

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

Mark one

ANNUAL REPORT PURSUANT TO SECTION 13 or 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended July 31, 2000
or

TRANSITION REPORT PURSUANT TO SECTION 13 or 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 1-9974

ENZO BIOCHEM, INC.

(Exact name of Registrant as Specified in Its Charter)

New York

13-2866202

(State or Other jurisdiction
of Incorporation or Organization)

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

60 Executive Boulevard,
Farmingdale, New York

11735

(Address of Principal Executive Offices)

(Zip Code)

(516) 755-5500

(Registrant's telephone number,
including area code)

Securities registered pursuant to Section 12(b) of the Act:

Common Stock, \$.01 par value

The New York Stock Exchange

(Title of Each Class)

(Name of Each Exchange on Which Registered)

Securities registered pursuant to Section 12(g) of the Act:

NONE

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

The aggregate market value of the Common Stock held by nonaffiliates as of October 13, 2000 was approximately \$926,583,300.

As of October 13, 2000, the Registrant had 25,659,058 shares of Common Stock outstanding.

<TABLE>
<CAPTION>

Part of Form 10-K

Document Incorporated by Reference

<S>
Part III - Items 11, 12 and 13

<C>
In the Company's Proxy Statement to be filed with the Securities and Exchange Commission no later than November 28, 2000

Part IV - Certain exhibits listed in response to Item 14(a) (3)

Prior filings made by the Company under the Securities Act of 1933 and the Securities Exchange Act of 1934

</TABLE>

PART I

Item 1. Business

Overview

Enzo Biochem, Inc. (the "Company" or "Enzo") is a leading life sciences and biotechnology company focused on harnessing genetic processes to develop research tools, diagnostics and therapeutics and also provides diagnostic services to the medical community. Since our formation in 1976, we have concentrated on developing enabling technologies for detecting and identifying genes and modifying gene expression. These technologies are generally applicable for the diagnosis of infectious and other diseases and form the basis for a portfolio of over 300 products marketed to the biomedical and pharmaceutical research markets. We are further using these technologies as a platform for our planned entry into the clinical diagnostics market. In addition, our work in gene analysis has led to our development of significant therapeutic product candidates, two of which are currently in clinical trials. In the course of our research and development activities, we have built what we believe is a significant patent position (comprised of 36 issued U.S. patents, approximately 160 issued foreign patents and numerous pending applications worldwide) around our core technologies.

The business activities of the Company are performed by one of the Company's three wholly-owned subsidiaries--Enzo Diagnostics, Inc., Enzo Therapeutics, Inc., and Enzo Clinical Labs, Inc. ("Enzo Diagnostics", "Enzo Therapeutics" and "Enzo Clinical Labs", respectively). These activities are: (1) research and development, manufacturing and marketing of biomedical research products and tools through Enzo Diagnostics and research and development of therapeutic products through Enzo Therapeutics, and (2) the operation of a clinical reference laboratory through Enzo Clinical Labs. For information relating to the Company's business segments, see Note 12 of the Notes to Consolidated Financial Statements.

The Company's primary sources of revenue have historically been from sales of research products and from clinical laboratory services. Revenues from research products are comprised of sales of products utilized in life science research. Revenues from the clinical laboratory service are comprised of fees for the services provided by the laboratories. For the fiscal year ended July 31, 2000 ("fiscal 2000"), approximately 37% of the Company's operating revenues was derived from product sales and approximately 63% was derived from clinical reference laboratory services. For the fiscal years ended July 31, 1999 and 1998, respectively, approximately 37% and 31% of the Company's operating revenues were derived from product sales and approximately 63% and 69% were derived from clinical reference laboratory services.

Markets

Background

DNA is the source of biological information that governs the molecular mechanisms underlying life. This information is stored in the linear sequences of nucleotides that comprise DNA. Recently, the first draft of the sequence of the human genome, comprising over 100,000 genes, was announced. The challenge for the next decade will be the determination of the function and relevance of each gene. This information will facilitate the understanding of biological mechanisms and how variations and mutations in such mechanisms result in disease, enabling more rapid and accurate detection of specific diseases and the development of new therapeutics to treat them.

Tools for biomedical and pharmaceutical research

There is an increasing demand by biomedical and pharmaceutical researchers for tools that both facilitate and accelerate the generation of biological information. In response to this demand, a variety of formats, or tools, have been developed that allow researchers to study biological pathways and to identify mutations in gene sequences and variations in gene expression levels that can lead to disease. These tools include DNA sequencing instruments, micro-arrays, biochips, micro-spheres, and microfluidic chips. Common among these formats is the need for reagents that allow the identification, quantification and characterization of specific genes or nucleic acid sequences.

According to industry sources, an estimated \$2.1 billion was spent in 1997 on reagents for gene analysis. We believe this market will grow rapidly as a result of:

- o research spending by academic, government and private organizations to determine the function and clinical relevance of the gene sequences identified by the Human Genome Project;
- o development of commercial applications based on information derived from this research; and

- o ongoing advancements in tools that accelerate these research and development activities.

Clinical diagnostics

Clinical diagnostics represented a \$20 billion market in 1999. It is comprised of a broad range of tests such as clinical chemistry, microbiology, immunoassay, blood screening and cancer screening. Many of these tests employ traditional technologies, such as immunoassays and cell culture technologies, for the detection of diseases. Immunoassays use antibodies directed against a specific target, or antigen, to detect that antigen in a patient sample. Cell culturing uses nutrients media to grow, isolate and visually detect the presence of microorganisms.

There are several drawbacks to these technologies. Immunoassays do not allow for early detection of diseases because they require minimum levels of antigens to be produced by the microorganism for detection. These levels vary by microorganism, and the delay involved could be several days or several years, as seen in HIV/AIDS. Cell cultures are slow, labor intensive, and not amenable to all microorganisms. For example, gonorrhea and chlamydia are difficult to culture.

Gene-based diagnostics have many advantages over traditional technologies. Since gene-based diagnostics focus on the identification of diseases at the gene level, they can identify the presence of the disease at its earliest stage of manifestation in the body. These tests provide results more rapidly, are applicable to a broad spectrum of microorganisms and can easily be automated in a multiplex platform.

Several advances in technology are accelerating the adoption of gene-based diagnostics in clinical laboratories. These advances include high throughput automated formats that minimize labor costs, non-radioactive probes and reagents that are safe to handle, and amplification technologies that improve the sensitivity of such diagnostics.

According to industry sources, an estimated \$530 million was spent on gene-based diagnostics for clinical diagnosis in 1997. This market is projected to grow at 22% annually to \$1.75 billion in 2003 as a result of:

- o rising number of diagnostic tests being developed from discoveries in genome research;
- o advances in formats and other technologies that automate and accelerate gene-based diagnostic testing;
- o growing emphasis by the health-care industry on early diagnosis and treatment of disease; and
- o application of gene-based diagnostics as tools to match therapies to specific patient genetics, commonly referred to as pharmacogenomics.

Therapeutics

Most diseases are the consequence of the expression of foreign genes, such as those residing in viruses and pathogenic organisms, or the abnormal or unregulated expression of the body's own genes. In other cases, it is the failure to express a gene that causes the disease. Recent advancements in gene analysis have provided the information and tools necessary to develop drugs that intervene in the disease process at the gene level. For a broad spectrum of diseases, this approach can be more precise and effective than intervening in the downstream molecular processes of the disease. Therapies targeting genetic processes are called gene medicines. There are two fundamental approaches to gene medicines, synthetic and genetic.

Synthetic gene medicine involves the administration of synthetic nucleic acid sequences called "oligos" that are designed to bind to, and thus deactivate, RNA produced by a gene. To date, this approach has demonstrated limited success. Since a single cell may contain thousands of strands of RNA, large amounts of oligos are necessary to shut down the production of unwanted proteins. Also, since oligos are synthetic, they are quickly metabolized or eliminated by the body. As a result, large quantities of oligos must be delivered in multiple treatments, which can be both toxic to the body as well as costly.

Genetic medicine, or gene therapies involve the insertion of a gene into a cell. The inserted gene biologically manufactures the therapy on an ongoing basis. This gene may be inserted to enable a beneficial effect or to disable a pathological mechanism within the cell. For example, the gene may be inserted to replace a missing or malfunctioning gene responsible for synthesizing an essential protein. On the other hand, a gene coding for a molecule to deactivate either an overactive gene or a gene producing an unwanted protein may be inserted. As a permanent addition to the cellular DNA, the

inserted gene produces RNA and/or proteins where needed.

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A major challenge in designing gene therapy medicines has been the efficient and safe delivery of the gene to the appropriate target cell. Gene delivery is often accomplished using a delivery vehicle known as a vector. A critical quality of the vector is its ability to bind to the target cell and effectively deliver, or transduce, the gene into the cell. It is also critical that the DNA of the vector not produce proteins or antigens that can trigger an adverse immune response.

