

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

SCHEDULE 14A

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

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

Enzo Biochem, Inc.

(Name of Registrant as Specified in Its Charter)

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

Payment of Filing Fee (Check the appropriate box):

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

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

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

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

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

Fee paid previously with preliminary materials.

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

(1) Amount previously paid:

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

(3) Filing Party:

(4) Date Filed:



December 31, 2019

Dear All Shareholders of Enzo Biochem, Inc.:

We are pleased to announce that Enzo Biochem, Inc. (the "Company") appointed Rebecca J. Fischer to its Board of Directors (the "Board") as a Class I Director. Her appointment as a new independent director is effective as of December 30, 2019 and follows an extensive search process conducted as part of the Company's ongoing focus on Board composition, refreshment and diversity. Ms. Fischer has taken the place of Gregory M. Bortz who has retired from the Board. Ms. Fischer has also been appointed to the Audit, Compensation and Nominating/Governance Committees of the Board and will serve as Chair of the Audit Committee. She will stand for election at the upcoming 2019 annual meeting of shareholders scheduled to be held at The Yale Club of New York City, 50 Vanderbilt Avenue, New York, NY 10017, on January 31, 2020, at 9:00 a.m., New York City time (including any adjournments, postponements or continuations thereof, the "2019 Annual Meeting"). Accordingly, the Board has added a new proposal, in addition to those proposed on the proxy statement filed with the SEC by the Company on December 5, 2019 (the "Proxy Statement"), for consideration at the 2019 Annual Meeting reflecting the addition of the new candidate for election to the Board.

As described in the enclosed Supplement to the Proxy Statement (the "Supplement"), Ms. Fischer is an independent director candidate and is eager to contribute her expertise to the Board and help drive shareholder value.

Even if you previously submitted a white proxy card, we urge you to fill out and submit the NEW enclosed WHITE proxy card today. The NEW WHITE proxy card enclosed with the Supplement differs from the proxy card previously furnished to you with the Proxy Statement. The enclosed NEW WHITE amended proxy card reflects the nomination of Rebecca J. Fischer in addition to the Company's original two director nominees, for a total of three director nominees. Any proxy or voting instruction form may be revoked at any time prior to its exercise at the 2019 Annual Meeting, as described in the Proxy Statement. Only your latest dated and signed proxy card or voting instruction form will be counted. If you have already voted on the previously distributed white proxy card and you do not submit a new proxy card or voting instruction form, your previously submitted proxy or voting instruction form will still be voted at the 2019 Annual Meeting, but will not be counted in determining the outcome of the election of the Company's new Class I Director candidate, Rebecca J. Fischer. If you would like to cast your vote in favor of the election of Ms. Fischer, you must fill out and submit the enclosed NEW WHITE proxy card. **THE BOARD UNANIMOUSLY RECOMMENDS VOTING "FOR" THE ELECTION OF REBECCA J. FISCHER AS A CLASS I DIRECTOR AND BARRY W. WEINER AND BRUCE A. HANNA AS CLASS II DIRECTORS USING THE ENCLOSED NEW WHITE PROXY CARD.**

YOUR VOTE IS IMPORTANT

Your vote at this 2019 Annual Meeting is important. To assure that your shares are represented at the 2019 Annual Meeting, we urge you to date, sign and return the enclosed NEW WHITE proxy card in the postage-paid envelope provided, or vote by telephone or the Internet as instructed on the NEW WHITE proxy card, whether or not you plan to attend the 2019 Annual Meeting. If you previously submitted a proxy card or a voting instruction form for the 2019 Annual meeting, such proxy card or voting instruction form will continue to be valid and will be voted at the 2019 Annual Meeting. If your shares are held for your account by a broker or other nominee, you should have received by this time instructions from the holder of record that you must follow for your shares to be voted.

Please read the Proxy Statement that was previously made available to shareholders and the enclosed Supplement in their entirety, as the order of the proposals has been updated in this Supplement and together they contain all of the information that is important to your decisions in voting at the 2019 Annual Meeting.

On behalf of your Board of Directors, we thank you for your continued support.

December 31, 2019

By Order of the Board of Directors,
/s/ Barry W. Weiner
Barry W. Weiner
President, Treasurer and Director



NOTICE OF 2019 ANNUAL MEETING OF SHAREHOLDERS

To be held on January 31, 2020

To All Shareholders of Enzo Biochem, Inc.:

NOTICE IS HEREBY GIVEN that the 2019 Annual Meeting of Shareholders of Enzo Biochem, Inc., a New York corporation (the "Company"), will be held at The Yale Club of New York City, 50 Vanderbilt Avenue, New York, NY 10017, on January 31, 2020, at 9:00 a.m., New York City time (including any adjournments, postponements or continuations thereof, the "Annual Meeting"), for the following purposes:

1. To elect Barry W. Weiner and Bruce A. Hanna, Ph.D. to the Company's Board of Directors (the "Board") as Class II Directors for a term of three (3) years or until their respective successors have been duly elected and qualified;
2. To elect Rebecca J. Fischer to the Board as a Class I Director for a term of two (2) years or until her successor has been duly elected and qualified;
3. To approve, by a nonbinding advisory vote, the compensation of the Company's Named Executive Officers;
4. 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, 2020;
5. To approve an amendment to the Company's By-Laws to implement majority voting in uncontested director elections; and
6. To transact such other business as may properly come before the Annual Meeting.

The accompanying supplement (including all annexes attached thereto, the "Supplement") to the proxy statement filed by the Company with the SEC on December 5, 2019 (the "Proxy Statement") provides detailed information about the matters to be considered at the Annual Meeting. As you may be aware, Harbert Discovery Fund, LP and Harbert Discovery Co-Investment Fund I, LP (together with certain affiliates, "Harbert") have filed a proxy statement soliciting proxies for the election of two director candidates for election as Class II Directors at the Annual Meeting in opposition to the two Class II director nominees proposed by the Board. You may receive solicitation materials from Harbert, including a proxy statement and blue proxy card. We urge you to disregard such materials. We are not responsible for the accuracy of any information provided by or relating to Harbert or its nominees contained in solicitation materials filed or disseminated by or on behalf of Harbert or any other statements Harbert or its representatives may make.

The Board does NOT endorse either of Harbert's nominees and unanimously recommends that you vote "FOR" the election of each of the director nominees proposed by the Board on the **WHITE** proxy card. The Board strongly urges you not to sign or return any proxy card sent to you by Harbert. If you have previously submitted a proxy card sent to you by Harbert, you can revoke that proxy over the Internet or by telephone by following the instructions to vote on the enclosed **WHITE** proxy card or by completing, signing and dating the enclosed **WHITE** proxy card and mailing it in the postage prepaid envelope provided until the Annual Meeting. Only your latest dated proxy will count. Any proxy may be revoked at any time prior to its exercise at the Annual Meeting as described in the accompanying Supplement.

It is extremely important that your shares be represented and voted at the Annual Meeting. Whether or not you plan to attend the Annual Meeting, please vote as soon as possible. We urge you to date, sign and return the WHITE proxy card in the envelope provided to you, or to use the telephone or Internet method of voting described on your WHITE proxy card, even if you plan to attend the Annual Meeting, so that if you are unable to attend the Annual Meeting, your shares can be voted. Voting now will not limit your right to change your vote or to attend the Annual Meeting. If you should be present at the Annual Meeting and desire to vote in person, you may withdraw your proxy. If your shares are held in the name of a broker, bank or other holder of record, follow the voting instructions you received from the holder of record in order to vote your shares. Please note that in order to be permitted entrance to the Annual Meeting you will be asked to present proof that you are a shareholder of the Company as well as valid government-issued picture identification, such as a driver's license or passport. The use of cameras, recording devices and other electronic devices (including mobile phones) will be prohibited at the Annual Meeting.

