, or submits to, the Securities and Exchange Commission 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 Ethics to an appropriate person or persons identified in the Code of Ethics; and

· Accountability for adherence to the Code of Ethics.

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COMPENSATION OF DIRECTORS

Each person who serves as a Director and who is not otherwise an officer or an employee (such Director being classified as an “Outside Director”) of the Company receives an annual Director’s fee of \$30,000. The Lead Independent Director receives an additional annual Director’s fee of \$25,000. Each Outside Director who serves on a Board Committee other than as a Committee chair also receives an annual fee of \$7,500. The Chairman of the Audit Committee receives an additional annual fee of \$20,000 and the Chairman of the Compensation Committee and the Chairman of the Nominating and Corporate Governance Committee each receive an additional annual fee of \$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 restricted stock units shall 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, and 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.

Director Compensation Table

The following table sets forth the information concerning compensation earned during our fiscal year ended July 31, 2017 by all non-employee Directors:

Name	Fees Earned or Paid in Cash	Restricted Stock/Stock Options Awards(1)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings	All Other Compensation	Total
Gregory M. Bortz <i>Lead Director</i>	\$85,000	\$100,000	—	—	\$185,000
Dov Perlysky <i>Director</i>	\$62,500	\$100,000	—	—	\$162,500
Bruce A. Hanna, Ph.D. (2) <i>Director</i>	\$31,250	\$100,000	—	—	\$131,250
Barnard L. Kasten, M.D. (3) <i>Former director</i>	\$43,750	—	—	—	\$43,750

Represents the grant fair value on the respective grant date for the fiscal year ended July 31, 2017, in accordance with accounting authoritative guidance. The assumptions used in calculating these amounts are set forth in Notes 1 and 10 to the Company’s consolidated financial statements for the fiscal year ended July 31, 2017, included in the Company’s Form 10-K filed with the SEC on September 25, 2017.

(2)Term started on January 5, 2017.

(3) Three-year term expired on January 5, 2017.

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COMPENSATION OF EXECUTIVE OFFICERS

Compensation Discussion and Analysis

The Compensation Committee of our Board oversees our executive compensation program. In this role, the Compensation Committee reviews and approves all compensation decisions relating to our Named Executive Officers. The Compensation Committee also reviews and approves all equity awards for all employees except for annual amounts pre-approved for granting by the Chief Executive Officer or President for non-officers or new employees in connection with employment offers.

The Company strives to apply a uniform philosophy to compensation for all of its employees. This philosophy is based on the premise that the achievements of the Company result from the combined and coordinated efforts of all employees working toward common objectives.

The Company's notable performance for fiscal 2017 was one of significant accomplishment as described below and used to assess management's achievement of its strategic goals.

- Completed development and implementation of a framework of the strategy to deliver low cost, high performing and easily adaptable diagnostics to the laboratory industry.
- Expanded the Company's platform technologies with NY State approvals of three women's health related molecular diagnostic tests for use with the Ampiprobe™ platform. Accelerated development of Enzo's pipeline of technology platforms.
- Entered into several meaningful business development relationships that expand Enzo's test menu in woman's health markets, including being named an in-network provider to the fourth largest national insurer.
- Expanded geographical reach of clinical services to New England and Mid-Atlantic.
- Increased Consolidated Revenue to \$107.8 million or 5% over the prior year; Services revenues increased 9% over the same period.
- Consolidated gross margins increased by approximately 100 basis points and clinical services by 170 basis points with emphasis on operational excellence, process improvements, and expanding molecular testing volumes.
- Reported operating segment profitability and generated positive cash flow; fully integrated structure proving positive impact.
- Reported consolidated Adjusted EBITDA of over \$600,000 for the year, a nearly \$6.0 million improvement over the prior year.
- The strengthening of the Company's balance sheet, and strong operating performance of the business segments thereby allowing for an increase in our investments in technology based assets.
- Continued to significantly expand our intellectual property with patent submissions and patent approvals amounting to more than 50 in fiscal 2017.

As a result of the Company's financial and operational performance, total shareholder return ("TSR") for the one and three periods ended July 31, 2017 was 55.7% and 31.2%, respectively. Our three year TSR puts us in the 100th

percentile of our peer group.

In order to better align management compensation with shareholder interest, in fiscal 2018 the Compensation Committee has added performance-vested equity awards that could, over time and along with stock options represent up to 50% of each executive officer's long-term incentive. The details of this new compensation-related element are described below.

Say-on-Pay Feedback from Shareholders

At our 2011 Annual Meeting of Shareholders, a majority of our shareholders voted to support an annual vote on our executive compensation and, in response, our Compensation Committee determined to hold an annual advisory vote on the matter. Our Compensation Committee intends to review the results of the advisory vote each year and will consider this feedback as it completes its annual review of each pay element.

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At our 2016 Annual Meeting of Shareholders, 66% of the shares that were voted were cast in favor of our say-on-pay proposal. As part of our continued commitment towards shareholder engagement and our responsiveness to shareholder concerns, during 2017, we engaged in discussions with approximately 70% of our top 20 shareholders that own over 48% of our outstanding shares and in total, unaffiliated shareholders owning nearly 51% of our outstanding shares.

Due to the increase in stock price performance since 2013, we have received positive feedback from our shareholders. Other comments from shareholders are as follows:

Investors generally supported the long-term focus of our executive compensation program, and in fact noted that the non-equity based compensation of our executive officers was low compared to our peer group.

Shareholders appreciated the successful patent defense program and commented that management should be recognized for the economic benefit to the Company.

Among the comments was a question as to why the Compensation Committee decided to hold unchanged (rather than increase) the CEO and President base salary for a five year period preceding fiscal 2016.

We have been advised by some shareholders that they voted against our executive compensation have done so based on proxy advisor recommendations and were unable to offer any suggestions for improving our executive compensation program.

The feedback of our shareholders and the operating performance of the Company were significant factors that impacted fiscal 2017 executive compensation. The market price of the Common Stock increased during fiscal 2017 resulting in a one-year shareholder return of 55.7%. Even though the Company experienced strong financial performance, the Compensation Committee kept executive cash compensation in fiscal 2017 essentially the same compared to fiscal 2016. The Company's three year annualized total shareholder return was 31.2% for the period ending fiscal year 2017 putting us in the 100th percentile of our peer group.

Further, in conjunction with our shareholder engagement efforts, the reviewing of assessment reports and policies released by proxy advisory firms, our work with our independent compensation consultant Arthur J. Gallagher & Co., Human Resources & Compensation Consulting (formerly James F. Reda & Associates) ("Gallagher") and our internal research on good governance and disclosure, we have decided to make the following changes to our executive compensation program:

In consideration with our internal research, feedback from shareholders, and working with Gallagher, we have observed the general use of performance-vested equity at U.S. companies as a part of the long-term incentive grant mix. While we have not seen performance-vested equity awards to any significant degree in our peer group the Compensation Committee has decided to include performance-vested equity for fiscal 2018 that along with stock options could over time comprise up to 50% of long-term incentive grant value of our Named Executive Officers. This is described in detail below.

In fiscal 2017, the Compensation Committee, after five years of keeping them unchanged, increased CEO and President's base salaries as a result of feedback received from shareholders based upon achievements of shareholder return, financial performance and individual accomplishments.

Objectives and Philosophy of Our Executive Compensation Program

The primary objectives of the Compensation Committee with respect to executive compensation are to:

- align executives' incentives with the creation of shareholder value;
- align executive compensation with our corporate business objectives and performance;
- promote the achievement of key strategic and financial performance objectives through cash and equity incentives;
and
- align executive compensation with comparable companies in our industry sectors to attract, retain and motivate the best possible executive talent.

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The Compensation Committee views base salary, cash bonus and long-term incentives as the elements of a compensation mixture which aligns the Company goals with the elements of compensation of the broader peer group. We award long-term incentive compensation in the form of stock, stock options or restricted stock awards that vest over time. We believe this practice helps to retain our executives and aligns their interests with those of our shareholders by allowing them to participate in the longer term success of our Company as reflected in stock price appreciation. We believe that the use of both time and performance-vested stock, stock options and restricted stock minimizes the likelihood of risky behavior and risky decision making that would be influenced by opportunities for short-term gains.

To achieve these objectives, the Compensation Committee evaluates senior management, with input from our CEO, with the goal of setting compensation at levels the Compensation Committee believes are competitive with our competitors in our industry that compete with us for executive talent. The Compensation Committee also conducts an annual evaluation of the CEO in addition to senior management evaluations. Our Compensation Committee considers key financial, strategic and operational objectives, including but not limited to: design and implementation of the Company's strategic plan, award of new patents, intellectual property protection, advancement of strategic alliances, operational efficiencies, M&A activity, licensing, new product introductions, provider contracts, investor relations, corporate governance, and our financial and operational performance, as quantified by measures at the consolidated level and for each of the operating segments.

The Compensation Committee each year re-evaluates and uses a peer group of publicly traded companies which they believe have business life cycles, revenues, market capitalizations, products, research and development investment levels and/or number/capabilities of employees that are roughly comparable to ours and against which the Compensation Committee believes we compete for executive talent. The Compensation Committee has retained Gallagher as an independent compensation consultant. The Company's senior management, with the assistance of Gallagher, compiled a list of peer companies. Since 2005, Gallagher has analyzed the executive compensation programs of these companies and issued reports to the Compensation Committee, the latest in November 2017. Gallagher advised the Compensation Committee during the fiscal 2017 compensation process that the total executive compensation was below the median of executive compensation of the Company's peer group. For fiscal 2017, the Compensation Committee kept fiscal 2017 compensation at or near the prior year levels and used the fiscal 2017 market review to confirm that compensation was below the median of market range

The peer companies for fiscal 2017 were selected primarily based on their participation in the medical device services, and biotechnology research-related industries and were comparable to us with respect to size, market capitalization, and revenue based upon information available. We also considered their similarity in organizational and operational complexity and stage of development where practicable. We believe the size of the peer group, 16 entities, is appropriate in light of the diverse nature of our industries and industry and sector volatility. For fiscal 2017 the peer group is the same as fiscal 2016 with the exception of businesses that had been acquired and are no longer stand alone entities. Gallagher, with recommendations from senior management modified the peer company list prior to 2017 proxy season to better reflect changes at the Company, with respect to operating segment significance, changes within the industries that the Company operates and changes among companies included in the peer group. The companies that were included in the most recent peer group this year are as follows:

· Array Biopharma, Inc.

- Fluidigm Corp.
- Foundation Medicine, Inc.
- Harvard Bioscience, Inc.
- Luminex Corp.
- Meridian Biosciences, Inc.
- Merrimack Pharmaceuticals, Inc.
- Momenta Pharmaceuticals, Inc.
- Nanostring Technologies, Inc.
- Natera, Inc.
- Neogenomics, Inc.
- Orasure Technologies, Inc.
- Pacific Biosciences of California

- Quidel Corp.
- Repligen Corp.
- Spectrum Pharmaceuticals, Inc.