Our Strategy

Our objective is to be the leading developer and provider of medicines, as well as the tools and diagnostics used to study and detect disease at the molecular level. There can be no assurances that our objective will be met. Key elements of our strategy include:

Apply our innovative technology to the infectious disease market

Our core technologies have broad diagnostic and therapeutic applications. We have initially focused our efforts on the infectious disease market. Infectious diseases are among the largest contributors of healthcare costs worldwide. Generally, there are no long-term effective treatments for viral pathogens as there are for bacterial pathogens. We have developed novel technologies we believe can serve as enabling platforms for developing medicines that genetically target and inhibit viral functions, as well as regulate immune response. In addition to such therapeutic products, we have capitalized on our nucleic acid labeling, amplification and detection technologies to develop diagnostic and monitoring tests for infectious agents.

Maximize our resources by collaborating with others in research and commercialization activities

We enter into research collaborations with leading academic and other research centers to augment our core expertise on specific programs. We have research collaborations with, among others, Hadassah University Hospital in Jerusalem, Israel regarding immune regulation and Cornell University regarding the application of our genetic antisense technology to HIV. Similarly, we seek to fully exploit the commercial value of our technology by partnering with for-profit enterprises in areas outside our primary commercial interests. We have a partnership with Japan Tobacco, Inc. regarding agricultural applications of our genetic antisense technology and are in active discussions with pharmaceutical and other life science companies regarding other programs.

Apply our biomedical research products to the clinical diagnostics market

We intend to apply our gene-based tests to the clinical diagnostics market. We currently offer over 25 gene-based tests for the research market. We also have an extensive library of probes for the detection of various diseases. We have developed a standardized testing format that permits multiple diagnoses to be performed on the same specimen and are in discussions with third parties to develop instrumentation for this purpose.

Leverage marketing and distribution infrastructure of leading life sciences companies

In addition to our direct sales, we distribute our research products through leading producers of gene analysis formats and other life sciences companies. By partnering with these industry leaders, we are able to leverage their established marketing and distribution infrastructure to expand the market for our products. We have distribution agreements with, among others, Roche Diagnostic Systems, Amersham Pharmacia Biotech, NEN Life Sciences and Affymetrix.

Expanding and protecting our intellectual property estate

Since our inception, we have followed a strategy to create a broad encompassing patent position in the life sciences and therapeutics areas. We have made obtaining patent protection a central strategic policy, both with respect to our proprietary platform technologies and products, as well as broadly in the areas of our research activities.

Our Core Technologies

We have developed a portfolio of proprietary technologies with a variety of research, diagnostic and therapeutic applications.

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Gene analysis technology

All gene-based testing is premised on the knowledge that DNA forms a double helix comprised of two complementary strands that match and bind to each

other. If a complementary piece of DNA (a probe) is introduced into a sample containing its matching DNA, it will bind to, or hybridize, to form a double helix with that DNA. Gene-based testing is carried out by:

- o amplification of the target DNA sequence (a process that is essential for the detection of very small amounts of nucleic acid);
- o labeling the probe with a marker that generates a detectable signal upon hybridization;
- o addition of the probe to the sample containing the DNA; and
- o binding or hybridization of the probe to the target DNA sequence, if present, to generate a detectable signal.

We have developed a broad technology base for the labeling, detection, amplification and formatting of nucleic acids for gene analysis. We believe we have a significant proprietary position in these fields.

Non-radioactive labeling and detection. Traditionally, nucleic acid probes were labeled with radioactive isotopes. However, radioactively labeled probes have a number of shortcomings. They are unstable and consequently have a limited shelf life. They are potentially hazardous, resulting in restrictive licensing requirements and safety precautions for preparation, use and disposal. Finally, radioactive components are expensive. Our technologies permit gene analysis without the problems associated with radioactively labeled probes and are adaptable to a wide variety of formats.

Formats. There are various processes, or formats, for performing probe-based tests. In certain formats, the probe is introduced to a target sample affixed to a solid matrix; in others the probe is combined with the sample in solution (homogeneous assay). Solid matrix assays include: in situ assays in which the probe reaction takes place directly on a microscope slide; dot blot assays in which the target DNA is fixed to a membrane; and microplate and microarray assays in which the DNA is fixed on a solid surface, and the reaction can be quantified by instrumentation.

Amplification. In the early stages of infection, a pathogen may be present in very small amounts and consequently may be difficult to detect. Using DNA amplification, samples can be treated to cause a pathogen's DNA to be replicated, or amplified, to detectable levels. We have developed a proprietary amplification process for multicopy production of nucleic acid, as well as proprietary techniques for amplifying the signals of our probes to further improve sensitivity. Our amplification technologies are particularly useful for the early detection of very small amounts of target DNA and, unlike PCR, (currently the most commonly used method of amplification,) we have developed isothermal amplification procedures that can be performed at constant temperatures and thus do not require expensive heating and cooling systems or specialized heat-resistant enzymes.

Therapeutic Technology Platforms

We have developed proprietary technologies in the areas of genetic antisense (antisense RNA) and immune regulation that we are using as a platform for a portfolio of novel therapeutics.

Our Genetic Antisense Technology. We are pursuing a novel approach to gene regulation known as genetic antisense or antisense RNA. Our technology involves the introduction into cellular DNA of a gene that codes for an RNA molecule that binds to, and thus deactivates, RNA produced by a specific gene. To deliver our antisense gene to the target cell, we have developed proprietary vector technology. Our vector technology has the following three strengths:

- Efficient transduction. A principal problem to date of most gene therapy programs has been inefficient transduction, or an unacceptably low rate of delivery of operating genes to the target cells. We have achieved transduction rates significantly higher than those reported by other researchers.

- Immunologically "Quiet." Transduced cells often produce non-essential proteins that trigger an immune response, causing such cells to be cleared from the body before they can produce a therapeutic effect. Cells transduced with our vectors have not expressed extraneous proteins.

- "Smart" Vectors. We incorporate into the surface of our vectors proteins that have an affinity for the surface of the cell types intended to be transduced. By including this targeting mechanism, we create in essence "smart" vectors that preferentially transduce the intended cell type. This may ultimately permit us to develop a genetic antisense product that is administered directly to the patient.

We believe that our vector technology has broad applicability in the field of gene medicine. We believe that our vector technology has broad applicability in the field of gene medicine. This can be attributed to the

following properties of our construct.

- o the viral promoters are inactivated;
- o insertional gene activation is prevented - a major safety factor;
- o chromosomal integration;
- o nuclear localization

Our Immune Regulation Technology. We have developed a novel therapeutic approach based on immune regulation. Our immune regulation technology seeks to control an individual's immune response to a specific antigen in the body. An antigen is a substance that the body perceives is foreign and, consequently, against which the body mounts an immune response. We are developing our technology to treat immune-mediated diseases, infectious diseases and complications arising from transplantation. Our technology utilizes oral administration of known proteins to regulate the patient's immune response against the antigen. Specific formulations of the protein are administered orally to the patient according to precise dosing protocols.

We have filed patent applications relating to this technology, as well as to our therapeutics and protocols under development, relating to areas of infectious diseases and immunological adjustments and enhancements characteristic of this reaction. We are applying our expertise in immune regulation to develop proprietary therapeutics for the treatment of a variety of diseases, including HIV-1 infection, chronic hepatitis caused by HBV and HCV infection, graft versus host disease and ulcerative colitis.

Our Products and Services

We are applying our core technologies to develop novel therapeutics as well as research tools for the life sciences and clinical diagnostics markets. In addition, we provide clinical laboratory services to physicians and other health care providers in the greater New York area.

Research and Diagnostic Products

We are a leading developer and marketer of novel research tools for gene analysis. We manufacture over 300 products that may be sold individually or combined in a kit to meet the specific needs of the researcher. We market these products to biomedical and pharmaceutical firms worldwide. We have summarized our products into the following major categories:

Pre-Formatted In Situ Kits. Our pre-formatted in situ kits include all of the components necessary to identify or detect a gene in a cell or tissue on a glass slide. These components include specific labeled non-radioactive nucleic acid probes on a glass slide, signaling reagents and buffers. We offer probes that will detect a variety of infectious agents, such as human papillomavirus (HPV), hepatitis B (HBV), cytomegalovirus (CMV) and chlamydia. We market these kits under the PathoGene(R) brand name. These kits target the pathology market.

Pre-Formatted Microplate Kits. Our pre-formatted microplate kits include all of the components necessary to identify or detect a gene in a microplate assay. These components include specific labeled non-radioactive nucleic acid probes on a microplate, signaling reagents and buffers. We offer probes that will detect a variety of infectious agents, such as HIV, hepatitis B (HBV) and tuberculosis. This microplate format enables the development of probe-based tests that can be readily automated and quantified.

Membrane Kits. Our membrane kits include all of the reagents and buffers necessary to perform a gene analysis on a membrane. The researcher will supply the probe required for their individual needs. Membrane technology is broadly used in life sciences research. We market these kits under the MaxSense(R) brand name.

