

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 14A

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

Filed by the Registrant
Filed by a Party other than the Registrant

Check the appropriate box:

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

Enzo Biochem, Inc.

(Name of Registrant as Specified in Its Charter)

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

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(3) Filing Party:

(4) Date Filed:

**PRELIMINARY PROXY STATEMENT
SUBJECT TO COMPLETION, DATED NOVEMBER 25, 2015**

LOGO

November [----], 2015

Dear Enzo Biochem Shareholders:

It is my pleasure to invite you to Enzo Biochem Inc.'s 2015 Annual Meeting of Shareholders. The Annual Meeting will be held on January [---], 2016 at 9:00 am, [----]. Details regarding admission to the Annual Meeting and the business to be conducted are more fully described in the accompanying Notice of 2015 Annual Meeting of Shareholders and Proxy Statement.

Your Board of Directors is recommending a highly qualified and experienced slate of director nominees for election to the Board of Directors at the Annual Meeting. At the Annual Meeting, we will ask you to: (1) elect two directors as Class I Directors; (2) consider an advisory vote on the compensation of our named executive officers; (3) ratify the appointment of EisnerAmper LLP, an independent registered public accounting firm, as our independent auditors for the fiscal year ending July 31, 2016; and (4) take action upon any other business as may properly come before the Annual Meeting.

The accompanying materials include the Notice of Annual Meeting of Shareholders and Proxy Statement. The Proxy Statement describes the business that we will conduct at the Annual Meeting. It also provides information about us that you should consider when you vote your shares.

You should have also received a WHITE proxy card and postage-paid return envelope. WHITE proxy cards are being solicited on behalf of our Board of Directors.

Your vote will be especially important at the meeting. Lone Star Value Investors, L.P. and certain of its affiliates (together, "Lone Star"), a shareholder owning []% of the issued and outstanding shares of the Company as of [], 2015, have notified the company that Lone Star intends to nominate a slate of two nominees for election as directors at the meeting in opposition to the nominees recommended by our Board of Directors. You may receive a proxy statement, proxy card and other solicitation materials from Lone Star. The Company is not responsible for the accuracy of any information provided by or relating to Lone Star or its nominees contained in solicitation materials filed or disseminated by or on behalf of Lone Star or any other statements that Lone Star may make.

After a thorough review of the Lone Star nominees by the Nominating and Corporate Governance Committee of the Board of Directors, including in-depth interviews with the nominees, the Board of Directors has determined NOT to endorse any Lone Star nominees and unanimously recommends that you vote FOR the election of each of the nominees proposed by the Board of Directors. The Board of Directors strongly urges you NOT to sign or return any proxy card sent to you by Lone Star. If you have previously submitted a [----] proxy card sent to you by Lone Star, you can revoke that proxy and vote for our Board of Directors' nominees and on the other matters to be voted on at the meeting by using the enclosed WHITE proxy card.

If your brokerage firm, bank, broker-dealer or other similar organization is the holder of record of your shares (i.e., your shares are held in "street name"), you will receive voting instructions from the holder of record. You must follow these instructions in order for your shares to be voted. Your broker is required to vote those shares in accordance with your instructions. Because of the contested nature of the proposals, if you do not give instructions to your broker, your broker will not be able to vote your shares with respect to the election of directors (Proposal 1). **We urge you to instruct your broker or other nominee, by following those instructions, to vote your shares for the WHITE proxy card.**

We hope you will be able to attend the Annual Meeting, but if you cannot do so it is important that your shares be represented. Your vote is very important to us. **We urge you to read the accompanying Proxy**

Statement carefully, and to use the Company's WHITE proxy card to vote for the Board's nominees and in accordance with the Board's recommendations on the other proposals, as soon as possible, by telephone or Internet, or by signing, dating, and returning the enclosed WHITE proxy card in the postage-paid envelope provided, whether or not you plan to attend the Annual Meeting. Further instructions on how to vote are provided on the WHITE proxy card.

Thank you for your continued support. If you have any questions, please contact Okapi Partners LLC, the firm that is assisting us in connection with the Annual Meeting, at (877) 629-6356.

Sincerely,

Barry W. Weiner
President

**THIS PROXY STATEMENT AND PROXY CARD ARE
BEING DISTRIBUTED ON OR ABOUT NOVEMBER [---], 2015**

ENZO BIOCHEM, INC.

527 Madison Avenue
New York, New York 10022

NOTICE OF 2015 ANNUAL MEETING OF SHAREHOLDERS

To be held on January [----], 2016

To All Shareholders of Enzo Biochem, Inc.:

NOTICE IS HEREBY GIVEN that the 2015 Annual Meeting of Shareholders of Enzo Biochem, Inc., a New York corporation (the “Company”), will be held at [-----], on January [---], 2016, 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 I Directors, Gregory M. Bortz and Dov Perlysky, to hold office for a term of three (3) years or until their respective successors have been duly elected and qualified;
2. to approve, in a nonbinding advisory vote, the compensation of the Company’s Named Executive Officers;
3. to ratify the Company’s appointment of EisnerAmper LLP to serve as the Company’s independent registered public accounting firm for the Company’s fiscal year ending July 31, 2016; and
4. 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.

If you need special assistance or have any questions regarding your vote, please call Okapi Partners LLC, the firm assisting us in the solicitation. Shareholders may call toll free at (877) 629-6356. Banks and brokers may call collect at (212) 297-0720.

Please note that Lone Star Value Investors, L.P. and certain of their affiliates (together, “Lone Star”) have stated their intention to propose two alternative director nominees for election at the Annual Meeting. You may receive solicitation materials from Lone Star seeking your proxy to vote for Lone Star’s nominees. If you have already voted using a proxy card sent to you by Lone Star, you can REVOKE it by signing and dating the enclosed WHITE proxy card and returning it in the postage-paid envelope provided or by voting via the Internet or by telephone by following the instructions provided on the enclosed WHITE proxy card. Only your last-dated proxy will count, and any proxy may be revoked at any time prior to its exercise at the Annual Meeting as described in the accompanying Proxy Statement. **THE BOARD UNANIMOUSLY RECOMMENDS A VOTE “FOR” THE ELECTION OF EACH OF THE BOARD’S NOMINEES ON THE ENCLOSED WHITE PROXY CARD AND URGES YOU NOT TO SIGN OR RETURN OR VOTE ANY PROXY CARD SENT TO YOU BY LONE STAR.**

YOUR VOTE IS VERY IMPORTANT. EVEN IF YOU PLAN TO ATTEND THE ANNUAL MEETING, WE REQUEST THAT YOU READ THE PROXY STATEMENT AND VOTE YOUR SHARES BY SIGNING AND DATING THE ENCLOSED WHITE PROXY CARD AND RETURNING IT IN THE POSTAGE-PAID ENVELOPE PROVIDED OR BY VOTING VIA THE INTERNET OR BY TELEPHONE BY FOLLOWING THE INSTRUCTIONS PROVIDED ON THE ENCLOSED WHITE PROXY CARD. IT IS IMPORTANT THAT YOU SIGN AND DATE THE WHITE PROXY CARD.

If you need special assistance, please call Okapi Partners LLC, the firm assisting us in the solicitation. Shareholders may call toll free at (877) 629-6356. Banks and brokers may call collect at (212) 297-0720.

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 23, 2015 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.

This notice and accompanying proxy materials have been sent to you by order of the Board of Directors.

By Order of the Board of Directors,

/s/ Barry W. Weiner

Barry W. Weiner
President

November [], 2015

We hope you will be able to attend the Meeting, but if you cannot do so, it is important that your shares be represented. Your vote is important regardless of the number of shares that you own. We urge you to read the attached Proxy Statement carefully and, whether or not you plan to attend the Meeting, to vote FOR the Board of Directors' recommendations by promptly submitting a proxy by signing, dating, and returning the enclosed WHITE proxy card in the postage-paid envelope provided. If you have any questions or need assistance in voting your shares, please contact Okapi Partners LLC, which is assisting the Company at this year's annual meeting, by email at info@okapipartners.com, or by phone at (877) 629-6356.