We compete with many other companies for executive personnel. The Compensation Committee generally targets total compensation for executives to be no higher than the 50th percentile of total compensation paid to similarly situated executives of the companies in the peer group.

The Compensation Committee may adjust compensation levels, upon consideration of the relevant drivers relating to the life sciences, clinical diagnostics or therapeutics industries we operate in, with respect to an executive's individual experience and performance level, and the overall performance of the Company.

The Compensation Committee met two times in fiscal 2017 in order to review and approve our compensation for Named Executive Officers and non-employee Directors, and approve equity awards for all employees. The results of the Compensation Committee activities were reported to the Board.

Awarded Pay Aligned with Stockholder Value

The Company's stock price has been and may continue to be extremely volatile. This volatility is due in part to regulatory, legal and other events and factors whose impact on our business is often unrelated or disproportionately related to our operating performance. The current value of outstanding equity awards can fluctuate considerably over time, falling well above or below the target or reported value of the awards at the time of grant. To help ensure our total compensation program is aligned with performance, our compensation committee regularly reviews the awarded value of pay in the context of the overall compensation program and continuing performance of the Company. "Awarded value" of pay includes base pay, non-equity incentive plan compensation and stock award value.

We believe that the compensation of our Named Executive Officers is appropriate and aligned with the interests of our stockholders. Specifically, a substantial portion of total compensation for our Named Executive Officers is attributable to stock options and, in 2018, performance vested equity awards, the realizable value of which will depend upon an increase in our stock price (and thereby an increase in stockholder value) following the date of grant. We believe that stock options are one of the most effective tools available for aligning executive interests with those of our stockholders. We plan to also grant stock units to our Named Executive Officers subject to performance-based vesting conditions tied to attaining goals that our Compensation Committee believes are key to creating value for our stockholders, which encourages stock ownership by, and retention of, our Named Executive Officers.

CEO Pay for Performance

A portion of Dr. Rabbani's compensation is variable, performance-based compensation that we consider to be "at risk" because it is dependent on the success of our Company. At-risk compensation includes long-term equity based awards, the value of which depends on sustained, long-term increases in the price of our common stock, and annual incentive cash bonuses, which require attaining meaningful performance goals established by our board of directors with the intent of driving short-term value creation for our stockholders.

We have also examined Dr. Rabbani's awarded pay and our Company's performance relative to our selected peer group, which is described in the graph below. We have ranked Dr. Rabbani's three-year total awarded pay for 2014-16 relative to his counterparts in our peer group and compared the result to our rank in total stockholder return versus the stockholder return of our peers over the same period. The following chart illustrates that Dr. Rabbani's awarded pay is lower compared to our peers given that the Company's performance is well above its peers. It indicates that Dr. Rabbani's awarded pay is low when compared to our Company's TSR performance relative to our selected peer group:

Three-Year CEO Awarded Pay Rank versus Three-Year Total Shareholder Return (“TSR”) Rank

Components of our Executive Compensation Program

The primary elements of our executive compensation program are:

- base salary;
- performance based equity awards;
- non-equity incentive plan compensation;
- benefits and other compensation; and
- severance and change in control benefits.

Base Salary

Base salary levels recognize the experience, skills, knowledge and responsibilities of each executive’s position within the Company.

Exclusive of the base salaries that are contractual, base salaries are reviewed annually by the Compensation Committee, and may be adjusted from time to time to realign salaries with market levels and among our peer group after taking into account individual responsibilities, performance, experience and cost of living. Base salaries also

may be increased for merit reasons, based on the executive's success in meeting or exceeding individual performance objectives, promoting our core values and demonstrating leadership abilities.

The base salaries of the two founders, Dr. Elazar Rabbani, our Chairman of the Board, Chief Executive Officer, Secretary and Director and Mr. Barry Weiner, our President, Chief Financial Officer, Principal Accounting Officer, Treasurer and Director are set in accordance with the terms of executed employment agreements with each individual. Pursuant to the terms of their respective employment agreements, Dr. Rabbani and Mr. Weiner were at a base annual salary of \$555,478 and \$492,708, respectively. On January 5, 2017 the employment agreements for Dr. Elazar Rabbani and Mr. Barry Weiner were amended to increase the amounts of the base salaries to \$611,000 and \$542,000, respectively, as the base salaries had remained frozen for the preceding five years.

Non-Equity Incentive Compensation

The Company adopted a "Pay for Performance" Plan (the "Plan") for the Named Executive Officers and key management personnel to align incentive pay with performance as set forth with the individual based on their role with the Company. The performance goals for the Named Executive Officers and the annual performance awards are determined and approved by the Compensation Committee annually. The Plan provides for performance measures based on financial and non-financial measures and rewards for achievement for targets attained and/or improvements realized.

The weights on financial performance measures vary for Corporate and Divisional officers from 30% to 60% and include product and services revenue growth, planned improvement in margins (divisional only), profitability and cash flows, with adjustments for non-recurring, uncontrollable events impacting revenues, expenses or cash flow beyond the control of management and certain legal expenses over the prior fiscal year. The Compensation Committee chose these measures for fiscal 2016 and 2017 because they believe they are aligned with our core operating performance for fiscal 2016 and 2017 which focused on the business improvement over the prior year.

The weights on non-financial performance measures are between 40% and 70% and include strategic, operational and individual goals. Strategic and operational measures for fiscal 2017, depending on whether a Corporate or Divisional Named Executive Officer, include among others, business and technology advancement, advancement of partnering arrangements and litigation proceedings, customer satisfaction, process and infrastructure improvements, implementation of cost reductions, quality assurance and employee satisfaction. Individual performance measures which ranged from 10% to 30% of target goals include communication, leadership and process improvement. The measures provide for Threshold, Target and Maximum awards and are based on various ranges of performance. The following accomplishments of the Company were used to assess the achievement with these target goals.

Completed development and implementation of a framework of the strategy to deliver low cost, high performing and easily adaptable diagnostics to the laboratory industry.

Expanded the Company's platform technologies with NY State approvals of three women's health related molecular diagnostic tests for use with the AmpProbe™ platform. Accelerated development of Enzo's pipeline of technology platforms.

Entered into several meaningful business development relationships that expand Enzo's test menu in woman's health markets, including being named an in-network provider to the fourth largest national insurer.

Expanded geographical reach of clinical services to New England and Mid-Atlantic.

Increased Consolidated Revenue to \$107.8 million or 5% over the prior year; Services revenues increased 9% over the same period.

Consolidated gross margins increased by approximately 100 basis points and clinical services by 170 basis points with emphasis on operational excellence, process improvements, and expanding molecular testing volumes.

Reported operating segment profitability and generated positive cash flow; fully integrated structure proving positive impact.

Reported consolidated Adjusted EBITDA of over \$600,000 for the year, a \$6.0 million improvement over the prior year.

The strengthening of the Company's balance sheet, and strong operating performance of the business segments thereby allowing for an increase in our investments in technology based assets.

Continued to significantly expand our intellectual property with patent submissions and patent approvals amounting to more than 50 in fiscal 2017.

One year and three year annualized total shareholder returns (“TSR”) for fiscal 2017 were 55.7% and 31.2%, respectively. Our three year TSR puts us in the 100th percentile of our peer group.

The corporate financial measures applicable to the Chief Executive Officer, President, and Executive Vice President, Finance, exclusive of adjustments such as non-recurring expenses (none in fiscal 2017) and third party royalties income (\$1.2 million in fiscal 2017), include revenue, operating loss improvement, and Adjusted EBITDA improvement, which are equally weighted and averaged for the final results. The measures used for fiscal 2017 for the Named Executive Officers and corresponding payouts are as follow:

	Threshold Achieved	Target	Maximum	
Financial Performance Measures—Revenue				
Corporate Revenues—trade and service	\$95.0	\$105.5	\$116.13	\$106.6
Payout—Revenue	75%	100%	150%	105%
Financial Performance Measures—Profit & Adjusted EBITDA				
Corporate operating loss improvement	\$ 3.0	\$ 3.8	\$ 4.2	\$ 5.8
Adjusted EBITDA improvement	\$ 4.2	\$ 5.2	\$ 5.7	\$ 7.3
Payout—Profits & Adjusted EBITDA	80%	100%	150%	150%

In connection with the Plan, Dr. Rabbani was eligible for a maximum bonus of 110% of base salary for the fiscal year ended July 31, 2017. Dr. Rabbani was above target performance for his financial goals and at target performance for his non-financial goals and was awarded a bonus of \$575,000 which represented 98% of his base pay. In reviewing the CEO’s performance, the Compensation Committee recognized Dr. Rabbani’s broad contributions in the achievements listed above in his role as Chairman of the Board, including oversight of and increases to our technology platform and scientific product development, recruitment of new members of executive and scientific management, setting strategy for business development, implementing process improvement directly impacting financial performance and integration and realignment of our operating sites and oversight and protection of intellectual property, including outstanding patent litigation matters.

In connection with the Plan, Mr. Weiner was eligible for a bonus of 110% of base salary for the fiscal year ended July 31, 2017 under the Plan. Mr. Weiner was above target performance for his three financial goals and at target performance for his non-financial goals and was awarded a bonus of \$425,000 which represented 82% of his base pay. The Compensation Committee recognized Mr. Weiner’s contributions in strategic planning, financial management, including our Company’s financial position and liquidity, corporate governance, communication efforts with our shareholders, investors and outside analysts, managing relationships with investment bankers for equity raise opportunities, oversight of the finance group and compliance with the Company’s Section 404 Sarbanes Oxley requirements, role in recruitment of new management personnel and divisional management and leadership role among the divisional executives.

In connection with the Plan, Mr. James M. O'Brien was eligible for a bonus of 35% of base salary under the Plan. The Compensation Committee reviewed the recommendation from our CEO with respect to Mr. O'Brien's performance in meeting the non-financial objectives including, enhancing our financial reporting internally and to the Board and the Audit Committee, participation in and achievements in the project to reduce operating and corporate costs, including third party contracts insurance program, benefit plans and professional fees, monitoring internal controls and Section 404 Sarbanes Oxley requirements, recruiting staff to the finance group and leadership role among our finance group and specifically in 2017 directly managed financing and equity activities. Mr. James M. O'Brien was above target performance for his three financial goals and exceeded threshold performance for his three non-financial goals and was awarded a bonus of \$85,000 which represented 27% of his base pay.

In connection with the Plan, Dieter Schapfel M.D. was eligible for a maximum bonus of 20% of base salary under the Plan. The Compensation Committee reviewed the recommendation from our CEO with respect to Dr. Schapfel's performance in meeting the non-financial objectives listed above, in expanding our platform technologies through the approval of new assays, and his contributions to operational excellence, as evidenced by

the high degree of regulatory compliance in laboratory operations. Dr. Schapfel was above threshold performance for his three financial goals and exceeded target performance for his three non-financial goals and was awarded a bonus of \$60,000 which represented 19% of his base pay.

