

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 1

TO

FORM S-8

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

ENZO BIOCHEM, INC.

(Exact name of Registrant as specified in its charter)

NEW YORK

(State or other jurisdiction of incorporation or organization)

13-2866202

(I.R.S. Employer Identification No.)

<TABLE>

<S>

60 EXECUTIVE BOULEVARD, FARMINGDALE,

NEW YORK

(Address of Principal Executive
Offices)

<C>

11735

(Zip Code)

</TABLE>

ENZO BIOCHEM, INC. 1994 STOCK OPTION PLAN

(Full Title of the Plans)

BARRY W. WEINER

ENZO BIOCHEM, INC.

60 EXECUTIVE BOULEVARD

FARMINGDALE, NEW YORK 11735

(Name and Address of Agent For Service)

(516) 755-5500

(Telephone Number, Including Area Code, of Agent For Service)

Copies to:

ROBERT H. COHEN, ESQ.

MORRISON COHEN SINGER & WEINSTEIN, LLP

750 LEXINGTON AVENUE

NEW YORK, NEW YORK 10022

(212) 735-8600

EXPLANATORY NOTE

This registration statement is being filed as a post-effective amendment to Registration Statement on Form S-8 (Registration No. 33-88826) filed with the Securities and Exchange Commission on January 27, 1995. No fee is being paid in connection with this post-effective amendment. A filing fee covering the shares offered hereby was paid at the time of the initial filing.

This registration statement registers reoffers and resales of shares of common stock, issuable upon the exercise of options granted under our 1994 Stock

Option Plan, that may constitute "control securities" under General Instruction C to Form S-8. These control securities may be re-offered and resold on a continuous or delayed basis in the future under Rule 415 of the Securities Act of 1933, as amended (the "Securities Act").

This registration statement contains two parts. The first part contains a "reoffer prospectus" prepared in accordance with Part I of Form S-3 (in accordance with Instruction C of Form S-8). The second part contains information required in the registration statement pursuant to Part II of Form S-8.
REOFFER PROSPECTUS

ENZO BIOCHEM, INC.

38,951 SHARES OF COMMON STOCK

This reoffer prospectus is to be used for the resale of up to 38,951 shares of our common stock, by a director listed in the "Selling Stockholder" table included in this prospectus. The shares of Common Stock are issuable upon the exercise of options granted under our 1994 Stock Option Plan.

The Selling Stockholder may sell its shares of common stock through public or private transactions at current market prices, or at previously negotiated prices. Although we will not receive any proceeds when the Selling Stockholder sell its shares of common stock to others, we may, however, receive proceeds when the Selling Stockholder exercises its options to acquire such shares of common stock.

Our common stock is traded on the New York Stock Exchange under the symbol "ENZ."

SEE "RISK FACTORS" BEGINNING ON PAGE 2 OF THIS PROSPECTUS FOR A DISCUSSION OF MATERIAL FACTORS YOU SHOULD CONSIDER BEFORE INVESTING IN THE COMMON STOCK OFFERED BY THIS PROSPECTUS.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus is January 27, 2000.
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AVAILABLE INFORMATION

We are a public company. We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission (the "SEC"). You may read and copy any document we file with the SEC at the SEC's public reference rooms in Washington, D.C., New York, New York and Chicago, Illinois. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Our SEC filings are also available to the public at the SEC's web site at <http://www.sec.gov>.

We have filed a registration statement (of which this prospectus is a part) under the Securities Act of 1933, as amended, with the Securities and Exchange Commission, with respect to the securities being offered. This prospectus does not contain all of the information set forth in the registration statement. We have omitted information as permitted by the rules and regulations of the Securities and Exchange Commission. Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete, and in each instance we refer you to the copy of this contract or other document

filed as an exhibit to the registration statement. Each statement made in this prospectus is qualified in all respects by the contents of the exhibits and schedules to the registration statement. For further information regarding our company and the securities being offered, please read the registration statement and the exhibits and schedules which may be obtained from the Securities and Exchange Commission at its principal office in Washington, D.C. upon payment of the fees prescribed by the Securities and Exchange Commission.