If shareholders have any questions or require any assistance with voting your shares, please contact the Company's proxy solicitor at the contact listed below:



Okapi Partners LLC
1212 Avenue of the Americas
24th Floor
New York, NY 10036

Banks and
Brokerage Firms,
Please Call:
(212) 297-0720
Shareholders Call
Toll Free:
(877) 629-6356

Email: info@okapipartners.com

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ENZO BIOCHEM, INC.
PROXY STATEMENT
2015 ANNUAL MEETING OF SHAREHOLDERS

To be held on January [---], 2016

This Proxy Statement is being furnished to shareholders of record, as of November 23, 2015, 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 2015 Annual Meeting of Shareholders to be held at [-----], on January [---], 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 2015 Annual Meeting of Shareholders.

INFORMATION ABOUT THE MEETING

Q: Why did you send me this Proxy Statement?

A: We sent you this Proxy Statement and the enclosed WHITE proxy card because the Board is soliciting your proxy to vote at our 2015 Annual Meeting of Shareholders (the “Annual Meeting”) to be held on January [---], 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: Has the Company been notified that a shareholder intends to propose alternative director nominees at the Annual Meeting?

A: Yes. Lone Star Value Investors, L.P. and certain of its affiliates (together, “Lone Star”) have notified the Company that Lone Star intends to nominate a slate of two nominees for election as directors at the meeting in opposition to the nominees recommended by our Board. You may receive a proxy statement, proxy card and other solicitation materials from Lone Star. The Board unanimously recommends a vote FOR each of the Board’s nominees for director on the enclosed WHITE proxy card.

We are not responsible for the accuracy of any information provided by or relating to Lone Star contained in any proxy solicitation materials filed or disseminated by, or on behalf of, Lone Star or any other statements that Lone Star may otherwise make.

Q: Who can vote at the Annual Meeting?

A: Only shareholders of record as of the close of business on November 23, 2015 (the “Record Date”) are entitled to vote at the Annual Meeting. On that date, there were 46,068,815 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: Three proposals are scheduled for a vote:

- Election of Gregory M. Bortz and Dov Perlysky, the Company nominees, as Class I Directors to the Company’s Board of Directors;
 - Approval, on an advisory basis, of the compensation of the Company’s Named Executive Officers;
-

· Ratification of the selection of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending July 31, 2016.

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 WHITE 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 each of Gregory M. Bortz and Dov Perlysky who are the director nominees of the Company;
2. **FOR** the proposal to approve (on an advisory basis) the compensation of the Company's Named Executive Officers; and
3. **FOR** the proposal to ratify the selection of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending July 31, 2016.

Q: Are any other directors being nominated?

A: Lone Star has notified the Company by letter that it intends to propose two alternative director nominees for election at the Annual Meeting in opposition to the nominees recommended by your Board. After careful consideration by the Company, the Lone Star nominees have NOT been endorsed by your Board, and your Board unanimously recommends a vote FOR each of Gregory M. Bortz and Dov Perlysky, your Board's nominees for Class I Director, on the enclosed WHITE proxy card accompanying this proxy statement.

Q: What should I do if I receive a proxy card from Lone Star Value Investors?

A: Your Board unanimously recommends you disregard these materials of Lone Star. Even if you have already voted using the Lone Star proxy card, you have every right to change your vote by executing, dating and returning the enclosed WHITE proxy card or by voting by telephone or via the Internet by following the instructions provided on the enclosed WHITE proxy card. Only the latest dated proxy you submit will be counted. If you vote to "WITHHOLD" your vote with respect to any Lone Star nominee using the Lone Star proxy card, your vote will not be counted as a vote "FOR" the Board's nominees and will result in the revocation of any previous vote you may have cast on the Company's WHITE proxy card. If you wish to vote pursuant to the recommendation of the Board, you should disregard any proxy card that you receive other than the WHITE proxy card.

If you have any questions or need assistance voting, please call Okapi Partners, LLC at (877) 629-6356.

Q: How do I vote before the Annual Meeting?

A: You may vote your shares by mail by filling in, signing, dating and returning the enclosed WHITE proxy card or WHITE 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 WHITE proxy card or your WHITE 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 to the election of directors, you may vote "FOR" all the nominees 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 all of 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, 2016, you may vote "FOR" or "AGAINST" or abstain from voting. We encourage you to disregard

any non-WHITE proxy cards or non-WHITE voting instruction forms you may receive.

Q: May I vote at the Annual Meeting?

A: Yes, you may vote your shares at the Annual Meeting if you attend in person. Even if you plan to attend the Annual Meeting in person, we recommend that you also submit your proxy 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 on the Company's books and records or 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.

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

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

If Lone Star proceeds with its previously announced alternative nominations, we will likely conduct multiple mailings prior to the Annual Meeting date to ensure shareholders have our latest proxy information and materials to vote. We will send you a new WHITE proxy card with each mailing, regardless of whether you have previously voted. The latest dated proxy you submit will be counted, and, if you wish to vote as recommended by the Board then you should only submit WHITE proxy cards.

Q: How many votes do I have?

A: Each share of common stock that you own as of the close of business on the Record Date (November 23, 2015) 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 46,068,815 shares of our common stock outstanding.

Q: May I change my vote?

A: Yes, you may change your vote or revoke your proxy at any time before the vote at the Annual Meeting. You may change your vote prior to the Annual Meeting by executing a valid WHITE proxy card bearing a later date and delivering it to us prior to the Annual Meeting at Enzo Biochem, Inc., Attention: Corporate Secretary, 527 Madison Avenue, New York, New York 10022. Submitting a WHITE proxy card will revoke votes you may have made on Lone Star's proxy card. You may withdraw your vote at the Annual Meeting

and vote in person by giving written notice to our Corporate Secretary. You may also revoke your vote without voting by sending written notice of revocation by [---, 2016] to our Corporate Secretary at the above address. Attendance at the meeting will not by itself revoke a previously granted proxy.

If you have previously signed a proxy card sent to you by Lone Star, you may change your vote by marking, signing, dating and returning the enclosed WHITE proxy card in the accompanying postage-paid envelope or by voting by telephone or via the Internet by following the instructions on your WHITE proxy card. Submitting a Lone Star proxy card will revoke votes you have made via the Company's WHITE proxy card.

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

A: If you submit a properly executed WHITE proxy card but do not specify how you want to vote, your shares will be voted "FOR" the election of each of the Company's nominees for director; "FOR" advisory approval of the compensation of the Company's Named Executive Officers; and "FOR" the ratification of the selection of EisnerAmper LLP as our independent registered public accounting firm for the fiscal year ending July 31, 2016. 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"?"

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

A: 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, and the proposal to ratify the appointment of EisnerAmper LLP as the Company's independent registered public accounting firm for the fiscal year ending July 31, 2016, are non-discretionary matters for which specific instructions from beneficial owners are required. 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 Officers, and the proposal to ratify EisnerAmper LLP's appointment as independent registered public accounting firm, on your behalf if you do not provide your broker with specific voting instructions on the proposals.

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 directors?

A: As a result of Lone Star's declared intention to propose alternative director nominees, assuming such nominees are in fact proposed for election at the Annual Meeting and such nominees have not been withdrawn by Lone Star, there will be more nominees than available positions and, as provided in the Company's Bylaws, directors will be elected on a plurality basis. This means that the 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.

It will NOT help elect your Board if you sign and return proxies sent by Lone Star even if you vote to "WITHHOLD" your vote with respect to their directors using the Lone Star proxy card.

In fact, doing so may cancel any previous vote you cast on the Company's WHITE proxy card. The only way to support your Board's nominees is to vote "FOR" the Board's nominees on the WHITE proxy card.

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 shares present in person or by proxy and entitled to vote on the matter. 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, 2016?

A: For approval of this proposal, the proposal must receive the "FOR" vote of a majority of the shares present in person or by proxy and entitled to vote on the matter. 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: Who pays for the Company's solicitation of proxies?