Labeled Probes. We have developed a line of non-radioactive nucleic acid probes that have been chemically-labeled to allow detection of infectious agents. We offer labeled probes that can detect such infectious agents as adenovirus, hepatitis B (HBV), cytomegalovirus (CMV), herpes simplex virus (HSV) and chlamydia, as well as certain oncogenes. These probes can be used in hybridization and detection assays in the format chosen by the researcher. These probes are broadly sold into the life sciences research market under the BioProbe(R) brand name.

Labeling and Signaling Reagents. We have developed an extensive line of labeling and signaling systems and reagents for the life sciences research market. These reagents can be used by researchers to identify and detect genes on any particular format. We recently introduced an expanded line of gene labeling products, called BioArray(TM) Labeling Systems, for micro-array and biochip formats.

We have a number of therapeutics in various stages of development that are based on our proprietary genetic antisense and immune regulation technologies. Our therapeutic programs are described below.

Human Immunodeficiency Virus (HIV-1). We are developing complementary HIV-1 therapeutics utilizing both our genetic antisense and immune regulation technologies.

HIV-1 is a human pathogenic virus. After infection it runs a slow course in which certain of the cells in the immune system (CD4+ cells) are progressively destroyed. This results in a state in which the infected person can no longer mount an immune response. This loss of immune responsiveness is the cause of the complex of diseases known as AIDS and ultimately of death.

According to estimates by the World Health Organization, over 34 million people are infected with the human immunodeficiency virus worldwide. At present, two classes of products have received FDA marketing approval for HIV-1 infection: reverse transcriptase inhibitors and protease inhibitors. These drugs are typically used in combination and require more than a dozen tablets to be taken at specific times each day. The cost for treatment of HIV infected individuals, once the disease has progressed to AIDS, is estimated to exceed \$38,000 per person annually.

While combination therapy slows the progression of disease, it is not a cure. HIV's rapid rate of mutation results in the development of viral strains that no longer respond to these medications. This problem is often exacerbated by interruptions in dosing as non-compliance is common in patients on combination therapies. Moreover, currently approved drugs produce toxic side-effects in many patients, affecting a variety of organs and tissues, including the peripheral nervous system and gastrointestinal tract, which side-effects also often result in patients interrupting or discontinuing therapy.

Our HGTV-43 genetic antisense product. HGTV-43 consists of our proprietary vector carrying antisense genes directed against the genes responsible for viral replication. HGTV-43 is designed to deliver the antisense genes to targeted blood cells of patients infected with HIV-1. These genes are incorporated into the DNA of the blood cells, and subsequent production of the antisense RNA prevents replication of the virus, providing resistance to the virus.

Pre-clinical in vitro studies, performed in conjunction with our collaborators at Cornell University's Medical College, demonstrated resistance to HIV-1 in human immune cells into which the antisense genes had been inserted. We are currently conducting a Phase I clinical trial of this product in six HIV-1 infected patients. In this study, white blood cell precursors, known as stem cells, were collected from the patient. These stem cells were then treated with HGTV-43 ex vivo and infused into the patient.

Preliminary results of the trial have shown that all patients tolerated the procedure; anti HIV-1 antisense RNA was detected in the circulation of the patients tested, the first patient for as long as nine months, to date; and CD4+ immune cells purified from circulation showed the presence of antisense RNA. In addition, CD34+ cells from the bone marrow of the first patient were shown to contain antisense RNA, more than nine months after infusion. The data from the remaining patients are being processed and analyzed.

Based on the Phase I trial results to date, we are testing strategies to increase the percentage of CD4+ cells that contain the antisense genes. We are preparing an application for a Phase II study involving HIV-1 infected patients with AIDS.

Our immune regulation product. We are developing a complementary approach to treat HIV infection and the related autoimmune aspect of the disease. It is suggested that this autoimmune aspect may lead to depletion of CD4+ cells. This therapeutic approach utilizes our immune regulation technology to adjust and enhance the body's immune response to the virus. This treatment, consisting of oral administration of an HIV protein, is designed to reduce or eliminate the autoimmune aspect of HIV infection. In addition, it enhances the antiviral immune response, which may increase the population of CD4+ cells in the patient. This program is currently in pre-clinical development.

Hepatitis B (HBV). We are developing complementary HBV therapeutics utilizing both our genetic antisense and immune regulation technologies.

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HBV is a viral pathogen that can lead to a condition in which the body destroys its own liver cells through an immune response. This condition is commonly referred to as chronic active hepatitis. According to the latest figures published by the World Health Organization, approximately 2 billion people are infected by HBV, in whom an estimated 350 million are chronically infected and therefore at risk of death from liver disease.

Chronic active hepatitis is generally treated with interferon or lamivudine. Both of these drugs, however, are toxic, and many patients cannot tolerate their side effects. These treatments have a limited success rate (5-15%).

Our EHT899 immune regulation product. EHT899 is a proprietary formulation of an HBV viral protein designed to eliminate the undesirable immune response elicited by the HBV infection. It also apparently enhances a secondary immune response to clear the viral infection, resulting in reduction in liver damage and decrease in viral load.

In our Phase I trial, a formulation of EHT899 was administered orally for 20 weeks to 15 patients with chronic active hepatitis. The Phase I trial was conducted at the Liver Unit at Hadassah Hebrew University Medical Center, in Jerusalem, Israel. Results of the trial have shown that:

- o The drug was well tolerated in all patients.
- o Twelve of these patients responded favorably, seven of whom showed a marked decrease in liver enzymes along with a significant decrease in viral load.

Based on these results, we have begun a Phase II clinical trial of EHT899 that is currently under way at the Liver Unit at Hadassah University Medical Center in Jerusalem, Israel.

Our genetic antisense product. We are applying our genetic antisense to treat chronic active hepatitis. We have developed antisense genes that interfere with the replication of HBV. We are currently developing a vector that will specifically deliver the genes to liver cells. This product is in pre-clinical development.

Inflammatory bowel diseases. We are applying our immune regulation technology to treat inflammatory bowel disease (IBD), including ulcerative colitis and Crohn's Disease. According to the Inflammatory Bowel Disease Foundation, approximately one million persons in the United States suffer from IBD. Although the cause of these disorders remains unknown, various features suggest immune system involvement in their pathogenesis.

There is currently no effective treatment for these diseases. Patients are managed during short-term episodes through the use of anti-inflammatory medications, or immunosuppressants, that provide symptomatic relief over short periods of time, but do not provide a cure. These medicines cannot be used for long periods of time because of their inherent toxicity.

We recently conducted pre-clinical and animal studies at Hadassah Medical Center. These studies were designed to test whether the effect of oral administration of proteins extracted from an inflamed colon would alleviate the symptoms of experimental colitis in laboratory animals. Results of these studies have shown a reduction of inflammation of the colon, as well as decreased diarrhea, intestine and peritoneal adhesions, wall thickness and edema. Protocols have been filed with the appropriate regulatory agencies to begin human clinical studies.

Graft versus Host Disease. We are applying our immune regulation technology to treat graft versus host disease. Graft versus Host Disease (GvHD) is a major complication of bone marrow and stem cell transplantation accounting for many of the failures of these transplant procedures. GvHD is characterized by an immune response mounted by the immune cells within the engrafted tissue against the recipient that leads to a wasting syndrome and occasionally death. It is estimated that there are only 15,000 bone marrow transplants performed annually worldwide due, in part, to GvHD. It is assumed that the elimination of GvHD would lead to a dramatic rise in the number of these procedures. GvHD is currently treated by immunosuppressant drugs, which are toxic and only reduce the extent of the wasting reaction.

We are conducting pre-clinical and animal studies at Hadassah University Hospital. The results of these studies have demonstrated that our immune regulation technology could be effective in treating GvHD. We have developed clinical protocols and, subject to regulatory approval, expect to commence human trials during 2001.

Other. We are applying our technologies to develop a therapeutic that regulates the level of cholesterol in the body and a therapeutic designed to treat the hepatitis C virus. These therapeutics are in pre-clinical stages of development.

In the fiscal years ended July 31, 2000, 1999 and 1998, the Company incurred costs of \$5,430,900, \$4,427,000 and \$3,983,500, respectively, for research and development activities.

Clinical Laboratory Services

We operate a regional clinical reference laboratory that offers full diagnostic services to the greater New York medical community. The services we provide include chemistry, blood tests, cytology studies, tissue pathology, hormone studies and screening for cancer and infectious diseases. We provide these services primarily to physicians, as well as to clinics and other clinical

laboratories.

The Company offers over 2,000 different routine and esoteric clinical laboratory tests or procedures. These tests are frequently used in general patient care by physicians to establish or support a diagnosis, to monitor treatment or medication, or search for an otherwise undiagnosed condition. These routine and esoteric procedures are most often used by practicing physicians in their outpatient office practices.

We operate a clinical reference laboratory on Long Island and thirteen satellite patient service centers in the greater New York area. Patient service centers collect the specimens as requested by physicians. The specimens are sent through our in-house courier system to our Long Island laboratory facility for testing. We also operate a STAT laboratory in Manhattan. A "STAT" lab is a laboratory that has the ability to perform certain routine tests quickly and report results to the physician immediately.