The SEC allows us to "incorporate by reference" the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Section 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934 until the Selling Stockholder sells all of its shares of common stock.

1. Annual Report on Form 10-K for the fiscal year ended July 31, 1999;
2. Quarterly Report on Form 10-Q for the fiscal quarter ended October 31, 1999;
3. Definitive proxy statement filed with the SEC on November 29, 1999 pursuant to Regulation 14A under the Securities Exchange Act of 1934;
4. The description of our common stock set forth in our Registration Statement filed under Section 12 of the Securities Exchange Act of 1934 on Form 8-A on December 16, 1999 and any amendment or report filed for the purpose of updating any such description; and

You may request a copy of these filings, at no cost, by oral request or by writing to us at the following address:

Enzo Biochem, Inc.
60 Executive Boulevard
Farmingdale, New York 11735
Attention: Shahram K. Rabbani
Telephone: (516) 755-5500

You should rely only on the information incorporated by reference or provided in this prospectus or any supplement. We have not authorized anyone else to provide you with different information. The Selling Stockholder will not make an offer of these shares of common stock in any State where the offer is not permitted. You should not assume that the information in this prospectus or any supplement is accurate as of any date other than the date on the front of those documents.

RISK FACTORS

You should carefully consider the following factors and other information in this prospectus before deciding to invest in the securities we are offering in this prospectus.

COMPETITION; TECHNOLOGICAL ADVANCES BY OTHERS

Our competitors in genetic engineering in the United States and abroad are numerous and include major pharmaceutical, energy, food and chemical companies, as well as specialized genetic engineering firms. Many of our large competitors in genetic engineering have substantially greater resources than us and have the capability of developing products which compete directly with our products. Genetic engineering has undergone, and is expected to continue to undergo, rapid and significant technological change. New developments in recombinant DNA, monoclonal antibody and other biotechnological processes are expected to continue at a rapid pace in both industry and academia. Although we believe that our products will be commercially viable, no assurance can be given that other developments will not render our products uneconomical or obsolete, or that our products can be marketed successfully. The clinical laboratory business is highly fragmented and intensely competitive. We compete primarily on the basis of the quality of our testing, reporting and information services, our reputation in the medical community, the pricing of our services and our ability to employ qualified laboratory personnel.

UNCERTAINTY OF PRODUCT DEVELOPMENT, SIGNIFICANT COSTS ASSOCIATED WITH RESEARCH AND DEVELOPMENT ACTIVITIES

The products we are developing are at various stages of development and clinical evaluations and may require further technical development and investment to determine whether commercial application is practicable. There can be no assurance that our efforts will result in products with valuable commercial applications. Our cash requirements may vary materially from current estimates because of results of our research and development programs, competitive and technological advances and other factors. In any event, we will require substantial funds to conduct development activities and pre-clinical and clinical trials, apply for regulatory approvals and commercialize products, if any, that are developed. We do not have any commitments or arrangements to obtain any additional financing and there is no assurance that required

financing will be available to us on acceptable terms, if at all.

UNCERTAINTY OF PATENT PROTECTION; PROPRIETARY TECHNOLOGY

We have filed applications for United States and foreign patents covering certain aspects of our technology, but there is no assurance that pending patents will issue or as to the degree of protection which any issued patent might afford. We also utilize certain unpatented proprietary technology. There is no assurance that others may not independently develop similar technology.

RETENTION OF KEY PERSONNEL

The specialized scientific nature of our business requires us to attract and retain personnel with a wide variety of scientific capabilities. To a large extent, our success in developing proprietary technological products has been the result of the effective efforts of our internal scientific staff and its experience and talent. Since our inception an insignificant number of key employees have left us. We have key man life insurance on Dr. Elazar Rabbani, our Chief Executive Officer, in the amount of \$3,000,000. There can be no assurance that we will continue to attract and retain personnel of high scientific caliber.

