

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 8-K

CURRENT REPORT PURSUANT
TO SECTION 13 OR 15(D) OF THE
SECURITIES EXCHANGE ACT OF 1934

Date of report (Date of earliest event reported): **October 14, 2010**

Enzo Biochem, Inc.

(Exact Name of Registrant as Specified in Its Charter)

New York

(State or Other Jurisdiction of Incorporation)

001-09974

13-2866202

(Commission File Number)

(IRS Employer Identification No.)

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

10022

(Address of Principal Executive Offices)

(Zip Code)

(212) 583-0100

(Registrant's Telephone Number, Including Area Code)

(Former Name or Former Address, if Changed Since Last Report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions *see* General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers

Effective October 15, 2010, Melvin F. Lazar retired from the Board of Directors of Enzo Biochem Inc. (the “Company”). Upon the effectiveness of Mr. Lazar’s retirement, the Board of Directors of the Company agreed to amend and restate its Bylaws to, among other things, set the size of the Board of Directors at six members, as more fully described below.

Item 5.03. Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year

At a meeting of the Board of Directors of the Company, the Board voted to amend and restate the Company’s Bylaws (as amended and restated, the “Bylaws”) to set the size of the Board at six members, add a new Section 4 to Article I to establish procedures for properly bringing up business before an annual meeting of shareholders, and to revise the advance notice procedures for shareholder nominations. The new advance notice provisions will be in effect for annual meetings occurring after the 2011 Annual Meeting of Shareholders.

The Bylaws are filed as Exhibit 3.1 and are incorporated by reference herein.

Item 7.01 Regulation FD Disclosure

On October 14, 2010, Enzo Biochem, Inc. (the “Company”) issued a press release regarding its fourth quarter and year end results. A copy of such press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K. Pursuant to the rules and regulations of the Securities and Exchange Commission, such exhibit and the information set forth therein are deemed to have been furnished and shall not be deemed to be “filed” under the Securities Exchange Act of 1934.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits.

- 3.1 Amended and Restated Bylaws of Enzo Biochem, Inc.
 - 99.1 Press Release of Enzo Biochem, Inc., dated October 14, 2010
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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: October 18, 2010

ENZO BIOCHEM, INC.

By: /s/ Barry W. Weiner

Barry W. Weiner
President

EXHIBIT INDEX

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-

AMENDED AND RESTATED
BY-LAWS OF
ENZO BIOCHEM, INC.
(a New York Corporation)
(as amended and restated as of October 15, 2010)

ARTICLE I
MEETING OF SHAREHOLDERS

Section 1. Annual Meeting. The annual meeting of the shareholders of Enzo Biochem, Inc., (hereinafter called the "Corporation") for the election of directors and for the transaction of such other business as may come before the meeting shall be held during the sixth month following the close of the Corporation's fiscal year as designated by resolution of the Board of Directors of the Corporation. If the annual meeting shall not be held on the day hereinabove provided for, the Board shall call a special meeting for the election of directors, which meeting shall be held within two months after said day.

Section 2. Special Meetings. Special meetings of shareholders of the Corporation may be called only by the Board pursuant to a resolution approved by a majority of the entire Board (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board for adoption).

Section 3. Notice of Meetings. Notice of the place, date and time of the holding of each annual and special meeting of the shareholders and, in the case of a special meeting, the purpose or purposes thereof, shall be given personally or by mail in a postage prepaid envelope to each shareholder entitled to vote at such meeting, not less than ten nor more than fifty days before the date of such meeting, and, if mailed, it shall be directed to such shareholder at his address as it appears on the records of the Corporation, unless he shall have filed with the Secretary of the Corporation, a written request that notices to him be mailed to some other address, in which case, it shall be directed to him at such other address. Notice of any meeting of shareholders shall not be required to be given to any shareholder who shall attend such meeting in person or by proxy and shall not, at the beginning of such meeting, object to the transaction of any business because the meeting is not lawfully called or convened, or who shall, either before or after the meeting, submit a signed waiver of notice, in person or by proxy. Unless the Board shall fix after the adjournment a new record date for an adjourned meeting, notice of such adjourned meeting need not be given if the time and place to which the meeting shall be adjourned were announced at the meeting at which the adjournment is taken. At the adjourned meeting the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each shareholder of record entitled to vote at the meeting.

Section 4. Notice of Business to be Brought before a Meeting.

- (a) The provisions of this Section 4 shall be in effect for annual meetings occurring after the 2011 Annual Meeting of Shareholders.
- (b) At an annual meeting of the shareholders, only such business shall be conducted as shall have been properly brought before the annual meeting. To be properly brought before an annual meeting, business must be (i) brought before the annual meeting by the Corporation and specified in the notice of annual meeting given by or at the direction of the Board, (ii) brought before the annual meeting by or at the direction of the Board, or (iii) otherwise properly brought before the annual meeting by a shareholder who (A) was a shareholder of record (and, with respect to any beneficial owner, if different, on whose behalf such business is proposed, only if such beneficial owner was the beneficial owner of shares of the Corporation) both at the time of giving the notice provided for in this Section 4 and at the time of the annual meeting, (B) is entitled to vote at the annual meeting, and (C) has complied with this Section 4 as to such business.
- (c) Without qualification, for business to be properly brought before an annual meeting by a shareholder, the shareholder must (i) provide Timely Notice (as defined below) thereof in writing and in proper form (as specified below in clause (e) of this Section 4) to the Secretary of the Corporation and (ii) provide any updates or supplements to such notice at the times and in the forms required by this Section 4. To be timely, a shareholder's notice must be delivered to, or mailed and received at, the principal executive offices of the Corporation not less than ninety (90) days nor more than one hundred twenty (120) days prior to the one-year anniversary of the preceding year's annual meeting; provided, however, that if no annual meeting was held in the previous year or the date of the annual meeting is more than thirty (30) days before or more than sixty (60) days after the anniversary date of the preceding year's annual meeting, notice by the shareholder to be timely must be so delivered, or mailed and received, not later than the ninetieth (90th) day prior to such annual meeting or, if later, the tenth (10th) day following the day on which public disclosure of the date of such annual meeting was first made (such notice within such time periods, "Timely Notice"). In no event shall any adjournment of an annual meeting or the announcement thereof commence a new time period for the giving of Timely Notice as described above.
- (d) To be in proper form for purposes of this Section 4, a shareholder's notice to the Secretary shall set forth:
 - (i) As to each Proposing Person (as defined below), (A) the name and address of such Proposing Person (including, if applicable, the name and address that appear on the Corporation's books and records); and (B) the class or series and number of shares of the Corporation that are, directly or indirectly, owned of record or beneficially owned (within the meaning of Rule 13d-3 under the Exchange Act) by such Proposing Persons, except that such Proposing Person shall in all events be deemed to beneficially

own any shares of any class or series of the Corporation as to which such Proposing Person has a right to acquire beneficial ownership at any time in the future (the disclosures to be made pursuant to the foregoing clauses (A) and (B) are referred to as "Shareholder Information"); and