Please carefully read the Proxy Statement that was previously made available to shareholders and the enclosed Supplement in their entirety, as the order of the proposals has been updated in this Supplement and they explain the proposals to be considered by and acted upon by you at the Annual Meeting.

The Board has fixed the close of business on December 3, 2019 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.

We appreciate your continued interest in the Company. We look forward to greeting as many of our shareholders as possible at the Annual Meeting. If you have any questions or require any assistance with voting your shares, or if you need additional copies of the proxy materials, please contact Investor Relations at (212) 583-0100 or our proxy solicitor, Kingsdale Advisors, at:

Kingsdale Advisors
(888) 518-1554 (toll-free in North America)
(416) 867-2272 (outside of North America)
email: ENZ@kingsdaleadvisors.com

December 31, 2019

By Order of the Board of Directors,
/s/ Barry W. Weiner

Barry W. Weiner
President, Treasurer and Director

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

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE SHAREHOLDER MEETING TO BE HELD ON JANUARY 31, 2020

This Notice of Annual Meeting of Shareholders, the Proxy Statement, the enclosed Supplement, the Company's 2019 Annual Report on Form 10-K and Form 10-K/A for the fiscal year ended July 31, 2019, and form of **WHITE** proxy card, and any amendments thereto, are available free of charge at <http://www.enzo.com/corporate/investor-information/enzo-sec-filings>. Information on our website does not constitute part of the Company's proxy solicitation materials.

Shareholders may also obtain a copy of these materials by writing to Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022, Attention: Investor Relations. Upon payment of a reasonable fee, shareholders may also obtain a copy of the exhibits to our Annual Report on Form 10-K and Form 10-K/A for our fiscal year ended July 31, 2019. Any request for such materials should be delivered to the Company before January 24, 2019 to facilitate timely delivery.

For information on how to obtain directions to be able to attend the Annual Meeting and vote in person, please write to the Company's principal corporate office at 527 Madison Avenue, New York, New York 10022, Attention: Investor Relations or call (212) 583-0100 requesting such information.

THE BOARD UNANIMOUSLY RECOMMENDS VOTING "FOR" BARRY W. WEINER AND BRUCE A. HANNA AS CLASS II DIRECTORS, "FOR" THE ELECTION OF REBECCA J. FISCHER AS A CLASS I DIRECTOR, "FOR" PROPOSAL 3, "FOR" PROPOSAL 4 AND "FOR" PROPOSAL 5 USING THE ENCLOSED WHITE PROXY CARD. THE BOARD URGES YOU NOT TO SIGN, RETURN OR VOTE ANY PROXY CARD THAT MAY BE SENT TO YOU BY HARBERT EVEN AS A PROTEST VOTE, AS ONLY YOUR LATEST DATED PROXY CARD WILL BE COUNTED.

Kingsdale Advisors is assisting us with our effort to solicit proxies. Therefore, requests for the above materials can also be made to Kingsdale Advisors through the following channels: (1) by calling (888) 518-1554 (toll-free in North America); (2) by calling (416) 867-2272 (outside of North America); or (3) by emailing ENZ@kingsdaleadvisors.com. Additionally, if you have any questions or require assistance in authorizing a proxy or voting your shares of our common stock or in obtaining any of the above materials, please contact Kingsdale Advisors through one of the three channels listed above. We are not aware of any other business, or any other nominees for election as directors, that may properly be brought before the Annual Meeting.

IF YOU ARE A RECORD HOLDER OF SHARES, OR AN OWNER WHO OWNS SHARES IN "STREET NAME" AND OBTAIN A "LEGAL" PROXY FROM YOUR BROKER, BANK, TRUSTEE OR NOMINEE, YOU STILL MAY ATTEND THE ANNUAL MEETING AND VOTE YOUR SHARES OR REVOKE YOUR PRIOR VOTING INSTRUCTIONS.

Regardless of the number of shares of our common stock that you own, your vote will be very important. Thank you for your continued support, interest and investment in Enzo Biochem, Inc.

TABLE OF CONTENTS

	<u>Page</u>
<u>PROPOSAL 1 ELECTION OF CLASS II DIRECTORS</u>	9
<u>CLASS II DIRECTOR NOMINEES TO SERVE UNTIL THE 2022 ANNUAL MEETING, IF ELECTED:</u>	9
<u>PROPOSAL 2 ELECTION OF CLASS I DIRECTOR</u>	11
<u>CLASS I DIRECTOR NOMINEE TO SERVE UNTIL THE 2021 ANNUAL MEETING, IF ELECTED</u>	11
<u>DIRECTORS WHO ARE CONTINUING IN OFFICE:</u>	12
<u>Class I: Term to Expire at the 2021 Annual Meeting in 2022</u>	12
<u>Class III: Term to Expire at the 2020 Annual Meeting in 2021</u>	12
<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT</u>	14
<u>PROPOSAL 3 ADVISORY VOTE ON THE COMPANY’S NAMED EXECUTIVE OFFICER COMPENSATION</u>	15
<u>PROPOSAL 4 RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM</u>	16
<u>PROPOSAL 5 APPROVAL OF AN AMENDMENT TO THE COMPANY’S BY-LAWS TO IMPLEMENT MAJORITY VOTING IN UNCONTESTED DIRECTOR ELECTIONS</u>	17
<u>OTHER MATTERS</u>	19



**SUPPLEMENT TO THE PROXY STATEMENT
FOR THE 2019 ANNUAL MEETING OF SHAREHOLDERS**

This proxy supplement (including all annexes attached hereto, this "Supplement") supplements, amends and, to the extent inconsistent, supersedes the corresponding information in the Proxy Statement (the "Proxy Statement") for the 2019 Annual Meeting of Shareholders (the "2019 Annual Meeting") of Enzo Biochem, Inc. ("Enzo", "Enzo Biochem" or the "Company") dated December 5, 2019 as filed with the Securities and Exchange Commission (the "SEC") and previously furnished to shareholders of the Company in connection with the solicitation of proxies by the Board of Directors of the Company (the "Board").

The 2019 Annual Meeting will be held at The Yale Club of New York City, 50 Vanderbilt Avenue, New York, NY 10017, on January 31, 2020, at 9:00 a.m., New York City time. Only shareholders as of the close of business on the record date for the 2019 Annual Meeting, December 3, 2019, will be entitled to notice of and to vote at the 2019 Annual Meeting.

THIS SUPPLEMENT CONTAINS IMPORTANT ADDITIONAL INFORMATION AND SHOULD BE READ IN CONJUNCTION WITH THE PROXY STATEMENT. IN ADDITION TO THE NEW INFORMATION PROVIDED IN THIS SUPPLEMENT, THE ORDER OF THE PROPOSALS TO BE PRESENTED AT THE ANNUAL MEETING HAS ALSO BEEN UPDATED.

Except as specifically amended or supplemented by the information contained in this Supplement, all information set forth in the Proxy Statement remains accurate and should be considered in casting your vote by proxy or in person at the 2019 Annual Meeting.