A: The Company will bear the cost of the solicitation of proxies. In addition to mail and email, proxies may be solicited personally, via the Internet or by telephone or facsimile, by a few of our regular employees without additional compensation. We will reimburse brokers and other persons holding stock in their names, or in the names of nominees, for their expenses for forwarding proxy materials to principals and beneficial owners and obtaining their proxies. As a result of the potential proxy solicitation by Lone Star, we may incur additional costs in connection with our solicitation of proxies. We have hired Okapi Partners LLC ("Okapi"), 437

Madison Avenue, New York, NY 10022, to assist us in the solicitation of proxies for a fee of up to \$125,000 plus out-of-pocket expenses depending on the services that it provides to us during the course of the solicitation. Okapi expects that approximately 25 of its employees will assist in the solicitation, which they may conduct personally, by mail, internet, telephone, fax, email, in-person meetings, press releases, and/or through the use of our investor relations website. We have agreed to indemnify Okapi against certain liabilities relating to or arising out of their engagement. Our expenses related to the solicitation of proxies from stockholders this year will significantly exceed those normally spent for an Annual Meeting. These additional solicitation costs are expected to include the fee payable to our proxy solicitor; fees of outside counsel and financial and other advisors to advise the Company in connection with a contested solicitation of proxies; increased mailing costs, such as the costs of additional mailings of solicitation material to stockholders, including printing costs, mailing costs and the reimbursement of reasonable expenses of banks, brokerage houses and other agents incurred in forwarding solicitation materials to beneficial owners of our common stock, as described above; and possibly the costs of retaining an independent inspector of election.

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) Okapi, the Company’s proxy solicitor, at (877) 629-6356. 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.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Set forth below is information 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 (which includes the Board's Class I Director-nominees), and all current Directors and executive officers of the Company as a group.

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 from the date thereof (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.

<u>Name and Address of Beneficial Owner</u>	<u>Amount and Nature of Beneficial Ownership (1)</u>	<u>Percent of Class (2)</u>
Elazar Rabbani, PhD	1,853,861 (3)	3.9%
Barry W. Weiner	1,289,909 (4)	2.7%
James M. O'Brien	14,496 (5)	*
David C. Goldberg	143,640 (6)	*
Gregory M. Bortz	158,953 (7)	*
Bernard L. Kasten, M.D.	223,800 (8)	*
Dov Perlysky	617,382 (9)	1.3%
Wellington Management Group LLP	4,559,840 (10)	9.9%
Rosalind Davidowitz	3,565,960 (11)	7.7%
All Directors and executive officers as a group (7 persons)	4,302,039 (12)	9.1%

* Represents beneficial ownership of less than 1%.

- (1) Except as otherwise noted in the footnotes to the table, all shares of Common Stock are beneficially owned and the sole investment and voting power is held by the persons named, and such persons' address is c/o Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022.
- (2) Based upon 46,068,815 shares of Common Stock of the Company 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 only when determining the amount and percentage of Common Stock owned by directors and executive officers individually and as a group.
- (3) Includes (i) 262,038 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) 27,108 shares of Common Stock held in the Company's 401(k) plan.
- (4) Includes (i) 194,852 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) 27,116 shares of Common Stock held in the Company's 401(k) plan.

- (5) Includes (i) 11,655 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, and (ii) 2,841 shares of Common Stock held in the Company's 401(k) plan.
- (6) Includes (i) 47,046 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof, and (ii) 21,838 shares of Common Stock held in the Company's 401(k) plan.
- (7) Includes 158,953 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof.
- (8) Includes 158,953 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof.
- (9) Includes (i) 158,953 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) 109,239 shares owned directly by RSD 2012 GRAT, of which Mr. Perlysky is the trustee; (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 Kinger Investments LLP, (viii) 6,981 shares owned by Krovim LLC and (ix) 3,225 shares owned by MidAtlantic Capital LLC. Does not include shares owned by Mrs. Rosalind Davidowitz, who is Mr. Perlysky's mother-in-law.
- (10) 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 November 16, 2015.
- (11) Mrs. Davidowitz's address is 7 Sutton Place South, Lawrence, New York, 11559. Includes (i) 1,312,654 shares owned by Mrs. Davidowitz, (ii) 381,713 shares owned directly by Mr. J. Morton Davis (Mrs. Davidowitz's husband), (iii) 1,216,196 shares owned by Engex, Inc., (iv) 124,738 shares owned by the Morton Foundation, and (v) 11,233 shares owned by an investment advisor whose principal is Mr. Davis. This information is based solely on information provided to the Company by the stockholder on November 19, 2015. This amount does not include shares owned by Laya Perlysky or Mr. Perlysky, her daughter and son-in-law.
- (12) Includes 992,448 shares of Common Stock issuable upon the exercise of options which are exercisable within 60 days from the date hereof.

**PROPOSAL 1
ELECTION OF DIRECTORS**

Board Nominees for Election at the Annual Meeting. The Board unanimously recommends using the enclosed WHITE proxy card to vote FOR each of the Board's two nominees for Director. Lone Star has provided the Company with notice that it intends to nominate two nominees for election as Class I directors at the Annual Meeting. As a result, the election of directors is considered a contested election and the two nominees receiving the largest pluralities of the votes cast will be elected.

The Board unanimously recommends that you disregard any proxy card that may be sent to you by Lone Star. Voting AGAINST Lone Star's nominees on its proxy card is NOT the same as voting FOR our Board's nominees, because a vote against Lone Star's nominees on its proxy card will revoke any previous proxy submitted by you. If you have already voted using a proxy card sent to you by Lone Star, you have every right to change it and we urge you to revoke that proxy by voting in favor of our Board's nominees by using the enclosed WHITE proxy card. Only the latest validly executed proxy that you submit will be counted.

Overview of Election of Directors. 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 I Directors will be elected to hold office for a term of three years or until their respective successors are elected and qualified. Unless otherwise instructed, the shares represented by validly submitted proxy cards will be voted "FOR" the election of the below-listed Board nominees to serve as Class I Directors of the Company. Management has no reason to believe that the below-listed Board nominees will not be candidates or will be unable to serve as Class I Directors. However, in the event that either of the below-listed Board nominees should become unable or unwilling to serve as Class I Director(s), the proxy card will be voted for the election of such alternate person(s) as shall be designated by the Class II and Class III Directors currently on the Board. If any alternate person(s) is/are designated by the Class II and Class III Directors currently on the Board to serve as Class I Director- nominee(s), 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 disclosures 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.

The Board unanimously recommends that you disregard any proxy card that may be sent to you by Lone Star. Voting AGAINST Lone Star's nominees on its proxy card is not the same as voting FOR our Board's nominees, because a vote against Lone Star's nominees on its proxy card will revoke any previous proxy submitted by you. If you have already voted using a proxy card sent to you by Lone Star, you have every right to change it and we urge you to revoke that proxy by voting in favor of our Board's nominees by using the enclosed WHITE proxy card. Only the latest validly executed proxy that you submit will be counted.

Background to Potential Contested Solicitation

On September 22, 2015, Jeffrey E. Eberwein, an affiliate of Lone Star, met with Barry Weiner, the Company's President, and Mr. Eberwein expressed an interest to increase his investment in the Company. On September 25, 2015, the Company received a letter from Lone Star in which Lone Star proposed a slate of two nominees for election at the 2015 annual meeting of shareholders.

On October 1, 2015, Mr. Eberwein spoke with Mr. Weiner and discussed the Company, his proposed nominees for director and his reasoning behind his submission of his director nominees. A meeting to discuss Lone Star's director nominees was also held on October 14, 2015.

On October 20, 2015, Mr. Weiner sent an email at the behest of the Company's Nominating and Corporate Governance Committee to Mr. Eberwein requesting additional information relating to Lone Star's nominees and stating that the Company's Nominating and Corporate Governance Committee would like to interview the Lone Star nominees to learn more about their qualifications.

Various additional communications were held in order to coordinate the interviews of the two Lone Star candidates with the Company's Nominating and Corporate Governance Committee. On November 17, 2015, Dimitrios Angelis, one of Lone Star's two nominees attended a meeting at the Company's office in New York City at which all of the members of the Company's Nominating and Corporate Governance Committee were present in person or teleconference. The interview of the candidate lasted approximately one and a half hours.