Patient specimens are delivered to our facilities accompanied by a test request form. These forms, which are completed by the physician, indicate the tests to be performed and provide the necessary billing information. Once this information is entered into the computer system, the tests are performed and the results are entered primarily through a computer interface or manually. Most routine testing is completed by early the next morning, and test results are printed and prepared for distribution. Some physicians have local printer capability and have reports printed out directly in their offices. Physicians who request that they be called with a result are so notified in the morning.

We utilize our clinical reference laboratory to evaluate and demonstrate the benefits of our internally developed gene-based diagnostic products. In addition, our laboratory is currently performing gene-based tests in support of our HIV-1 clinical studies.

Approximately 82% and 88% at July 31, 2000 and 1999, respectively, of the Company's net accounts receivable relates to its clinical reference laboratory business which operates in the New York Metropolitan area. The Company believes that the concentration of credit risk with respect to accounts receivable is limited due to the diversity of the Company's client base. However, the Company provides services to certain patients covered by various third-party payors, including the Federal Medicare program. Revenue, net of contractual allowances, from direct billings under the Federal Medicare program during July 31, 1998 was approximately 10% of the Company's total revenue. For the years ended July 31, 2000 and 1999 there were no payors with revenue, net of contractual allowances accounting for more than 10% of the Enzo Clinical Labs revenues.

Research And Development

Our principal research and development efforts are directed toward expanding our research and diagnostic product lines, as well as developing innovative new therapeutic products to meet unmet market needs. We have developed our core research expertise in genomics through 20 years of dedicated focus in this area. We conduct our research and other product development efforts through internal research and collaborative relationships.

Our Internal Research Programs

Our internal research and development activities, centered in Farmingdale, New York, are performed by a staff of approximately 30 professionals and scientists. Our product development programs incorporate various scientific areas of expertise, including recombinant DNA, monoclonal antibody development, enzymology, microbiology, biochemistry, molecular biology, organic chemistry, and fermentation. In addition, we continuously review in-licensing opportunities in connection with new technology.

Our External Research Collaborations

We have and continue to explore collaborative relationships with prominent companies and leading-edge research institutions in order to maximize the application of our technology in areas where we believe such relationship will benefit the development of our technology.

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The following table describes our existing collaborations:

----- Collaborator -----	----- Project -----
Cornell University Medical College	Application of our genetic antisense technology for the treatment of HIV-1.
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University of California, San Francisco	Human clinical trials of HGTV-43, our genetic antisense product for the

treatment of HIV-1.

Albert Einstein College of medicine, New York City

Pre-clinical studies of,
and animal model systems
for, our genetic antisense
and immune regulation
products for the treatment
of HBV.

Hadassah University Hospital, Jerusalem, Israel

(i) Human clinical trials
of EHT899, our immune
regulation product to
treat HBV.
(ii) Pre-clinical analysis
of various therapeutic
products using our
proprietary immune
regulation technology.

Sales and Marketing

Our sales and marketing strategy is to sell our products through two distinct channels: (i) direct sales to end-users; and (ii) supply agreements with manufacturers and distributors.

Our Direct Sales and Marketing Effort

We internally market our products through our catalogue, direct field sales and telemarketing, as well as through our e-commerce web site. We maintain a team of professionals to perform direct field sales and telemarketing activities. Our worldwide marketing efforts also consist of advertisements in major scientific journals; direct mailings to researchers; presentations at scientific seminars; and exhibitions at scientific meetings.

Our Supply and Distribution Arrangements

We also distribute our products through leading life sciences companies. These companies include manufacturers of instruments for gene analysis, where our reagents are critical for the identification and detection of genes and nucleic acid sequences. Through these arrangements, we are able to leverage the established marketing and distribution infrastructure of these companies. We have distribution agreements with, among other companies:

- o Affymetrix;
- o Amersham Pharmacia Biotech;
- o Dako;
- o NEN Life Sciences;
- o Ortho Diagnostics;
- o Roche Diagnostics;
- o Sigma Aldrich; and
- o VWR Scientific Products.

Competition

We compete with other life science and biotechnology companies, as well as pharmaceutical, chemical and other companies. Competition in our industry is intense and is expected to increase. Many of these companies are performing research in the same areas as we are. These competitors have more significant financial resources than we do. The primary competitive factors in our industry are the ability to create scientifically advanced technology, successfully develop and commercialize products on a timely basis, establish and maintain intellectual property rights and attract and retain a breadth and depth of human resources.

Our clinical laboratory services business competes with numerous national and local entities, some of which are larger and have greater financial resources than we do. Our laboratory competes primarily on the basis of the quality and specialized nature of its testing, reporting and information services, its reputation in the medical community, the pricing of its services, its reliability and speed in performing diagnostic tests, and its ability to employ qualified laboratory personnel.

Intellectual Property

We consider our intellectual property program to be a key asset and a major strategic component to the execution of our business strategy. Our core technology platforms are supported by a broad portfolio of issued patents and pending patent applications. Our policy is to seek patent protection for our core technology platforms, as well as for ancillary technologies that support these platforms and provide a competitive advantage.

At the end of fiscal 2000 we owned or licensed 36 U.S. and approximately 161 foreign patents relating to products, methods and procedures

resulting from our internal or sponsored research projects. Patents relating to the BioProbe(R) nucleic acid probe system have issued in the U.S. and Europe. We cannot assure, however, that patents will be issued on pending applications or that any issued patents will have commercial benefit. We do not intend to rely on patent protection as the sole basis for protecting our proprietary technology. We also rely on our trade secrets and continuing technological innovation. We require each of our employees to sign a confidentiality agreement that prohibits the employee from disclosing any confidential information about us, including our technology or trade secrets.

In some instances, we may enter into royalty agreements with collaborating research parties in consideration for the commercial use by us of the developments of their joint research. In other instances a patent might be obtained by the collaborating party, but we receive the license to use the patented subject matter. In such cases, we will seek to secure exclusive licenses. In other instances, we might have an obligation to pay royalties to, or reach a royalty arrangement with, a third party in consideration of our use of developments of such third party. We have an exclusive licensing agreement with Yale for the technology used in nucleic acid probe products. That agreement covers licensed patents owned by Yale and licensed to us for the life of the patents, which expire not earlier than 2004. The Research Foundation of the State University of New York has granted us the exclusive rights to a genetic engineering technology using antisense nucleic acid control methodologies. See "-- Legal Proceedings."

Regulation

Regulation of Pharmaceutical Products

New drugs and biological drug products are subject to regulation under the Federal Food, Drug and Cosmetic Act, and biological products are also regulated under the Public Health Service Act. We believe that products developed by us or our collaborators will be regulated either as biological products or as new drugs. Both statutes and the regulations promulgated thereunder govern, among other things, the testing, licensing, manufacturing, marketing, distributing, safety, and efficacy requirements, labeling, storage, exporting, record keeping, advertising and other promotional practices involving biologics or new drugs, as the case may be. FDA review or approval or other clearances must be obtained before clinical testing, and before manufacturing and marketing, of biologics and drugs. At the FDA, the Center for Biological Evaluation and Research ("CBER") is responsible for the regulation of biological drugs and the Center for Drug Evaluation and Research ("CDER") is responsible for the regulation of non-biological drugs. Biological drugs are licensed and other drugs are approved before commercialization.

Any gene medicine products that we develop will require regulatory review before clinical trials, and additional regulatory clearances before commercialization. New human gene medicine products, as therapeutics, are subject to regulation by the FDA and comparable agencies in other countries. The precise regulatory requirements with which we will have to comply are uncertain at this time because of the novelty of the human gene therapies currently under development. Each protocol is currently reviewed by the FDA on a case-by-case basis. The FDA has published "Points to Consider" guidance documents with respect to the development of gene medicine protocols. The National Institute of Health ("NIH") is also involved in the oversight of gene therapies and the FDA has required compliance with certain NIH requirements.

Obtaining FDA approval has historically been a costly and time-consuming process. Generally, to gain FDA approval, a developer first must conduct pre-clinical studies in the laboratory evaluating product chemistry, formulation and stability and, if appropriate, in animal model systems, to gain preliminary information on safety and efficacy. Pre-clinical safety tests must be conducted by laboratories that comply with FDA regulations governing Good Laboratory Practices. The results of those studies are submitted with information characterizing the product and its manufacturing process and controls as a part of an investigational new drug ("IND") application, which the FDA must review and declare effective before human clinical trials of an investigational drug can start. The IND application includes a detailed description of the clinical investigations to be undertaken in addition to other pertinent information about the product, including descriptions of any previous human experience and the company's future plans for studying the drug.