This Supplement is first being furnished to shareholders of Enzo on or about December 31, 2019.

Explanatory Note

The Company has Appointed a New Director and Amended its Slate of Director Nominees

In line with prior feedback we received from shareholders, our By-Laws limit the service of independent directors on our Board to three terms, but they may serve a fourth term by unanimous decision of the Board. The Board renominated Gregory Bortz to stand for election at the 2018 annual meeting of shareholders so that Mr. Bortz could assist in the execution of the Company's strategic plan for which he was a key contributor. It was understood that Mr. Bortz would step down as a director before the completion of his term after the Company made additional progress on the strategic plan upon the appointment of a qualified replacement director. At the same time feedback provided by shareholders to the Company began to focus more heavily on Board composition and structure. As a result, the Board's ongoing process to find qualified candidates intensified in 2019. As the Board narrowed in on its selection of Ms. Fischer, the Board needed to consider timing of the appointment. New York Corporate Law provides that any director elected to fill a vacancy, unless elected by the shareholders, shall hold office until the next meeting of shareholders at which the election of directors is in the regular order of business, and until his or her successor has been elected and qualified. Accordingly, in the interest of transparency and accountability to shareholders, the Board resolved to appoint Ms. Fischer immediately and put her up for a vote of the Company's shareholders at the 2019 Annual Meeting rather than announce her appointment to occur after the 2019 Annual Meeting. Therefore, on December 23, 2019, upon the recommendation of our Nominating/Governance Committee, our Board voted to appoint Ms. Fischer upon her acceptance to replace Mr. Bortz as a Class I Director and nominate her for election at the Annual Meeting upon her acceptance of the appointment. Mr. Bortz tendered his resignation effective immediately upon Ms. Fischer's acceptance.

The WHITE Proxy Card has been Amended

Even if you previously submitted a WHITE proxy card, we urge you to fill out and submit the NEW enclosed WHITE proxy card today. The NEW WHITE proxy card enclosed with this Supplement differs from the proxy card previously furnished to you with the Proxy Statement in that the enclosed NEW WHITE proxy card reflects the new proposal and an updated order for all of the proposals. Any proxy card or voting instruction form may be revoked at any time prior to its exercise at the 2019 Annual Meeting as described in the Proxy Statement. Only your latest dated and signed proxy card or voting instruction form will be counted. **If you would like to cast your vote in favor of the election of Ms. Fischer, you must fill out and submit the enclosed NEW WHITE proxy card.**

RECOMMENDATIONS OF THE BOARD

THE BOARD URGES SHAREHOLDERS TO VOTE ON THE ENCLOSED NEW WHITE PROXY CARD “FOR” THE BOARD’S NOMINEES ON PROPOSALS 1 AND 2 AND “FOR” PROPOSALS 3, 4 AND 5.

THE BOARD URGES YOU TO NOT SIGN OR RETURN ANY PROXY CARD YOU MAY RECEIVE FROM HARBERT.

If your shares are held for you by a broker, bank or nominee, it is critical that you cast your vote by instructing your bank, broker or other nominee using the white voting instruction form provided on how to vote if you want your vote to be counted at the meeting.

Note Regarding Proxy Materials

If shareholders have any questions, require assistance with voting the enclosed NEW WHITE proxy card, or need additional copies of the proxy materials, please contact:

Kingsdale Advisors
(888) 518-1554 (toll-free in North America)
(416) 867-2272 (outside of North America)
email: ENZ@kingsdaleadvisors.com

SUPPLEMENTAL DISCLOSURE

BACKGROUND TO THE SOLICITATION

In line with prior feedback we received from shareholders, our By-Laws limit the service of independent directors on our Board to three terms, but they may serve a fourth term by unanimous decision of the Board. The Board renominated Gregory Bortz to stand for election at the 2018 annual meeting of shareholders so that Mr. Bortz could assist in the execution of the Company's strategic plan for which he was a key contributor. It was understood that Mr. Bortz would step down as a director before the completion of his term after the Company made additional progress on the strategic plan upon the appointment of a qualified replacement director. At the same time feedback provided by shareholders to the Company began to focus more heavily on Board composition and structure. As a result, the Board's ongoing process to find qualified candidates intensified in 2019. As the Board narrowed in on its selection of Ms. Fischer, the Board had to consider timing of the appointment. New York Corporate Law provides that any director elected to fill a vacancy, unless elected by the shareholders, shall hold office until the next meeting of shareholders at which the election of directors is in the regular order of business, and until his or her successor has been elected and qualified. Accordingly, in the interest of transparency and accountability to shareholders, the Board resolved to appoint Ms. Fischer immediately and put her up for a vote of the Company's shareholders at the 2019 Annual Meeting rather than announce her appointment to occur after the 2019 Annual Meeting. Therefore, on December 23, 2019, upon the recommendation of our Nominating/Governance Committee, our Board voted to appoint Ms. Fischer to replace Mr. Bortz as a Class I Director and nominate her for election at the Annual Meeting upon her acceptance of the appointment. Mr. Bortz tendered his resignation from the Board effective immediately upon Ms. Fischer's acceptance.

As described in its definitive proxy statement filed with the SEC on December 5, 2019, the Company has been actively engaging with Harbert since October 2018. During 2019, the Company made multiple attempts to include in the director search process the two nominees that Harbert intends to nominate for election as Class II Directors at the Annual Meeting (the "Harbert Nominees"). However, the Company was not provided the opportunity to interview and evaluate the Harbert Nominees despite invitations to do so.

On December 23, 2019, the Board, upon the recommendation of our Nominating/Governance Committee, voted to immediately appoint Ms. Fischer upon her acceptance of same to replace Mr. Bortz as a Class I Director and nominate her for election at the Annual Meeting upon her acceptance of the appointment. Mr. Bortz tendered his resignation effective immediately prior to Ms. Fischer's acceptance.

On December 31, 2019, the Company filed this Supplement.

PROPOSAL 1 – ELECTION OF CLASS II DIRECTORS

Board Nominee for Election at the Annual Meeting.

The 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 II Directors will be elected to hold offices for a term of three years or until their successors are elected and qualified. Unless otherwise instructed, the shares represented by validly submitted proxy cards will be voted “FOR” the election of the below-listed Board nominees to serve as Class II Directors of the Company. The below-listed nominees have consented to being named in the Proxy Statement and this Supplement and to serve as Class II Directors of the Company if elected. Management has no reason to believe that the below-listed Board nominees will not be candidates or will be unable to serve as Class II Directors. However, in the event that one or both of the below-listed Board nominees should become unable or unwilling to serve as Class II Directors, the proxy cards will be voted for the election of such alternate person as shall be designated by the Class I and Class III Directors currently on the Board. If any alternate person is designated by the Class I and Class III Directors currently on the Board to serve as Class II Director-nominees, the Company will publicly notify shareholders by press release and will promptly distribute to shareholders revised proxy materials (including a revised WHITE proxy card) that (i) identifies such substitute nominee(s), (ii) discloses whether such substitute nominee(s) consented to being named in the revised proxy statement and to serve as a director of the Company if elected, and (iii) includes certain other disclosures required by applicable federal proxy rules and regulations with respect to such substitute nominee(s).

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. The term limit set forth above may be extended for up to a maximum of one additional term if such individual is re-nominated by the unanimous agreement of the Board.