GOVERNMENTAL REGULATIONS TO WHICH THE COMPANY ARE SUBJECT

We must obtain prior clearance of regulatory agencies, in particular the FDA, and similar agencies in other countries, in order to manufacture and market therapeutic and diagnostic products. We have

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an in-house regulatory department to assist in the preparation and filing of documentation to expedite FDA approvals and patent issuances. The process of obtaining FDA and corresponding foreign approvals is costly and time consuming, and there can be no assurance that such approvals will be granted. The process of obtaining approvals for diagnostic products is significantly less stringent than approvals for therapeutic products. We cannot predict the extent of potentially adverse government regulations which might arise from future legislation or administrative action.

GOVERNMENT REGULATION AND REIMBURSEMENT

Our research, preclinical development, clinical trials, product manufacturing and marketing are subject to regulation by the FDA and similar health authorities in foreign countries. FDA approval is required for our products, as well as the manufacturing processes and facilities, if any, used to produce our products that may be sold in the United States. The process of obtaining approvals from the FDA is costly, time consuming and often subject to unanticipated delays. There can be no assurance that approvals of any of the proposed products, processes or facilities will be granted on a timely basis, if at all. Even if regulatory approval is granted, such approval may include significant limitations on indicated uses for which any products could be marketed. Further, even if such regulatory approvals are obtained, a marketed product and its manufacturer are subject to continued review, and later discovery of previously unknown problems may result in restrictions on such product or manufacturer, including withdrawal of the product from the market. New government regulations in the United States or foreign countries also may be established that could delay or prevent regulatory approval of our products under development. Further, because gene therapy is a relatively new technology and has not been extensively tested in humans, the regulatory requirements governing gene therapy products are uncertain and may be subject to substantial further review by various regulatory authorities in the United States and abroad. This uncertainty may result in extensive delays in initiating clinical trials and in the regulatory approval process. Our failure to obtain regulatory approval of their proposed products, processes or facilities could have a material adverse effect on our business, financial condition and results of operations. The proposed products under development may also be subject to certain other federal, state and local government regulations, including, but not limited to, the Federal Food, Drug and Cosmetic Act, the Environmental Protection Act, and Occupational Safety and Health Act, and state, local and foreign counterparts to certain of such acts.

The clinical laboratory industry is subject to significant governmental regulation at the Federal, state and local levels. Under the Clinical Laboratory Improvement Act of 1967 and the Clinical Laboratory Improvement Amendments of 1988 (collectively, as amended "CLIA") virtually all clinical laboratories, including ours, must be certified by the Federal government. Many clinical laboratories also must meet governmental standards, undergo proficiency testing and are subject to inspection. Certifications or licenses are also required by various state and local laws.

The health care industry is undergoing significant change as third-party payors, such as Medicare (which principally serves patients 65 and older) and Medicaid (which principally serves indigent patients) and insurers, increase their efforts to control the cost, utilization and delivery of health care services. In an effort to address the problem of increasing health care costs, legislation has been proposed or enacted at both the Federal and state levels to

regulate health care delivery in general and clinical laboratories in particular. some of the proposals include managed competition, global budgeting and price controls.

USE OF PROCEEDS

We will not receive any proceeds when the Selling Stockholder sells its common stock to others. However, we may receive proceeds when the Selling Stockholder exercises its options to acquire such common stock. We intend to use any such proceeds for research and development and other general corporate purposes.

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DETERMINATION OF OFFERING PRICE

The Selling Stockholder may sell its shares of common stock through public or private transactions at current market prices, or at previously negotiated prices.

SELLING STOCKHOLDER

The shares of common stock to which this prospectus relates are being registered for reoffers and resales by the Selling Stockholder who has acquired or may acquire such common stock pursuant to the exercise of options granted under our 1994 Stock Option Plan. The Selling Stockholder named below may resell all, a portion or none of its shares of common stock, from time to time.

The table below sets forth the following information, assuming sale by the Selling Stockholder of all shares of Common Stock issued upon exercise of options granted under our 1994 Stock Option Plan: (1) the name of the Selling Stockholder and the nature of positions held by the selling stockholder within the past three years with our company; (2) the total number of shares of common stock owned by the Selling Stockholder immediately following the payment of shares pursuant to the plan; (3) the number of shares of common stock offered by this prospectus for the account of that Selling Stockholder as of the date of this prospectus; (4) the number of shares of common stock to be owned by the Selling Stockholder after the offering covered by this prospectus; and (5) the percentage of all outstanding shares of common stock owned by the Selling Stockholder after the offering covered by this prospectus.