Mr. Bruce A. Dey is not eligible for a bonus under the Plan given the commission structure he participates in as Vice President of Sales for Enzo Clinical Labs.

Stock Options and Stock Awards

The Compensation Committee awards either stock options or stock as the primary vehicle for long-term incentives to our executives, including our Named Executive Officers. We believe that equity awards provide our executives with a strong link to our long-term performance, create an ownership culture, and help to align the interests of our Named Executive Officers and our shareholders. Equity awards are intended as both a reward for contributing to the long-term success of our Company and an incentive for future performance.

Equity awards, in the form of stock options, restricted stock and/or stock award units vest ratably over a two or three year period with 50% or 33% of the award vesting 12 months after the Named Executive Officer's start date or the annual anniversary of the award grant and the remainder of the awards vesting annually over the remaining period. The vesting feature of our equity awards is intended to further our goal of executive retention by providing an incentive to our Named Executive Officers to remain in our employ during the vesting period. Equity awards are awarded under the 2011 Incentive Plan approved by the shareholders.

In the most recent fiscal year, the Compensation Committee granted time-based stock options to the Named Executive Officers. The number of time based awards granted was based on strategic, financial and individual performance.

Performance Stock Units beginning Fiscal 2018

To better align the long-term interests of the Named Executive Officers with growing U.S. practices, beginning in fiscal 2018, the Compensation Committee determined it will grant long-term equity incentive awards in the form of time based stock options and performance-based restricted stock units ("Performance Stock Units" or "PSUs"). Time based awards will continue to be based on achievement of short-term growth objectives such as implementation of strategic business objectives, reporting of improved financial results, and the attainment of individual goals. The PSUs earned will be determined over a three-year performance period. The primary performance metrics will be Revenue and Adjusted EBITDA growth, as determined by the Compensation Committee. Payouts based on Revenue and Adjusted EBITDA goals will be modified based on Total Shareholder Return (TSR) performance relative to Enzo's peer group.

Equity awards are typically made in the first calendar quarter. The fiscal 2018 grant value will be comprised of stock options and PSUs, with the goal over time being equally weighted between the two incentive awards. One PSU will be convertible into one share of common stock.

The fiscal 2018-2020 PSU award provides for the grant of shares of our common stock at the end of a three-year period based on the achievement of average Revenue growth and Adjusted EBITDA growth goals over that period, as follow:

Fiscal 2018-2020 PSUs	Threshold	Target	Maximum
Three-Year Average Revenue Growth	2%	5%	8%
Three-Year Average Adjusted EBITDA Growth	5%	15%	25%
Percent of Target Payout	50%	100%	150%

For results between these levels, the number of shares will be determined by interpolation. There will be no payout for results below the threshold level. Each performance measure is separately determined and equally weighted. The definition of Adjusted EBITDA provides for adjustments during the performance period for the impact of acquisitions or dispositions of businesses.

Payouts as determined by the growth performance of Revenue and Adjusted EBITDA will be adjusted based on the three-year relative TSR. The number of PSUs determined by the financial growth results will be multiplied by a modifier ranging from 80% to 120% (the “TSR Modifier”), depending on the Company’s TSR percentile for the performance period relative to the TSR of the other companies in the Enzo peer group for the performance period. The number of shares that can be earned is capped at 150% of the target number of PSUs awarded.

Vesting of the PSUs will occur following the determination of performance subsequent to the conclusion of the three year performance period. Named Executive Officers must be employed with the Company at the completion of the three year performance period.

Determination of Named Executive Officer and Key Employee Equity Awards

The Committee believes this use of equity appropriately balances with competitive base salaries and annual performance-based cash bonus opportunities. The annual goals focuses management on the shorter term objectives, while the time-vesting stock options (which only have value if the Company’s share price increases) provides a longer term incentive and alignment with shareholder interest. Moreover, PSUs are aligned with long-term shareholder interest as these PSUs cliff vest based on the Company’s financial performance following the conclusion of the three year performance period.

The Committee makes annual equity awards based on a target dollar amount. While this results in an uncertain share usage, it results in a predictable expense for the Company and allows the Committee to tailor the value of the awards more precisely to reflect the Company’s business direction, compensation philosophies, objectives and design. The Committee determines the target dollar amount for stock-based awards to the Named Executive Officers and Key Employees on a discretionary basis and takes into account, among other factors, the recommendations of the President and CEO, and Gallagher, together with our compensation benchmarks, individual accomplishments, importance of retention, prior equity awards and current equity holdings, burn rates, seniority and internal pay equity considerations.

The actual number of shares of common stock subject to an option granted is determined by dividing the dollar amount allocated to the grant by the Black Scholes value of the shares on the date of grant. The Committee has not applied a discount to the value of these shares to reflect the forfeiture restrictions associated with service-based vesting. The Base Stock and Performance Stock are exercisable into shares of the Company’s common stock with an exercise price equal to the closing price of the Company’s common stock on the New York Stock Exchange on the grant date and expire five years from the date of grant.

In determining the size of equity awards to our Named Executive Officers and Key Employees, our Compensation Committee considers comparable equity awards of executives in our compensation peer group, our Company-level operating and stock performance, the applicable Named Executive Officer's and Key Employee's performance, the amount of equity previously awarded to the executive or key employee, the vesting schedule of such previous awards and the recommendations of management and Gallagher to the Compensation Committee. For the fiscal years ended July 31, 2017, 2016 and 2015, average equity compensation as a percentage of total compensation for all Named Executive Officers and Key Employees was 12%, 7% and 4%, respectively.

Equity awards are granted annually in conjunction with the review of a Named Executive Officer's and Key Employees individual performance. The Compensation Committee reviews all components of the Named Executive Officer's or Key Employee's compensation when determining annual equity awards to ensure that a Named Executive Officer's or Key Employee's total compensation conforms to our overall philosophy and objectives.

On January 5, 2017, the Named Executive Officers and Key Employees were issued stock options as a component of their total compensation package as follows:

Name	Stock Options Issued	Exercise Price	Market Value at Time of Issuance
Elazar Rabbani, Ph. D	75,000 ⁽¹⁾	\$ 7.07	\$ 180,150
Barry W. Weiner	65,000 ⁽¹⁾	\$ 7.07	\$ 156,130
James M. O'Brien	30,000 ⁽²⁾	\$ 7.07	\$ 74,250
Dr. Dieter Schapfel	27,000 ⁽²⁾	\$ 7.07	\$ 66,825
Bruce A. Dey	10,000 ⁽²⁾	\$ 7.07	\$ 24,750

(1) Each option award vests in equal amounts on the first and second anniversaries of the award grant.

(2) Each option award vests in equal amounts on the first, second and third anniversaries of the award grant.

Mr. O'Brien's and Dr. Schapfel's stock option awards were based on their financial and non-financial performance to the Company. The market value at the time of issuance is determined based on the Black-Scholes model.

Tax and Accounting Considerations; Tax Deductibility

Federal tax laws impose requirements in order for compensation payable to the CEO and certain executive officers to be fully deductible. The Company believes it has taken appropriate actions to maximize its income tax deduction. IRC Section 162(m) generally precludes a public corporation from taking a deduction for compensation in excess of \$1,000,000 for its CEO or any of its three other highest-paid executive officers (besides the CEO or Chief Financial Officer), unless certain specific and detailed criteria are satisfied.

Annually, the Company reviews all compensation programs and payments to determine the tax impact on the Company as well as on the executive officers. In addition, the Company reviews the impact of its programs against other considerations, such as accounting impact, shareholder alignment, market competitiveness, effectiveness and perceived value to employees. Because many different factors influence a well-rounded, comprehensive executive compensation program, some compensation may not be deductible under IRC Section 162(m). The Company will continue to monitor developments and assess alternatives for preserving the deductibility of compensation payments and benefits to the extent reasonably practicable, consistent with its compensation policies and as determined to be in the best interests of the Company and its shareholders.

Section 162(m) of the Internal Revenue Code (the “Code”) places a limit of \$1,000,000 on the amount of compensation that we may deduct in any given year with respect to the CEO and certain of our other most highly paid executive officers. There is an exception to the \$1,000,000 limitation for performance-based compensation meeting certain requirements.

Our annual base salary, a portion of cash incentive compensation and time-based restricted stock units are generally subject to the Section 162(m) deduction limitations. For 2017 all direct compensation is expected to be tax deductible. To maintain flexibility in compensating executive officers in view of the overall objectives of our compensation program, the Compensation Committee has not adopted a policy requiring that all compensation be tax deductible.

Risk Considerations in Our Compensation Program

We do not believe our compensation policies and practices encourage or support excessive risk taking by our executive officers or key managers. We establish compensation practices that we believe provide an appropriate level of incentive based compensation, in combination with non-incentive based compensation, to encourage our executive officers and key managers to act in the long-term best interests of the Company and our shareholders. These practices include:

Awarding annual incentive bonuses based on assessment of short-term performance against financial and non-financial measures;

- Benchmarking annual incentive bonuses against an appropriate peer group of companies;
- Providing the Compensation Committee with discretion in approving annual non-equity incentive awards, with respect to non-financial targets, which affords the Committee the opportunity to reduce payments if it determines excessive risk was taken to achieve bonus targets;
- Granting time-vested equity that generally vests over a two to three year period which provides incentives for our executive officers to act in the long-term best interests of the Company; and
- The introduction of PSUs, which have a three-year performance period provide and added long-term focus.

Summary Compensation Table

The following table sets forth summary information concerning compensation awarded to, paid to or earned by each of the following persons: (i) our Chairman of the Board, Chief Executive Officer and Secretary, (ii) our President, Chief Financial Officer, Principal Accounting Officer and Treasurer, (iii) our other executive officers (the “Named Executive Officers”) and Key Employees for each of the fiscal years ended July 31, 2017, 2016 and 2015.

Name and Principal Position	Year	Base pay Salary ⁽¹⁾	Option Awards ⁽²⁾	Non-Equity Incentive Plan Compensation ⁽³⁾	All Other Compensation ⁽⁴⁾	Total
Elazar Rabbani, Ph.D. Chairman of the Board of Directors, Chief Executive Officer and Secretary	2017	\$585,802	\$180,150	\$575,000	\$191,044	\$1,531,996
	2016	\$555,478	\$ 87,600	\$575,000	\$189,427	\$1,407,505
	2015	\$555,478	\$ 57,703	\$375,000	\$187,871	\$1,176,052
Barry W. Weiner President, Chief Financial Officer, Principal Accounting Officer, Treasurer and Director	2017	\$519,629	\$156,130	\$425,000	\$163,069	\$1,263,828
	2016	\$492,708	\$ 73,000	\$425,000	\$161,144	\$1,151,852
	2015	\$492,708	\$ 46,159	\$265,000	\$169,780	\$ 973,647
James M. O’Brien Executive Vice President of Finance	2017	\$311,554	\$ 74,250	\$85,000	\$26,564	\$497,368
	2016	\$305,000	\$ 40,898	\$85,000	\$19,657	\$450,555
	2015	\$285,881	\$ 20,790	\$70,000	\$19,324	\$395,995
Dieter Schapfel, M.D. Chief Medical Director, Enzo Clinical Labs	2017	\$310,704	\$ 66,825	\$60,000	\$12,552	\$450,000
	2016	\$299,500	\$ 42,471	\$40,000	\$12,531	\$394,502
	2015	\$299,500	\$ 13,860	\$35,000	\$8,506	\$356,866
Bruce A. Dey Vice President of Sales, Enzo Clinical Labs	2017	\$519,435	\$24,750	—	\$22,632	\$566,817
	2016	\$484,414	\$15,730	—	\$22,593	\$523,737
	2015	\$415,771	—	—	\$22,132	\$437,903

(1) Base salaries set as of January 1 each year.