Biographical Information for Nominees

CLASS II DIRECTOR NOMINEES TO SERVE UNTIL THE 2022 ANNUAL MEETING, IF ELECTED:

<u>Name</u>	<u>Age</u>	<u>Year First Became a Director</u>
Barry W. Weiner	69	1972
Bruce A. Hanna, Ph.D.	76	2017

BARRY W. WEINER is the Company’s President and a director and founder of the Company. He has served as the Company’s Chief Financial Officer until December 22, 2019 and 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 deep knowledge of our businesses and the industries in which we are involved, along with his experience in finance, management and marketing, including the identification of acquisition targets, business development and partnering and raising capital.

BRUCE A. HANNA, Ph.D., has been a director of the Company since January 2017. He is currently a member of the Company’s Audit, Compensation and Nominating/Governance Committees and is the chairman of the Nominating/Governance Committee. He has served as a Clinical Professor of Pathology and Clinical Professor of Microbiology at the New York University School of Medicine since 1979 and Adjunct Professor of Science at New York University College of Dentistry since 2010. From 2006 to 2015, he served on the ASM International Committee and WHO Global Committee; from 2000 to 2012, he served as the Editor of the Clinical Microbiology Review; from 1982 to 2010, he was a director of Clinical Microbiology and Immunology; and from 2008 to 2010 he was Interim director of Pathology, Bellevue Hospital Center. Dr. Hanna earned a Bachelor of Science in Biology from Saint Bonaventure University, a Masters in Science in Microbiology from Northeastern University and a Ph.D. in Microbiology from Saint John’s University. Dr. Hanna’s post-doctorate work in Clinical Microbiology was at Mt. Sinai Hospital.

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

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

The persons named as proxies intend to vote the proxies **“FOR”** the election of Mr. Weiner and Dr. Hanna unless you indicate on the proxy card a vote to **“WITHHOLD”** your vote with respect to either nominee. 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. 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.

PROPOSAL 2 —ELECTION OF CLASS I DIRECTOR

The Board has three staggered classes of directors, each of which serves for a term of three years. Our Board, upon the recommendation of our Nominating/Governance Committee, voted on December 23, 2019 to nominate Ms. Fischer for election at the 2019 Annual Meeting to serve as a replacement for incumbent Class I Director Mr. Bortz effective upon her acceptance of such appointment. Mr. Bortz tendered his resignation immediately prior to Ms. Fischer’s acceptance. Ms. Fischer has also been appointed to the Audit, Compensation and Nominating/Governance Committees and will serve as Chair of the Audit Committee. At the Annual Meeting, the Board’s Class I Director will be elected to hold office for a term of two years or until their successor is elected and qualified. Unless otherwise instructed, the shares represented by validly submitted proxy cards will be voted “**FOR**” the election of Ms. Fischer to serve as a Class I Director of the Company. Ms. Fischer has consented to being named in this Supplement and to serve as a Class I Director of the Company if elected. Management has no reason to believe that Ms. Fischer will not be a candidate or will be unable to serve as a Class I Director. However, in the event that Ms. Fischer should become unable or unwilling to serve as a Class I Director, the proxy cards will be voted for the election of such alternate person as shall be designated by the Class II and Class III Directors currently on the Board. If any alternate person is designated by the Class II and Class III Directors currently on the Board to serve as a Class I Director-nominee, the Company will publicly notify shareholders by press release and will promptly distribute to shareholders revised proxy materials (including a revised **WHITE** proxy card) that (i) identifies such substitute nominee, (ii) discloses whether such substitute nominee consented to being named in the revised proxy statement and to serve as a director of the Company if elected, and (iii) includes certain other disclosures required by applicable federal proxy rules and regulations with respect to such substitute nominee(s).

Set forth below is Ms. Fischer’s age as of December 31, 2019, her offices with us, if any, her principal occupations or employment for the past five years, the length of her tenure as a director, and the names of other public companies in which she serves or has served as a member of the Board.

Biographical Information for the Nominee

**CLASS I DIRECTOR NOMINEE TO SERVE UNTIL
THE 2021 ANNUAL MEETING, IF ELECTED:**

<u>Name</u>	<u>Age</u>	<u>Year First Became a Director</u>
Rebecca J. Fischer	52	2019

REBECCA J. FISCHER was appointed to the Board effective as of December 30, 2019. She is currently the Chief Financial Officer of Bellevue Hospital, the world-renowned flagship institution for New York City Health and Hospitals, with over 900 licensed beds and an operating budget of more than \$950 million. She began her career at Bellevue as Associate Director in 2003, became Associate Executive Director in 2011, was promoted to Deputy CFO in 2016 and then promoted to CFO in 2017. In her role as CFO of Bellevue, Ms. Fischer is responsible for managing a team of financial managers and 400 other professionals. Her team oversees budgeting, revenue enhancement, utilization, financial reporting, cash management productivity improvement and affiliate relations with the NYU School of Medicine. She is also a key advisor to the hospital’s CEO and other members of the C-level team on strategic planning and resource allocation. In both her strategic and day-to-day responsibilities, Ms. Fischer is directly involved in guiding Bellevue and its leaders through complex government and private reimbursement practices. At Bellevue and throughout the HHC, she is viewed as a subject matter expert on optimal ways for hospitals to deliver the highest quality care at a time of enormous technological change and financial pressure. Ms. Fischer received her undergraduate degree *cum laude* from Cornell University and her Master of Public Administration in Health Policy and Management from New York University, where she was a recipient of the Robert F. Wagner, Jr. Fellowship.

We believe that Ms. Fischer’s qualifications to serve on our Board are demonstrated by her experience at Bellevue, strengths at problem solving and her keen understanding of how to successfully navigate the intersection of investment spending with an unwavering commitment to science and innovation.

Vote Required

In accordance with New York law and the By-Laws, directors are elected by a plurality of the votes cast at the shareholder meeting. This means that the director candidate receiving the highest number of “**FOR**” votes will be elected. A properly executed proxy card marked “**WITHHOLD**” and broker non-votes, if any, 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**” any director nominee. Withhold votes and broker non-votes, if any, will have no effect on the outcome of the election.

THE BOARD UNANIMOUSLY RECOMMENDS THAT YOU VOTE “FOR” THE ELECTION OF MS. REBECCA J. FISCHER TO SERVE AS A CLASS I DIRECTOR OF THE COMPANY.

DIRECTORS WHO ARE CONTINUING IN OFFICE:

Class I: Term to Expire at the 2021 Annual Meeting in 2022

<u>Name</u>	<u>Age</u>	<u>Year First Became a Director</u>
Dov Perlysky	57	2012

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

<u>Name</u>	<u>Age</u>	<u>Year First Became a Director</u>
Elazar Rabbani, Ph.D.	76	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.

<u>Name</u>	<u>Age</u>	<u>Year Became a Director, Executive Officer or Key Employee</u>	<u>Position</u>
Elazar Rabbani, Ph.D.	76	1976	Chairman of the Board, Chief Executive Officer and Secretary
Barry W. Weiner ⁽¹⁾	69	1977	President, Treasurer and Director
Dieter Schapfel, M.D.	56	2014	Chief Medical Director, Enzo Clinical Labs
Kara Cannon	51	2018	Corporate Vice President, Commercial Operations
Bruce A. Dey	61	2014	Vice President of Sales, Enzo Clinical Labs
Dov Perlysky	57	2012	Director
Bruce A. Hanna, Ph.D. ⁽¹⁾	76	2017	Director
Rebecca J. Fischer ⁽¹⁾	52	2019	Director

⁽¹⁾ Director term expires at the Annual Meeting.