On November 20, 2015, John Climaco, the other nominee of Lone Star, participated in a video conference with all the members of the Company's Nominating and Corporate Governance Committee. The interview lasted approximately one and a half hours.

On November 23, 2015, the Company's Nominating and Corporate Governance Committee met, during which meeting the nominees for the Class I Director positions were carefully vetted and reviewed by the Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee unanimously approved (with each director who is a current Class I Director recusing himself from the vote with respect to himself) the nomination of the existing Class I Directors. Immediately subsequent to the Nominating and Corporate Governance Committee meeting, the full Board reviewed the Nominating and Corporate Governance Committee recommendations and unanimously endorsed and approved the same.

On November 25, 2015, Mr. Weiner had a telephone call with Mr. Eberwein in which he communicated to Mr. Eberwein that the Nominating and Corporate Governance Committee of the Company and the full Board reviewed Lone Star's proposed nominees and determined that neither nominee was to be recommended to be a director of the Company whether as replacements of existing directors or as additions to the Board, and offered Mr. Eberwein the opportunity to withdraw his nominees. Shortly after Mr. Weiner's call, Mr. Eberwein called Mr. Weiner back and proposed that the Board nominate one of Lone Star's nominees as an additional Board member (preferably Mr. Angelis but if not, Mr. Climaco) and expand the Board to six members, and then Lone Star would agree to withdraw its other nominee. In response, the Board held a meeting to consider this new proposal by Lone Star. The Board discussed the proposal and unanimously concluded not to accept this new proposal by Lone Star. The Company sent an email to Lone Star communicating the conclusion of the Board.

Biographical Information for Nominees

In addition to the information set forth below, Appendix A sets forth information relating to our director nominees as well as certain of our directors, officers and employees who are considered "participants" in our solicitation under the Rules of the SEC by reason of their position as directors or director nominees of the Company or because they may be soliciting proxies on our behalf.

CLASS I DIRECTOR NOMINEES TO SERVE UNTIL THE 2018 ANNUAL MEETING, IF ELECTED:

Class I: Term to Expire In 2019

Name	Age	Year First Became a Director
Gregory M. Bortz	46	2010
Dov Perlysky	53	2012

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 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 22 years of accounting, auditing, financial and investment banking experience as well as his experience as a board member of CREO's portfolio companies. The Company believes that Mr. Bortz is independent under the rules of the NYSE.

DOV PERLYSKY has been a Director of the Company since September 2012 and since January 2013 has been a member of the Audit Committee and chair of the Nominating and Corporate Governance Committee. 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 Neshet, 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. Mr. Perlysky is the son-in-law of Rosalind Davidowitz, see "Security Ownership of Certain Beneficial Owners and Management" on page 7 and footnotes 9 and 11 thereof. The Company believes that Mr. Perlysky is independent under the rules of the NYSE.

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.

THE BOARD OF DIRECTORS OF THE COMPANY UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" THE ELECTION OF THE ABOVE-NAMED BOARD NOMINEES TO SERVE AS CLASS I DIRECTORS OF THE COMPANY ON THE ENCLOSED WHITE PROXY CARD.

The persons named as proxies intend to vote the proxies "FOR" the election of each of these nominees unless you indicate on the WHITE proxy card a vote to "WITHHOLD" your vote with respect to any of the nominees. If for some reason any 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, and unless you indicate otherwise on the WHITE proxy card, the proxies will be voted in favor of the remaining nominees. If any substitute nominees are designated, we will file an amended proxy statement that, as applicable, identifies the substitute nominees, discloses that such nominees have consented to being named in the revised proxy statement and to serve if elected, and includes certain biographical and other information about such nominees required by SEC rules.

DIRECTORS WHO ARE CONTINUING IN OFFICE:**Class II: Term to Expire In 2017**

Name	Age	Year First Became a Director
Barry W. Weiner	65	1977
Bernard L. Kasten, M.D.	69	2008

Class III: Term to Expire In 2018

Name	Age	Year First Became a Director
Elazar Rabbani, Ph.D.	72	1976

DIRECTORS, EXECUTIVE OFFICERS AND KEY EMPLOYEES

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

Name	Age	Year Became a Director, Executive Officer, or Key Employee	Position
Elazar Rabbani, Ph.D.	72	1976	Chairman of the Board, Chief Executive Officer and Secretary
Barry W. Weiner	65	1977	President, Chief Financial Officer, Principal Accounting Officer, Treasurer and Director
James M. O'Brien	49	2014	Executive Vice President, Finance
David C. Goldberg	58	1995	General Manager of Enzo Clinical Labs, Vice President, Corporate Development
Dieter Schapfel, M.D.	52	2014	Chief Medical Director, Enzo Clinical Labs
Gregory M. Bortz	46	2010 (1)	Director
Bernard L. Kasten, M.D.	69	2008	Director
Dov Perlysky	53	2012 (1)	Director

(1) Director term expires January 2016.

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 39 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 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. Mr. O'Brien has held leadership positions for Corporate and Business Unit budgeting and forecasting, SEC Reporting, Internal Controls and Accounting Operations for large and small multi-national public companies in the pharmaceutical, consumer products and manufacturing industries. From 2010 to 2013, Mr. O'Brien was Vice President and Corporate Controller for Allergen, 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 Arts degree from George Washington University and his Master of Business Administration from Fordham University. Mr. O'Brien is a Certified Public Accountant.

DAVID C. GOLDBERG, Vice President of Corporate Development for Enzo Biochem, has been employed with the Company since 1985. He also held several other managerial positions within Enzo Biochem. Mr. Goldberg also held management and marketing positions with DuPont-NEN and Gallard Schlesinger Industries before joining the Company. He received his Master of Science degree in Microbiology from Rutgers University and his Master of Business Administration in Finance from New York University.

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.

BERNARD L. KASTEN M.D. has been a Director of the Company since 2008 and serves on the Audit, Nominating and Corporate Governance and the Compensation Committees and since January 2011 serves as the Lead Independent Director and Chairman of the Compensation Committee. He presently is Enzo's Lead Independent Director. He was Chairman of the Board of Cleveland Biolabs, Inc. from August 2006 to 2014. From 1996 to 2004, Dr. Kasten served at Quest Diagnostics Incorporated as Chief Laboratory Officer, Vice President of Business Development for Science and Medicine and most recently as Vice President of Medical Affairs of its MedPlus Inc. subsidiary.

Dr. Kasten served as a Director of SIGA Technologies from May 2003 to December 2006, and as SIGA's Chief Executive Officer from July 2004 through April 2006. Since 2007, Dr. Kasten has been the Director and Chairman of GeneLink Inc. and Chairman of the Board of Riggs Heinrich Media Inc./iMirus since 2005.

Dr. Kasten is a graduate of the Ohio State University College of Medicine. His residency was served at the University of Miami, Florida and fellowships at the National Institutes of Health Clinical Center and National

Cancer Institute, Bethesda, Maryland. He is a diplomat of the American Board of Pathology with Certification in Anatomic and Clinical Pathology and Sub-specialty Certification in Medical Microbiology.

We believe that Dr. Kasten's qualifications to serve on our Board are demonstrated by his professional background, experience in the healthcare field, including his prior senior leadership positions at Quest Diagnostics and other medical and biotech related companies, and current and past public company board positions.

Family Relationships

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

Director Independence

Messrs. Gregory M. Bortz and Dov Perlysky and Dr. Bernard L. Kasten 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 NOMINEES TO SERVE AS CLASS I DIRECTORS 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.

Bernard L. Kasten, M.D. has served as Lead Independent Director since March 2011. 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.

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.

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 41.

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 and Corporate 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. Bortz and Dr. Kasten attended the Annual Meeting of Shareholders held in January 2015.

Meetings of the Board of Directors and its Committees

During the fiscal year ended July 31, 2015, there were five formal meetings of the Board of Directors, several actions by unanimous consent 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 two 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. Kasten. 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. Kasten. The Board has determined that each member of the Compensation Committee is independent, as defined in the NYSE listing standards. Dr. Kasten has been the Chairman of the Compensation Committee since January 2011.

