

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): January 8, 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))

Item 8.01. Other Events.

On January 8, 2010, Mr. Shahram K. Rabbani, a current member of the Board of Directors (the “Board”) of Enzo Biochem, Inc. (the “Company”) and Company co-founder and, until his termination by the Company on November 25, 2009, the Secretary and Treasurer of the Company, filed with the Securities and Exchange Commission a preliminary proxy statement (the “Opposition Filing”), whereby he announced his intention to solicit votes from the Company’s shareholders to elect to the Board at the Company’s 2009 Annual Meeting of Shareholders scheduled to be held on January 29, 2010 (including any adjournments or postponements thereof, the “Annual Meeting”), two (and possibly three) insurgent director-candidates not nominated by the Board and in opposition to the Board’s three Class I director-nominees — Messrs. Irwin C. Gerson and Gregory M. Bortz and Dr. Stephen B. H. Kent.

Mr. Shahram K. Rabbani further stated in the Opposition Filing that he intends to seek to have the Annual Meeting “postponed to a later date in order to allow adequate time for shareholders to evaluate” his insurgent director-candidates and to solicit proxies for the election of his insurgent director-candidates. The Opposition Filing further provides as follows: “In the event such meeting is so postponed, Mr. Rabbani intends to nominate a third [candidate] for election as a Class I Director. However, Mr. Rabbani reserves the right not to nominate a third person and to proceed with the nomination of the two [candidates named therein], without regard to whether the meeting is postponed.”

On January 8, 2010, Mr. Shahram K. Rabbani commenced, as plaintiff, an action (the “Action”) in the Supreme Court of the State of New York, County of New York, seeking a temporary restraining order and a preliminary and permanent injunction to enjoin the Company and each member of the Board, other than plaintiff-Mr. Shahram K. Rabbani, from convening the Annual Meeting on January 29, 2010. The complaint in the Action alleges, among other things, that the Company and its directors, other than plaintiff-Mr. Shahram K. Rabbani, failed to comply with the amended and restated bylaws currently in effect (the “Bylaws”) by refusing to permit plaintiff-Mr. Shahram K. Rabbani’s putative director-candidates to be placed on the Company’s ballot for election to the Board at the Annual Meeting and that the Company and its directors, other than plaintiff-Mr. Shahram K. Rabbani, violated their fiduciary duties to plaintiff-Mr. Shahram K. Rabbani and other shareholders of the Company.

On January 11, 2010, the Company petitioned to remove the Action to the U.S. District Court for the Southern District of New York (“SDNY”). A hearing on the matter was held before Judge Cote in the SDNY on January 12, 2010, during which the court refused to issue a temporary restraining order enjoining the Annual Meeting date or the Company’s continued solicitation of shareholders pursuant to its definitive proxy statement dated December 23, 2009 which has been furnished to shareholders of record as of December 29, 2009 (the “Proxy Statement”), pending the determination of Mr. Shahram K. Rabbani’s preliminary injunction motion. Rather, the SDNY court issued an expedited briefing and discovery schedule and stated that such motion should be fully submitted to the court by January 21, 2010 to enable the court to decide the motion prior to the scheduled Annual Meeting date. On January 12, 2010, Mr. Shahram K. Rabbani

filed an amended complaint that includes federally-based claims under Section 14 of the Securities Exchange Act of 1934, as amended, based on allegations that the Company's Proxy Statement was false and misleading, as well as allegations that Mr. Shahram K. Rabbani was misled by the Company regarding the scheduled date of the Annual Meeting in an effort to prevent him from soliciting proxies for his opposition director-candidates. The Company believes the allegations are without merit and intends to defend vigorously against them.

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: January 14, 2010

ENZO BIOCHEM, INC.

By: /s/ Barry Weiner

Barry Weiner
President, Chief Financial Officer,
Principal Accounting Officer,
Treasurer and Director