(2)

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Represent the fair market value of incentive stock option awards granted to Named Executive Officers and Key Employees 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 10 to the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended July 31, 2017.

(3) Represents awards accrued under the Pay for Performance Plan for the years ended July 31, 2017, 2016 and 2015.

(4) See the “All Other Compensation” chart for additional information.

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Plan-Based Awards in Fiscal 2017

During the fiscal year ended July 31, 2017, the Compensation Committee considered the following non-equity incentive plan awards ranges for the Named Executive Officers and Key Employees:

Name	Grant date	Calculated payouts under non-equity incentive plan awards (1)		
		Threshold (((\$))	Target (\$)	Maximum (\$)
Elazar Rabbani, Ph.D.	11/15/2017	439,352	585,802	673,672
Barry W. Weiner	11/15/2017	389,722	519,629	597,573
James O'Brien	11/15/2017	81,783	109,044	163,566
Dieter Schapfel, M.D.	11/15/2017	46,606	62,141	93,212
Bruce A. Dey	11/15/2017	—	—	—

(1) See the "Summary Compensation Table" above for the actual amounts awarded to the Named Executive Officers and Key Employees.

During the fiscal year ended July 31, 2017, the Compensation Committee approved the following equity awards to the Named Executive Officers and Key Employees:

Name	Grant date	Option Awards:	Exercise or Base Price of Option Awards	Award Date Fair Value of Stock Option
		Number of Securities Underlying		
Elazar Rabbani, Ph.D.	1/5/2017	75,000	(1) \$7.07	\$180,150
Barry W. Weiner	1/5/2017	65,000	(1) \$7.07	\$156,130
James M. O'Brien	1/5/2017	30,000	(2) \$7.07	\$74,250
Dieter Schapfel, M.D.	1/5/2017	27,000	(2) \$7.07	\$66,825
Bruce A. Dey (3)	1/5/2017	10,000	(2) \$7.07	\$24,750

(2) Each option award vests in equal amounts on the first and second anniversaries of the award grant.

(3) Each option award vests in equal amounts on the first, second and third anniversaries of the award grant.

Outstanding Equity Awards at Fiscal Year End—July 31, 2017

The following table sets forth summary information regarding the outstanding equity awards made to the Named Executive Officers and Key Employees at July 31, 2017.

Name	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable (1)	Option Exercise Price	Options Expiration Date
Elazar Rabbani, Ph.D.	159,091	—	\$3.00	11/26/2017
	38,505	—	\$2.88	1/17/2018
	41,634	—	\$2.70	1/17/2019
	45,615	—	\$3.40	1/21/2020
	30,000	30,000	\$4.35	3/14/2021
Barry W. Weiner	—	75,000	\$7.07	1/5/2022
	112,500	—	\$3.00	11/26/2017
	30,802	—	\$2.88	1/17/2018
	33,305	—	\$2.70	1/17/2019
	36,489	—	\$3.40	1/21/2020
James M. O'Brien	25,000	25,000	\$4.35	3/14/2021
	—	65,000	\$7.07	1/5/2022
	6,700	—	\$2.75	2/03/2019
	7,500	5,000	\$3.40	1/21/2020
	8,667	17,333	\$4.35	3/14/2021
Dieter Schapfel, M.D.	—	30,000	\$7.07	1/5/2022
	6,667	3,333	\$3.40	1/21/2020
	9,000	18,000	\$4.35	3/14/2021
Bruce A. Dey	—	27,000	\$7.07	1/5/2022
	10,000	—	\$2.53	10/3/2018
	3,333	6,667	\$4.35	3/14/2021
	—	10,000	\$7.07	1/5/2022

Each option award vests in equal amounts on the first, second and third anniversaries of the award which was January 17, 2013 for the options granted at \$2.88 per share, January 17, 2014 for the options granted at \$2.70 per (1)share, January 21, 2015 for the options granted at \$3.40 per share, March 14, 2016 for the options granted at \$4.35 per share and January 5, 2017 for the options granted at \$7.07 per share. For Dr. Elazar Rabbani and Barry Weiner, options vest on first and second anniversary dates.

Options Exercised and Stock Vested

The following table sets forth the options exercised by and restricted stock vested for the Named Executive Officers and Key Employees during the fiscal year ended July 31, 2017.

Name	Stock Awards	
	Number of Shares Acquired on Vesting	Value Realized On Vesting ⁽¹⁾
Elazar Rabbani Ph.D.	—	—
Barry W. Weiner	—	—
James M. O'Brien	15,800	\$160,744
Dieter Schapfel, M.D.	1,168	\$12,895
Bruce A. Dey	—	—

(1) The value realized is the closing market price on the day the stock awards vest or exercise, multiplied by the total number of shares vested or exercised.

Employment Agreements

Mr. Barry Weiner and Dr. Elazar Rabbani (each the “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 of Directors 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 will automatically renew for successive two year periods unless notice is given to the Company within 180 days of the end of such successive term.

Messrs. James M. O'Brien, Bruce A. Dey and Dr. Dieter Schapfel are "at will" employees and are parties to certain change in control provisions with the Company which is deemed customary practice for their respective positions, as more fully discussed below. Mr. James M. O'Brien is a party to a severance arrangement from his initial employment arrangement.

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 all other employees is up to \$12,000, 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 are 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 Executive Officers and Key Employees are provided use of a Company owned vehicle for business and personal use or provided a car allowance.

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 and Key Employees for the fiscal years ended July 31, 2017, 2016 and 2015.

Name	Year	401(K) (1)	Life Insurance (2)(3)	Medical and Disability Insurance (4)	Personal Use of Auto (5)	Total All Other Compensation
Elazar Rabbani, Ph.D.	2017	\$12,000	\$144,342	\$12,309	\$22,393	\$191,044
	2016	\$12,000	\$144,342	\$10,692	\$22,393	\$189,427
	2015	\$11,500	\$144,342	\$9,636	\$22,393	\$187,871
Barry W. Weiner	2017	\$12,000	\$133,859	\$6,157	\$11,053	\$163,069
	2016	\$12,000	\$133,859	\$5,485	\$9,800	\$161,144
	2015	\$11,500	\$133,859	\$3,121	\$21,300	\$169,780
James M. O’Brien	2017	\$12,000	\$552	—	\$14,012	\$26,564
	2016	\$9,000	\$457	—	\$10,200	\$19,657
	2015	\$8,750	\$374	—	\$10,200	\$19,324
Dieter Schapfel, M.D.	2017	\$12,000	\$552	—	—	\$12,552
	2016	\$12,000	\$531	—	—	\$12,531
	2015	\$7,912	\$595	—	—	\$8,506
Bruce A. Dey	2017	\$12,000	\$1,032	—	\$9,600	\$22,632
	2016	\$12,000	\$993	—	\$9,600	\$22,593
	2015	\$11,500	\$1,032	—	\$9,600	\$22,132

(1) Represents Company matches under our 401(k) plan.

(2) Represents premiums of term policies of which the Named Executive Officers or other party is the beneficiary.

(3) Includes the contractual payment for life insurance reimbursement for Dr. Rabbani and Mr. Weiner of \$110,582 and \$105,759, respectively.

(4) Represents incremental medical and disability benefits costs.

(5) Represents the personal use of Company-provided auto or car allowance.

Severance and Change in Control Benefits

Pursuant to Employment Agreements/Arrangements entered into with Dr. Rabbani and Messrs. Barry Weiner and James O'Brien, these executives are entitled to specified benefits in the event of the 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, along with estimates of their value under various circumstances within the below table.

Based on market trends, we believe these benefits help us compete for executive talent. We believe our severance and change in control benefits are in line with severance packages offered to executives by the companies identified in our peer group.

Our practice in the case of change in control benefits has been structured to trigger only in the event of a termination of the executive without cause or by the executive for good reason during a specified period before or after the change in control.

Potential Payments Upon Termination or Change in Control

The following table contains information regarding each component of Potential Payments Upon Termination or Change in Control for the Named Executive Officers and Key Employees as of July 31, 2017. See the above section captioned "Employment Agreements" for a summary of the termination and change in control terms.

Name and Principal Position	Acceleration of Vesting	Severance Pay ⁽¹⁾	Continuation of Benefits	Tax Gross-Up	Total
Elazar Rabbani, Ph.D.					
Termination without cause or by Executive for "good reason"	\$478,500	\$3,482,406	\$736,441	—	\$4,697,347
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$478,500	\$3,482,406	\$736,441	\$1,831,767	\$6,529,114
Barry W. Weiner					
Termination without cause or by Executive for "good reason"	\$285,350	\$2,833,887	\$704,992	—	\$3,824,229
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$285,350	\$2,833,887	\$704,992	\$1,537,186	\$5,361,415
James M. O'Brien					
Termination without cause or by Executive for "good reason"	—	\$155,777	—	—	\$155,777
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$263,315	\$155,777	—	—	\$419,092
Dieter Schapfel, M.D.					
Termination without cause or by Executive for "good reason"	—	—	—	—	—
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$243,893	—	—	—	\$243,893
Bruce A. Dey					
Termination without cause or by Executive for "good reason"	—	—	—	—	—
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$105,173	—	—	—	\$105,173

(1)The amounts listed in this column do not include accrued amounts such as accrued salary or vacation.

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis in this proxy report with management. Based on its review and discussion with management, the Compensation Committee recommended to our Board of Directors that the Compensation Discussion and Analysis be included in this proxy statement and also be incorporated by reference in our Annual Report on Form 10-K for the fiscal year ended July 31, 2017.

Dov Perlysky, Chairman

Gregory M. Bortz

Bruce A. Hanna, Ph.D.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

No member of the Compensation Committee has a relationship that would constitute an interlocking relationship with the Company’s executive officers or other Directors.