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. Kasten and Messrs. Bortz and Perlysky. Mr. Perlysky has been the Chairman since January 2013.

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, 2015:

- (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, 2015 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, 2015 for filing with the SEC. We also selected EisnerAmper LLP as the independent registered public accounting firm for fiscal 2016. The Board is recommending that shareholders ratify that selection at the Annual Meeting.

Submitted by the members of the Audit Committee on October 7, 2015:

Gregory M. Bortz, Chairman
Bernard L. Kasten, MD.
Dov Perlysky

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, 2015, 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, 2015, Enzo Lab paid approximately \$1,623,000 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;
- 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.

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 number of stock options or restricted stock units that the Outside Directors will be granted will be equivalent to 25,000 restricted stock units, not to exceed a fair market value of \$100,000 per year. Either the stock options or restricted stock units referred to above 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 market price on the date of grant

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, 2015 by all non-employee Directors (table format below):

Name	Fees Earned or Paid in Cash	Restricted Stock/Stock Option Awards (1)	Change in Pension Value and Non-Qualified Deferred Compensation Earnings	All Other Compensation	Total
Barnard L. Kasten, M.D. <i>Lead Director</i>	\$ 87,500	\$ 89,085	—	—	\$ 176,585
Gregory M. Bortz, <i>Director</i>	\$ 72,500	\$ 89,085	—	—	\$ 161,585
Dov Perlysky, <i>Director</i>	\$ 62,500	\$ 89,085	—	—	\$ 151,585

- (1) Represents the grant fair value on the respective grant date for the fiscal year ended July 31, 2015, 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, 2015, included in the Company's Form 10-K filed with the SEC on October 13, 2015.

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.

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. Annually, our Compensation Committee intends to review the results of the advisory vote and will consider this feedback as it completes its annual review of each pay element.

At our 2014 Annual Meeting of Shareholders, a majority of the shares that were voted were cast in favor of our say-on-pay proposal. In response to these voting results, during 2015, our senior management team and Board made additional efforts to engage and gather feedback from our shareholders regarding our executive compensation programs to better understand our shareholders' views on executive compensation and address any concerns they had. Our outreach program during 2015 included the following:

- numerous in-depth discussions and dialog throughout the year between senior management, the Chairman of the Compensation Committee and our shareholders,
- examination of reports and analysis issued by principal proxy advisory firms,
- analysis of compensation practices at peer companies; and
- advice from the Compensation Committee's independent compensation consultant.

During 2015, we engaged in discussions with approximately 80% of our top 20 shareholders that own over 47% of our outstanding shares and in total, unaffiliated shareholders owning nearly 52% of our outstanding shares. We believe our executive compensation program is aligned with shareholder interests and feedback received has been incorporated into the Compensation Committee's evaluation of executive performance. While we received feedback on a variety of subjects, 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. Among the comments was a question as to why the Compensation Committee's decided to hold unchanged the CEO and President base salary for the last four years.

The feedback of our shareholders and the operating performance of the Company were significant factors that impacted 2015 executive compensation. Because of the decline in the market price of the Common Stock during fiscal 2015, the cash compensation for each of our executive officers did not increase in fiscal 2015 compared to fiscal 2014 (with the exception of James O'Brien whose compensation increased as a result of his promotion to Executive Officer and given that 2015 was his first full year of service to the Company). The Company's total three fiscal year average shareholder return improved significantly to 26% from 8% in fiscal 2014.

The Compensation Committee will continue to solicit and consider our shareholders' views when making future decisions regarding the structure of our executive compensation programs and the formulation of performance criteria with a goal of aligning executive performance with stockholder long-term growth.

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; and
- 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;
- align executive compensation with comparable companies in our industry sectors to attract, retain and motivate the best possible executive talent.

We award long term incentive compensation in the form of 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 time-vested 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 those of other companies 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: maintenance of customer base, award of new patents, intellectual property protection, advancement of strategic alliances, operational efficiencies, M&A activity, licensing, clinical trial progress, 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 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 Arthur Gallagher & Company, Human Resources & Compensation Consulting (formerly James F. Reda & Associates) ("Consultant") as an independent compensation consultant. The Company's senior management, with the assistance of the Consultant, compiled a list of peer companies. Since 2005, the Consultant has analyzed the executive compensation programs of these companies and issued reports to the Compensation Committee, the latest in November 2015. The Consultant advised the Compensation Committee during the fiscal 2015 compensation process that the total executive compensation was below the midpoint of executive compensation of the Company's peer group. For fiscal 2015, the Compensation Committee intended to keep fiscal 2015 compensation at or near the prior year levels and used the fiscal 2015 market review to confirm that compensation below the midpoint of market range. The Consultant, with recommendations from senior management previously modified the peer company list during the 2015 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 are as follows –

- Adamas Pharmaceuticals, Inc.
- Affymetrix Inc.
- Amag Pharmaceuticals, Inc.
- Array Biopharma, Inc.
- CTI Biopharma Corporation

- Fluidigm Corporation
- Foundation Medicine, Inc.
- Genomic Health, Inc.
- Harvard Biosciences, Inc.
- Luminex Corporation
- Meridian Biosciences, Inc.
- Momenta Pharmaceuticals, Inc.
- Nanostring Pharmaceuticals, Inc.
- Neogenomics, Inc.
- Orasure Technologies, Inc.
- Pacific Biosciences of California
- Progenics Pharmaceuticals, Inc.
- Repligen Corporation
- Sequenom, Inc.
- Spectrum Pharmaceuticals, Inc.
- Vanda 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 three times in fiscal 2015 in order to review and approve our compensation for named executives and non-employee Directors, and approve equity awards for all employees. The results of the Compensation Committee activities were reported to the Board.

Components of our Executive Compensation Program

The primary elements of our executive compensation program are:

- base salary;
- 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 are currently at a base annual salary of \$555,475 and \$492,708, respectively. The Compensation Committee has not increased base salaries since January 2012, with the exception of Mr. O'Brien who received base salary increase upon his promotion to Executive Vice President, Finance.

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 trade and service 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 2014 and 2015 because they believe they are aligned with our core operating performance for fiscal 2014 and 2015 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 2015, depending on whether a Corporate or Divisional Named Executive Officer, include among others, implementation of cost reductions, process and infrastructure improvements, business and technology advancement, advancement of partnering arrangements and litigation proceedings, customer satisfaction, 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. All of the Named Executive Officers received non-equity incentive awards below the target for fiscal 2015. The following achievements of the Company were used to assess the achievement with these target goals.

- The Company reached favorable legal settlements that provided \$11.5 million of additional working capital to enable the company to execute on its business strategy
- The Company expanded the company's platform technologies platforms with the approval of FlowscripTM HPV E6/E7 assay and validation of the AmpiprobeTM HCV assay
- Gross margins increased by 500 basis points in the clinical lab with emphasis on operational excellence and expanded market reach
- The Company's utilization of a low cost, non-dilutive controlled equity offering (ATM) to provide capital to support legal efforts

- The strengthening of the Company's balance sheet with the above mentioned legal settlements, and strong operating performance of the business segments thereby allowing for an increase in our investments in technology based assets.
- The Company's completion of the most successful cycle of regulatory inspections in the last 10 years.

The corporate financial measures applicable to the Chief Executive Officer, President, Executive VP Finance and VP Corporate Development, inclusive of adjustments, include revenue, operating loss improvement, and cash flow from operations improvement, which are equally weighted and averaged for the final results. The measures used for fiscal 2015 for the named executive officers and corresponding payouts are as follows:

(in millions)	Threshold	Target	Maximum	Achieved
Financial Performance Measures—Revenue				
Corporate Revenues—trade and service	\$ 89.9	\$ 99.9	\$ 109.9	\$ 95.1
Payout—Revenue	75%	100%	150%	95%
Financial Performance Measures—Profit & Cash Flow				
Corporate operating loss improvement.	\$ 0.5	\$ 0.7	\$ 0.8	\$ 5.9
Corporate cash flow from operations improvements	\$ 0.3	\$ 0.4	\$ 0.4	\$ 4.3
Payout—Profits & Cash Flow	80%	100%	150%	150%

In connection with the Plan, Dr. Rabbani was eligible for a maximum bonus of 75% of base salary for the fiscal year ended July 31, 2015. Dr. Rabbani was above threshold performance for his financial goals and at target performance for his non-financial goals and was awarded a bonus of \$375,000, which represented 68% 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 fiscal 2015, the CEO's efforts contributed to the favorable results in patent litigation cases and the advancement of other outstanding patent litigation matters.