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NAME AND POSITION OF SELLING STOCKHOLDER	COMMON STOCK BENEFICIALLY OWNED BEFORE REOFFER (1)	COMMON STOCK WHICH MAY BE SOLD PURSUANT TO THIS PROSPECTUS (2)	COMMON STOCK BENEFICIALLY OWNED AFTER REOFFER	PERCENTAGE (%) OF COMMON STOCK OWNED AFTER REOFFER (3)
<S>	<C>	<C>	<C>	<C>
John J. Delucca Director	38,951 (4)	38,951	0	0

</TABLE>

- (1) Unless indicated, then we assume that the person named in the table has sole voting and investment power with respect to all shares of our common stock beneficially owned by him. For purposes of this table, any security which such person has the right to acquire within 60 days after such date is deemed to be outstanding for the purpose of computing the percentage of ownership for such person, but is not deemed to be outstanding for the purpose of computing the percentage of any other person.
- (2) Does not include shares of common stock that may be acquired by the Selling Stockholder upon exercise of options which have not vested within 60 days of this prospectus which shares, if any, will be added to the number of shares listed by one or more supplements to this prospectus. Furthermore, the inclusion in this prospectus of the stated number of shares does not constitute a commitment to sell any or all of such shares. The number of shares of common stock offered shall be determined from time to time by the Selling Stockholder at his sole discretion.
- (3) Based on an aggregate of 25,271,093 common stock that will be issued and outstanding upon the completion of this offering, consisting of 25,232,142 shares of common stock issued and outstanding as of January 24, 2000 and the 38,951 to which this prospectus relates.
- (4) Includes 38,951 shares of Common Stock issuable upon the exercise of options which within 60 days from the date hereof. Does not include 13,750 shares of Common Stock issuable upon the exercise of options which are not exercisable within 60 days from the date hereof.

The shares of common stock to which this prospectus pertains may be sold or transferred for value by the Selling Stockholder, or by pledgees, donees, transferees or other successors in interest to the Selling Stockholder, in one or more transactions on the New York Stock Exchange, in negotiated transactions or in a combination of such methods of sale, at market prices prevailing at the time of sale, at prices related to such prevailing market prices or at prices otherwise negotiated. The Selling Stockholder may effect such transactions by selling its shares of common stock to or through broker-dealers, and such broker-dealers may receive compensation in the form of underwriting discounts, concessions or commissions from the Selling Stockholder and/or the purchasers of the shares of common stock for whom such broker-dealers may act as agent (which compensation may be less than or in excess of customary commissions). The Selling Stockholder and any broker-dealers that participate in the distribution of the shares of common stock may be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act, and any commissions received by them and any profit on the resale of the shares of common stock sold by them may be deemed to be underwriting discounts and commissions under the Securities Act.

Upon us being notified by the Selling Stockholder that any material arrangement has been entered into with a broker or dealer for the sale of shares of common stock offered by this prospectus through a block trade, special offering, exchange or secondary distribution or a purchase by a broker or dealer, we will file a supplemental prospectus, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of the Selling Stockholder and the participating broker-dealers, (ii) the number of shares of Common Stock involved, (iii) the price at which such shares are being sold, (iv) the commissions paid or the discounts or concessions allowed to such broker-dealers, (v) where applicable, that such broker-dealers did not conduct any investigation to verify the information set out or incorporated by reference in the Prospectus, as supplemented, and (vi) other facts material to the transactions.

In addition to any such number of shares of common stock sold hereunder, the Selling Stockholder may, at the same time, sell any shares of common stock, including the shares of common stock to which this prospectus pertains, owned by him or her in compliance with all of the requirements of Rule 144 promulgated under the Securities Act, regardless of whether such shares are covered by this prospectus.

There is no assurance that the Selling Stockholder will sell any or all of the shares of common stock offered hereby.

We will pay all expenses in connection with this offering other than commissions and discounts of underwriters, dealers or agents. All selling and other expenses incurred by the Selling Stockholder will be borne by such Selling Stockholder.