- (ii) As to each item of business that the shareholder proposes to bring before the annual meeting, (A) a reasonably brief description of the business desired to be brought before the annual meeting, the reasons for conducting such business at the annual meeting and any material interest in such business of each Proposing Person, (B) the text of the proposal or business (including the text of any resolutions proposed for consideration), and (C) a reasonably detailed description of all agreements, arrangements and understandings (x) between or among any of the Proposing Persons or (y) between or among any Proposing Person and any other person or entity (including their names) in connection with the proposal of such business by such shareholder and (D) a representation as to whether any Proposing Person intends or is part of a group which intends to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Corporation's outstanding capital stock required to approve or adopt the proposal or otherwise to solicit proxies from shareholders in support of such proposal.

For purposes of this Section 4, the term "Proposing Person" shall mean (i) the shareholder providing the notice of business proposed to be brought before an annual meeting, (ii) the beneficial owner or beneficial owners, if different, on whose behalf the notice of the business proposed to be brought before the annual meeting is made, and (iii) any affiliate or associate (each within the meaning of Rule 12b-2 under the Exchange Act for purposes of these By-Laws) of such shareholder or beneficial owner.

- (c) A shareholder providing notice of business proposed to be brought before an annual meeting shall further update and supplement such notice, if necessary, so that the information provided or required to be provided in such notice pursuant to this Section 4 shall be true and correct as of the record date for the annual meeting and as of the date that is ten (10) business days prior to the annual meeting or any adjournment or postponement thereof, and such update and supplement shall be delivered to, or mailed and received by, the Secretary at the principal executive offices of the Corporation not later than five (5) business days after the record date for the annual meeting (in the case of the update and supplement required to be made as of the record date), and not later than eight (8) business days prior to the date for the annual meeting or any adjournment or postponement thereof, if practicable (or, if not practicable, on the first practicable date prior thereto) (in the case of the update and supplement required to be made as of ten (10) business days prior to the annual meeting or any adjournment or postponement thereof).

Section 5. Place of Meetings. Meetings of the shareholders may be held at such place, within or without the State of incorporation, as the Board or other officer calling the same shall specify in the notice of such meeting, or in a duly executed waiver of notice thereof.

Section 6. Quorum. At all meetings of the shareholders the holders of a majority of the votes of the shares of stock of the Corporation issued and outstanding and entitled to vote shall be present in person or by proxy to constitute a quorum for the transaction of any business, except when shareholders are required to vote by class, in which event a majority of the issued and outstanding shares of the appropriate class shall be present in person or by proxy, or except as otherwise provided by statute or in the Certificate of Incorporation. In the absence of a quorum, the holders of a majority of the votes of the shares of stock present in person or by proxy and entitled to vote, or if no shareholder entitled to vote is present, then any officer of the Corporation may adjourn the meeting from time to time. At any such adjourned meeting at which a quorum may be present any business may be transacted which might have been transacted at the meeting as originally called.

Section 7. Organization. At each meeting of the shareholders of the Corporation, the Chairman of the Board, or in his absence or inability to act, the Vice Chairman of the Board, or in the absence or inability to act of the Chairman of the Board and the Vice Chairman of the Board, the President, or in the absence or inability to act of the Chairman of the Board, the Vice Chairman of the Board and the President, a Vice President, or in the absence of all of the foregoing, any person chosen by a majority of those shareholders present, shall act as chairman of the meeting. The Secretary, or, in his absence or inability to act, the Assistant Secretary or any person appointed by the chairman of the meeting, shall act as secretary of the meeting and keep the minutes thereof.

Section 8. Order of Business. The order of business at all meetings of the shareholders shall be as determined by the chairman of the meeting.

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. 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.

Section 10. List of Shareholders. The officer who has charge of the stock ledger of the Corporation, or the transfer agent of the Corporation's stock, if there be one then acting, shall prepare and make, at least ten days before every meeting of shareholders, a complete list of the shareholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each shareholder and the number of shares registered in the name of each shareholder. Such list shall be open to the examination of any shareholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten days prior to the meeting, either at a place within the city where the meeting is to be held, at the place where the meeting is to be held, or at the office of the transfer agent. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any shareholder who is present.

Section 11. Inspectors. The Board may, in advance of any meeting of shareholders, appoint one or more inspectors to act at such meeting or any adjournment thereof. If the inspectors shall not be so appointed or if any of them shall fail to appear or act, the chairman of the meeting may, and on the request of any shareholder entitled to vote thereat shall, appoint inspectors. Each inspector, before entering upon the discharge of his duties, shall take and sign an oath faithfully to execute the duties of inspector at such meeting with strict impartiality and according to the best of his ability. The inspectors shall determine the number of shares outstanding and the voting power of each, the number of shares represented at the meeting, the existence of a quorum, the validity and effect of proxies, and shall receive votes, ballots or consents, hear and determine all challenges and questions arising in connection with the right to vote, count and tabulate all votes, ballots or consents, determine the result, and do such acts as are proper to conduct the election or vote with fairness to all shareholders. On request of the chairman of the meeting or any shareholder entitled to vote thereat, the inspectors shall make a report in writing of any challenge, request or matter determined by them and shall execute a certificate of any fact found by them. No director or candidate for the office of director shall act as inspector or an election of directors. Inspectors need not be shareholders.

Section 12. Consent of Shareholders in Lieu of Meeting. To the extent permitted by law, the meeting and vote of shareholders can be dispensed with if all of the shareholders who would have been entitled to vote upon the action if such meeting were held shall consent in writing to such corporate action being taken.

ARTICLE II

BOARD OF DIRECTORS

Section 1. General Powers. The business and affairs of the Corporation shall be managed by the Board. The Board may exercise all such authority and powers of the Corporation and do all such lawful acts and things as are not by statute or the Certificate of Incorporation directed or required to be exercised or done by the shareholders.