In connection with the Plan, Mr. Weiner was eligible for a maximum bonus of 60% of base salary for the fiscal year ended July 31, 2015 under the Plan. Mr. Weiner was above threshold performance for his three financial goals and at target performance for his non-financial goals and was awarded a bonus of \$265,000 which represented 54% 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, leadership role among the divisional executives, execution of a planned cost reduction across all operating units, assistance with patent litigation cases and the successful financing transactions in fiscal 2015.

In connection with the Plan, Mr. James M. O'Brien was eligible for a maximum 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 2015 directly managed financing and equity activities. Mr. James M. O'Brien was above threshold performance for his three financial goals and exceeded threshold performance for his three non-financial goals and was awarded a bonus of \$70,000, which represented 25% of his base pay. This amount was greater than the prior year given that 2015 represented Mr. O'Brien's first full year of service to the Company.

In connection with the Plan, Mr. Goldberg was eligible for a maximum bonus of 35% of base salary under the Plan. The Compensation Committee reviewed the recommendation from our CEO with respect to Mr. Goldberg's performance in meeting non-financial objectives listed above, including, expanding our corporate development and relations with industry leaders and investment bankers, his integral role in the cost reduction program, his direct execution of plan to integrate cross functional personnel and product development within operating units, preparing strategic business plan for molecular diagnostics, expanding tests in strategic areas and improving efficiencies through greater automation. Mr. Goldberg was above threshold performance for his three financial goals and exceeded threshold performance for his three non-financial goals and was awarded a bonus of \$65,000, which represented 30% of his base pay.

Stock Options and Restricted Stock Awards

The Compensation Committee awards either stock options or restricted 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 restricted stock 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 grants 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.

For fiscal year 2015, the Compensation Committee decided to grant stock options instead of restricted stock unit awards to greater align management incentives with maximizing shareholder value.

In determining the size of equity awards to our Named Executive Officers, 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 performance, the amount of equity previously awarded to the executive, the vesting schedule of such previous awards and the recommendations of management and its independent Consultant to the Compensation Committee. For the fiscal years ended July 31, 2015, 2014 and 2013, average equity compensation as a percentage of total compensation for all Named Executive Officers was 4%, 11% and 5%, respectively.

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

In January 2015, the Named Executive Officers were issued stock options as a component of their total compensation package as follows:

<u>Executive Officer</u>	<u>Stock Options Issued</u>	<u>Market Value at Time of Issuance</u>
Elazar Rabbani, Ph. D	45,615	\$ 57,703
Barry W. Weiner	36,489	\$ 46,159
James M. O'Brien	15,000	\$ 20,790
David C. Goldberg	—	\$ —

The Compensation Committee believed that Mr. Rabbani and Mr. Weiner should be awarded the same amount of stock options as the prior year and noted that both executives own a substantial amount of the Company's stock given their tenure with the Company. Mr. O'Brien's stock option award was given based on his financial and non-financial performance to the Company. Mr. Goldberg's stock option award was determined based on his financial and non-financial performance during 2014.

Tax Deductibility

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 2015 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; and
- 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.

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”) for each of the fiscal years ended July 31, 2015, 2014 and 2013.

Name and Principal Position	Year	Salary (1)	Option Awards (2)(3)	Non-Equity Incentive Plan Compensation (3)	All Other Compensation (4)	Total
Elazar Rabbani, Ph.D <i>Chairman of the Board of Directors, Chief Executive Officer and Secretary</i>	2015	\$ 555,478	\$ 57,703	\$ 375,000	\$ 187,871	\$ 1,176,052
	2014	\$ 555,478	\$ 148,549	\$ 375,000	\$ 156,000	\$ 1,235,027
	2013	\$ 555,478	\$ 46,591	\$ 245,000	\$ 167,887	\$ 1,014,953
Barry W. Weiner <i>President, Chief Financial Officer, Principal Accounting Officer, Treasurer and Director</i>	2015	\$ 492,708	\$ 46,159	\$ 265,000	\$ 169,780	\$ 973,647
	2014	\$ 492,708	\$ 109,337	\$ 265,000	\$ 153,233	\$ 1,020,278
	2013	\$ 492,708	\$ 37,301	\$ 173,250	\$ 154,567	\$ 857,826
James M. O’ Brien (5) <i>Executive Vice President of Finance</i>	2015	\$ 285,881	\$ 20,790	\$ 70,000	\$ 19,324	\$ 395,995
	2014	\$ 123,846	\$ 22,140	\$ 37,000	\$ 4,388	\$ 187,374
David C. Goldberg <i>Vice President Corporate Development and Interim General Manager, Enzo Clinical Labs</i>	2015	\$ 214,231	—	\$ 65,000	\$ 17,736	\$ 296,967
	2014	\$ 215,000	\$ 32,342	—	\$ 29,460	\$ 276,802
	2013	\$ 215,000	\$ 34,423	\$ 65,500	\$ 29,183	\$ 344,106

- (1) Base salaries set as of January 1 each year
- (2) Represent the fair market value of incentive stock option awards granted to Named Executive Officers on the date of grant, calculated in accordance with FASB ASC Topic 718 for all awards of stock options granted during the relevant fiscal year. Assumptions used in the calculation of these amounts are included in Note 10 to the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended July 31, 2015.
- (3) Represents awards accrued under the Pay for Performance Plan for the years ended July 31, 2015, 2014 and 2013. The Compensation Committee approved a recommendation from the Chief Executive Officer and President to pay out 30% of each of the Chairman’s and President’s 2013 Incentive Plan award in stock options rather than cash. The above chart only reflects the amount paid or to be paid in cash and excludes \$105,000 and \$74,500, respectively that was reflected as a stock option award in fiscal 2014.
- (4) See the “All Other Compensation” chart for additional information.
- (5) Mr. James O’Brien became an executive officer in February 2014.

Grants of Plan-Based Awards in Fiscal 2015

During the fiscal year ended July 31, 2015, the Compensation Committee approved the following equity awards to the Named Executive Officers:

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(1)			All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards (\$/Sh)	Grant Date Fair Value of Stock and Option Awards
		Threshold	Target	Maximum			
Elazar Rabbani, Ph.D	1/21/2015	\$ 324,954	\$ 416,608	\$ 624,912	45,615(2)	\$ 3.40	\$ 57,703
Barry W. Weiner	1/21/2015	\$ 230,587	\$ 295,624	\$ 443,436	36,489(2)	\$ 3.40	\$ 46,159
James M. O'Brien	1/21/2015	\$ 78,045	\$ 100,058	\$ 150,087	15,000(2)	\$ 3.40	\$ 20,790
David C. Goldberg	1/21/2015	\$ 58,484	\$ 74,980	\$ 112,470	—	—	—

- (1) For awards actually granted, see the amount of non-equity incentive award reported in the "Summary Compensation Table" above.
- (2) 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, 2015

The following table sets forth summary information regarding the outstanding option awards made to the Named Executive Officers at July 31, 2015:

Name	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable(1)	Option Exercise Price	Option Expiration Date
Elazar Rabbani, Ph.D	159,091	—	\$ 3.00	11/26/2017
	38,505	—	\$ 2.88	1/17/2018
	20,817	20,817	\$ 2.70	1/17/2019
	—	45,615	\$ 3.40	1/21/2020
Barry W. Weiner	112,500	—	\$ 3.00	11/26/2017
	30,802	—	\$ 2.88	1/17/2018
	16,653	16,652	\$ 2.70	1/17/2019
	—	36,489	\$ 3.40	1/21/2020
James M. O'Brien	6,666	13,334	\$ 2.75	2/3/2019
	—	15,000	\$ 3.40	1/21/2020
David C. Goldberg	18,268	9,161	\$ 2.88	1/17/2018
	9,809	19,646	\$ 2.70	1/17/2019

- (1) Each option award vests in equal amounts on the first, second and third anniversaries of the award grants 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 share, February 3, 2014 for the options granted at \$2.75 and January 21, 2015 for the options granted at \$3.40 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 during the fiscal year ended July 31, 2015. No options were exercised in the year ended July 31, 2015.