We have notified the Selling Stockholder of the need to deliver a copy of this prospectus in connection with any sale of the shares of common stock.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Morrison Cohen Singer & Weinstein, LLP, New York, New York, a partner of which holds options to acquire shares of our common stock.

EXPERTS

The consolidated financial statements of Enzo Biochem, Inc. appearing in Enzo Biochem, Inc.'s Annual Report (Form 10-K) for the year ended July 31, 1999, have been audited by Ernst & Young LLP, independent auditors, as set forth in their report thereon included therein and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

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PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

ITEM 3. INCORPORATION OF DOCUMENTS BY REFERENCE.

Enzo Biochem, Inc., a New York corporation, incorporates by reference the documents listed below into this Registration Statement on Form S-8. All documents subsequently filed by Enzo Biochem, Inc. pursuant to Section 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be part thereof from the date of filing of such documents:

1. Annual Report on Form 10-K for the fiscal year ended July 31, 1999;
2. Quarterly Report on Form 10-Q for the fiscal quarter ended October 31,

1999;

3. Definitive proxy statement filed with the SEC on November 29, 1999 pursuant to Regulation 14A under the Securities Exchange Act of 1934; and
4. The description of our common stock set forth in our Registration Statement filed under Section 12 of the Securities Exchange Act of 1934 on Form 8-A on December 16, 1999, and any amendment or report filed for the purpose of updating any such description.

ITEM 4. DESCRIPTION OF SECURITIES.

Not applicable.

ITEM 5. INTERESTS OF NAMED EXPERTS AND COUNSEL.

Not Applicable.

ITEM 6. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

The Company's Certificate of Incorporation states the following:

"Article 8. The Corporation shall, to the fullest extent permitted by the Business Corporation Law of the States of New York, indemnify any and all persons whom it shall have power to indemnify from and against any and all of the expenses, liabilities or other matters as provided under Articles of Seven of the Business Corporation Law of the State of New York.

"Article 12. No director of the Corporation shall be liable to the Corporation or its shareholders for damage for any breach of duty in such capacity, provided that nothing contained in this Article shall eliminate or limit the liability of a director (i) if a judgment or other final adjudication adverse to him establishes that his acts or omissions were in bad faith or involved acts or omissions were in bad faith or involved intentional misconduct or a knowing violation of law or that he personally gained in fact a financial profit or other advantage to which he was not legally entitled or that his acts violated Section 719 of the New York Business Corporation Law or (ii) for any act or omission prior to July 8, 1988."

ARTICLE V of the Registrant's By-Laws provides as follows:

"Section 1. INDEMNIFICATION-THIRD PARTY AND DERIVATIVE ACTIONS.

"(a) The Corporation shall indemnify any person made, or threatened to be made, a party to an action or proceeding (other than one by or in the right of the Corporation to procure a judgment in its favor), whether civil or criminal, including an action by or in the right of any

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other corporation of any type or kind, domestic or foreign, or any partnership, joint venture, trust, employee benefit plan or other enterprise, which any director or officer of the Corporation served in any capacity at the request of the Corporation, by reason of the fact that he, his testator or intestate, is or was a director or officer of the Corporation, by reason of the fact that he, his corporation, partnership, joint venture, trust, employee benefit plan or other enterprise in any capacity, against judgments, fines, amounts paid in settlement and expenses (including attorneys' fees) incurred in connection with any such action or proceeding, or any appeal therein, provided that no indemnification may be made to or on behalf of such person if (i) his acts were committed in bad faith or were the result of his active and deliberate dishonesty and were material to such action or proceeding or (ii) he personally gained in fact a financial profit or other advantage to which he was not legally entitled.

"(b) The Corporation shall indemnify any person made, or threatened to be made, a party to an action by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that he, his testator or intestate, is or was a director or officer of the Corporation, or is or was serving at the request of the Corporation as a director or officer of any other corporation of any type or kind, domestic or foreign, or of any partnership, joint venture, trust, employee benefit plan or other enterprise, against judgments, fines, amounts paid in settlement and expenses (including attorneys' fees) incurred in connection with such action, or any appeal therein, provided that no indemnification may be made to or on behalf of such person if (i) his acts were committed in bad faith or were the result of his active and deliberate dishonesty and were material to such action or (ii) he personally gained in fact a financial profit or other advantage to which he was not legally entitled.