Section 2. Number, Election and Terms. The number of directors constituting the Board shall be fixed at six (6). The directors, other than those who may be elected by the holders of any class or series of stock having a preference over another class or series of stock as to dividends or upon liquidation, shall be classified, with respect to the time for which they severally hold office, into three classes, as nearly equal in number as possible, as determined by the Board, one class to be originally elected for a term expiring at the annual meeting of shareholders to be held in 1989, another class to be originally elected for a term expiring at the annual meeting of shareholders to be held in 1990, and another class to be originally elected for a term expiring at the annual meeting of shareholders to be held in 1991, with each class to hold office until its successor is elected and qualified. At each annual meeting of the shareholders of the Corporation, the successors of the class of directors whose term expires at the meeting shall be elected to hold office for a term expiring at the annual meeting of shareholders held in the third year following the year of their election. Directors need not be residents of the State of New York, shareholders of the Corporation or citizens of the United States. Unless provided otherwise by law, any director may be removed at any time, with or without cause, at a special meeting of the shareholders called for that purpose.

Section 3. Place of Meetings. Meetings of the Board may be held at such place, within or without the State of incorporation, as the Board may from time to time determine or as shall be specified in the notice or waiver of notice of such meeting.

Section 4. Annual Meeting. The Board shall meet for the purpose of organization, the election of officers and the transaction of other business, as soon as practicable after each annual meeting of the shareholders, on the same day and at the same place where such annual meeting shall be held. Notice of such meeting need not be given. Such meeting may be held at any other time or place (within or without the State of incorporation) which shall be specified in a notice thereof given as hereinafter provided in Section 7 of this Article II.

Section 5. Regular Meetings. Regular meetings of the Board shall be held at such time and place as the Board may from time to time determine. If any day fixed for a regular meeting shall be a legal holiday at the place where the meeting is to be held, then the meeting which would otherwise be held on that day shall be held at the same hour on the next succeeding business day. Notice of regular meetings of the Board need not be given except as otherwise required by statute or these By-Laws.

Section 6. Special Meetings. Special meetings of the Board may be called by two or more directors of the Corporation or by the Chairman of the Board, the Vice Chairman of the Board, the Lead Independent Director or the President.

Section 7. Notice of Meetings. Notice of each special meeting of the Board (and of each regular meeting for which notice shall be required) shall be given by the Secretary as hereinafter provided in this Section 7, in which notice shall be stated the time and place (within or without the State of incorporation) of the meeting. Notice of each such meeting shall be delivered to each director either personally or by telephone, telegraph, cable or wireless, at least twenty-four hours before the time at which such meeting is to be held or by first-class mail, postage prepaid, addressed to him at his residence, or usual place of business, at least three days before the day on which such meeting is to be held. Notice of any such meeting need not be

given to any director who shall, either before or after the meeting, submit a signed waiver of notice or who shall attend such meeting without protesting, prior to or at its commencement, the lack of notice to him. Except as otherwise specifically required by these By-Laws, a notice or waiver of notice of any regular or special meeting need not state the purpose of such meeting.

Section 8. Quorum and Manner of Acting. A majority of the entire Board shall be present in person at any meeting of the Board in order to constitute a quorum for the transaction of business at such meeting, and, except as otherwise expressly required by statute or the Certificate of Incorporation, the act of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board. In the absence of a quorum at any meeting of the Board, a majority of the directors present thereat, or if no director be present, the Secretary, may adjourn such meeting to another time and place, or such meeting, unless it be the annual meeting of the Board, need not be held. At any adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the meeting as originally called. Except as provided in Article III of these By-Laws, the directors shall act only as a Board and the individual directors shall have no power as such.

Section 9. Organization. The Chairman of the Board shall act as chairman of and preside at all meetings of the Board at which he is present. If the Chairman of the Board shall be absent from any meeting of the Board, the duties otherwise provided in this Section 9 of Article II to be performed by him at such meeting shall be performed at such meeting by the individual elected by the Board to act as Lead Independent Director. If the Chairman of the Board shall be absent from any meeting of the Board, and if no Lead Independent Director has been elected or if the Lead Independent Director is not present at the meeting, the Vice Chairman of the Board shall act as chairman of and preside at such meeting. If the Chairman of the Board shall be absent from any meeting of the Board, and if no Lead Independent Director or Vice Chairman of the Board has been elected or if the Lead Independent Director and the Vice Chairman of the Board are not present at the meeting, the President shall act as chairman of and preside at such meeting. If the Chairman of the Board shall be absent from any meeting of the Board, and if no Lead Independent Director or Vice Chairman of the Board has been elected and no President has been appointed or if the Lead Independent Director, the Vice Chairman of the Board and the President are not present at the meeting, another director chosen by a majority of the directors present shall act as chairman of and preside at such meeting. The Secretary (or, in his absence or inability to act, any person appointed by the chairman) shall act as secretary of the meeting and keep the minutes thereof.

Section 10. Resignations. Any director of the Corporation may resign at any time by giving written notice of his resignation to the Board or Chairman of the Board or the President or the Secretary. Any such resignation shall take effect at the time specified therein, or, if the time when it shall become effective shall not be specified therein, immediately upon its receipt; and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Section 11. Newly Created Directorships and Vacancies. Except as otherwise provided for or fixed by or pursuant to the provisions of Article 4 of the Certificate of Incorporation relating to the rights of the holders of any class or series of stock having a preference over another class or series of stock as to dividends or upon liquidation to elect directors under

specified circumstances, newly created directorships resulting from any increase in the number of directors and any vacancies on the Board resulting from death, resignation, disqualification, removal or other cause shall be filled by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the Board. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the class of directors in which the new directorship was created or the vacancy occurred and until such director's successor shall have been elected and qualified. No decrease in the number of directors constituting the Board shall shorten the term of any incumbent director.

Section 12. Removal of Directors. Subject to the rights of any class or series of stock having a preference over another class or series of stock as to dividends or upon liquidation to elect directors under specified circumstances, any director may be removed from office, only with cause and only by the affirmative vote of (i) the holders of 80% of the combined voting power of the then outstanding shares of stock entitled to vote generally in the election of directors, voting together as a single class and (ii) a majority of such shares beneficially owned by the persons not affiliated with an Interested Shareholder (as defined in Article 14 of the Certificate of Incorporation).

Section 13. Compensation. The Board shall have authority to fix the compensation, including fees and reimbursement of expenses, of directors for services to the Corporation in any capacity, provided no such payment shall preclude any director from serving the Corporation in any other capacity and receiving compensation therefore.

Section 14. Action by the Board. Any member of the Board or of any Committee thereof may participate in a meeting of the Board or such committee by means of a conference telephone or similar communications equipment allowing all persons participating in the meeting to hear each of them at the same time. Participation by such means shall constitute presence in person at a meeting. To the extent permitted under the laws of the State of incorporation, any action required or permitted to be taken at any meeting of the Board or of any committee thereof may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing, or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board, or committee.

