

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

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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): June 8, 2004

ENZO BIOCHEM, INC.  
(Exact Name of Registrant as Specified in Charter)

New York                      001-09974                      13-2866202  
(State or Other Jurisdiction of      (Commission File Number)      (I.R.S. Employer  
Incorporation or Organization)      Identification No.)

60 Executive Boulevard, Farmingdale,                      New York 11735  
(Address of Principal Executive Offices)                      (Zip Code)

Registrant's telephone number, including area code: (631) 755-5500

NOT APPLICABLE  
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(Former name or former address, if changed since last report)

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ITEM 5. OTHER EVENTS AND REQUIRED FD DISCLOSURE.

On June 8, 2004, the Registrant issued a press release announcing the institution of a lawsuit by it. A copy of the press release is furnished as Exhibit 99.1 to this Current Report.

The information in this Current Report and the exhibits attached hereto are being "furnished" hereunder and shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), nor shall they be deemed incorporated by reference into any filings made by the Registrant with the Securities and Exchange Commission under the Exchange Act or the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such filings.

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SIGNATURES

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

Date: June 8, 2004

Enzo Biochem, Inc.

By: /s/ Barry Weiner  
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Name: Barry Weiner  
Title: President

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EXHIBIT INDEX

EXHIBIT -----	DESCRIPTION -----
99.1	Registrant's press release dated June 8, 2004 announcing the institution of a lawsuit by the Registrant.*

\* Furnished herewith.

EXHIBIT A

[ENZO LOGO]

NEWS  
RELEASE

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

FOR IMMEDIATE RELEASE

ENZO BIOCHEM, INC. FILES PATENT INFRINGEMENT LAWSUIT  
INVOLVING DNA SEQUENCING AGAINST APPLERA CORP. AND  
SUBSIDIARY

NEW YORK, NY JUNE 8, 2004 -- Enzo Biochem, Inc. announced today that it has filed a lawsuit in the United States District Court for the District of Connecticut against Applera Corporation and its subsidiary Tropix Inc. charging them with patent infringement arising out of the misappropriation of Enzo's proprietary and pioneering patented technologies related to DNA sequencing systems, and other products. The Complaint charges the Defendants with infringing United States Patent Nos. 5,476,928; 5,449,767; 5,328,824; 4,711,955; 5,082,830; and 4,994,373. Four of these patents are exclusively licensed to Enzo Biochem, Inc. by Yale University. Yale is also a named Plaintiff in the suit. The remaining patents are owned by Enzo Biochem, Inc.'s subsidiary, Enzo Life Sciences, Inc.

The asserted patents cover the pioneering technologies relating to compounds used in DNA sequencing systems to read the genetic code. These inventions cover compositions and methods for detecting and reading genetic materials. Enzo says that these pioneering patented products and technologies have paved the way for major developments in important areas in biological science and medicine. The applications for these inventions are diverse, ranging from detecting pathogens and human diseases, such as cancer, to decoding and analyzing the human genome.

The Complaint asserts that Applera and Tropix infringe the Plaintiffs' patent rights, and that they improperly make, use and sell the patented products and technologies, as well as providing others with unauthorized and prohibited access to the patented products and technologies. Plaintiffs' are seeking injunctive relief and monetary damages for the Defendants' patent infringement.

ABOUT ENZO

Enzo Biochem is engaged in the research, development and manufacture of innovative health care products based on molecular biology and genetic engineering techniques, and in providing diagnostic services to the medical community. The Company's proprietary labeling and detection products for gene sequencing and genetic analysis, with over 180 patents worldwide, are sold to the life sciences market throughout the world. The Company's therapeutic division is conducting clinical trials for HIV-1 infected patients

and for patients infected with hepatitis B and hepatitis C viruses. The Company also holds a patent covering a method and materials for correcting point mutations, or small insertions or deletions of genetic material, that would allow for editing and correcting certain abnormalities in genes.

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. 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 STATEMENTS AS A RESULT OF DEVELOPMENTS OCCURRING AFTER THE DATE OF THIS PRESS RELEASE.

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CONTACT:

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Or

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