Biographical Information Regarding Directors, Executive Officers and Key Employees

ELAZAR RABBANI, Ph.D., is an Enzo Biochem founder and has served as the Company's Chairman of the Board and Chief Executive Officer since its inception in 1976 and as 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 and his accomplishments over the last 42 years, including building our intellectual property estate and the commercialization of technology, which has generated significant revenues for the Company.

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

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

BRUCE A. DEY is Vice President, Sales & Marketing for Enzo Clinical Labs and joined on December 6, 2003. Mr. Dey has over 31 years of experience developing sales and commercial operations in the laboratory services industry. Prior to joining Enzo Clinical Labs, Mr. Dey served as Vice President, Sales & Marketing for CDS Laboratories from 1989 to 2001, which was acquired by Quest Diagnostics in November 2001. He began his career with SmithKline Beecham Clinical Laboratories. Mr. Dey earned a Bachelor of Science in Economics and a Master of Business Administration from The State University of New York at Albany.

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

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

Family Relationships

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

Director Independence

Mr. Dov Perlysky, Dr. Bruce A. Hanna, Ph.D. and Ms. Rebecca J. Fischer qualify as "independent directors" under the criteria established by the NYSE.

THE BOARD UNANIMOUSLY RECOMMENDS THAT YOU VOTE "FOR" THE ELECTION OF MR. WEINER AND DR. HANNA TO SERVE AS CLASS II DIRECTORS OF THE COMPANY AND "FOR" THE ELECTION OF MS. FISCHER TO SERVE AS A CLASS I DIRECTOR OF THE COMPANY.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

As of the date of this Supplement, Ms. Fischer does not own any of the Company's Common Stock and has made no acquisitions or disposition of the Company's Common Stock in the last two years.

CORPORATE GOVERNANCE

Dov Perlysky became the Lead Independent director on December 23, 2019.

PROPOSAL 3 – 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 the Proxy Statement in accordance with the SEC’s rules (commonly referred to as “Say-on-Pay”).

At our 2011 and 2017 annual meeting of shareholders, a majority of our shareholders who voted supported an annual vote on our executive compensation and, in response, our Compensation Committee determined to hold an annual vote on the matter. As such, the next shareholder advisory vote on executive compensation will occur at the Company’s 2020 Annual Meeting.

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

We encourage shareholders to read the “Compensation Discussion and Analysis” section of the Proxy Statement, the 2019 Summary Compensation Table and the other related tables and disclosure for a detailed description of the fiscal year 2019 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 the 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 2019 Annual Meeting of Shareholders pursuant to the compensation disclosure rules of the SEC, including the Compensation Discussion and Analysis, the Summary Compensation table and the related compensation tables and narrative discussion.”

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

PROPOSAL 4 – 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, 2020. The Company is submitting its selection of EisnerAmper for ratification by the shareholders at the Annual Meeting. A representative of EisnerAmper is expected to be present at the Annual Meeting, will have the opportunity to make a statement and is expected to be available to respond to appropriate questions. EisnerAmper has served as our independent registered public accounting firm since April 19, 2013.

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

In making its recommendation to ratify the appointment of EisnerAmper as the Company’s independent registered public accounting firm for the fiscal year ending July 31, 2020, 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 2019 and 2018, 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 2019	FY 2018
Audit Fees	\$ 548,318	\$ 550,900
Audit-related Fees	38,681	38,752
Tax Fees	—	—
All Other Fees	—	—
Total	\$ 586,999	\$ 589,652

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—EisnerAmper performed certain Audit services for an employee benefit plan for the years ended December 31, 2019 and 2018, for which the Company is the plan sponsor; these fees were \$38,681 and \$38,752, respectively.

Tax Fees—There were no tax fees for fiscal years 2019 and 2018.

All Other Fees—There were no other fees for fiscal years 2019 and 2018.

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

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

THE BOARD UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSAL 4 RELATING TO THE RATIFICATION OF THE COMPANY’S APPOINTMENT OF EISNERAMPER TO SERVE AS THE COMPANY’S INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING JULY 31, 2020.

PROPOSAL 5 – APPROVAL OF THE AMENDMENT TO THE BY-LAWS TO IMPLEMENT MAJORITY VOTING IN UNCONTESTED DIRECTOR ELECTIONS

The Board proposes and recommends that shareholders approve an amendment to the By-Laws for the election of directors by an affirmative vote of the majority of the votes cast in uncontested director elections. Our By-Laws currently defer to New York Corporate law, which provides that the Company's directors are elected pursuant to a "plurality voting" standard, under which director nominees who receive the greatest number of votes cast in favor of their election at the annual meeting of shareholders are elected to the Board, up to the maximum number of directors to be filled at that meeting. This means that, currently, a nominee may be elected to the Board whether or not a majority of the votes cast are in favor of his or her election.

Under the proposed majority voting standard, for a nominee to be elected to the Board in an "uncontested election," the number of votes cast "FOR" the nominee's election must exceed the number of votes cast "AGAINST" their election. Abstentions would not be considered votes cast "FOR" or "AGAINST" a nominee. An "uncontested election" is generally any meeting of shareholders at which the number of nominees does not exceed the number of directors to be elected. In all director elections other than uncontested elections, which we refer to as "contested elections," the plurality voting standard would still apply.

In recent years, many public companies have eliminated plurality voting in uncontested elections and adopted "majority voting" by-laws or standards that provide shareholders with more influence over the outcome of uncontested director elections. As part of the ongoing review of our corporate governance, our Board determined that it is in the best interest of the Company and our shareholders to implement a majority voting standard in uncontested director elections. The Board concluded that the adoption of a majority vote standard will reinforce the Board's accountability to our shareholders, by requiring that a nominee must obtain more "FOR" votes than "AGAINST" votes in order to be elected.

The Board believes, however, that the plurality vote standard should continue to apply in contested director elections. If a majority vote standard is used in a contested election, fewer candidates could be elected to the Board than the number of authorized board seats. Accordingly, we will retain plurality voting in contested elections.

We will also implement conforming amendments to our By-Laws to address the treatment of "holdover" terms for any incumbent directors who fail to be re-elected under majority voting. Under New York law, even if an incumbent director does not receive the vote required for re-election, that director will continue to serve as a "holdover director" until a successor is elected and qualified. Our amendments to our By-Laws will require an incumbent director who does not receive more votes cast "FOR" than "AGAINST" his or her election in an uncontested election to tender his or her resignation to the Board and the Board will decide, through a process managed by the Nominating/Governance committee, whether to accept such resignation or to have such director serve on a holdover basis until a successor is appointed.