Section 15. Advance Notice of Nominations for Election of Directors at a Meeting Subject to the rights of holders of any class or series of stock having a preference over another class or series of stock as to dividends or upon liquidation to elect additional directors under specified circumstances, nominations for the election of directors may be made by the Board or a proxy committee appointed by the Board or by any shareholder entitled to vote in the election of directors generally. However, any shareholder entitled to vote in the election of directors generally may nominate one or more persons for election as directors at a meeting only if written notice of such shareholder's intent to make such nomination or nominations has been given, either by personal delivery or by United States mail, postage prepaid, to the Secretary of the Corporation (i) with respect to an election to be held at an annual meeting of shareholders, not less than ninety (90) days nor more than on hundred twenty (120) days prior to the earlier of the date of the meeting or the corresponding date on which the immediately preceding year's annual meeting of shareholders was held, and (ii) with respect to an election to be held at a special

meeting of shareholders for the election of directors, the close of business on the seventh day following the date on which notice of such meeting is first given to shareholders. Each such notice shall set forth: (a) the name and address of the shareholder who intends to make the nomination and the person or persons to be nominated; (b) a representation that the shareholder is a holder of record of stock of the Corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice; (c) a description of all arrangements or understandings between the shareholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the shareholder; (d) such other information regarding each nominee proposed by such shareholder as would be required to be included in a proxy statement filed pursuant to the proxy rules of the Securities and Exchange Commission, had the nominee been nominated, or intended to be nominated, by the Board; and (e) the consent of each nominee to serve as a director of the Corporation if so elected. The chairman of the meeting may refuse to acknowledge the nomination of any person not made in compliance with the foregoing procedure.

Section 16. The Lead Independent Director. The Board may from time to time elect a director to serve as Lead Independent Director, which shall be an “independent director” in accordance with the Exchange Act and the applicable rules of the New York Stock Exchange. The Lead Independent Director, if one be elected, shall, if present, preside at each meeting of the Board in the case of the absence or inability to act of the Chairman of the Board, and when so acting shall have all the powers of, and be subject to all the restrictions upon, the Chairman of the Board, and shall coordinate the activities of the independent directors and have such other authority and powers as the Board may from time to time prescribe.

Section 17. Term Limits. Notwithstanding anything herein to the contrary, the total cumulative length of time that any Outside Director may serve on the Board shall be 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. An “Outside Director” shall mean a member of the Corporation’s Board who is not an officer or employee of the Corporation.

ARTICLE III

EXECUTIVE AND OTHER COMMITTEES

Section 1. Executive and other Committees. The Board may, by resolution passed by a majority of the whole Board, designate one or more committees, each committee to consist of two or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. Any such committee, to the extent provided in the resolution shall have and may exercise the powers of the Board in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; provided, however, that in the absence or disqualification of any member of any such committee or committees, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such

absent or disqualified member. Each committee shall keep minutes of its proceedings and shall report such minutes to the Board when required. All such proceedings shall be subject to revision or alteration by the Board; provided, however, that third parties shall not be prejudiced by such revision or alteration.

Section 2. General. A majority of any committee may determine its action and fix the time and place of its meetings, unless the Board shall otherwise provide. Notice of such meetings shall be given to each member of the committee in the manner provided for in Article II, Section 7. The Board shall have the power at any time to fill vacancies in, to change the membership of, or to dissolve any such committee. Nothing herein shall be deemed to prevent the Board from appointing one or more committees consisting in whole or in part of persons who are not directors of the Corporation; provided, however, that no such committee shall have or may exercise any authority of the Board.

ARTICLE IV

OFFICERS

Section 1. Number and Qualifications. The officers of the Corporation shall include the President, one or more Vice Presidents (one or more of whom may be designated Executive Vice President or Senior Vice President), the Treasurer and the Secretary. Any two or more offices may be held by the same person. Such officers shall be elected from time to time by the Board, each to hold office until the meeting of the Board following the next annual meeting of the shareholders, or until his successor shall have been duly elected and shall have qualified, or until his death, or until he shall have resigned, or have been removed, as hereinafter provided in these By-Laws. The Board may from time to time elect a Chairman of the Board and a Vice Chairman of the Board, and the Board may from time to time elect, or the Chairman of the Board, or the President may appoint, such other officers (including one or more Assistant Vice Presidents, Assistant Secretaries, and Assistant Treasurers), and such agents, as may be necessary or desirable for the business of the Corporation. Such other officers and agents shall have such duties and shall hold their offices for such terms as may be prescribed by the Board of by the appointing authority.

Section 2. Resignations. Any officer of the Corporation may resign at any time by giving written notice of his resignation to the Board, the Chairman of the Board, the President or the Secretary. Any such resignation shall take effect at the time specified therein, or, if the time when it shall become effective shall not be specified therein, immediately upon its receipt; and unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective.

Section 3. Removal. Any officer or agent of the Corporation may be removed, either with or without cause, at any time, by the vote of the majority of the entire Board at any meeting of the Board, or, except in the case of an officer or agent elected or appointed by the Board, by the Chairman of the Board or the President. Such removal shall be without prejudice to the contractual rights, if any, of the person so removed.

Section 4. Vacancies. A vacancy in any office, whether arising from death, resignation, removal or any other cause, may be filled for the unexpired portion of the term of the office which shall be vacant, in the manner prescribed in these By-Laws for the regular election or appointment to such office.

Section 5. The Chairman of the Board. (a) The Chairman of the Board, if one be elected, shall be the chief executive officer of the Corporation and shall have the general and active management of the business of the Corporation and general and active supervision and direction over the other officers, agents and employees and shall see that their duties are properly performed. He shall, if present, preside at each meeting of the shareholders and of the Board. He shall perform all duties incident to the office of Chairman of the Board and chief executive officer and such other duties as may from time to time be assigned to him by the Board.

(b) The Vice Chairman of the Board. The Vice Chairman of the Board, if one be elected, shall, if present, preside at each meeting of the shareholders in the case of the absence or inability to act of the Chairman of the Board, and shall, if present, preside at each meeting of the Board in the case of the absence or inability to act of the Chairman of the Board and the Lead Independent Director, and when so acting shall have all the powers of, and be subject to all the restrictions upon, the Chairman of the Board, and shall have such other authority and powers and perform all such duties as from time to time may be assigned to him by the Board or the Chairman of the Board.