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	—	—
David C. Goldberg	3,332	\$ 11,629

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

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 currently expire on September 30, 2017, but 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 and David C. Goldberg 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 are eligible to participate in our employee benefit plans. The annual Company match for our Named Executive Officers and our employees is up to \$11,500, if over 50 years old, or limited to 50% of the maximum contribution by the Named Executive Officers.

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 executives 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 for the fiscal years ended July 31, 2015, 2014 and 2013.

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	2015	\$ 11,500	\$ 144,342	\$ 9,636	\$ 22,393	\$ 187,871
	2014	\$ 11,500	\$ 123,760	\$ 8,084	\$ 12,656	\$ 156,000
	2013	\$ 11,000	\$ 126,573	\$ 9,434	\$ 20,880	\$ 167,887
Barry W. Weiner	2015	\$ 11,500	\$ 133,859	\$ 3,121	\$ 21,300	\$ 169,780
	2014	\$ 11,500	\$ 118,100	\$ 2,333	\$ 21,300	\$ 153,233
	2013	\$ 11,250	\$ 119,684	\$ 2,333	\$ 21,300	\$ 154,567
James M. O’ Brien	2015	\$ 8,750	\$ 374	\$ —	\$ 10,200	\$ 19,324
	2014	\$ —	\$ 138	\$ —	\$ 4,250	\$ 4,388
David C. Goldberg	2015	\$ 11,500	\$ 1,072	\$ —	\$ 5,164	\$ 17,736
	2014	\$ 9,825	\$ 1,032	\$ —	\$ 18,603	\$ 29,460
	2013	\$ 9,616	\$ 1,032	\$ —	\$ 18,535	\$ 29,183

- (1) Represents Company match 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 \$90,000 each.
- (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, James O’Brien and David Goldberg, these executives are entitled to specified benefits in the event of the termination of their employment under specified circumstances, including termination following a change of ownership or control of our Company. 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 Compensation Table to the Named Executive Officers as of July 31, 2015.

<u>Name and Principal Position</u>	<u>Acceleration of Vesting</u>	<u>Severance Pay (1)</u>	<u>Continuation of Benefits</u>	<u>Tax Gross-Up</u>	<u>Total</u>
Elazar Rabbani, Ph.D.					
Termination without cause or by Executive for Good Reason	\$ 6,245	\$ 3,123,180	\$ 616,276	—	\$ 3,745,701
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$ 6,245	\$ 3,123,180	\$ 616,276	\$ 1,518,076	\$ 5,263,777
Barry W. Weiner					
Termination without cause or by Executive for Good Reason	\$ 7,185	\$ 2,590,401	\$ 660,095	—	\$ 3,257,681
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$ 7,185	\$ 2,590,401	\$ 660,095	\$ 1,344,296	\$ 4,601,977
James M. O'Brien					
Termination without cause or by Executive for Good Reason	—	\$ 152,500	—	—	\$ 152,500
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$ 3,333	\$ 152,500	—	—	\$ 155,833
David C. Goldberg					
Termination without cause or by Executive for Good Reason	—	—	—	—	—
Change in control transaction without termination	—	—	—	—	—
Change in control transaction with termination	\$ 6,999	—	—	—	\$ 6,999

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

Tax and Accounting Considerations

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 (other than 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.

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, 2015.

Dr. Bernard L. Kasten, Chairman
Gregory M. Bortz
Dov Perlisky

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 PLAN

The following table sets forth information regarding our existing equity compensation plan as of July 31, 2015:

Plan Category	(A) Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	(B) Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	(C) Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (Excluding Securities Reflected in Column A) (2)
Equity compensation plans approved by security holders	1,379,605 (1)	\$ 3.04	1,301,000
Equity compensation plans not approved by security holders	—	—	—
Total	1,379,605	\$ 3.04	1,301,000

- (1) Shares to be issued upon exercise of options or restricted stock awards under the 2011 plan. Follow up with AI on why this is changing
- (2) Shares available for grant under the 2011 plan.

INSURANCE FOR INDEMNIFICATION OF DIRECTORS AND OFFICERS

The Company has in effect with Illinois National Insurance Company and Allied World Assurance Company, under a policy effective February 22, 2015 and expiring on February 22, 2016, insurance covering all of its Directors and officers and certain other employees of the Company against certain liabilities and reimbursing the Company for obligations which it incurs as a result of its indemnification of such directors, officers and employees. Such insurance has been obtained in accordance with the provisions of Section 726 of the Business Corporation Law of the State of New York. The annual premiums are \$211,563.

PROPOSAL 2
ADVISORY VOTE ON THE COMPANY'S NAMED EXECUTIVE
OFFICER COMPENSATION

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

At our 2011 annual meeting of shareholders, a majority of our shareholders who voted supported an annual vote on our executive compensation and, in response, our Compensation Committee determined to hold an annual vote on the matter.

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

We encourage shareholders to read the "Compensation Discussion and Analysis" section of this Proxy Statement, the 2015 Summary Compensation Table and the other related tables and disclosure for a detailed description of the fiscal year 2015 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 shareholders and the Board and the Compensation Committee will review the voting results and will take into account the outcome of the vote when considering future compensation decisions for the Named Executive Officers.

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

"RESOLVED, that the Company's shareholders approve, on a nonbinding advisory basis, the compensation paid to the Company's Named Executive Officers, as disclosed in the Company's Proxy Statement for the 2015 Annual Meeting of Shareholders 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
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, 2016. 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, 2016, 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 2015 and 2014, 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 2015	FY 2014
Audit Fees:	\$ 561,350	\$ 503,500
Audit-related Fees:	\$ 62,000	\$ 60,000
Tax Fees:	—	—
All Other Fees:	\$ 62,500	\$ 67,500
Total	\$ 685,850	\$ 631,000

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, 2014 and 2013, for which the Company is the plan sponsor; these fees were \$37,000 and \$35,000 respectively. In addition, during fiscal year 2015 and 2014, EisnerAmper performed a review of registration statements related to issuance of equity with total fees of \$25,500 and \$32,500, respectively.

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.

E&Y LLP, the Company's former independent registered public accounting firm, billed the Company for services for fiscal 2015 and 2014, as set forth in the table below. The fees listed are aggregate fees for services performed for the aforementioned periods, regardless of when the fee was actually billed.

	2015	2014
Audit Fees:	—	—
Audit-related Fees:	\$ 25,000	\$ 190,000
Tax Fees:	—	—
All Other Fees:	—	—
Total	\$ 25,000	\$ 190,000

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 – Consists of fees associated with comfort letters.

THE BOARD OF DIRECTORS OF THE COMPANY UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSAL 3 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, 2016.

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 2015 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 2015 Annual Report to Shareholders, which includes the Company's Annual Report on Form 10-K for its fiscal year ended July 31, 2015 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 2015 Annual Report to Shareholders, which includes the Company's Annual Report on Form 10-K for its fiscal year ended July 31, 2015. 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, 2015. 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.