The implementation of a majority voting standard requires an amendment to the By-Laws. This amendment consists of amending Article 1, Section 9 of the By-Laws, which refers to voting standards. The text of the revised Section marked with the proposed amendment is below:

Section 9. **Voting.** Except as otherwise provided by statute, the Certificate of Incorporation, or any certificate duly filed in the office of the Department of State of the State of incorporation, each holder of record of shares of stock of the Corporation having voting power shall be entitled at each meeting of the shareholders to one vote for every share of such stock standing in his name on the record of shareholders of the Corporation on the date fixed by the Board as the record date for the determination of the shareholders who shall be entitled to notice of and to vote at such meeting; or if such record date shall not have been so fixed, then at the close of business on the day next preceding the day on which notice thereof shall be given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held; or each shareholder entitled to vote at any meeting of the shareholders may authorize another person or persons to act for him by a proxy signed by such shareholder or his attorney-in-fact. Any such proxy shall be delivered to the secretary of such meeting at or prior to the time designated in the order of business for so delivering such proxies. No proxy shall be valid after the expiration of three years from the date thereof, unless otherwise provided in the proxy. Every proxy shall be revocable at the pleasure of the shareholder executing it, except in those cases where an irrevocable proxy is permitted by law. Except as otherwise provided by statute, these By-Laws, or the Certificate of Incorporation, any corporate action to be taken by vote of the shareholders shall be authorized by a majority of the total votes, or when shareholders are required to vote by class by a majority of the votes of the appropriate class, cast at a meeting of shareholders by the holders of shares present in person or represented by proxy and entitled to vote on such action. **Each director of the Corporation to be elected by shareholders shall be elected by the vote of a majority of the votes cast with respect to such director by the shares present in person or represented by proxy and entitled to vote on the election of directors at any meeting of shareholders duly called for that purpose at which a quorum is present; provided, however, that directors shall be elected by a plurality of the votes cast in a contested election. An election shall be considered contested if, as of the date that this 10 days prior to the filing of the definitive proxy materials for such election, the number of nominees for election as a member of the Board exceeds the number of directors to be elected. A "majority of votes cast" means that the number of shares voted "for" a nominee for election as a member of the Board exceeds the number of shares voted "against" the election of such nominee. Abstentions and broker non-votes shall not constitute votes "for" or "against". Any incumbent director nominee who fails to receive a majority of the votes cast in an election that is not a contested election shall promptly tender his or her resignation to the Board with such resignation expressly stating that it is contingent upon the acceptance of the resignation by the Board in accordance with this Section 9. The Nominating/Governance Committee of the Board, or such other committee designated by the Board pursuant to these By-Laws, shall recommend to the Board whether to accept or reject the tendered resignation, or whether other action should be taken. The Board shall act on the resignation, taking into account the Nominating/Governance Committee's recommendation, and publicly disclose on a Form 8-K its decision regarding the resignation and, if such resignation is rejected, the rationale behind the decision, within ninety (90) days following certification of the election results. The Nominating/Governance Committee in making its recommendation, and the Board in making its decision, each may consider any factors and other information that they consider appropriate and relevant. The director who has tendered their resignation pursuant to this Section 9 shall not participate in the Nominating/Governance Committee's or the Board's deliberations or decision with respect to the tendered resignation. If the board of directors accepts a director's resignation pursuant to this Section 9, then the Board may fill the resulting vacancy pursuant to these By-Laws and the Certificate of Incorporation. Unless required by statute, or determined by the chairman of the meeting to be advisable, the vote on any question need not be by written ballot. On a vote by written ballot each, ballot shall be signed by the shareholder voting, or by his proxy, if there be such proxy, and shall state the number of shares voted.**

If approved by our shareholders, this amendment will become effective at close of the Annual Meeting. Assuming a quorum is present at the Annual Meeting, the amendment to the By-Laws will be approved if it receives the affirmative vote of a majority of the votes present in person or by proxy by the holders of shares entitled to vote therein. Abstentions will have the same effect as a vote against this proposal. Broker non-votes, if any, will not be counted as votes cast for such purposes.

THE BOARD UNANIMOUSLY RECOMMENDS A VOTE “FOR” PROPOSAL 5 TO AMEND THE BY-LAWS TO IMPLEMENT MAJORITY VOTING IN UNCONTESTED DIRECTOR ELECTIONS.

OTHER MATTERS

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

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.

Participants in the Company's Solicitation

Under applicable SEC regulations, each of the Company's directors and certain executive officers and other employees of the Company are deemed to be "participants" in this proxy solicitation. Please refer to the sections of the Proxy Statement and this Supplement entitled "Security Ownership of Certain Beneficial Owners and Management" and the section of the Proxy Statement "Certain Information Regarding Participants in this Proxy Solicitation" for information about our directors and certain of our executive officers who may be deemed to be participants in the solicitation. Except as described in the Proxy Statement and this Supplement, there are no agreements or understandings between the Company and any such participants relating to employment with the Company or any future transactions.

Forward-Looking Statements

This Supplement contains "forward-looking statements" within the meaning of the U.S. Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act, and Section 21E of the Exchange Act. These forward-looking statements are predictions and generally can be identified by use of statements that include phrases such as "plan," "expect," "will," "should," "could," "anticipate," "intend," "project," "estimate," "guidance," "possible," "continue" and other similar terms and phrases, including references to assumptions and forecasts of future results. Forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors that may cause the actual results to differ materially from those anticipated at the time the forward-looking statements are made. These risks include, but are not limited to, those described in "Risk Factors" and elsewhere in the Company's Annual Report on Form 10-K, for the year ended July 31, 2019 and subsequent filings with the SEC. These factors should be considered carefully and readers are cautioned not to place undue reliance on such forward-looking statements. No assurance can be given that the future results covered by the forward-looking statements will be achieved. Except as required by applicable law, all information contained herein is as of the date of this Supplement, and the Company does not intend to update this information.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE SHAREHOLDER MEETING TO BE HELD ON JANUARY 31, 2020

The Notice of Annual Meeting of Shareholders, the Proxy Statement, this Supplement, the Company's 2019 Annual Report on Form 10-K and Form 10-K/A for the fiscal year ended July 31, 2019, and form of **WHITE** proxy card, and any amendments thereto, are available free of charge at <http://www.enzo.com/corporate/investor-information/enzo-sec-filings>. Information on our website does not constitute part of the Company's proxy solicitation materials.

Shareholders may also obtain a copy of these materials by writing to Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022, Attention: Investor Relations. Upon payment of a reasonable fee, shareholders may also obtain a copy of the exhibits to our Annual Report on Form 10-K and Form 10-K/A for our fiscal year ended July 31, 2019. Any request for such materials should be delivered to the Company before January 24, 2019 to facilitate timely delivery.

For information on how to obtain directions to be able to attend the Annual Meeting and vote in person, please write to the Company's principal corporate office at 527 Madison Avenue, New York, New York 10022, Attention: Investor Relations or call (212) 583-0100 requesting such information.

THE BOARD UNANIMOUSLY RECOMMENDS VOTING "FOR" THE ELECTION OF THE BOARD'S NOMINEES UNDER PROPOSAL 1 and PROPOSAL 2, "FOR" PROPOSAL 3, "FOR" PROPOSAL 4 AND "FOR" PROPOSAL 5 USING THE NEW ENCLOSED WHITE PROXY CARD. EVEN IF YOU PREVIOUSLY SUBMITTED A WHITE PROXY CARD, WE URGE YOU TO FILL OUT THE NEW ENCLOSED WHITE PROXY CARD TODAY. THE BOARD URGES YOU NOT TO SIGN, RETURN OR VOTE ANY PROXY CARD THAT MAY BE SENT TO YOU BY HARBERT EVEN AS A PROTEST VOTE, AS ONLY YOUR LATEST DATED PROXY CARD WILL BE COUNTED.