Section 6. The President. The President shall be the chief operating officer of the Corporation and shall have general and active supervision and direction over the business and affairs of the Corporation and over its several officers, subject, however, to the direction of the Chairman of the Board and the control of the Board. He shall, if present, preside at each meeting of the shareholders in the case of the absence or inability to act of the Chairman of the Board and the Vice Chairman of the Board, and shall, if present, preside at each meeting of the Board in the case of the absence or inability to act of the Chairman of the Board, the Lead Independent Director and the Vice Chairman of the Board, and when so acting shall have all the powers of, and be subject to all the restrictions upon, the Chairman of the Board. He shall perform all duties incident to the office of President and such other duties as from time to time may be assigned to him by the Board, the Chairman of the Board or these By-Laws.

Section 7. Vice-Presidents. Each Executive Vice-President, each Senior Vice-President and each Vice-President shall have such powers and perform all such duties as from time to time may be assigned to him by the Board, the Chairman of the Board or the President.

Section 8. The Treasurer. The Treasurer shall be the chief financial officer of the Corporation and shall exercise general supervision over the receipt, custody and disbursement of Corporate funds. He shall have such further powers and duties as may be conferred upon him from time to time by the President or the Board of Directors. He shall perform the duties of controller if no one is elected to that office.

Section 9. The Secretary. The Secretary shall

- (a) keep or cause to be kept in one or more books provided for the purpose, the minutes of all meetings of the Board, the committees of the Board and the shareholders;
- (b) see that all notices are duly given in accordance with the provisions of these By-Laws and as required by law;
- (c) be custodian of the records and the seal of the Corporation and affix and attest the seal to all stock certificates of the Corporation (unless the seal of the Corporation on such certificates shall be a facsimile, as hereinafter provided) and affix and attest the seal to all other documents to be executed on behalf of the Corporation under its seal;
- (d) see that the books, reports, statements, certificates and other documents and records required by law to be kept and filed are properly kept and filed; and
- (e) in general, perform all the duties incident to the office of Secretary and such other duties as from time to time may be assigned to him by the Board, the Chairman of the Board, or the President.

Section 10. Officers' Bonds or Other Security. If required by the Board, any officer of the Corporation shall give a bond or other security for the faithful performance of his duties, in such amount and with such surety or sureties as the Board may require.

Section 11. Compensation. The compensation of the officers of the Corporation for their services as such officers shall be fixed from time to time by the Board; provided, however, that the Board may delegate to the Chairman of the Board or the President the power to fix the compensation of officers and agents appointed by the Chairman of the Board or the President, as the case may be. An officer of the Corporation shall not be prevented from receiving compensation by reason of the fact that he is also a director of the Corporation, but any such officer who shall also be a director shall not have any vote in the determination of the amount of compensation paid to him.

ARTICLE V
INDEMNIFICATION

The Corporation shall, to the fullest extent permitted by the laws of the State of incorporation, indemnify any and all persons whom it shall have power to indemnify against any and all of the costs, expenses, liabilities or other matters incurred by them by reason of having been officers or directors of the Corporation, any subsidiary of the Corporation or of any other corporation for which he acted as officer or director at the request of the Corporation.

ARTICLE VI

CONTRACTS, CHECKS, DRAFTS, BANK ACCOUNTS, ETC.

Section 1. Execution of Contracts. Except as otherwise required by statute, the Certificate of Incorporation or these By-Laws, any contracts or other instruments may be executed and delivered in the name and on behalf of the Corporation by such officer or officers (including any assistant officer) of the Corporation as the Board may from time to time direct. Such authority may be general or confined to specific instances as the Board may determine. Unless authorized by the Board or expressly permitted by these By-Laws, an officer or agent or employee shall not have any power or authority to bind the Corporation by any contract or engagement or to pledge its credit or to render it pecuniarily liable for any purpose or to any amount.

Section 2. Loans. Unless the Board shall otherwise determine either (a) the Chairman of the Board, the Vice-Chairman of the Board or the President, singly, or (b) a Vice-President, together with the Treasurer, may effect loans and advances at any time for the Corporation or guarantee any loans and advances to any subsidiary of the Corporation, from any bank, trust company or other institution, or from any firm, corporation or individual, and for such loans and advances may make, execute and deliver promissory notes, bonds or other certificates or evidences of indebtedness of the Corporation, or guarantee of indebtedness of subsidiaries of the Corporation, but no officer or officers shall mortgage, pledge, hypothecate or transfer any securities or other property of the Corporation, except when authorized by the Board.

Section 3. Checks, Drafts, etc. All checks, drafts, bills of exchange or other orders for the payment of money out of the funds of the Corporation, and all notes or other evidences of indebtedness of the Corporation, shall be signed in the name and on behalf of the Corporation by such persons and in such manner as shall from time to time be authorized by the Board.

Section 4. Deposits. All funds of the Corporation not otherwise employed shall be deposited from time to time to the credit of the Corporation in such banks, trust companies or other depositories as the Board may from time to time designate or as may be designated by any officer or officers of the Corporation to whom such power of designation may from time to time be delegated by the Board. For the purpose of deposit and for the purpose of collection for the account of the Corporation, checks, drafts and other orders for the payment of money which are payable to the order of the Corporation may be endorsed, assigned and delivered by any officer or agent of the Corporation, or in such other manner as the Board may determine by resolution.

Section 5. General and Special Bank Accounts. The Board may from time to time authorize the opening and keeping of general and special bank accounts with such banks, trust companies or other depositories as the Board may designate or as may be designated by any officer or officers of the Corporation to whom such power of designation may from time to time be delegated by the Board. The Board may make such special rules and regulations with respect to such bank accounts, not inconsistent with the provisions of these By-Laws, as it may deem expedient.

Section 6. Proxies in Respect of Securities of Other Corporations. Unless otherwise provided by resolution adopted by the Board of Directors, the Chairman of the Board, the President, or a Vice-President may from time to time appoint an attorney or attorneys or agent or agents, of the Corporation, in the name and on behalf of the Corporation to cast the votes which the Corporation may be entitled to cast as the holder of stock or other securities in any other corporation, any of whose stock or other securities may be held by the Corporation, at meetings of the holders of the stock or other securities of such other corporation, or to consent in writing, in the name of the Corporation as such holder, to any action by such other corporation, and may instruct the person or persons so appointed as to the manner of casting such votes or giving such consent, and may execute or cause to be executed in the name and on behalf of the Corporation and under its corporate seal, or otherwise, all such written proxies or other instruments as he may deem necessary or proper in the premises.

ARTICLE VII

SHARES, ETC.