In order to commercialize any products, we (as the sponsor) file an IND and will be responsible for initiating and overseeing the clinical studies to demonstrate the safety and efficacy necessary to obtain FDA marketing approval of any such products. For INDs that we sponsor, we will be required to select qualified clinical sites (usually physicians affiliated with medical institutions) to supervise the administration of the products, and ensure that the investigations are conducted and monitored in

accordance with FDA regulations and the general investigational plan and protocols contained in the IND. Each clinical study is reviewed and approved by an Institutional Review Board (IRB). The IRB will consider, among other things,

ethical factors and the safety of human subjects. Clinical trials are normally conducted in three phases, although the phases might overlap. Phase I trials, concerned primarily with the safety and tolerance of the drug, and its pharmacokinetics (or how it behaves in the body including its absorption and distribution) involve fewer than 100 subjects. Phase II trials normally involve a few hundred patients and are designed primarily to demonstrate preliminary effectiveness and the most suitable dose or exposure level for treating or diagnosing the disease or condition for which the drug is intended, although short-term side effects and risks in people whose health is impaired may also be examined. Phase III trials are expanded, adequate and well-controlled clinical trials with larger numbers of patients and are intended to gather the additional information for proper dosage and labeling of the drug. Clinical trials generally take two to five years, but the period may vary. Certain regulations promulgated by the FDA may shorten the time periods and reduce the number of patients required to be tested in the case of certain life-threatening diseases, which lack available alternative treatments.

The FDA receives reports on the progress of each phase of clinical testing, and it may require the modification, suspension or termination of clinical trials if an unwarranted risk is presented to patients. Human gene medicine products are a new category of therapeutics. We cannot assure the length of the clinical trial period, the number of patients that the FDA will require to be enrolled in the clinical trials in order to establish the safety, purity and potency of human gene medicine products, or that the clinical and other data generated will be acceptable to the FDA to support marketing approval.

After completion of clinical trials of a new product, FDA marketing approval must be obtained before the product can be sold in the United States. If the product is regulated as a new biologic, CBER requires the submission and approval of a Biologics License Application (BLA) before commercial marketing of the Biologic. If the product is classified as a new drug, we must file a New Drug Application ("NDA") with CDER and receive approval before commercial marketing of the drug. The NDA or BLA must include results of product development, pre-clinical studies and clinical trials. The testing and approval processes require substantial time and effort and we cannot assure that any approval will be granted on a timely basis, if at all. The median time to obtain new product approvals after submission to the FDA is approximately 12 months. If questions arise during the FDA review process, approval can take longer. Before completing its review, the FDA may seek guidance from an Advisory Committee of outside experts at a public or closed meeting. While the advice of these committees is not binding on the FDA, it is often followed. Notwithstanding the submission of relevant data, the FDA might ultimately decide that the NDA or BLA does not satisfy its regulatory criteria for approval and, thus, reject the application, refuse to approve it, or require additional clinical, preclinical or chemistry studies. Even after FDA regulatory approval or licensure, a marketed drug product is subject to continual review by the FDA. In addition, if previously unknown problems are discovered or we fail to comply with the applicable regulatory requirements, we might be restricted from marketing a product, we might be required to withdraw the product from the market, and we might possibly become subject to seizures, injunctions, voluntary recalls, or civil, monetary or criminal sanctions. In addition, the FDA may condition marketing approval on the conduct of specific post-marketing studies to further evaluate safety and effectiveness.

For commercialization of our biological or other drug products, the manufacturing processes described in our NDA or BLA must receive FDA approval and the manufacturing facility must successfully pass an inspection prior to approval or licensure of the product for sale within the United States. The pre-approval inspection assesses whether, for example, the facility complies with the FDA's current good manufacturing practices (cGMP) regulations. These regulations elaborate testing, control, documentation, personnel, record-keeping and other quality assurance procedure requirements that must be met. Once FDA approves our biological or other drug products for marketing, we must continue to comply with the cGMP regulations. FDA periodically inspects biological and other drug manufacturing facilities to ensure compliance with applicable cGMP requirements. Failure to comply with the statutory and regulatory requirements subjects the manufacturer to possible legal or regulatory action, such as suspension of manufacturing, seizure of product or voluntary recall of a product.

If a developer obtains designations by the FDA of a biologic or other drug as an "orphan" for a particular use, the developer may request grants from the federal government to defray the costs of qualified testing expenses in connection with the development of such drug. Orphan drug designation is possible for drugs for rare diseases, including many genetic diseases, which means the drug is for a disease that has a prevalence of less than 200,000 patients in the United States. The first applicant who receives an orphan drug designation and who obtains approval of a marketing application for such drug acquires the exclusive marketing rights to that drug for that use for a period of seven years unless the subsequent drug can be shown to be clinically superior. Accordingly, no other company would be allowed to market an identical orphan drug with the same active ingredient for the use approved by the FDA for seven years after the approval.

Regulation of Diagnostics

The diagnostic products that are developed by us or our collaborators are likely to be regulated by the FDA as medical devices. Unless an exemption applies, medical devices must receive either "510(k) clearance" or "PMA approval" from the FDA before marketing them in the United States. The FDA's 510(k) clearance process usually takes from four to 12 months, but it can

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last longer. The process of obtaining PMA approval is much more costly, lengthy and uncertain. It generally takes from one to three years or even longer. We cannot be sure that 510(k) clearance or PMA approval will ever be obtained for any product we propose to market.

The FDA decides whether a device must undergo either the 510(k) clearance or PMA approval process based upon statutory criteria. These criteria include the level of risk that the agency perceives is associated with the device and a determination whether the product is a type of device that is similar to devices that are already legally marketed. Devices deemed to pose relatively less risk are placed in either class I or II, which requires the manufacturer to submit a premarket notification requesting 510(k) clearance, unless an exemption applies. The premarket notification must demonstrate that the proposed device is "substantially equivalent" in intended use and in safety and effectiveness to a legally marketed "predicate device" that is either in class I, class II, or is a "preamendment" class III device (i.e., one that was in commercial distribution before May 28, 1976) for which the FDA has not yet called for submission of a PMA application.

After a device receives 510(k) clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, requires a new 510(k) clearance or could require a PMA approval. The FDA requires each manufacturer to make this determination in the first instance, but the FDA can review any such decision. If the FDA disagrees with a manufacturer's decision not to seek a new 510(k) clearance, the agency may retroactively require the manufacturer to seek 510(k) clearance or PMA approval. The FDA also can require the manufacturer to cease marketing and/or recall the modified device until 510(k) clearance or PMA approval is obtained.

Devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices, or deemed not substantially equivalent to a legally marketed class I or class II predicate device, or to a preamendment class III device for which PMAs have not been called, are placed in class III. Such devices are required to undergo the PMA approval process in which the manufacturer must prove the safety and effectiveness of the device to the FDA's satisfaction. A PMA application must provide extensive preclinical and clinical trial data and also information about the device and its components regarding, among other things, device design, manufacturing and labeling. After approval of a PMA, a new PMA or PMA supplement

is required in the event of a modification to the device, its labeling or its manufacturing process.

Although clinical investigations of most devices are subject to the investigational device exemption ("IDE") requirements, clinical investigations of in vitro diagnostic ("IVDs") tests are exempt from the IDE requirements, including the need to obtain the FDA's prior approval, provided the testing is noninvasive, does not require an invasive sampling procedure that presents a significant risk, does not introduce energy into the subject, and is not used as a diagnostic procedure without confirmation by another medically established test or procedure. In addition, the IVD must be labeled for Research Use Only (RUO) or Investigational Use Only (IUO), and distribution controls must be established to assure that IVDs distributed for research or investigation are used only for those purposes. The FDA expressed its intent to exercise heightened enforcement with respect to IUO and RUO devices improperly commercialized prior to receipt of FDA clearance or approval.

We have developed products that we currently distribute in the United States on a RUO basis. There can be no assurance that the FDA would agree that our distribution of these products meets the requirements for RUO distribution. Furthermore, failure of us or recipients of our RUO products to comply with the regulatory limitations on the distribution and use of such devices could result in enforcement action by the FDA, including the imposition of restrictions on our distribution of these products.

Any devices that we manufacture or distribute will be subject to a host of regulatory requirements, including the Quality System Regulation (which requires manufacturers to follow elaborate design, testing, control, documentation and other quality assurance procedures), the Medical Device Reporting regulation (which requires that manufacturers report to the FDA certain types of adverse events involving their products), labeling regulations, and the FDA's general prohibition against promoting products for unapproved or "off label" uses. Class II devices also can have special controls such as performance standards, postmarket surveillance, patient registries, and FDA guidelines that do not apply to class I devices. Unanticipated changes in existing regulatory requirements or adoption of new requirements could hurt our business, financial condition and results of operations.

We are subject to inspection and market surveillance by the FDA to determine compliance with regulatory requirements. If the FDA finds that we have failed to comply, the agency can institute a wide variety of enforcement actions, ranging from a public warning letter to more severe sanctions such as fines, injunction, civil penalties, recall or seizure of our products, the issuance of public notices or warnings, operating restrictions, partial suspension or total shutdown of production, refusal of our requests for 510(k) clearance or PMA approval of new products, withdrawal of 510(k) clearance or PMA approvals already granted, and criminal prosecution.

The FDA also has the authority to request repair, replacement or refund of the cost of any medical device manufactured or distributed by us. Our failure to comply with applicable requirements could lead to an enforcement action that may have an adverse effect on our financial condition and results of operations.