SECURITIES AUTHORIZED FOR ISSUANCE UNDER EQUITY COMPENSATION PLANS

The following table sets forth information regarding our existing equity compensation plans as of July 31, 2017:

Plan Category	(A) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (1)	(B) Weighted Average Exercise Price of Outstanding Options	(C) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities
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			Reflected in Column (A)⁽²⁾
Equity compensation plans approved by security holders	2,138,431	\$4.26	350,000
Equity compensation plans not approved by security holders	—	—	—
Total	2,138,431	\$4.26	350,000

(1) Shares to be issued upon exercise of options or restricted stock awards under the 2011 plan.

(2) Shares available for grant under the 2011 plan.

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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 stockholders 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 2011 annual meeting of stockholders, a majority of our stockholders 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.

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 stockholders. 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, and is intended to drive creation of long-term shareholder value.

We encourage stockholders to read the "Compensation Discussion and Analysis" section of this Proxy Statement, the 2017 Summary Compensation Table and the other related tables and disclosure for a detailed description of the fiscal year 2017 compensation of our Named Executive Officers. The Compensation Committee and the Board believe that the policies and procedures articulated in the "Compensation Discussion and Analysis" are effective in achieving our goals and 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 of the Board. However, we value the opinion of our stockholders 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 stockholders to vote on the following resolution:

“RESOLVED, that the Company’s stockholders 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 2017 Annual Meeting of Stockholders pursuant to the compensation disclosure rules of the Securities and Exchange Commission, including the Compensation Discussion and Analysis, the Summary Compensation table and the related compensation tables and narrative discussion.”

THE BOARD OF DIRECTORS OF THE COMPANY UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR” APPROVING THE NAMED EXECUTIVE OFFICER COMPENSATION AS DISCLOSED IN THIS PROXY STATEMENT PURSUANT TO THE COMPENSATION DISCLOSURE RULES OF THE SEC.

PROPOSAL 3

ADVISORY VOTE ON THE FREQUENCY OF FUTURE ADVISORY VOTES ON THE COMPANY'S NAMED EXECUTIVE OFFICER COMPENSATION

As described in Proposal 2 above, the shareholders have the opportunity to cast an advisory vote to approve Named Executive Officer compensation (commonly referred to as a "say-on-pay" vote). Pursuant to the rules of the SEC, this Proposal 3 provides the shareholders with the opportunity, at least once every six years, to provide an advisory vote on how often the Company should include a say-on-pay vote in the Company's proxy statement for future annual shareholder meetings (commonly referred to as a "say-on-pay frequency" vote).

The shareholders may vote to have the say-on-pay vote every year, every two years, or every three years, or may abstain from voting. At the 2011 annual meeting, the Company held its first advisory vote on the say-on-pay frequency vote and over 54% of the shares voted were voted "for" an annual vote. Following this year's say-on-pay frequency vote, it is expected that the next such vote will be at the Company's 2023 annual meeting of shareholders. Shareholders may cast their advisory vote on the say-on-pay frequency vote every "1 Year," "2 Years" or "3 Years," or "Abstain."

The Board of Directors continues to believe that an annual vote is the most appropriate for the Company as it will provide the shareholders with an opportunity to express their views on the Company's executive compensation program in a consistent and timely manner. This vote is advisory, which means it is non-binding on the Company, the Board of Directors or the Compensation Committee. However, the Board of Directors intends to review the voting results and consider shareholder views in connection with how often the Company should hold a say-on-pay frequency vote.

Recommendation of the Board of Directors

The Board of Directors recommends that a non-binding advisory vote on executive compensation be held annually, and that Shareholders select "1 Year".

PROPOSAL 4

approve THE amendment to the Company's 2011 Incentive Plan increasing the number of equity awards, including among others, options, restricted stock and restricted stock units from up to 3,000,000 common shares to UP TO 5,000,000 common shares

Background

On July 27, 2017, the Compensation Committee unanimously approved, subject to shareholder approval, the amendment and restatement of the Enzo Biochem, Inc. 2011 Incentive Plan (the "2011 Plan") to, among other things, increase the number of shares available for issuance under the 2011 Plan by 2,000,000, bringing the total number of shares available for awards under the 2011 Plan as of July 2017 to 5,000,000. The Board of Directors approved the amendment and restatement of the 2011 Plan, subject to the approval of the Company's shareholders at the 2017 Annual Meeting. If the amendment and restatement of the 2011 Plan is not approved by shareholders, the plan will continue to operate as previously approved by shareholders.

The Company has also made the following additional changes to the 2011 Plan as follows:

The addition of specific performance goals

Aggregate three year performance criteria, with three year cliff vesting

Long-Term Equity-Based Incentives

To better align the long-term interests of the Named Executive Officers with those of the stockholders, beginning in fiscal 2018, the Compensation Committee determined it will grant long-term equity incentive awards in the form of time based stock options and performance-based stock awards. Time based awards will continue to be based on achievement of short-term growth objectives such as implementation of strategic business objectives, reporting of improved financial results, and the attainment of individual goals. The long-term performance-based stock awards will be determined over a three-year performance period. The primary performance metrics will be Revenue and Adjusted EBITDA growth, as determined by the Compensation Committee. Payouts based Revenue and Adjusted EBITDA will be modified based on Total Shareholder Return (TSR) performance relative to the Enzo peer group.

The Committee believes this use of equity appropriately balances with competitive base salaries and annual performance-based cash bonus opportunities. The annual goals focuses management on the shorter term objectives, while the time-vesting stock (which value only increases if the Company's share price increases) provides a longer

term incentive and alignment with shareholder interest as both the Base Stock and Performance Stock cliff vest over three years from the initial grant date.

Equity awards are typically made in the first calendar quarter. The 2018 grant will be comprised of stock options and PSUs.

The Fiscal 2018-2020 PSU award will provide for the grant of shares of our common stock at the end of a three-year period based on the achievement of average Revenue growth and Adjusted EBITDA growth goals over that period, as follows:

Fiscal 2018-2020 PSUs	Threshold	Target	Maximum
Three-Year Average Revenue Growth	2%	5%	8%
Three-Year Average Adjusted EBITDA Growth	5%	15%	25%
Percent of Target Payout	50%	100%	150%

For results between these levels, the number of shares is determined by interpolation. There will be no payout for results below the threshold level. Each performance measure is separately determined and equally weighted. The definition of Adjusted EBITDA provides for adjustments during the performance period, for example for the impact of acquisitions or dispositions of businesses.

Payouts as determined by the growth performance of Revenue and Adjusted EBITDA will be adjusted based on the three-year relative TSR. The number of PSUs determined by the financial growth results will be multiplied by a modifier ranging from 80% to 120% (the “TSR Modifier”), depending on the Company’s TSR percentile for the performance period relative to the TSR of the other companies in the Enzo peer group for the performance period. The number of shares that can be earned is capped at 150% of the target number of PSUs awarded.

Vesting of the PSUs will occur following the completion of the three year performance period. Named Executive Officers must be employed with the Company at the completion of the three year performance period.

The Committee believes this use of equity appropriately balances with competitive base salaries and annual performance-based cash bonus opportunities. The annual goals focuses management on the shorter term objectives, while the time-vesting stock options (which only have value if the Company’s share price increases) provides a longer term incentive and alignment with shareholder interest. Moreover, PSUs are aligned with long-term shareholder interest as these PSUs cliff vest following the determination of performance subsequent to the conclusion of the three year performance period

The Committee makes annual equity awards based on a target dollar amount. While this results in an uncertain share usage, it results in a predictable expense for the Company and allows the Committee to tailor the value of the awards more precisely to reflect the Company’s business direction, compensation philosophies, objectives and design. The Committee determines the target dollar amount for stock-based awards to the executive officers on a discretionary basis and takes into account, among other factors, the recommendations of the President and CEO, and Gallagher, together with our compensation benchmarks, individual accomplishments, importance of retention, prior equity

awards and current equity holdings, burn rates, seniority and internal pay equity considerations.

The actual number of shares of common stock subject to an option granted is determined by dividing the dollar amount allocated to the grant by the Black Scholes value of the shares on the date of grant. The Committee has not applied a discount to the value of these shares to reflect the forfeiture restrictions associated with service-based vesting. The Base Stock and Performance Stock are exercisable into shares of the Company's common stock with an exercise price equal to the closing price of the Company's common stock on the New York Stock Exchange on the grant date and expire five years from the date of grant.

Except with respect to new hires or promotions, we generally determine annual executive equity compensation awards each year in the first calendar quarter and no earlier than the meeting in which we approve the prior year's annual performance bonuses. This allows us to assess the prior year's total compensation and

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performance when considering current year awards. In the event of a “new hire,” “promotional” or other ad hoc equity award, that equity award will not be approved except at a meeting of the Committee and it will be effective on the later of (i) the first trading day of the month that immediately follows the month in which the start date, promotion or other event triggering an ad hoc award occurs or (ii) the first trading day of the month that immediately follows the month in which the Committee approves the award. The per share exercise price of an option award will be based on the closing price of the Company’s common stock on the New York Stock Exchange on the applicable effective date. This policy applies to awards to all eligible employees, not just our executive officers. The Committee may make an exception to the general policies above when it determines an exception is in the best interest of the Company based on the recommendation of our President and CEO.

Approval of the amendments to the 2011 Plan will also constitute reapproval, for purposes of Section 162(m) of the Code, of the material terms of the performance measures contained in the 2011 Plan (described below) that are to be used in connection with awards under the 2011 Plan that are intended to qualify as “performance-based” compensation for purposes of Section 162(m) of the Code. The material terms include (i) the employees eligible to receive compensation, (ii) a description of the business criteria on which the performance goals are based and (iii) the maximum amount of compensation that can be paid to an employee under the performance goals, each of which is discussed below.

The Company is seeking shareholder approval so that it may continue granting equity awards under the 2011 Plan. Equity awards are critical to attract, retain and motivate talented executives and employees essential to the Company’s long-term growth and financial success and to further align their interests with that of the Company’s shareholders. Equity-based awards are highly valued by Company employees. Executive and key employee turnover is low, which, in part, reflects the success and retention value of the long-term equity compensation program. Moreover, the Company’s executives hold a significant portion of their equity awards for extended periods, thereby ensuring that they have a meaningful stake in future Company performance and aligning their interests with those of long-term shareholders.

Dilution and Historical Share Usage

Dilution

The Board of Directors evaluated the dilution and existing terms of outstanding awards under the 2011 Plan as it considered whether to amend the 2011 Plan and to request additional shares. As of November 15, 2017, 350,000 shares were reserved for issuance under the 2011 Plan, which represents less than 1% of the Company’s issued and outstanding shares. The closing price of the Company’s common stock on the New York Stock Exchange on November 15, 2017 was \$9.20.

As of November 15, 2017, the following equity awards were outstanding under the 2011 Plan: 1,612,367 stock options and 6,435 shares of time vesting restricted stock. The current potential equity dilution for all existing equity plans is approximately 3.4%. Including the proposed additional shares under the 2011 Plan, the potential equity dilution from all equity incentive awards outstanding and available for grant under all of the Company's existing equity plans would result in a maximum potential equity dilution of approximately 7.8%. The 2011 Plan expires in January 2021.