"(c) The termination of any civil or criminal action or proceeding by judgment, settlement, conviction or upon a plea of nolo contendere, or its equivalent, shall not in itself create a presumption that any such person has not met the standard of conduct set forth in this Section 1.

"(d) For the purpose of this Section 1: (i) the Corporation shall be deemed to have requested a person to serve an employee benefit plan where the performance by such person of his duties to the Corporation also imposes duties on, or otherwise involve services by, such person to the plan or participants or beneficiaries of the plan; and (ii) excise taxes assessed on a person with respect to an employee benefit plan pursuant to applicable law shall be considered fines.

"Section 2. PAYMENT OF INDEMNIFICATION; REPAYMENT

"(a) A person who has been successful, on the merits or otherwise, in the defense of a civil or criminal action or proceeding of the character described in Section I of this Article V shall be entitled to indemnification as authorized in such Section.

"(b) Except as provided in paragraph (a) of this Section 2, any indemnification under Section 1 of this Article V, unless ordered by a court, shall be made by the Corporation only if authorized in the specific case:

(i) by the Board of Directors acting by a quorum consisting of directors who are not parties to the action or proceeding giving rise to the indemnity claim upon a finding that the director or officer has met the standard of conduct set forth in Section I of this Article V; or (ii) if a quorum under the foregoing clause (i) is not obtainable or, even if obtainable, a quorum of disinterested directors so directs: (A) by the Board of Directors upon the opinion in writing of independent legal counsel that indemnification is proper in the circumstances because the standard of conduct set forth in Section I of this Article V has been met by such director or

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officer, or (B) by the shareholders of the Corporation upon a finding that the director or officer has met such standard of conduct.

"(c) Expenses Incurred by a director or officer in defending a civil or criminal action or proceeding shall be paid by the Corporation in advance of the final disposition of such action or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount in case he is ultimately found, in accordance with this Article V, not to be entitled to indemnification or, where indemnity is granted, to the extent the expenses so paid exceed the indemnification to which he is entitled.

"(d) Any indemnification of a director or officer of the Corporation under Section I of this Article V, or advancement of expenses under paragraph (c) of this Section 2, shall be made promptly, and in any event within 60 days, upon the written request of the director or officer.

"Section 3. ENFORCEMENT; DEFENSES.

"The right to indemnification or advancement of expenses granted by this Article V shall be enforceable by the director or officer in any court of competent jurisdiction if the Corporation denies such request, in whole or in part, or if no disposition thereof is made within 60 days after written request by the director or officer. Such person's expenses incurred in connection with successfully establishing his right to indemnification, in whole or in part, in any such action shall also be indemnified by the Corporation. It shall be a defense to any such action (other than an action brought to enforce a claim for the advancement of expenses under Section 2 of this Article V where the required undertaking has been received by the Corporation) that the claimant has not met the standard of conduct set forth in Section I of this Article V, but the burden of providing such defense shall be on the Corporation. Neither the failure of the Corporation (including its Board of Directors, its independent legal counsel, and its shareholders) to have made a determination that indemnification of the claimant is proper in the circumstances, nor the fact that there has been an actual determination by the Corporation (including its Board of Directors, its independent legal counsel, and its shareholders) that indemnification of the claimant is not proper in the circumstances, shall be a defense to the action or create a presumption that the claimant is not entitled to indemnification.

"Section 4. SURVIVAL, SAVINGS CLAUSE; PRESERVATION OF OTHER RIGHTS.

"(a) The foregoing indemnification provisions shall be deemed to be a contract between the Corporation and each director and officer who serves in such capacity at any time while these provisions, as well as the relevant provisions of the New York Business Corporation Law, are in effect and any repeal or modification thereof shall not affect any right or obligation then existing with respect to any state of facts then or previously existing or any action or proceeding previously or thereafter brought or threatened based in whole or in part upon any such state of

facts. Such a contract fight may not be modified retroactively without the consent of such director or officer.