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Unanticipated changes in existing regulatory requirements, our failure to comply with such requirements or adoption of new requirements could have a material adverse effect on us.

We have employees to expedite the preparation and filing of documentation necessary for FDA clearances and approvals, patent issuances and licensing agreements. We have received clearance from the FDA to market five of our in vitro diagnostic products.

We cannot assure you that future clinical diagnostic products developed by us or our collaborators will not be required to be reviewed by FDA under the more expensive and time consuming pre-market approval process.

Clinical Laboratory Regulation and Reimbursement

The clinical laboratory industry is also 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"), our clinical laboratories must be certified by the Federal government, or exempt from federal certification, as discussed below. Many clinical laboratories also must meet other governmental standards, undergo proficiency testing, and are subject to inspection. Clinical laboratory certificates or licenses are also required by various state and local laws.

The health care industry has been undergoing significant change because third-party payors, such as Medicare (serving primarily patients 65 and older), Medicaid (serving primarily indigent patients) and commercial insurers, have increased their efforts to control the cost, utilization and delivery of health care services. 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. Additional health care reform efforts are likely to be proposed in the future. In particular, we believe that reductions in reimbursement for Medicare services will continue to be implemented from time to time. Reductions in the reimbursement rates of other third-party payors are likely to occur as well. We cannot predict the effect that health care reform, if enacted, would have on our business, and there can be no assurance that such reforms, if enacted, would not have a material adverse effect on our business and operations.

In 1992, the U.S. Department of Health and Human Services ("HHS") published regulations implementing CLIA. Most of the CLIA regulations became effective in 1992, although certain personnel, quality control and proficiency testing requirements are being phased in by HHS. The regulations place all tests into one of three categories of complexity (waived, moderate complexity and high complexity) and establish varying requirements depending upon the complexity category of the test performed. A laboratory that performs high complexity tests must meet more stringent requirements than a laboratory that performs only moderate complexity tests, while those that perform only waived tests may apply for a certificate of waiver from most of the requirements of CLIA. Our facility is certified to perform highly complex tests. In general, the HHS regulations require laboratories that perform high or moderate complexity tests to implement systems that ensure the accurate performance and reporting of test results, establish quality control and quality assurance systems, ensure hiring of personnel that meet specified standards, engage in proficiency testing by approved agencies and undergo biennial inspections.

The sanction for failure to comply with these regulations may be suspension, revocation, or limitation of a laboratory's CLIA certificate necessary to conduct business, significant fines and criminal penalties. The loss of, or adverse action against, a license, the imposition of a fine, or future changes in Federal, state and local laboratory laws and regulations (or in the interpretation of current laws and regulations) could have a material adverse effect on our business.

Clinical laboratories also are subject to state regulation. CLIA provides that a state may adopt different or more stringent regulations than Federal law, and permits states to apply for exemption from CLIA if HHS determines that the state's laboratory laws are equivalent to, or more stringent than, CLIA. The State of New York's clinical laboratory regulations contain provisions that are more stringent than Federal law, and New York has received exemption from CLIA. Therefore, as long as New York maintains its CLIA-exempt status, laboratories in New York, including our laboratory, are regulated under New York law rather than CLIA. Our laboratory is licensed in New York and has continuing programs to ensure that its operations meet all applicable regulatory requirements.

Containment of health care costs, including reimbursement for clinical laboratory services, has been a focus of ongoing governmental activity. In 1984, Congress established a Medicare fee schedule for clinical laboratory services performed for patients covered under Part B of the Medicare program. Subsequently, Congress imposed a national ceiling on the amount that can be paid under the fee schedule. Laboratories must accept the scheduled amount as payment in full for most tests performed on behalf of Medicare beneficiaries and must bill the program directly. Medicaid payments for clinical lab tests also may not exceed the Medicare fee schedule amount. In addition, our other business depends significantly on continued participation in these programs because clients often want a single laboratory to perform all of their testing services. Since 1984, Congress has periodically reduced

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the ceilings on Medicare reimbursement to clinical laboratories from previously authorized levels. Because a significant portion of our costs are fixed, these Medicare reimbursement reductions have a direct adverse effect on our net earnings and cash flows. We cannot predict whether additional Medicare reductions will be implemented.

On January 1, 1993, numerous changes in the Physicians' Current Procedural Terminology ("CPT") were published. The CPT is a coding system that is published by the American Medical Association. The CPT lists descriptive terms and identifying codes for reporting medical and medically related services. The Medicare and Medicaid programs require suppliers, including laboratories, to use CPT codes when they bill the programs for services performed. Health Care and Financing Administration ("HCFA") adopted these CPT changes for Medicare and Medicaid on August 1, 1993. The CPT changes have altered the way we bill Medicare and Medicaid for some of our services, thereby reducing the reimbursement that we receive from those programs for some of our services. In March 1996, HCFA implemented changes in the policies used to administer Medicare payments to clinical laboratories for the most frequently performed automated blood chemistry profiles. Among other things, the changes established a consistent standard nationwide for the content of the automated chemistry profiles. Another change requires laboratories performing certain automated blood chemistry profiles to obtain and provide documentation of the medical necessity of tests included in the profiles for each Medicare

beneficiary. Reimbursements have been reduced as a result of this change.

Future changes in federal, state and local regulations (or in the interpretation of current regulations) affecting governmental reimbursement for clinical laboratory testing could have a material adverse effect on our business. We cannot predict, however, whether and what type of legislation will be enacted into law.

Infectious Wastes and Radioactive Materials

We are subject to licensing and regulation under federal, state and local laws relating to the handling and disposal of medical specimens, infectious and hazardous waste and radioactive materials, as well as to the safety and health of laboratory employees. All our laboratories are required to operate in accordance with applicable federal and state laws and regulations relating to biohazard disposal of all facilities specimens and we use outside vendors to dispose such specimens. Although we believe that we comply in all material respects with such federal, state and local laws, our failure to comply with those laws could subject us to denial of the right to conduct business, fines, criminal penalties and/or other enforcement actions.

Occupational Safety

In addition to its comprehensive regulation of safety in the workplace, the Federal Occupational Safety and Health Administration ("OSHA") has established extensive requirements relating to workplace safety for health care employers, including clinical laboratories, whose workers may be exposed to blood-borne pathogens such as HIV and the hepatitis B virus. These regulations, among other things, require work practice controls, protective clothing and equipment, training, medical follow-up, vaccinations and other measures designed to minimize exposure to, and transmission of, blood-borne pathogens. The use of controlled substances in testing for drugs of abuse is regulated by the Federal Drug Enforcement Administration. We are also subject to OSHA's requirement that employers using hazardous chemicals communicate the properties and hazards presented by those chemicals to their employees. We believe that we are in material compliance with these OSHA requirements. Our failure to comply with those regulations and requirements could subject us to tort liability, civil fines, criminal penalties and/or other enforcement actions.

Other Regulation

Our business is and will continue to be subject to regulation under various state and federal environmental, safety and health laws, including Occupational Safety and Health Act, the Resource Conservation and Recovery Act, and the Atomic Energy Act or their state law analogs. These and other laws govern our use, handling and disposal of various biological, chemical and radioactive substances used in our operations and wastes generated by our operations. We are required to possess licenses under, or are otherwise subject to federal and state regulations pertaining to, the handling and disposal of medical specimens, infectious and hazardous waste and radioactive materials.

We believe that we are in material compliance with applicable environmental, safety and health laws and that our continual compliance therewith will not have a material adverse effect on our business. All of our laboratories are operated in accordance with applicable federal and state laws and regulations relating to hazardous substances and wastes, and we use qualified third-party vendors to dispose biological specimens and other hazardous wastes. Although we believe that we comply in all material respects with such federal, state and local laws, our failure to comply with those laws could subject us to denial of the right to conduct business, civil fines, criminal penalties and/or other enforcement actions. Environmental contamination resulting from spills or disposal of hazardous substances generated by our operations, even if caused by a third-party contractor or occurring at a remote location, could result in material liability.

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Manufacturing and Facilities

We manufacture the majority of our products internally. Most of our production and clinical laboratory operations take place at our 43,000 square feet facilities in Farmingdale, New York. We have a completely integrated manufacturing facility, with special handling facilities and clean rooms.

We also contract with qualified third-party contractors to manufacture our products in cases where we deem it appropriate, for example, when it is not cost-effective to produce a product ourselves or where we seek to leverage the expertise of another manufacturer in a certain area.

Employees

As of July 31, 2000, we employed 187 full-time and 33 part-time employees. Of the full-time employees, 29 were engaged in research, development, manufacturing and marketing of research products and 158 at the clinical reference laboratories. Our scientific staff possesses a wide range of

experience and expertise in the areas of recombinant DNA, nucleic acid chemistry, molecular biology and immunology. We believe that the relationships we have established with our employees are good.