Kingsdale Advisors is assisting us with our effort to solicit proxies. Therefore, requests for the above materials can also be made to Kingsdale Advisors through the following channels: (1) by calling (888) 518-1554 (toll-free in North America); (2) by calling (416) 867-2272 (outside of North America); or (3) by emailing ENZ@kingsdaleadvisors.com. Additionally, if you have any questions or require assistance in authorizing a proxy or voting your shares of our Common Stock or in obtaining any of the above materials, please contact Kingsdale Advisors through one of the three channels listed above. We are not aware of any other business, or any other nominees for election as directors, that may properly be brought before the Annual Meeting.

IF YOU ARE A RECORD HOLDER OF SHARES, OR AN OWNER WHO OWNS SHARES IN "STREET NAME" AND OBTAINS A "LEGAL" PROXY FROM YOUR BROKER, BANK, TRUSTEE OR NOMINEE, YOU STILL MAY ATTEND THE ANNUAL MEETING AND VOTE YOUR SHARES OR REVOKE YOUR PRIOR VOTING INSTRUCTIONS.

Regardless of the number of shares of our Common Stock that you own, your vote will be very important. Thank you for your continued support, interest and investment in Enzo Biochem, Inc.

WHERE YOU CAN FIND MORE INFORMATION

In addition to the information about the Company and its subsidiaries contained in the Proxy Statement and this Supplement, 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 Business Conduct and Ethics, and the charters of each of the committees of the Board. These documents can be accessed at www.enzo.com. Printed versions of our Corporate Governance Guidelines, our Code of Conduct and the charters for our Board committees can be obtained, free of charge, by writing to the Company at: 527 Madison Avenue, New York, New York 10022, Attention: Investor Relations.

We are also required to file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our SEC filings are also available to the public at the SEC's website at www.sec.gov. You also may obtain free copies of the documents we file with the SEC by going to our website, the address of which is <http://www.enzo.com/corporate/investor-information/enzo-sec-filings>. The information provided on our website is not part of the Proxy Statement and this Supplement, and therefore is not incorporated by reference.

Shareholders are entitled to express their views regarding the topics raised in the Proxy Statement and this Supplement or other matters directly to the Company through written communications sent directly to the attention of the Board, any individual director or the "non-employee directors" as a group, by written communications addressed in care of Enzo Biochem, Inc., 527 Madison Avenue, New York, New York 10022, Attention: Investor Relations.

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

The contents and sending of this Supplement have been approved by all of the directors of the Company. Dated as of the 31 day of December, 2019.

ENZO BIOCHEM, INC.

/s/ Barry W. Weiner

Barry W. Weiner

President, Treasurer and Director

ANNEX A CERTAIN INFORMATION REGARDING PARTICIPANTS IN THIS PROXY SOLICITATION

The following tables set forth the names, present principal occupations and business addresses of our directors and nominees, and the names, present principal occupations and business addresses of our officers and employees who, under the rules of the SEC, are considered to be participants in our solicitation of proxies from our shareholders in connection with the Annual Meeting.

Directors and Nominees

The principal occupations and the address of the corporation or other organization in which such employment is carried on of our directors and nominees below.

Name	Principal Occupation	Address
Elazar Rabbani, Ph.D.	Chairman of the Board, Chief Executive Officer and Secretary, Enzo Biochem, Inc.	c/o Enzo Biochem, Inc. 527 Madison Avenue, New York, New York 10022
Barry W. Weiner	President, Principal Accounting Officer, Treasurer and Director, Enzo Biochem, Inc.	c/o Enzo Biochem, Inc. 527 Madison Avenue, New York, New York 10022
Dieter Schapfel, M.D.	Chief Medical Director, Enzo Clinical Labs	c/o Enzo Biochem, Inc. 527 Madison Avenue, New York, New York 10022
Kara Cannon	Corporate Vice President, Commercial Operations	c/o Enzo Biochem, Inc. 527 Madison Avenue, New York, New York 10022
Bruce A. Dey	Vice President of Sales, Enzo Clinical Labs	c/o Enzo Biochem, Inc. 527 Madison Avenue, New York, New York 10022
Dov Perlysky	Director, Chairman of the Compensation Committee, Enzo Biochem, Inc.	c/o Enzo Biochem, Inc. 527 Madison Avenue, New York, New York 10022
Bruce A. Hanna, Ph.D.	Clinical Professor of Pathology and Clinical Professor of Microbiology, New York University School of Medicine	c/o Enzo Biochem, Inc. 527 Madison Avenue, New York, New York 10022
Rebecca J. Fischer	Chief Financial Officer, Bellevue Hospital	c/o Enzo Biochem, Inc. 527 Madison Avenue, New York, New York 10022

Officers and Employees

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

Name	Principal Occupation
Elazar Rabbani, Ph.D.	Chairman of the Board, Chief Executive Officer and Secretary
Barry W. Weiner	President, Principal Accounting Officer, Treasurer and Director
Dieter Schapfel, M.D.	Chief Medical Director, Enzo Clinical Labs
Kara Cannon	Corporate Vice President, Commercial Operations
Bruce A. Dey	Vice President of Sales, Enzo Clinical Labs

Other Contracts, Arrangements and Understandings with Participants

Except as otherwise set forth in the Proxy Statement and this Supplement, to the best of the Company's knowledge: (i) none of the participants in the Company's solicitation of proxies is, or was within the past year, a party to any contract, arrangement or understanding with any person with respect to any securities of the Company, 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; (ii) neither any of the participants nor any of their respective associates has any arrangement or understanding with any person with respect to any future employment by the Company or its affiliates, or with respect to any future transactions to which the Company or any of its affiliates will or may be a party; and (iii) no participant knows of any arrangements, including any pledge by any person of securities of the Company or any of the Company's parents and the operation of which may at a subsequent date result in a change in control of the Company.

Beneficial Ownership of the Common Stock by Associates of Participants

To the best of the Company's knowledge, other than as set forth in the Proxy Statement and this Supplement, none of the participants in the Company's solicitation of proxies has any "associates" (as defined in Rule 14a-1 under the Exchange Act) who beneficially own any shares of the Common Stock.

Beneficial Ownership of Securities of the Company's Subsidiaries

To the best of the Company's knowledge, other than as set forth in the Proxy Statement and this Supplement, none of the participants in the Company's solicitation of proxies beneficially owns, directly or indirectly, any securities of any parent or subsidiary of the Company.

Other Proceedings

There are no material proceedings to which the participant or any of his or her associates is a party adverse to the Company or has a material interest adverse to the Company.

Miscellaneous Information Concerning Participants

Except as described in the Proxy Statement and this Supplement, none of the participants (i) beneficially owns (within the meaning of Rule 13d-3 under the Exchange Act), directly or indirectly, any shares or other securities of the Company or any of the Company's subsidiaries, (ii) owns any securities of the Company of record but not beneficially, (iii) has purchased or sold any of such securities within the past two years or (iv) is, or within the past year was, a party to any contract, arrangement or understanding with any person with respect to any such securities. No part of the purchase price or market value of any of the Company's securities owned by any participant is represented by funds borrowed or otherwise obtained for the purpose of acquiring or holding such securities. Except as disclosed in the Proxy Statement and this Supplement, none of the participants' associates beneficially owns, directly or indirectly, any of the Company's securities. Other than as disclosed in the Proxy Statement and this Supplement, neither the Company nor any of the participants has any substantial interests, direct or indirect, by security holding or otherwise, in any matter to be acted upon pursuant to the Proxy Statement and this Supplement or is or has been within the past year a party to any contract, arrangement or understanding with any person with respect to any of the Company's securities, including, but not limited to, joint ventures, loan or option agreements, 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 the Proxy Statement and this Supplement, none of the Company, the participants or any of their affiliates has had or will have a direct or indirect material interest in any transaction or series of similar transactions since the beginning of the Company's last fiscal year or any currently proposed transactions, or series of similar transactions, to which the Company or any of the Company's subsidiaries was or is to be a party in which the amount involved exceeds \$120,000.