Section 1. Shares of Stock. Shares of capital stock of the Corporation may be certificated or uncertificated, as provided under the New York Business Corporation Law. Each holder of shares of stock of the Corporation shall be entitled to have a certificate, upon request, in such form as shall be approved by the Board, certifying the number of shares of the Corporation owned by him. The certificates representing shares of stock shall be signed in the name of the Corporation by the Chairman of the Board or the President or a Vice-President and by the Secretary or an Assistant Secretary or the Treasurer or an Assistant Treasurer and sealed with the seal of the Corporation (which seal may be a facsimile, engraved or printed); provided, however, that where any such certificate is countersigned by a transfer agent other than the Corporation or its employee, or is registered by a registrar other than the Corporation or one of its employees, the signature of the officers of the Corporation upon such certificates may be facsimiles, engraved or printed. In case any officer who shall have signed or whose facsimile signature has been placed upon such certificates shall have ceased to be such officer before such certificates shall be issued, they may nevertheless be issued by the Corporation with the same effect as if such officer were still in office at the date of their issue.

Section 2. Books of Account and Record of Shareholders. The books and records of the Corporation may be kept at such places within or without the State of incorporation as the Board of Directors may from time to time determine. The stock record books and the blank stock certificate books shall be kept by the Secretary or by any other officer or agent designated by the Board of Directors.

Section 3. Transfer of Shares. Stock of the Corporation shall be transferable in the manner prescribed by applicable law and in these By-Laws. Transfers of shares of stock of the Corporation shall be made on the stock records of the Corporation, and in the case of certificated shares of stock, only upon authorization by the registered holder thereof, or by his attorney thereunto authorized by power of attorney duly executed and filed with the Secretary or with a transfer clerk, and on surrender of the certificate or certificates for such shares properly endorsed or accompanied by a duly executed stock transfer power and the payment of all taxes thereon; or, in the case of uncertificated shares of stock, upon receipt of proper transfer instructions from the

registered holder of the shares or by such person's attorney lawfully constituted in writing, and upon payment of all necessary transfer taxes and compliance with appropriate procedures for transferring shares in uncertificated form. Except as otherwise provided by law, the Corporation shall be entitled to recognize the exclusive right of a person in whose name any share or shares stand on the record of shareholders as the owner of such share or shares for all purposes, including, without limitation, the rights to receive dividends or other distributions, and to vote as such owner, and the Corporation may hold any such shareholder of record liable for calls and assessments and the Corporation shall not be bound to recognize any equitable or legal claim to or interesting any such share or shares on the part of any other person whether or not it shall have express or other notice thereof. Whenever any transfers of shares shall be made for collateral security and not absolutely, and both the transferor and transferee request the Corporation to do so, such fact shall be stated in the entry of the transfer.

Section 4. Regulations. The Board may make such additional rules and regulations, not inconsistent with these By-Laws, as it may deem expedient concerning the issue, transfer and registration of certificates for shares of stock of the Corporation. It may appoint, or authorize any officer or officers to appoint, one or more transfer agents or one or more transfer clerks and one or more registrars and may require all certificates for shares of stock to bear the signature or signatures of any of them.

Section 5. Lost, Destroyed or Mutilated Certificates. The holder of any certificate representing the shares of stock of the Corporation shall immediately notify the Corporation of any loss, destruction or mutilation of such certificate, and the Corporation may issue a new certificate of stock in the place of any certificate theretofore issued by it which the owner thereof shall allege to have been lost, stolen, or destroyed or which shall have been mutilated, and the Board may, in its discretion, require such owner or his legal representatives to give to the Corporation a bond in such sum, limited or unlimited, and in such form and with such surety or sureties as the Board in its absolute discretion shall determine, to indemnify the Corporation against any claim that may be made against it on account of the alleged loss, theft, or destruction of any such certificate, or the issuance of a new certificate. Anything herein to the contrary notwithstanding, the Board, in its absolute discretion, may refuse to issue any such new certificate, except pursuant to legal proceedings under the laws of the State of incorporation.

Section 6. Fixing of Record Date. In order that the Corporation may determine the shareholders entitled to notice of, or to vote at, any meeting of shareholders or any adjournment thereof, or to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix, in advance, a record date, which shall not be more than sixty nor less than ten days before the date of such meeting, nor more than sixty days prior to any other action. A determination of shareholders of record entitled to notice of, or to vote at, a meeting of shareholders shall apply to any adjournment of the meeting; provided, however, that the Board may fix a new record date for the adjourned meeting.

ARTICLE VIII

OFFICE

Section 1. Principal or Registered Office. The principal or registered office of the Corporation shall be at such place as may be specified in the Certificate of Incorporation of the Corporation or other certificate filed pursuant to law, or if none be so specified, at such place as may from time to time be fixed by the Board.

Section 2. Other Offices. The Corporation also may have an office or offices other than said principal or registered office, at such place or places either within or without the State of incorporation.

ARTICLE IX

FISCAL YEAR

The fiscal year of the Corporation shall be determined by the Board.

ARTICLE X

SEAL

The board shall provide a corporate seal which shall contain the name of the Corporation, the words "Corporate Seal" and the year and State of incorporation.

ARTICLE XI

AMENDMENTS

These By-Laws may be amended or repealed, or new By-Laws may be adopted, at any annual or special meeting of the shareholders, by a majority of the total votes of the shareholders or when shareholders are required to vote by class by a majority of the appropriate class, present in person or represented by proxy and entitled to vote on such action; provided, however, that the notice of such meeting shall have been given as provided in these By-Laws, which notice shall mention that amendment or repeal of these By-Laws, or the adoption of new By-Laws, is one of the purposes of such meeting. These By-Laws may also be amended or repealed, or new By-Laws may be adopted, by the Board at any meeting thereof; provided, however, that notice of such meeting shall have been given as provided in these By-Laws, which notice shall mention that amendment or repeal of the By-Laws, or the adoption of new By-Laws, is one of the purposes of such meetings; and provided, further, that By-Laws adopted by the Board may be amended or repealed by the shareholders as hereinabove provided.



*news
release*

Enzo Biochem, Inc.
527 Madison Avenue
New York, NY 10022

FOR IMMEDIATE RELEASE

ENZO BIOCHEM REPORTS FOURTH QUARTER AND YEAR END RESULTS

**Recent Initiatives to Generate Cost Savings in Excess of \$4 Million
and Target Positive Cash-Flow from Operations in 2011**

NEW YORK, NY, October 14, 2010 – Enzo Biochem, Inc. (NYSE:ENZ) today reported results for the fiscal fourth quarter, consistent with our announcement on September 20, 2010, and for the year ended July 31, 2010.