Information Systems

We believe that with respect to our clinical reference laboratory business, the health care provider's need for data will continue to place high demands on its information systems staff. We believe that the efficient handling of information involving clients, patients, payors and other parties will be a critical factor in our future success.

Quality Assurance

We consider the quality of our clinical reference laboratory tests to be of critical importance, and, therefore, we established a comprehensive quality assurance program designed to help assure accurate and timely test results. In addition to the compulsory external inspections and proficiency programs demanded by the Medicare program and other regulatory agencies, our clinical laboratory has in place systems to emphasize and monitor quality assurance.

In addition to our own internal quality control programs, our laboratory participates in numerous externally administered, blind quality surveillance programs, including on-site evaluation by the College of American Pathologists ("CAP") proficiency testing program and the New York State survey program. The blind programs supplement all other quality assurance procedures and give our management the opportunity to review our technical and service performance from the client's perspective.

The CAP accreditation program involves both on-site inspections of our laboratory and participation in the CAP's proficiency testing program for all categories in which our laboratory is accredited by the CAP. The CAP is an independent nongovernmental organization of board certified pathologists which offers an accreditation program to which laboratories can voluntarily subscribe. A laboratory's receipt of accreditation by the CAP satisfies the Medicare requirement for participation in proficiency testing programs administered by an external source. Our clinical laboratory facilities are accredited by the CAP.

CAUTIONARY STATEMENT FOR PURPOSES OF THE "SAFE HARBOR" PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

The Private Securities Litigation Reform Act of 1995 provides a "safe harbor" for forward-looking statements to encourage companies to provide prospective information about their companies without fear of litigation so long as those statements are identified as forward-looking and are accompanied by meaningful cautionary statements identifying important factors that could cause actual results to differ materially from those projected in the statement. The Company desires to take advantage of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995 and is including this section herein in order to do so. Accordingly, the Company hereby identifies the following important factors that could cause the Company's actual financial results to differ materially from those projected, forecast, estimated, or budgeted by the Company in forward-looking statements.

- (a) Heightened competition, including the intensification of price competition.
 - (b) Impact of changes in payor mix, including the shift from traditional, fee-for-service medicine to managed-cost health care.
 - (c) Adverse actions by governmental or other third-party payors, including unilateral reduction of fee schedules payable to the Company.
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- (d) The impact upon the Company's collection rates or general or administrative expenses resulting from compliance with Medicare administrative policies including specifically the HCFA's recent requirement that laboratories performing certain automated blood chemistry profiles obtain and provide documentation of the medical necessity of tests included in the profiles for each Medicare beneficiary.
 - (e) Failure to obtain new customers, retain existing customers or reduction in tests ordered or specimens submitted by existing customers.
 - (f) Adverse results in significant litigation matters.
 - (g) Denial of certification or licensure of any of the Company's clinical laboratories under CLIA, by Medicare programs or other Federal, state or local agencies.
 - (h) Adverse publicity and news coverage about the Company or the clinical

laboratory industry.

- (i) Inability to carry out marketing and sales plans.
- (j) Loss or retirement of key executives.
- (k) Impact of potential patent infringement by others or the Company.
- (l) Inability to obtain patent protection or secure and maintain proprietary positions on its technology.
- (m) Our product development efforts depend on new technologies, and our product candidates are in early stage of development.
- (n) Clinical trials for our products will be expensive and their outcome is uncertain. We incur substantial expenses that might not result in viable products.
- (o) May need additional capabilities in the future, if additional capital is not available, we may need to curtail or cease operations.

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Item 2. Properties

The following are the principal facilities of the Company:

Location	Principal Operations	Approximate Floor Area (sq. ft.)	Approximate Annual Base Rent	Expiration Date
60 Executive Blvd. Farmingdale, N.Y.	Corporate headquarters, clinical reference and development facilities (See note 4 of Notes to Consolidated Financial Statements)	43,000	\$1,140,000	November 30, 2004
527 Madison Ave. New York, NY	Executive office	6,400	\$ 288,000	December, 2003

Management believes that the current facilities will be adequate for current operating needs and in the foreseeable future.

Item 3. Legal Proceedings

In March 1993, the Company filed suit in the United States District Court for the District of Delaware charging patent infringement and acts of unfair competition against Calgene, Inc. and seeking a declaratory judgment of invalidity concerning Calgene's plant antisense patent. On February 9, 1994, the Company filed a second suit in the United States District Court for the District of Delaware charging Calgene with infringement of a second antisense patent owned by the Company. Calgene filed a counterclaim in the second Delaware action seeking a declaration that a third patent belonging to the Company is invalid. The two Delaware actions have been consolidated and were tried to the Court in April 1995. In addition, the Company filed suit on March 22, 1994 in the United States District Court for the Western District of Washington against Calgene and the Fred Hutchinson Cancer Research Center, alleging that the defendants had conspired to issue a false and misleading press release regarding a supposed "patent license" from Hutchinson to Calgene, and conspired to damage the Company's antisense patents by improperly using confidential information to challenge them in the Patent Office. The Complaint further charges that Hutchinson is infringing and inducing Calgene to infringe the Company's antisense patents. On February 2, 1996, the Delaware Court issued an opinion ruling against Enzo and in favor of Calgene, finding certain Enzo claims infringed, but the patent, as a whole not infringed, and finding the claims at issue invalid for lack of enablement. Calgene's patent was found valid (non-obvious) over the prior art. On February 29, 1996, the Delaware Court issued an Order withdrawing its February 2, 1996 Opinion. On April 3, 1997, the European Patent Office rejected Calgene's opposition that had been lodged against the Company's related European antisense patent, thereby upholding the patent's validity. On May 23, 1997, the Japanese Patent Office issued a related antisense patent owned by the Company.

On June 1, 1998, the U.S. District Court for the District of Delaware issued its final decision in the case. In its decision the District Court held two of the Company's three antisense patents invalid and not infringed. The District Court declined to act on Calgene's claim that the Company's third antisense patent was invalid, citing lack of evidence. The District Court

further held that the Calgene antisense patent was not invalid. Enzo appealed the District Court's judgment to the U.S. Court of Appeals for the Federal Circuit and Calgene cross-appealed. On September 24, 1999, the Court of Appeals issued its decision, rejecting Calgene's effort to invalidate Enzo's patent in genetic antisense technology, U.S. Patent No. 5,272,065, thus leaving it valid and standing. The Court of Appeals also clarified the District Court's judgment regarding two other of Enzo's genetic antisense patents (5,190,931 and 5,208,149), limiting judgment of invalidity only to the claims of the two patents which had been asserted against Calgene. The Court of Appeals remanded the case to the District Court for determination of whether the case was exceptional, which related to Calgene's claim for attorney fees. On October 7, 1999, Calgene filed a petition for rehearing directed to the Court of Appeal's disposition of Calgene's cross-appeal as to Enzo's '065 patent. The petition was denied on December 1, 1999. There can be no assurance that the Company will be successful in connection with Calgene's claim that the case is exceptional, which will be the subject of further proceedings in the District Court. However, even if the Company is not successful, management does not believe there will be a significant monetary impact.

In June 1999, the Company filed suit in the United States District Court for the Southern District of New York against Gen-Probe Incorporated, Chugai Pharma U.S.A., Inc., Chugai Pharmaceutical Co., Ltd., bioMerieux, Inc., bioMerieux SA, and Becton Dickinson and Company, charging them with infringing the Company's U.S. Patent 4,900,659, which concerns probes for the detection of the bacteria that causes gonorrhoea. The case remains at an early stage. There can be no

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assurance that the Company will be successful in these proceedings. However, even if the Company is not successful, management does not believe that there will be a significant monetary impact.

Item 4. Submission of Matters to a Vote of Security Holders

No matters were brought to a vote of the Company's stockholders in the fourth fiscal quarter ended July 31, 2000.

PART II

Item 5. Market for Registrant's Common Equity and Related Stockholder Matters

The common stock of the Company is traded on the New York Stock Exchange (Symbol:ENZ). The following table sets forth the high and low price of the Company's Common Stock for the periods indicated as reported on the New York Stock Exchange.

<TABLE>
<CAPTION>

	High	Low
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<S>	<C>	<C>
1999 Fiscal Year (August 1, 1998 to July 31, 1999):		
1st Quarter	\$12.50	\$6.38
2nd Quarter	\$13.75	\$9.63
3rd Quarter	\$12.94	\$8.00
4th Quarter	\$19.94	\$9.75
2000 Fiscal Year (August 1, 1999 to July 31, 2000):		
1st Quarter	\$ 36.69	\$16.13
2nd Quarter	\$139.00	\$20.75
3rd Quarter	\$104.19	\$31.81
4th Quarter	\$ 75.75	\$31.63

</TABLE>

On October 13, 2000, the last sale price of the Common Stock of the Company as reported on the New York Stock Exchange was \$44.81.

As of October 13, 2000, the Company had approximately 1,257 record holders of its Common Stock.

The Company has not paid a cash dividend on its Common Stock and intends to continue to follow a policy of retaining future earnings to finance its operations. Accordingly, the Company does not anticipate the payment of cash dividends to holders of Common Stock in the foreseeable future.