Share Usage

The Board of Directors also considered the Company's historical gross burn rate (the number of incentive awards granted during a period in proportion to the Company's outstanding shares), issued equity overhang (outstanding incentive awards in proportion to the Company's outstanding shares) and total equity overhang (outstanding incentive awards and shares available for future awards in proportion to the Company's outstanding shares). The Company's gross burn rate for fiscal 2017 was 1.1% and the three-year average gross burn rate for fiscal 2015 through 2017 was 1.0%. The Company has satisfied Institutional Shareholder Service's ("ISS") burn rate as the Company's three-year average gross burn rate of 1.0%, based upon ISS's methodology, is below ISS's prescribed industry benchmark of 2.99%. The Company believes that burn rate is a relevant and objective measure of dilution for shareholders as it seeks to continue existing grant practices going forward. In light of these and other factors, the Board of Directors determined that it was appropriate to amend the 2011 Plan and to increase the number of shares available for issuance under the 2011 Plan by 2,000,000 shares.

For further information on the Company's equity plan, see "Stock Options and Stock Awards" beginning on page 32 of this Proxy Statement.

Summary of the Enzo Biochem, Inc. 2011 Incentive Plan (as amended and restated)

Shares Available for Awards; Annual Per Person Limitations

Under the 2011 Plan, the total number of shares of common stock of the Company (the "Common Stock") reserved and available for delivery under the 2011 Plan ("Awards") at any time during the term of the Plan shall be equal to Five Million (5,000,000). The foregoing limit shall be increased by the number of shares of Common Stock with respect to which Awards previously granted under the 2011 Plan that are forfeited, expire or otherwise terminate without issuance of shares, or that are settled for cash or otherwise do not result in the issuance of shares, and the number of shares that are tendered (either actually or by attestation) or withheld upon exercise of an Award to pay the exercise price or any tax withholding requirements. Awards issued in substitution for awards previously granted by a company acquired by the Company or a Related Entity, or with which the Company or any Related Entity combines, do not reduce the limit on Awards under the Plan.

No awards may be made under the Prior Plan after the date on which the shareholders of the Company approve the 2011 Plan.

The 2011 Plan imposes individual limitations on the amount of certain Awards in part to comply with Code Section 162(m). Under these limitations, during any 12-month period, no participant may be granted (i) stock options or stock appreciation rights with respect to more than 500,000 shares of Common Stock, or (ii) shares of restricted stock, restricted stock units, performance shares and other stock based-awards with respect to more than 500,000 shares of Common Stock, in each case, subject to adjustment in certain circumstances. The maximum amount that may be paid out as performance units with respect to any 12-month performance period is \$2,500,000 (pro-rated for any 12-month performance period that is less than 12 months), and with respect to any performance period that is more than 12 months, \$2,000,000 multiplied by the number of full 12 month periods that are in the performance period.

The Committee is authorized to adjust the limitations described in the three preceding paragraphs and is authorized to adjust outstanding Awards (including adjustments to exercise prices of options and other affected terms of Awards) in the event that a dividend or other distribution (whether in cash, shares of Common Stock or other property), recapitalization, forward or reverse split, reorganization, merger, consolidation, spin-off, combination, repurchase, share exchange or other similar corporate transaction or event affects the Common Stock so that an adjustment is appropriate. The Committee is also authorized to adjust performance conditions and other terms of Awards in response to these kinds of events or in response to changes in applicable laws, regulations or accounting principles.

Eligibility

The persons eligible to receive Awards under the 2011 Plan are the officers, directors, employees, consultants and other persons who provide services to the Company or any Related Entity on a full-time basis. The foregoing notwithstanding, only full-time employees of the Company, or any parent corporation or subsidiary corporation of the Company (as those terms are defined in Sections 424(e) and (f) of the Code, respectively), shall be eligible for purposes of receiving any incentive stock options (“ISOs”). An employee on leave of absence may be considered as still in the employ of the Company or a Related Entity for purposes of eligibility for participation in the 2011 Plan.

As of November 15, 2017, there were approximately 450 officers, directors, employees, consultants and other persons eligible to participate in the 2011 Plan. Because the 2011 Plan provides for broad discretion in selecting participants and in making awards, the total number of persons who will participate in the 2011 Plan and the benefits that will be provided to the participants cannot be determined at this time.

Administration

The 2011 Plan is to be administered by a committee designated by the Board of Directors consisting of not less than two directors (the "Committee"), provided, however, that except as otherwise expressly provided in the Plan, the Board may exercise any power or authority granted to the Committee under the 2011 Plan. Subject to the terms of the 2011 Plan, the Committee is authorized to select eligible persons to receive Awards, determine the type, number and other terms and conditions of, and all other matters relating to, Awards, prescribe Award agreements (which need not be identical for each Participant), and the rules and regulations for the administration of the Plan, construe and interpret the Plan and Award agreements, correct defects, supply omissions or reconcile inconsistencies therein, and make all other decisions and determinations as the Committee may deem necessary or advisable for the administration of the 2011 Plan.

Stock Options and Stock Appreciation Rights

The Committee is authorized to grant stock options, including both ISOs, which can result in potentially favorable tax treatment to the participant, and non-qualified stock options, and stock appreciation rights entitling the participant to receive the amount by which the fair market value of a share of Common Stock on the date of exercise exceeds the grant price of the stock appreciation right. The exercise price per share subject to an option and the grant price of a stock appreciation right are determined by the Committee, provided that such exercise or grant price shall not be less than 100% of the fair market value of a share on the date of grant. In the case of an ISO, the exercise price per share (to the extent required by the Code at the time of grant) shall be no less than 110% of the fair market value of a share on the date such ISO is granted. For purposes of the 2011 Plan, the term "fair market value" means the fair market value of Common Stock, Awards or other property as determined by the Committee or under procedures established by the Committee. Unless otherwise determined by the Committee, the fair market value of Common Stock as of any given date shall be the closing sales price per share of Common Stock as reported on the principal stock exchange or market on which Common Stock is traded on the date as of which such value is being determined or, if there is no sale on that date, then on the last previous day on which a sale was reported. The maximum term of each option or stock appreciation right, the times at which each option or stock appreciation right will be exercisable, and provisions requiring forfeiture of unexercised options or stock appreciation rights at or following termination of employment generally are fixed by the Committee, except that no option or stock appreciation right may have a term exceeding ten years. Methods of exercise and settlement and other terms of the options and stock appreciation right are determined by the Committee. The Committee, thus, may permit the exercise price of options awarded under the Plan to be paid in cash, shares, other Awards or other property (including loans to participants).

Restricted Stock and Restricted Stock Units

The Committee is authorized to grant restricted stock and restricted stock units. Restricted stock is a grant of shares of Common Stock which may not be sold or disposed of, and which shall be subject to such risks of forfeiture and other restrictions as the Committee may impose. A participant granted restricted stock generally has all of the rights of a stockholder of the Company, unless otherwise determined by the Committee. An Award of restricted stock units confers upon a participant the right to receive shares of Common Stock or cash equal to the fair market value of the

specified number of shares of Common Stock covered by the restricted stock units at the end of a specified deferral period, subject to such risks of forfeiture and other restrictions as the Committee may impose. Prior to settlement, an Award of restricted stock units carries no voting or dividend rights or other rights associated with share ownership, although dividend equivalents may be granted, as discussed below.

Dividend Equivalents

The Committee is authorized to grant dividend equivalents conferring on participants the right to receive, currently or on a deferred basis, cash, shares of Common Stock, other Awards or other property equal in value to dividends paid on a specific number of shares of Common Stock or other periodic payments. Dividend equivalents may be granted alone or in connection with another

Award, may be paid currently or on a deferred basis and, if deferred, may be deemed to have been reinvested in additional shares of Common Stock, Awards or otherwise as specified by the Committee.

Bonus Stock and Awards in Lieu of Cash Obligations

The Committee is authorized to grant shares of Common Stock as a bonus free of restrictions, or to grant shares of Common Stock or other Awards in lieu of Company obligations to pay cash under the 2011 Plan or other plans or compensatory arrangements, subject to such terms as the Committee may specify.

Other Stock Based Awards

The Committee or the Board is authorized to grant Awards that are denominated or payable in, valued by reference to, or otherwise based on or related to shares of Common Stock. The Committee determines the terms and conditions of such Awards.

Performance Awards

The Committee is authorized to grant performance awards to participants on terms and conditions established by the Committee. The performance criteria to be achieved during any performance period and the length of the performance period are determined by the Committee upon the grant of the performance award. Performance awards may be valued by reference to a designated number of Shares (in which case they are referred to as performance shares) or by reference to a designated amount of property including cash (in which case they are referred to as performance units). Performance Awards may be settled by delivery of cash, shares or other property, or any combination thereof, as determined by the Committee. Performance awards granted to persons whom the Committee expects will, for the year in which a deduction arises, be “covered employees” (as defined below) will, if and to the extent intended by the Committee, be subject to provisions that should qualify such Awards as “performance based compensation” not subject to the limitation on tax deductibility by the Company under Code Section 162(m). For purposes of Section 162(m), the term “covered employee” means the Company’s chief executive officer and each other person whose compensation is required to be disclosed in the Company’s filings with the SEC by reason of that person being among the four highest compensated officers of the Company as of the end of a taxable year. If and to the extent required under Section 162(m) of the Code, any power or authority relating to a performance award intended to qualify under Section 162(m) of the Code is to be exercised by the Committee and not the Board.

If and to the extent that the Committee determines that these provisions of the 2011 Plan are to be applicable to any Award, one or more of the following business criteria for the Company, on a consolidated basis, and/or for Related Entities, or for business or geographical units of the Company and/or a Related Entity (except with respect to the total shareholder return and earnings per share criteria), shall be used by the Committee in establishing performance goals for awards under the 2011 Plan: (1) earnings per share; (2) revenues or margins; (3) cash flow; (4) operating margin; (5) direct contribution; (6) net income; pretax earnings; earnings before interest and taxes; earnings before interest, taxes, depreciation and amortization; earnings after interest expense and before extraordinary or special items; operating income or income from operations; income before interest income or expense, unusual items and income taxes, local, state or federal and excluding budgeted and actual bonuses which might be paid under any ongoing bonus

plans of the Company; (7) return on net assets, investment, capital, or equity; (8) economic value added; (9) working capital; (10) management of fixed costs or variable costs; (11) identification or consummation of investment opportunities or completion of specified projects in accordance with corporate business plans, including strategic mergers, acquisitions or divestitures; (12) total shareholder return; (13) debt reduction; (14) market share; (15) entry into new markets, either geographically or by business unit; (16) customer retention and satisfaction; (17) strategic plan development and implementation, including turnaround plans; and/or (18) the fair market value of a share of Common Stock. Any of the above goals may be determined on an absolute or relative basis (e.g. growth in earnings per share) or as compared to the performance of a published or special index deemed applicable by the Committee including, but not limited to, the Standard& Poor's 500 Stock Index or a group of companies that are comparable to the Company. The Committee may exclude the impact of an event or occurrence which the Committee determines should appropriately be excluded, including without limitation (i) restructurings, discontinued operations, extraordinary items (as defined pursuant to generally accepted accounting principles), and other unusual or non-recurring charges; (ii) change in accounting standards required by generally accepted accounting principles; or (iii) such other exclusions or adjustments as the Committee specifies at the time the Award is granted.