“As we have previously stated,” said Barry Weiner, President of Enzo, “we have this past year taken aggressive actions to streamline operations, reduce overhead and generate cost savings designed to position the Company to capitalize on its many strengths in diagnostics services and life sciences, as well as to enhance our financial capabilities and achieve positive cash flow. In the fourth fiscal quarter, we took substantial charges to support these actions. The improved operating results will start to be reflected beginning with the first quarter of fiscal 2011 now underway.”

In the fourth quarter of fiscal 2010, compared to a year ago:

- o Aided by gains at Enzo Clinical Labs, total revenues advanced to \$24.9 million, up \$0.4 million, or 1.7%.
- o Gross profit declined \$0.6 million to \$10.2 million, which included a charge of approximately \$1.3 million related to rationalization of low-margin products at Enzo Life Sciences. Without that charge, gross profit would have approximated \$11.5 million, compared to \$10.8 million a year ago. Gross profit margin, adjusted for the charge, would have equaled 46%, instead of 41%, as reported, as compared to a gross margin of 44% last year.
- o Selling, general and administrative expenses (SG&A), as a percentage of revenues, improved to 45.1%, after adjusting for severance of \$0.3 million, from 47.6%, reflecting continuing efforts to manage costs.

The reported net loss for the period of \$5.5 million would have been approximately \$1.8 million without the inventory charge and one-time severance costs of \$0.5 million for the workforce realignment, or a \$3.7 million net loss, as compared to a \$4.9 million net loss

in the corresponding year-ago period, after adjusting for an inventory purchase accounting charge of \$0.4 million. On a fully diluted per share basis, the net loss amounted to \$0.15 per share, of which \$0.05 was due to the above charges, compared to \$0.14 per share a year ago, of which \$0.01 was due to the inventory adjustment.

Cash, cash equivalents and short-term investments approximated \$34 million at July 31, 2010 and April 30, 2010. Cash used in operations decreased to \$0.2 million in the fiscal fourth quarter from \$2.7 million in the year ago period.

For the full year total revenues increased 8% to \$97.1 million and gross profit, despite the fourth quarter inventory adjustment, was up 23%, to approximately \$45.0 million, with the gross margin at 46%, compared with 41% a year earlier. Operating expenses, which exclude cost of goods and services, approximated \$63.3 million and as a percentage of revenues, excluding the \$3.7 million in litigation settlement and related legal costs, declined 200 basis points to 65%. This resulted in an operating loss of \$22.1 million, a 6% improvement compared to the prior year's operating loss of \$23.4 million. The year's net loss was reduced 6%, to \$22.2 million, or a loss of \$0.59 per diluted share, down from \$23.6 million, or a loss of \$0.63 per diluted share. EBITDA loss, as adjusted for the litigation settlement and legal costs, improved by \$6.3 million to \$14.3 million.

Segment Results

Enzo Clinical Labs posted a 3.4% increase in fourth quarter revenues, to \$11.7 million, and an increase for the year of 12%, to \$44.2 million. The revenue increase resulted from increased service volume, including higher priced testing, despite a slowdown in physician office visits due to the economy and lower Medicare reimbursement rates. Gross profit for the quarter amounted to \$3.7 million, against \$4.1 million a year ago, and for the year totaled \$14.6 million, up from \$13.3 million a year ago. The fiscal fourth quarter and the year were both impacted by higher expenses for reagents and other associated costs.

At Enzo Life Sciences, year-over-year product revenues increased 6%, to \$43.1 million, and for the quarter amounted to \$10.5 million, as compared to \$10.6 million last year. Royalty and license fee income increased 4% and 6%, from the prior year and fourth quarter, respectively. Gross margins on product revenues increased 49% for the year, to \$20.6 million, but were off \$0.4 million to \$3.7 million for the quarter, in large measure reflecting the aforementioned decision to rationalize low-margin inventory in favor of more profitable, higher margin products.

Streamlining Operations

The initiatives announced approximately five weeks ago involve consolidation of acquisitions made the past three years at Enzo Life Sciences into a more cohesive and effective global provider, that draws on the developmental and marketing strengths of each unit. As a result, the segment will have a greater focus on higher margin products in demand in today's increasingly molecular-based approach to medical research, diagnosis

and treatment. At Enzo Clinical Labs, the expense reductions and process improvements are attributed to the investment in greater automation of test processing and workforce rationalization. It is estimated, that the actions taken will result in a reduction in annualized operating expenses in excess of \$4 million, while also targeting the Company to positive cash flow from operations in 2011.

Recent Events

Enzo Therapeutics, which has reduced its activities for greater cost effectiveness, announced initiation of a clinical trial for Uveitis that will be conducted at the National Institute of Health's National Eye Institute. The randomized, double-masked, placebo-controlled trial of Optique!™ is expected to involve approximately 60 subjects, with results scheduled to be announced in 2012.

Enzo Clinical Labs was named a participating laboratory provider, effective August 1, 2010, to Empire BlueCross Blue Shield for the metropolitan New York area, in addition to being awarded a license for doing business in the Commonwealth of Pennsylvania. This is the first of several such license applications it has filed with other key states that will enable Clinical Labs to undertake a greater role as a national provider of esoteric and high value diagnostics.

"Fiscal 2010 was very much a year of change, transition and refocusing at Enzo Biochem. As we structure the Company to more fully realize its potential in the evolving field of personalized medicine, we believe that we have strengthened Enzo financially while also providing optionality to more fully capitalize on the multiple opportunities provided in the new directions of healthcare today," said Mr. Weiner.

Conference Call

The Company will conduct a conference call on October 15, 2010 at 8:30 AM ET. The call can be accessed by dialing 1-888-459-5609. International callers can dial 1-973-321-1024. Please reference PIN number 16372257. Interested parties may also listen over the Internet at <http://phx.corporate-ir.net/phoenix.zhtml?p=irol-eventDetails&c=94391&eventID=3425053>. To listen to the live call on the Internet, please go to the web site at least fifteen minutes early to register, download and install any necessary audio software. For those who cannot listen to the live broadcast, a replay will be available approximately two hours after the end of the live call, through midnight (ET) on October 29, 2010. The replay of the conference call can be accessed by dialing 1-800-642-1687, and when prompted, use PIN number 16372257. International callers can dial 1-706-645-9291, using the same PIN number.

NON-GAAP Financial Measures

To comply with Regulation G promulgated pursuant to the Sarbanes-Oxley Act, Enzo Biochem attached to this news release and will post to the Company's investor relations

web site (www.enzo.com) any reconciliation of differences between non-GAAP financial information that may be required in connection with issuing the Company's quarterly financial results.