"(b) If this Article V or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each director or officer of the Corporation against judgments, fines, amounts paid in settlement and expenses (including attorneys' fees) incurred in connection with any actual or threatened action or proceeding, whether civil or criminal, including any actual or threatened action by or in the right of the Corporation, or any appeal therein, to the full extent permitted by any applicable portion of this Article V that shall not have been invalidated and to the full extent permitted by applicable law.

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"(c) The indemnification provided by this Article V shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any by-law, agreement, vote of shareholders or directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director or officer and shall inure to the benefit of the heirs, executors and administrators of such a person. The Corporation is hereby authorized to provide further indemnification if it deems advisable by resolution of shareholders or directors, by amendment of these by-laws or by agreement.

"Section 5. INSURANCE.

"The Corporation may purchase and maintain insurance:

"(a) to indemnify the Corporation for any obligation which it incurs as a result of the indemnification of directors and officers under the provisions of this Article V,

"(b) to indemnify directors and officers in instances in which they may be indemnified by the Corporation under the provisions of this Article V, and

"(c) to indemnify directors and officers in instances in which they may not otherwise be indemnified by the Corporation under the provisions of this Article V, provided that the contract of insurance covering such directors and officers pursuant to the foregoing paragraph (c) of Section 4 of this Article V shall provide, in a manner acceptable to the superintendent of insurance, for retention amount and for co-insurance, and provided, further, that no insurance under this Article V may provide for any payment, other than the cost of defense, to or on behalf of any director or officer if a judgment or other final adjudication adverse to the insured director or officer establishes (i) that his acts of active and deliberate dishonesty were material to the cause of action so adjudicated or (ii) that the director or officer personally gained in fact a financial profit or other advantage to which he was not legally entitled.

"Section 6. INDEMNIFICATION OF PERSONS NOT DIRECTORS OR OFFICERS OF THE CORPORATION.

"The Corporation may, by resolution adopted by the Board of directors of the Corporation, indemnify any person not a director or officer of the Corporation, who is made, or threatened to be made, a party to an action or proceeding, whether civil or criminal, by reason of the fact that he, his testator or intestate, is or was an employee or other agent of the Corporation, against judgments, fines, amounts paid in settlement and expenses (including attorneys' fees) incurred in connection with such action or proceeding, or any appeal therein, provided that no indemnification may be made to or on behalf of such person if (i) his acts were committed in bad faith or were the result of active and deliberate dishonesty, and such acts were material to such action or proceeding, or (ii) he personally gained in fact a financial profit or other advantage to which he was not legally entitled.

"Section 7. RETROACTIVITY.

"The right to indemnification conferred by this Article V shall be retroactive to events occurring prior to the adoption of this Article V to the fullest extent permitted by law.

ITEM 7. EXEMPTION FROM REGISTRATION CLAIMED.

Not Applicable.

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ITEM 8. EXHIBITS.

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.1 4 Enzo Biochem, Inc. 1994 Stock Option Plan (incorporated herein by reference to Exhibit 4 to the Registration Statement on Form S-8 (Registration No. 33-88826) filed with the Commission on January 27, 1995).

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5.1 Opinion of Morrison Cohen Singer & Weinstein, LLP.

23.1 Consent of Morrison Cohen Singer & Weinstein, LLP (included in its Opinion filed as Exhibit 5.1 hereto)

23.2 Consent of Ernst & Young LLP, independent auditors.

24.1 Powers of Attorney (included on the signature page of this Registration Statement)

</TABLE>

ITEM 9. UNDERTAKINGS.

The undersigned registrant hereby undertakes:

(a) Rule 415 Offering.

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high and of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) Filings Incorporating Subsequent Exchange Act Documents by Reference.

The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee

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benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be in the initial bona fide offering thereof.

(h) Request For Acceleration of Effective Date or Filing of Registration Statement on Form S-8.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Act, and is, therefore, unenforceable. In the event that a

claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Farmingdale, State of New York, on this 27th day of January, 2000.