The Committee may, in its discretion, determine that the amount payable as a performance award will be reduced from the amount of any potential Award.

Performance Goals - To the extent that performance-based awards or other awards granted under the 2012 Plan are intended to be “qualified performance-based compensation” under Section 162(m) of the Code, and therefore to be fully deductible by the Company, the financial performance measures that may be used by the Compensation Committee are as follows:

Financial Performance Measures

Performance goals include the following:

- Revenue and revenue growth
- Adjusted EBITDA (earnings before interest, taxes, depreciation and amortization)
- Total shareholder return (TSR)
- Benchmark relative TSR against reported Enzo peer group in the proxy

Other Terms of Awards

Awards may be settled in the form of cash, shares of Common Stock, other Awards or other property, in the discretion of the Committee. The Committee may require or permit participants to defer the settlement of all or part of an Award in accordance with such terms and conditions as the Committee may establish, including payment or crediting of interest or dividend equivalents on deferred amounts, and the crediting of earnings, gains and losses based on deemed investment of deferred amounts in specified investment vehicles. The Committee is authorized to place cash, shares of Common Stock or other property in trusts or make other arrangements to provide for payment of the Company’s obligations under the 2011 Plan. The Committee may condition any payment relating to an Award on the withholding of taxes and may provide that a portion of any shares of Common Stock or other property to be distributed will be withheld (or previously acquired shares of Common Stock or other property be surrendered by the participant) to satisfy withholding and other tax obligations. Awards granted under the 2011 Plan generally may not be pledged or otherwise encumbered and are not transferable except by will or by the laws of descent and distribution, or to a designated beneficiary upon the participant’s death, except that the Committee may, in its discretion, permit transfers for estate planning or other purposes subject to any applicable restrictions under Rule 16b-3.

Awards under the 2011 Plan are generally granted without a requirement that the participant pay consideration in the form of cash or property for the grant (as distinguished from the exercise), except to the extent required by law. The Committee may, however, grant Awards in exchange for other Awards under the 2011 Plan, awards under other Company plans, or other rights to payment from the Company, and may grant Awards in addition to and in tandem with such other Awards, rights or other awards.

Acceleration of Vesting; Change in Control

The Committee may, in its discretion, accelerate the exercisability, the lapsing of restrictions or the expiration of deferral or vesting periods of any Award, and such accelerated exercisability, lapse, expiration and if so provided in the Award agreement or otherwise determined by the Committee, vesting shall occur automatically in the case of a “change in control” of the Company, as defined in the 2011 Plan (including the cash settlement of stock appreciation rights which may be exercisable in the event of a change in control). In addition, the Committee may provide in an Award agreement that the performance goals relating to any performance award will be deemed to have been met upon the occurrence of any “change in control.”

Amendment and Termination

The Board of Directors may amend, alter, suspend, discontinue or terminate the 2011 Plan or the Committee’s authority to grant Awards without further stockholder approval, except that stockholder approval must be obtained for any amendment or alteration if such approval is required by law or regulation or under the rules of any stock exchange or quotation system on which shares of Common Stock are then listed or quoted. Thus, stockholder approval may not necessarily be required for every amendment to the 2011 Plan which might increase the cost of the 2011 Plan or alter the eligibility of persons to receive Awards. Stockholder approval will not be deemed to be

required under laws or regulations, such as those relating to ISOs, that condition favorable treatment of participants on such approval, although the Board may, in its discretion, seek stockholder approval in any circumstance in which it deems such approval advisable. Unless earlier terminated by the Board, the 2011 Plan will terminate at the earliest of (a) such time as no shares of Common Stock remain available for issuance under the 2011 Plan, (b) termination of the 2011 Plan by the Board of Directors, or (c) the tenth anniversary of the effective date of the Plan. Awards outstanding upon expiration of the 2011 Plan shall remain in effect until they have been exercised or terminated, or have expired.

Federal Income Tax Consequences of Awards

The 2011 Plan is not qualified under the provisions of section 401(a) of the Code and is not subject to any of the provisions of the Employee Retirement Income Security Act of 1974.

Nonqualified Stock Options

On exercise of a nonqualified stock option granted under the 2011 Plan an optionee will recognize ordinary income equal to the excess, if any, of the fair market value on the date of exercise of the shares of stock acquired on exercise of the option over the exercise price. If the optionee is an employee of the Company or a Related Entity, that income will be subject to the withholding of Federal income tax. The optionee's tax basis in those shares will be equal to their fair market value on the date of exercise of the option, and his holding period for those shares will begin on that date.

If an optionee pays for shares of stock on exercise of an option by delivering shares of the Company's stock, the optionee will not recognize gain or loss on the shares delivered, even if their fair market value at the time of exercise differs from the optionee's tax basis in them. The optionee, however, otherwise will be taxed on the exercise of the option in the manner described above as if he had paid the exercise price in cash. If a separate identifiable stock certificate is issued for that number of shares equal to the number of shares delivered on exercise of the option, the optionee's tax basis in the shares represented by that certificate will be equal to his tax basis in the shares delivered, and his holding period for those shares will include his holding period for the shares delivered. The optionee's tax basis and holding period for the additional shares received on exercise of the option will be the same as if the optionee had exercised the option solely in exchange for cash.

The Company will be entitled to a deduction for Federal income tax purposes equal to the amount of ordinary income taxable to the optionee, provided that amount constitutes an ordinary and necessary business expense for the Company and is reasonable in amount, and either the employee includes that amount in income or the Company timely satisfies its reporting requirements with respect to that amount.

Incentive Stock Options

The 2011 Plan provides for the grant of stock options that qualify as “incentive stock options” as defined in section 422 of the Code, which we refer to as ISOs. Under the Code, an optionee generally is not subject to tax upon the grant or exercise of an ISO. In addition, if the optionee holds a share received on exercise of an ISO for at least two years from the date the option was granted and at least one year from the date the option was exercised, which we refer to as the Required Holding Period, the difference, if any, between the amount realized on a sale or other taxable disposition of that share and the holder’s tax basis in that share will be long-term capital gain or loss.

If, however, an optionee disposes of a share acquired on exercise of an ISO before the end of the Required Holding Period, which we refer to as a Disqualifying Disposition, the optionee generally will recognize ordinary income in the year of the Disqualifying Disposition equal to the excess, if any, of the fair market value of the share on the date the ISO was exercised over the exercise price. If, however, the Disqualifying Disposition is a sale or exchange on which a loss, if realized, would be recognized for Federal income tax purposes, and if the sales proceeds are less than the fair market value of the share on the date of exercise of the option, the amount of ordinary income recognized by the optionee will not exceed the gain, if any, realized on the sale. If the amount realized on a Disqualifying Disposition exceeds the fair market value of the share on the date of exercise of the option, that excess will be short-term or long-term capital gain, depending on whether the holding period for the share exceeds one year.

An optionee who exercises an ISO by delivering shares of stock acquired previously pursuant to the exercise of an ISO before the expiration of the Required Holding Period for those shares is treated as making a Disqualifying Disposition of those shares. This rule prevents “pyramiding” or the exercise of an ISO (that is, exercising an ISO for one share and using that share, and others so acquired, to exercise successive ISOs) without the imposition of current income tax.

For purposes of the alternative minimum tax, the amount by which the fair market value of a share of stock acquired on exercise of an ISO exceeds the exercise price of that option generally will be an adjustment included in the optionee’s alternative minimum taxable income for the year in which the option is exercised. If, however, there is a Disqualifying Disposition of the share in the year in which the option is exercised, there will be no adjustment with respect to that share. If there is a Disqualifying Disposition in a later year, no income with respect to the Disqualifying Disposition is included in the optionee’s alternative minimum taxable income for that year. In computing alternative minimum taxable income, the tax basis of a share acquired on exercise of an ISO is increased by the amount of the adjustment taken into account with respect to that share for alternative minimum tax purposes in the year the option is exercised.

The Company is not allowed an income tax deduction with respect to the grant or exercise of an incentive stock option or the disposition of a share acquired on exercise of an incentive stock option after the Required Holding Period. However, if there is a Disqualifying Disposition of a share, the Company is allowed a deduction in an amount equal to the ordinary income includible in income by the optionee, provided that amount constitutes an ordinary and necessary business expense for the Company and is reasonable in amount, and either the employee includes that amount in income or the Company timely satisfies its reporting requirements with respect to that amount.

Stock Awards

Generally, the recipient of a stock award will recognize ordinary compensation income at the time the stock is received equal to the excess, if any, of the fair market value of the stock received over any amount paid by the recipient in exchange for the stock. If, however, the stock is non-vested when it is received under the 2011 Plan (for example, if the employee is required to work for a period of time in order to have the right to sell the stock), the recipient generally will not recognize income until the stock becomes vested, at which time the recipient will recognize ordinary compensation income equal to the excess, if any, of the fair market value of the stock on the date it becomes vested over any amount paid by the recipient in exchange for the stock. A recipient may, however, file an election with the Internal Revenue Service, within 30 days of his or her receipt of the stock award, to recognize ordinary compensation income, as of the date the recipient receives the award, equal to the excess, if any, of the fair market value of the stock on the date the award is granted over any amount paid by the recipient in exchange for the stock.

The recipient’s basis for the determination of gain or loss upon the subsequent disposition of shares acquired as stock awards will be the amount paid for such shares plus any ordinary income recognized either when the stock is received or when the stock becomes vested. Upon the disposition of any stock received as a stock award under the 2011 Plan the difference between the sale price and the recipient’s basis in the shares will be treated as a capital gain or loss and

generally will be characterized as long-term capital gain or loss if the shares have been held for more the one year from the date as of which he or she would be required to recognize any compensation income.

Stock Appreciation Rights

The Company may grant SARs separate from any other award, which we refer to as Stand-Alone SARs, or in tandem with options, which we refer to as Tandem SARs, under the 2011 Plan. Generally, the recipient of a Stand-Alone SAR will not recognize any taxable income at the time the Stand-Alone SAR is granted.

With respect to Stand-Alone SARs, if the recipient receives the appreciation inherent in the SARs in cash, the cash will be taxable as ordinary compensation income to the recipient at the time that the cash is received. If the recipient receives the appreciation inherent in the SARs in shares of stock, the recipient will recognize ordinary compensation income equal to the excess of the fair market value of the stock on the day it is received over any amounts paid by the recipient for the stock.