The Company uses EBITDA, as a measure of performance to demonstrate earnings exclusive of interest, taxes, depreciation and amortization. A further adjustment to the EBITDA was shown in this press release to reflect the litigation settlement to a former officer and the related legal costs. The Company manages its business based on its operating cash flows. The Company, in its daily management of its business affairs and analysis of its monthly, quarterly and annual performance, makes its decisions based on cash flows, not on the amortization of assets obtained through historical activities. The Company, in managing its current and future affairs, cannot affect the amortization of the intangible assets to any material degree, and therefore uses EBITDA as its primary management guide. Since an outside investor may base its evaluation of the Company's performance based on the Company's net loss not its cash flows, there is a limitation to the EBITDA measurement. EBITDA is not, and should not be considered, an alternative to net loss, loss from operations, or any other measure for determining operating performance of liquidity, as determined under accounting principles generally accepted in the United States (GAAP). The most directly comparable GAAP reference in the Company's case is the removal of interest, taxes, depreciation and amortization.

About Enzo Biochem

Enzo Biochem, Inc., is a growth-oriented integrated life sciences and biotechnology company focused on harnessing biological process to develop research tools, diagnostics and therapeutics, and serves as a provider of test services, including esoteric tests, to the medical community. Since our founding in 1976, our strategic focus has been on the development of enabling technologies in the life sciences field. Enzo Life Sciences develops, produces and markets proprietary labeling and detection products for gene sequencing, genetic analysis and immunological research, among others. Its catalog of over 30,000 products serves the molecular biology, drug discovery and pathology research markets worldwide. Enzo Clinical Labs provides laboratory services for a growing roster of physicians in the New York Metropolitan area, Eastern Pennsylvania and New Jersey. Its tests include, in addition to routine tests, capabilities for detecting molecular infection disease, molecular oncology, autoimmune disorders and genetics. Enzo Clinical Labs also provides clinical diagnostic services that allow Enzo to capitalize on its extensive advanced molecular and cytogenetic capabilities and the broader trends in predictive and personalized diagnostics. Enzo Therapeutics is a biopharmaceutical venture that has developed multiple novel approaches in the areas of gastrointestinal, infectious, ophthalmic and metabolic diseases. It has focused its efforts on developing treatment regimens for diseases and conditions for which current treatment options are ineffective, costly, and/or cause unwanted side effects. In the course of the company's research and development activities, Enzo has also developed a substantial portfolio of intellectual property asset with patent coverage across a number of key technologies

Except for historical information, the matters discussed in this news release may be considered "forward-looking" statements within the meaning of Section 27A of the Securities Act of 1933, as amended and Section 21E of the Securities Exchange Act of 1934, as amended. Such statements include declarations regarding the intent, belief or current expectations of the Company and its management, including those related to cash flow, gross margins, revenues, and expenses are dependent on a number of factors outside of the control of the company including, inter alia, the markets for the Company's products and services, costs of goods and services, other expenses, government regulations, litigations, and general business conditions. See Risk Factors in the Company's Form 10-K for the fiscal year ended July 31, 2009. Investors are cautioned that any such forward-looking statements are not guarantees of future performance and involve a number of risks and uncertainties that could materially affect actual results. The Company disclaims any obligations to update any forward-looking statement as a result of developments occurring after the date of this press release.

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Contact:

For: Enzo Biochem, Inc.

Steven Anreder, 212-532-3232 or Michael Wachs, CEOcast, Inc., 212-732-4300

TABLE FOLLOWS

ENZO BIOCHEM, INC.
(in thousands, except per share data)

	Three months ended July 31, 2010 (unaudited)		Fiscal year ended July 31, 2010	
	2010	2009	2010	2009
<u>Selected operations data:</u>				
Revenues:				
Product revenues	\$ 10,512	\$ 10,640	\$ 43,111	\$ 40,592
Royalty and license fee income	2,749	2,593	9,793	9,376
Clinical laboratory services	11,684	11,298	44,178	39,604
Total revenues	<u>\$ 24,945</u>	<u>\$ 24,531</u>	<u>\$ 97,082</u>	<u>\$ 89,572</u>
Gross profit	<u>10,222</u>	<u>10,793</u>	<u>\$ 44,965</u>	<u>\$ 36,511</u>
Gross profit %	41%	44%	46%	41%
Loss before income taxes	(\$ 5,757)	(\$ 5,452)	(\$ 22,261)	(\$ 23,477)
(Provision) Benefit for income taxes (A)	244	173	28	(87)
Net loss	<u>(\$ 5,513)</u>	<u>(\$ 5,279)</u>	<u>(\$ 22,233)</u>	<u>(\$ 23,564)</u>
Basic and diluted loss per share	<u>(\$ 0.15)</u>	<u>(\$ 0.14)</u>	<u>(\$ 0.59)</u>	<u>(\$ 0.63)</u>
Weighted average shares outstanding - basic and diluted	<u>38,156</u>	<u>37,776</u>	<u>38,001</u>	<u>37,511</u>
<u>Reconciliation of GAAP Net Loss to EBITDA, as adjusted:</u>				
Net loss	(\$ 5,513)	(\$ 5,279)	(\$ 22,233)	(\$ 23,564)
Add-back (deduct):				
Depreciation and amortization	1,045	1,207	4,269	3,462
Interest expense (income)	(6)	(12)	(19)	(581)
Provision (benefit) for income taxes	(244)	(173)	(28)	87
EBITDA (B)	<u>(\$ 4,718)</u>	<u>(\$ 4,257)</u>	<u>(\$ 18,011)</u>	<u>(\$ 20,596)</u>
Adjustment for litigation settlement to former officer and related legal costs			3,698	
EBITDA, as adjusted (C)	<u>(\$ 4,718)</u>	<u>(\$ 4,257)</u>	<u>(\$ 14,313)</u>	<u>(\$ 20,596)</u>

Notes:

A- All periods reflect effective tax rates below the statutory rate due to inability to recognize future tax benefits.

B- EBITDA is a non-GAAP measure, as described in the attached press release

C- EBITDA, adjusted for litigation settlement to former officer and related legal costs

	July 31, 2010	July 31, 2009
<i>Selected balance sheet data:</i>		
Cash and cash equivalents and short term investments	\$ 33,566	\$ 50,235
Working capital	\$ 42,181	\$ 60,518
Stockholders' equity	\$ 97,016	\$ 116,781
Total assets	\$ 115,245	\$ 133,128