Other than as set forth in the Proxy Statement and this Supplement, none of the Company, any of the participants or any of their affiliates has any arrangements or understandings with any person with respect to any future employment by the Company or the Company's affiliates or with respect to any future transactions to which the Company or any of its affiliates will or may be a party.

Other than as set forth in the Proxy Statement and this Supplement, there are no material legal proceedings in which any of the directors or executive officers of the Company is a party adverse to the Company or any of its subsidiaries, or proceedings in which such directors or executive officers have a material interest adverse to the Company or any of its subsidiaries. Other than as set forth in the Proxy Statement and this Supplement, none of the Company or any of the other participants has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) during the past ten years.

Our Certificate of Incorporation and the By-Laws also provide that we shall indemnify and hold harmless each person who serves at any time as a director, officer, employee or agent of the Company from and against any and all claims, judgments and liabilities to which such person shall become subject by reason of the fact that he is or was a director, officer, employee or agent of the Company and shall reimburse such person for all legal and other expenses reasonably incurred by him or her in connection with any such claim or liability. We also have the power to defend such person from all suits or claims in accord with New York law. The rights accruing to any person under our Certificate of Incorporation and the By-Laws do not exclude any other right to which any such person may lawfully be entitled, and we may indemnify or reimburse such person in any proper case, even though not specifically provided for by our Certificate of Incorporation and the By-Laws.

Questions? Need Help Voting?

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

CONTACT US:



Kingsdale Advisors

1-888-518-1554 (toll-free in North America)

(416) 867-2272 (outside of North America)

email: ENZ@kingsdaleadvisors.com

Form of White Proxy
ENZO BIOCHEM, INC.
YOUR VOTE IS IMPORTANT

Please take a moment now to vote your shares of Enzo Biochem, Inc. common stock for the upcoming Annual Meeting of Shareholders.

YOU CAN VOTE TODAY IN ONE OF THREE WAYS:

1. **VOTE BY TELEPHONE** – Call toll-free from the U.S. or Canada at 1-800-PROXIES (1-800-776-9437), on a touch-tone telephone. If outside the U.S. or Canada, call 1-718-921-8500. Then, simply follow the easy voice prompts. You will be required to provide the unique control number printed below.

OR

2. **VOTE BY INTERNET** – Please access www.voteproxy.com, and follow the simple instructions provided. Please note you must type an "s" after "http". You will be required to provide the unique control number printed below.

CONTROL NUMBER:

You may vote by telephone or Internet 24 hours a day, 7 days a week.
Your telephone or Internet vote authorizes the named proxies to vote your shares in the same manner
as if you had marked, executed and returned a proxy card.

OR

3. **VOTE BY MAIL** – Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or mail it to AST Financial, 6201 15th Avenue, Brooklyn, NY 11219, Attention: Proxy Operations.

▼ TO VOTE BY MAIL, PLEASE DETACH PROXY CARD HERE AND RETURN IN THE POSTAGE-PAID ENVELOPE PROVIDED ▼

Please mark your vote as indicated in this example

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

The Board of Directors recommends you vote "FOR" all of the nominees under Proposal 1 and 2 and "FOR" Proposals 3, 4 and 5.

- | | | | | | | | | | | |
|---|--------------------------|--------------------------|---------|-----|-----|--------|--------------------------|--------------------------|--------------------------|--|
| <p>1. Election of two Class II Directors for a three-year term:
Nominees: (01) Barry W. Weiner and (02) Bruce A. Hanna</p> <table border="0" style="width: 100%;"><tr><td style="width: 33%;">For</td><td style="width: 33%;">Withhold</td><td style="width: 33%;">For All</td></tr><tr><td>All</td><td>All</td><td>Except</td></tr><tr><td><input type="checkbox"/></td><td><input type="checkbox"/></td><td><input type="checkbox"/></td></tr></table> <p>To withhold authority to vote for any individual nominee, mark "For All Except" and write the number of the nominee for which you would like to withhold authority to vote on the line below:
_____</p> | For | Withhold | For All | All | All | Except | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p>4. Company proposal to ratify the appointment of EisnerAmper, LLP, as the Company's independent registered public accounting firm for fiscal 2020:
For <input type="checkbox"/> Against <input type="checkbox"/> Abstain <input type="checkbox"/></p> <p>5. Company proposal to approve an amendment to the Company's By-Laws to implement majority voting in uncontested director elections:
For <input type="checkbox"/> Against <input type="checkbox"/> Abstain <input type="checkbox"/></p> <p>Date: _____
Signature: _____
Signature (if jointly held): _____
Title(s): _____</p> |
| For | Withhold | For All | | | | | | | | |
| All | All | Except | | | | | | | | |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | |
2. Election of Rebecca J. Fischer as a Class I director:
For Withhold
3. Company proposal to approve, on an advisory basis, Named Executive Officer compensation:
For Against Abstain

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

PLEASE VOTE TODAY!
SEE REVERSE SIDE
FOR THREE EASY WAYS TO VOTE.

▼ TO VOTE BY MAIL, PLEASE DETACH PROXY CARD HERE, SIGN, DATE AND RETURN IN THE POSTAGE-PAID ENVELOPE PROVIDED ▼

THIS PROXY IS SOLICITED ON BEHALF OF
THE BOARD OF DIRECTORS OF ENZO BIOCHEM, INC.



W
H
I
T
E
P
R
O
X
Y

2019 ANNUAL MEETING OF SHAREHOLDERS

The undersigned hereby appoints Dov Perlysky and Barry W. Weiner or any of the foregoing, as proxies, each with full power of substitution, revoking all proxies previously given, and hereby authorizes them to represent and to vote, as designated on the reverse side of this form, all shares of common stock of Enzo Biochem, Inc. that the undersigned would be entitled to vote if personally present at the 2019 Annual Meeting of Shareholders to be held at 9:00 a.m. on January 31, 2020 at The Yale Club of New York City, 50 Vanderbilt Avenue, New York, NY 10017 including any adjournments, postponements or continuations thereof, (the “Annual Meeting”).

This proxy, when properly executed, will be voted in the manner specified on the reverse side. **IF THIS PROXY IS EXECUTED, BUT NO INSTRUCTION IS GIVEN, THIS PROXY WILL BE VOTED “FOR” ALL OF THE NOMINEES UNDER PROPOSALS 1 AND 2 AND “FOR” PROPOSALS 3, 4 AND 5.** The proposals are more fully described in the Proxy Statement and Supplement. If a matter is not timely submitted pursuant to Rule 14a-4(c)(1), the proxies appointed in this proxy card will have discretionary authority to vote with respect to any such matter subsequently and properly raised at the Annual Meeting. Only shareholders of record as of the close of business on December 3, 2019, may vote at the Annual Meeting.

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

YOUR VOTE IS IMPORTANT - PLEASE VOTE TODAY

Continued and to be signed and dated on reverse side