METHOD AND COST OF SOLICITATION OF PROXIES

The Company will bear the cost of the solicitation of proxies. In addition to mail and email, proxies may be solicited personally, via the Internet or by telephone or facsimile, by a few of our regular employees (set forth in Appendix A) without additional compensation. We will reimburse brokers and other persons holding stock in their names, or in the names of nominees, for their expenses for forwarding proxy materials to principals and beneficial owners and obtaining their proxies. As a result of the potential proxy solicitation by Lone Star, we may incur additional costs in connection with our solicitation of proxies. We have hired Okapi Partners LLC ("Okapi"), 437 Madison Avenue, New York, NY 10022 to assist us in the solicitation of proxies for a fee of up to \$125,000 plus out-of-pocket expenses depending on the services that it provides to us during the course of the solicitation. Okapi expects that approximately 25 of its employees will assist in the solicitation, which they may conduct personally, by mail, internet, telephone, fax, email, in-person meetings, press releases, and/or through the use of our investor relations website. We have agreed to indemnify Okapi against certain liabilities relating to or arising out of their engagement. Our expenses related to the solicitation of proxies from stockholders this year will significantly exceed

those normally spent for an Annual Meeting. These additional solicitation costs are expected to include the fee payable to our proxy solicitor; fees of outside counsel and financial and other advisors to advise the Company in connection with a contested solicitation of proxies; increased mailing costs, such as the costs of additional mailings of solicitation material to stockholders, including printing costs, mailing costs and the reimbursement of reasonable expenses of banks, brokerage houses and other agents incurred in forwarding solicitation materials to beneficial owners of our common stock, as described above; and possibly the costs of retaining an independent inspector of election.

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 2016 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 _____ (120 calendar days preceding the one-year anniversary of the date this Proxy Statement was first mailed to our shareholders for the 2015 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 2015 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 _____ (the 45th day preceding the one-year anniversary of the date this Proxy Statement was first mailed to our shareholders for the 2015 Annual Shareholder Meeting).

Director Nominations

Under our Bylaws, shareholders intending to nominate one or more candidates for election to our Board at our 2016 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 _____. 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.

If you have any questions or require any assistance with voting your shares, please contact Okapi Partners LLC, our proxy solicitor, at (877) 629-6356.

Appendix A to 2015 Proxy Statement

INFORMATION CONCERNING PARTICIPANTS
IN THE COMPANY'S SOLICITATION OF PROXIES

The following tables set forth the name and business address for our directors and the name, present principal occupation and business address of our officers and employees who, under the Rules of the Securities and Exchange Commission, are considered to be "participants" in our solicitation of proxies from our stockholders in connection with our 2015 Annual Meeting of Stockholders.

Directors

The principal occupations of our directors who are considered "participants" in our solicitation are set forth under the section above titled "PROPOSAL 1 – ELECTION OF DIRECTORS" of this Proxy Statement. The name and business addresses, and address of the organization of employment, of our directors and nominees are as follows:

<u>Name</u>	<u>Business Address</u>
Elazar Rabbani, Ph.D.	527 Madison Avenue, New York, NY 10022
Barry W. Weiner	527 Madison Avenue, New York, NY 10022
Bernard L. Kasten M.D.	c/o Enzo Biochem Inc. 527 Madison Avenue, New York, NY 10022
Gregory M. Bortz	c/o Enzo Biochem Inc. 527 Madison Avenue, New York, NY 10022
Dov Perlysky	2 Lakeside Drive West, Lawrence, NY 11559

Officers and Employees

The principal occupations of our executive officers and employees who are considered "participants" in our solicitation of proxies are set forth below. The principal occupation refers to such person's position with the Company, and the business address for each person is Enzo Biochem, Inc., 527 Madison Avenue, New York, NY 10022.

<u>Name</u>	<u>Principal Occupation</u>
Elazar Rabbani, Ph.D.	Chairman of the Board of Directors, Chief Executive Officer, and Secretary
Barry W. Weiner	President, Chief Financial Officer, Principal Accounting Officer and Director
David C. Goldberg	General Manager of Enzo Clinical Labs and Vice President Corporate Development for Enzo Biochem
Dieter Schapfel, M.D.	Chief Medical Director of Enzo Clinical Labs
James M. O'Brien	Executive Vice President, Finance

Information Regarding Ownership of Enzo Biochem Securities by Participants

The number of shares of our common stock held by our directors and named executive officers as of November 23, 2015 is set forth under the "SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS" section of this Proxy Statement. No participant owns any securities of the Company of record that such participant does not own beneficially.

Information Regarding Transactions in Enzo Biochem Securities by Participants

The following table sets forth information regarding purchases and sales of our securities by each of the participants listed above under “Directors and Nominees” and “Officers and Employees” during the past two years. Unless otherwise indicated, all transactions were in the public market or pursuant to our equity compensation plans and none of the purchase price or market value of those securities is represented by funds borrowed or otherwise obtained for the purpose of acquiring or holding such securities.

Shares of Common stock Purchases or Sold (August 1, 2013 – November 23, 2015)			
Name	Date	# of Shares	Transaction Description
Bernard L. Kasten M.D.	03/31/2014	(2,500)	Disposition – disposition to the issuer
	04/02/2014	(5,000)	Disposition – disposition to the issuer
	04/10/2014	(7,500)	Disposition – disposition to the issuer
	07/16/2014	(3,200)	Disposition – disposition to the issuer
	07/16/2014	(12,498)	Disposition – disposition to the issuer
	10/23/2014	(3,067)	Disposition – Open market sale
	10/23/2014	(33)	Disposition – Open market sale
	10/24/2014	(5,000)	Disposition – Open market sale
	10/24/2014	(5,000)	Disposition – Open market sale
	10/24/2014	(2,500)	Disposition – Open market sale
	Dov Perlysky	01/01/2015	(416,589)
01/01/2015		1,923	Acquisition – transfer made in connection with the distribution of a GRAT
01/01/2015		3	Acquisition – transfer made in connection with the distribution of a GRAT
01/01/2015		40,827	Acquisition – transfer made in connection with the distribution of a GRAT

Miscellaneous Information Concerning Participants

Other than as set forth in this Appendix A or the Proxy Statement, none of the participants listed above or any of their associates (i) beneficially owns, directly or indirectly, any shares or other securities of the Company or any of our subsidiaries or (ii) has any substantial interest, direct or indirect, by security holdings or otherwise, in any matter to be acted upon at the Annual Meeting of Stockholders. In addition, except as set forth elsewhere in this Appendix A or this Proxy Statement, none of the participants listed above has been, within the past year, a party to any contract arrangement or understanding with any person with respect to any of our securities, including, but not limited to, joint ventures, loan or option arrangements, puts or calls, guarantees against loss or guarantees of profit, division of losses or profits or the giving or withholding of proxies.

Other than as set forth in this Appendix A or this Proxy Statement, none of the participants listed above or any of their associates have (i) other than the Employment Agreements covering certain of our executive officers, which are described in the Proxy Statement, any arrangements or understandings with any person with respect to any future employment by us or our affiliates or with respect to any future transactions to which we or any of our affiliates will or may be a party, or (ii) a direct or indirect material interest in any transaction or series of similar transactions since the beginning of our last fiscal year or any currently proposes transactions, or series of similar transactions, to which we or any of our subsidiaries was or is to be a party in which the amount involved exceeds \$120,000.

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

VOTE BY INTERNET - www.okapivote.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.

VOTE BY PHONE – 1-877-386-4269

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 Okapi Partners, 1212 Avenue of the Americas, 24th Floor, New York, NY 10036.

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

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

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

**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 Mr. Barry Weiner and Dr. Elazar Rabbani 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 23, 2015 at the Annual Meeting of Shareholders to be held on January [---], 2016 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" ELECTION OF THE NOMINEE FOR CLASS III DIRECTOR NAMED IN PROPOSAL 1 IN THIS PROXY CARD, AND "FOR" EACH OF PROPOSALS 2 AND 3 IN THIS PROXY CARD.** The undersigned hereby acknowledges receipt of notice of, and the proxy statement for, the aforesaid Annual Meeting of Shareholders.

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

Continued and to be signed on reverse side

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 Directors

Nominees

01) Gregory M. Bortz

02) Dov Perlysky

The Board of Directors recommends you vote FOR Proposals 2 and 3:

For **Against** **Abstain**

2. To approve, in a non-binding advisory vote, the compensation of the Company's named executive officers.

3. 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, 2016.

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 the nominees for Class I Directors named in Proposal 1 in this proxy card, and FOR each of Proposals 2 and 3 in this proxy card.**

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 WITHIN BOX] Date

Signature (Joint Owners) Date