<TABLE>
<S> <C> <C>
ENZO BIOCHEM, INC.
By: /s/ ELAZAR RABBANI

Elazar Rabbani, Ph.D.
CHAIRMAN OF THE BOARD
</TABLE>

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Elazar Rabbani, with the power of substitution, his or her attorney-in-fact, to sign any amendments to this Registration Statement and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorney-in-fact, or his or her substitute, may do or choose to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed below by the following persons in the capacities and on the dates indicated:

<TABLE> <CAPTION>	SIGNATURE -----	TITLE -----	DATE ----
<C>	/s/ ELAZAR RABBANI, PH.D. ----- Elazar Rabbani	<S> Chairman of the Board and Chief Executive Officer (principal executive officer)	<C> January 27, 2000
	/s/ SHAHRAM K. RABBANI ----- Shahram K. Rabbani	Chief Operating Officer, Treasurer, Secretary and Director (principal financial and accounting officer)	January 27, 2000
	/s/ BARRY W. WEINER ----- Barry W. Weiner	President and Director	January 27, 2000
	----- John J. Delucca	Director	
	----- John B. Sias	Director	

</TABLE>

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EXHIBIT INDEX

<TABLE> <CAPTION>	NO.	DESCRIPTION -----
<C>	4.1	<S> Enzo Biochem, Inc. 1994 Stock Option Plan (incorporated herein by reference to Exhibit 4 to the Registration Statement on Form S-8 (Registration No. 33-88826) filed with the Commission on January 27, 1995).

5.1	Opinion of Morrison Cohen Singer & Weinstein, LLP.
23.1	Consent of Morrison Cohen Singer & Weinstein, LLP (included in its Opinion filed as Exhibit 5.1 hereto).
23.2	Consent of Ernst & Young, LLP.
24.1	Powers of Attorney (included on the signature page of this Registration Statement).

</TABLE>

MORRISON COHEN SINGER & WEINSTEIN, LLP
750 Lexington Avenue
New York, New York 10022
Telephone: (212) 735-8600
Facsimile: (212) 735-8708

January 27, 2000

Enzo Biochem, Inc.
60 Executive Boulevard
Farmingdale, New York 11735

RE: REGISTRATION STATEMENT ON FORM S-8

Gentlemen:

In our capacity as counsel to Enzo Biochem, Inc., a New York corporation (the "Company"), we have been requested to render this opinion in connection with a registration statement on Form S-8 (the "Registration Statement") being filed by the Company with the Securities and Exchange Commission under the Securities Act of 1933, as amended, covering an aggregate of 38,951 shares (the "Shares") of common stock, \$.01 par value per share (the "Common Stock"), of the Company issuable upon the exercise of certain stock options (the "Options") granted or to be granted under the Company's 1994 Stock Option Plan (the "Plan").

In furnishing our opinion, we have examined the Certificate of Incorporation, as amended, of the Company, and such other instruments and documents as we have deemed relevant and necessary as the basis for our opinion expressed herein. We have examined originals or certified, conformed, or photostatic copies of all documents, the authenticity of which has been established to our satisfaction. In all such examinations, we have assumed the genuineness of all signatures on original and certified documents, and the conformity to executed documents of all executed copies submitted to us as conformed or photostatic copies.

Based upon and subject to the foregoing, we are of the opinion that the Shares issuable upon exercise of the Options have been duly authorized and, when paid for and issued in accordance with the terms of the Options, will be duly and validly issued shares of Common Stock.

We hereby consent to use of this opinion as an exhibit to the Registration Statement.

Very truly yours,
/s/ MORRISON COHEN SINGER & WEINSTEIN, LLP
Morrison Cohen Singer & Weinstein, LLP

CONSENT OF INDEPENDENT AUDITORS

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Post-effective Amendment No. 1 to Form S-8 No. 33-88826) pertaining to the Enzo Biochem, Inc. 1994 Stock Option Plan and to the incorporation by reference therein of our report dated October 15, 1999, with respect to the consolidated financial statements and schedule of Enzo Biochem, Inc. included in its Annual Report (Form 10-K) for the year ended July 31, 1999, filed with the Securities and Exchange Commission.

/s/ ERNST & YOUNG LLP

Melville, New York
January 25, 2000