With respect to Tandem SARs, if the recipient elects to surrender the underlying option in exchange for cash or shares of stock equal to the appreciation inherent in the underlying option, the tax consequences to the recipient will be the same as discussed above relating to the Stand-Alone SARs. If the recipient elects to exercise the underlying option, the holder will be taxed at the time of exercise as if he or she had exercised a nonqualified stock option (discussed above), i.e., the recipient will recognize ordinary income for federal tax purposes measured by the excess of the then fair market value of the shares of stock over the exercise price.

In general, there will be no federal income tax deduction allowed to the Company upon the grant or termination of Stand-Alone SARs or Tandem SARs. Upon the exercise of either a Stand-Alone SAR or a Tandem SAR, however, the Company will be entitled to a deduction for federal income tax purposes equal to the amount of ordinary income that the employee is required to recognize as a result of the exercise, provided that the deduction is not otherwise disallowed under the Code.

Dividend Equivalents

Generally, the recipient of a dividend equivalent award will recognize ordinary compensation income at the time the dividend equivalent award is received equal to the fair market value dividend equivalent award received. The Company generally will be entitled to a deduction for federal income tax purposes equal to the amount of ordinary income that the employee is required to recognize as a result of the dividend equivalent award, provided that the deduction is not otherwise disallowed under the Code.

Section 162 Limitations

Section 162(m) to the Code, generally disallows a public company's tax deduction for compensation to covered employees in excess of \$1 million in any tax year beginning on or after January 1, 1994. Compensation that qualifies as "performance based compensation" is excluded from the \$1 million deductibility cap, and therefore remains fully deductible by the company that pays it. We intend that awards granted to employees under the Plan whom the Committee expects to be covered employees at the time a deduction arises in connection with such options, may, if and to the extent so intended by the Committee, be granted in a manner that will qualify as such "performance-based compensation," so that such awards would not be subject to the Section 162(m) deductibility cap of \$1 million. Future changes in Section 162(m) or the regulations thereunder may adversely affect our ability to ensure that awards under the 2006 Plan will qualify as "performance-based compensation" that are fully deductible by us under Section 162(m).

Importance of Consulting Tax Adviser

The information set forth above is a summary only and does not purport to be complete. In addition, the information is based upon current Federal income tax rules and therefore is subject to change when those rules change. Moreover,

because the tax consequences to any recipient may depend on his particular situation, each recipient should consult his tax adviser as to the Federal, state, local and other tax consequences of the grant or exercise of an award or the disposition of stock acquired as a result of an award.

(1) *Plan Effective Date and Shareholder Approval; Termination of Plan.* The Plan shall become effective on the Effective Date, subject to subsequent approval, within 12 months of its adoption by the Board, by shareholders of the Company eligible to vote in the election of directors, by a vote sufficient to meet the requirements of Code Sections 162(m) (if applicable) and 422, Rule 16b-3 under the Exchange Act (if applicable), applicable requirements under the rules of any stock exchange or automated quotation system on which the Shares may be listed or quoted, and other laws, regulations, and obligations of the Company applicable to the Plan. Awards may be granted subject to shareholder approval, but may not be exercised or otherwise settled in the event the shareholder approval is not obtained. The Plan shall terminate at the earliest of (a) such time as no Shares remain available for issuance under the Plan, (b) termination of this Plan by the Board, or (c) the tenth anniversary of the Effective Date of the Plan. Awards outstanding upon expiration of the Plan shall remain in effect until they have been exercised or terminated, or have expired.

THE BOARD OF DIRECTORS UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSAL 4 RELATING TO THE APPROVAL OF THE AMENDMENT AND RESTATEMENT OF THE ENZO BIOCHEM 2011 INCENTIVE PLAN.

PROPOSAL 5**RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Audit Committee of the Board 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, 2018. 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 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, 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 it 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 LLP as the Company’s independent registered public accounting firm for the fiscal year ending July 31, 2018, 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 2017 and 2016, 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.

	FY 2017	FY 2016
Audit Fees	\$549,500	\$512,000
Audit-related Fees	—	\$31,000
Tax Fees	—	—
All Other Fees.	\$62,775	\$33,500
Total	\$612,275	\$576,500

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 statements.

Audit-Related Fees—Audit related fees associated with comfort letters and other correspondence.

All Other Fees—EisnerAmper performed certain Audit services for an employee benefit plan for the years ended December 31, 2017 and 2016, for which the Company is the plan sponsor; these fees were \$34,775 and \$33,500, respectively. In addition, during fiscal year 2017 EsnerAmper performed reviews of shelf registration statements with total fees of \$28,000.

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 OF DIRECTORS OF THE COMPANY UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSAL 5 RELATING TO THE RATIFICATION OF THE COMPANY’S APPOINTMENT OF EISNERAMPER LLP TO SERVE AS THE COMPANY’S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING JULY 31, 2018.

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 2017 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 Enzo shareholders

ANNUAL REPORT

The Notice that you received in the mail contains instructions on how to access both the Company’s 2017 Annual Report to Shareholders, which includes the Company’s Annual Report on Form 10-K for its fiscal year ended July 31, 2017 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 2017 Annual Report to Shareholders, which includes the Company’s Annual Report on Form 10-K for its fiscal year ended July 31, 2017. 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, 2017. All such requests should be directed to Barry W. Weiner, President, Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022.

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 our corporate governance practices.

The corporate governance information on our website includes the Company's Corporate Governance Guidelines, the Code of Conduct 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: 527 Madison Avenue, New York, New York 10022, Attn: President.

This information about Enzo's website and its content, together with other references to the website made in this Proxy Statement, is for information 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 Securities and Exchange Commission.

SHAREHOLDER PROPOSALS

Shareholder Proposals

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 2018 Annual Shareholder Meeting must be received by the Company's Secretary at the Company's principal executive offices at 527 Madison Avenue, New York, New York 10022, no later than July 24, 2018 (120 calendar days preceding the one-year anniversary of the date this Proxy Statement was first mailed to our shareholders for the 2017 Annual Shareholder 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, return receipt requested.

Pursuant to Rule 14a-4 under the Exchange Act, shareholder proxies obtained by our Board in connection with our 2018 Annual Shareholder Meeting will confer on the proxies and attorneys-in-fact named therein discretionary authority to vote on any matters presented at the 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 the annual meeting is provided to the Company's Secretary before October 10, 2018 (the 45th day preceding the one-year anniversary of the date this Proxy Statement was first mailed to our shareholders for the 2017 Annual Shareholder Meeting).

Director Nominations

Under our Bylaws, shareholders intending to nominate one or more candidates for election to our Board at our 2017 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 527 Madison Avenue, New York, New York 10022, 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 January 5, 2018. Such notice must contain all of the information required by our Bylaws, including, without limitation, all information that would be required in connection with such nomination(s) under the Securities and Exchange Commission'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 our Bylaws.

Questions? Need Help Voting?

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

CONTACT US:

North American Toll Free Phone:

E-mail: contactus@kingsdaleadvisors.com

Fax: 416-867-2271

Toll Free Fax: 1-866-545-5580

**Outside North America, Banks and Brokers
Call Collect: 416-867-2272**

ENZO BIOCHEM, INC.
527 MADISON AVENUE
NEW YORK, NY 10022

VOTE BY INTERNET - www.proxyvote.com

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. 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.

ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS

If you would like to reduce the costs incurred by our company in mailing proxy materials, you can consent to receiving all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions above to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

VOTE BY PHONE - 1-800-690-6903

Use any touch-tone telephone to transmit your voting instructions up until 11:59 p.m. Eastern Time the day before the cut-off date or meeting date. 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, Edgewood, NY 11717.

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

E34328-P99186

KEEP THIS PORTION FOR YOUR
RECORDS
DETACH AND RETURN THIS PORTION
ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

ENZO BIOCHEM, INC.	For All	Withhold All	For All Except	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.
The Board of Directors recommends you vote FOR the following:				
1. Election of Director Nominee: Elazar 01) Rabbani, PH.D.	o	o	o	
The Board of Directors recommends you vote FOR proposal 2, FOR 1 year on proposal 3 and FOR proposals 4, 5 and 6.				
2. To approve, in a non-binding advisory vote, the compensation of the Company's Named Executive Officers.	o	o	o	5. To ratify the appointment of EisnerAmper LLP as the Company's independent registered public accounting firm for the Company's fiscal year ending July 31, 2018. o o o
1 Year 2 Years 3 Years Abstain				
3. To recommend, by a non-binding advisory vote, the frequency of future advisory votes on the compensation of the Company's Named Executive Officers.	o	o	o	6. To transact such other business as may properly come before the Annual Meeting or any adjournments or postponements thereof. o o o
4. To approve the amendment and restatement of the Company's 2011 Incentive Plan, including an increase in the number of shares of common stock authorized for grant under	o	o	o	NOTE: In their discretion, the Proxies are authorized to vote upon such other business as may properly come before the Annual Meeting. This proxy when properly executed will be voted in the manner directed herein by the undersigned shareholder. If no direction is made, this proxy will be voted FOR the election of

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such plan.

the nominee for Class III Director named in Proposal 1, FOR Proposal 2, FOR 1 year on Proposal 3 and FOR Proposals 4, 5 and 6.

For address changes and/or comments, please check this box and write them on the back where indicated.

Please sign exactly as your name(s) appear(s) hereon. When signing as attorney, executor, administrator, 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 Date Signature (Joint Owners) Date
WITHIN
BOX]

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

The Notice and Proxy Statement, Annual Report and Telephone/Internet insert (BR supplied) are available at www.proxyvote.com.

E34329-P99186

**PROXY
ENZO BIOCHEM, INC.
527 MADISON AVENUE
NEW YORK, NEW YORK 10022**

THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS

The undersigned hereby appoints Gregory Bortz and Dov Perlysky as Proxies, each with the power to appoint his substitute, and hereby authorizes them to represent and to vote, as designated on the reverse side, all the shares of the Common Stock of Enzo Biochem, Inc. held of record by the undersigned on November 15, 2017 at the Annual Meeting of Shareholders to be held on January 5, 2018 or at any adjournment or postponement thereof.

The shares represented by this proxy, when properly executed and returned, will be voted as directed herein. IF THIS PROXY IS DULY EXECUTED AND RETURNED, AND NO VOTING DIRECTIONS ARE GIVEN HEREIN, SUCH SHARES WILL BE VOTED "FOR THE ELECTION" OF THE NOMINEE FOR CLASS III DIRECTOR NAMED IN PROPOSAL 1, "FOR" PROPOSAL 2, "FOR" 1 YEAR ON PROPOSAL 3, AND "FOR" PROPOSALS 4, 5 AND 6. The undersigned hereby acknowledges receipt of notice of, and the proxy statement for, the aforesaid Annual Meeting of Shareholders.

Address Changes/Comments:

(If you noted any Address Changes/Comments above, please mark corresponding box on the reverse side.)

Continued and to be signed on reverse side