

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

**SCHEDULE 14A**  
(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT

SCHEDULE 14A INFORMATION

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

(Amendment No. )

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Under Rule 14a-12

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ENZO BIOCHEM, INC.

(Name of Registrant as Specified in Its Charter)

LONE STAR VALUE INVESTORS, LP  
LONE STAR VALUE INVESTORS GP, LLC  
LONE STAR VALUE MANAGEMENT, LLC  
JEFFREY E. EBERWEIN  
DIMITRIOS J. ANGELIS  
JOHN M. CLIMACO

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

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

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

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

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

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(4) Proposed maximum aggregate value of transaction:

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(5) Total fee paid:

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Fee paid previously with preliminary materials:

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

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(1) Amount previously paid:

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

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(3) Filing Party:

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(4) Date Filed:

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Lone Star Value Management, LLC, together with the other participants named herein (collectively, "Lone Star Value"), has made a definitive filing with the Securities and Exchange Commission of a proxy statement and an accompanying GOLD proxy card to be used to solicit votes for the election of Lone Star Value's slate of two highly-qualified director nominees to the Board of Directors of Enzo Biochem, Inc., a New York corporation (the "Company"), at the Company's upcoming 2015 annual meeting of shareholders, or any other meeting of shareholders held in lieu thereof, and any adjournments, postponements, reschedulings or continuations thereof.

On December 17, 2015, Lone Star Value issued an Investor Presentation, which is attached as Exhibit 1.