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Item 6. Selected Financial Data
<TABLE>

<CAPTION>

	For the Years Ended July 31,				
	----- (In thousands, except per share data)				
	2000	1999	1998	1997	1996
	----	----	----	----	----
<S>	<C>	<C>	<C>	<C>	<C>
Operating Results:					
Operating revenues	\$ 50,029	\$ 44,319	\$ 40,417	\$ 34,939	\$ 34,490
Write-down of leasehold interest and related costs	--	--	--	--	7,613
Interest income	2,585	1,984	1,885	1,799	1,640
Income (loss) before (provision) benefit for taxes on income	7,668	5,387	2,570	1,564	(7,508)
(Provision) benefit for taxes on income	(1,043)	1,128	822	(111)	(199)
Net income (loss)	\$ 6,625	\$ 6,515	\$ 3,392	\$ 1,453	(\$ 7,707)
	=====	=====	=====	=====	=====
Basic net income (loss) per common share:	\$ 0.26	\$ 0.26	\$ 0.14	\$ 0.06	(\$.32)
	=====	=====	=====	=====	=====
Diluted net income (loss) per common share (1):	\$ 0.25	\$ 0.26	\$ 0.13	\$ 0.06	(\$.32)
	=====	=====	=====	=====	=====
Denominator for per share calculation:					
Basic	25,330	24,933	24,653	24,162	23,840
Diluted	26,986	25,477	25,746	25,498	23,840
Financial Position:					
Working capital	\$ 73,492	\$ 59,323	\$ 52,973	\$ 43,232	\$ 29,451
Total assets	\$ 92,285	\$ 78,901	\$ 72,153	\$ 67,419	\$ 62,838
Long-term debt and obligation under capital lease	--	--	--	\$ 46	\$ 114
Stockholders' equity	\$ 87,176	\$ 75,648	\$ 68,783	\$ 64,009	\$ 55,253

</TABLE>

(1) In fiscal year 1996, potentially dilutive securities have not been included because the effect of their inclusion would have been anti-dilutive.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion of our financial condition and results of operations should be read in conjunction with our financial statements and related notes. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including but not limited to, those discussed in "Risk Factors" and elsewhere in this memorandum. See "Note Regarding Forward-Looking Statements." Because of the foregoing factors, you should not rely on past financial results as an indication of future performance. We believe that period-to-period comparisons of our financial results to date are not necessarily meaningful and expect that our results of operations might fluctuate from period to period in the future.

Liquidity and Capital Resources

At July 31, 2000, our cash and cash equivalents totaled \$51.0 million, an increase of \$7.8 million from July 31, 1999. We had working capital of \$73.5 million at July 31, 2000 compared to \$59.3 million at July 31, 1999.

Net cash provided by operating activities for the year ended July 31, 2000 was approximately \$4.9 million and as compared to net cash provided by operating activities of \$11.1 million for the year ended July 31, 1999, which included \$5.0 million of cash received in connection with the settlement of our litigation against Johnson & Johnson, Inc. The decrease in net cash provided by

operating activities from fiscal 1999 to fiscal 2000 was primarily due to (i) the payment in full of such Johnson & Johnson litigation settlement during fiscal 1999 and (ii) an increase in accounts receivables in fiscal 2000.

Net cash used in investing activities of approximately \$1.2 million in fiscal 2000 decreased by approximately \$.3 million from fiscal 1999, primarily

as a result of a decrease in capital expenditures.

Net cash provided by financing of \$4.1 million in fiscal 2000 activities increased by \$4.0 million from fiscal 1999 primarily as a result of the increase in proceeds from the exercise of stock options and warrants.

Net accounts receivable of \$20.2 million and \$15.0 million represented 147 days and 124 days of operating revenues at July 31, 2000 and 1999, respectively. The change in net accounts receivable is due to an increase in accounts receivable at the clinical reference laboratory of approximately \$3.4 million and an increase of research products accounts receivable of approximately \$1.8 million.

On October 19, 1994, we executed a settlement agreement with Johnson & Johnson, Inc. pursuant to which we received \$15.0 million and a promissory note requiring Johnson & Johnson and its subsidiary, Ortho Diagnostics, Inc., to pay us \$5.0 million a year on each of the four successive anniversaries of that date. The last payment was received in fiscal 1999. The litigation settlement amounted to approximately \$21.9 million, net of legal fees. Pursuant to the terms of the settlement, all of our grants, licenses and intellectual property have been returned to us in totality.

We believe that our current cash position is sufficient for our foreseeable liquidity and capital resource needs, although there can be no assurance that future events will not alter such view.

Management is not aware of any material claims, disputes or settled matters concerning third-party reimbursements that would have a material effect on our financial statements.

Results of Operations

Fiscal 2000 Compared to Fiscal 1999

Revenues from operations for the fiscal year ended July 31, 2000 were \$50.0 million an increase of \$5.7 million over revenues from operations for the fiscal year ended July 31, 1999. This increase was due to an increase of \$3.4 million in revenues from our clinical reference laboratory operations and an increase of \$2.3 million in revenues from research product sales over revenues for such activities in fiscal 1999. The increase in revenues from the clinical laboratory operations resulted primarily from an increase in volume of esoteric testing. The increase in research product sales resulted primarily from an increase in sales from the non-exclusive distribution agreements and an increase in direct sales of research products.

The cost of clinical laboratory services increased by \$.2 million primarily as a result of an increase in operating expenses based on the increased sales in fiscal 2000, and the cost of sales for research products decreased by \$.4 million as a result in a change in the revenue mix from two of the Company's non-exclusive distribution agreements.

Research and development expenses increased by approximately \$1.0 million as a result of an increase in clinical studies and research programs.

Our provision for uncollectible accounts receivable increased by \$1.3 million, primarily due to increased revenues from our clinical reference laboratory and reduced reimbursements received from Medicare and other third party insurers who generally follow the reimbursement policies of Medicare.

Net accounts receivable from our clinical laboratory operations of \$16.6 million and \$13.2 million represented an average of 193 and 172 days of operating revenues at July 31, 2000 and 1999, respectively. We expect that in the future, as a result of the revised Medicare reimbursement policies, we will receive reimbursements and cash flows at the clinical reference laboratory at lower rates than those realized in fiscal 2000. We will continue to attempt to control costs associated with the performance of the tests; however, we cannot assure that such efforts will be successful.

Income before (provision) benefit for taxes on income from research and development activities and related costs was \$3.8 million in fiscal 2000, as compared to income before (provision) benefit for taxes on income of \$2.7 million in fiscal 1999. The increase in the profit is principally related to the increase in sales of product from the non-exclusive distribution agreements. Income before (provision) benefit for taxes on income from the clinical reference laboratories activities amounted to \$3.7 million (12% of clinical laboratory services) as compared to \$2.4 million (8% of clinical laboratory services) in fiscal 1999. This increase resulted principally from the increase in the operating revenues of esoteric testing.

In fiscal 2000, we recorded a provision for income taxes of \$1.0 million versus a benefit of \$1.1 million in fiscal 1999. In the fourth quarter of fiscal 2000, we recorded a tax provision of \$.9 million which included a reduction in our deferred tax asset of \$.3 million.

Fiscal 1999 Compared to Fiscal 1998

Revenues from operations for the fiscal year ended July 31, 1999 were \$44.3 million, an increase of \$3.9 million over revenues from operations for the fiscal year ended July 31, 1998. This increase was due to an increase of \$.3 million in revenues from our clinical reference laboratory operations and an increase of \$3.6 in revenues from research product sales over revenues for such activities in fiscal 1998. The increase in revenues from the clinical laboratory operations resulted primarily from an increase in volume of diagnostic screening tests and an increase in esoteric testing revenues. The increase in research product sales resulted primarily from an increase in sales from the non-exclusive distribution agreements and an increase in direct sales of research products.

The cost of research product revenues increased by \$.3 million primarily as a result of an increase in sales from our distribution agreement activities.

Research and development expenses increased by approximately \$.4 million as a result of an increase in research programs and the increased amortization of patent costs.

Our provision for uncollectible accounts receivable increased by \$.3 million, primarily due to increased revenues from our clinical reference laboratory and reduced reimbursements received from Medicare and other third party insurers who generally follow the reimbursement policies of Medicare.

Net accounts receivable from our clinical laboratory operations of \$13.2 million and \$13.1 million represented an average of 172 days of operating revenues at July 31, 1999 and 1998, respectively. We expect that in the future, as a result of the revised Medicare reimbursement policies, we will receive reimbursements and cash flows at the clinical reference laboratory at lower rates than those realized in fiscal 1999. We will continue to attempt to control costs associated with the performance of the tests; however, we cannot assure that such efforts will be successful.

Income before (provision) benefit for taxes on income from research and development activities and related costs was \$2.7 million in fiscal 1999, as compared to income before (provision) benefit for taxes on income of \$.2 million in fiscal 1998. The increase in the profit is principally related to the increase in sales of product from the non-exclusive distribution agreements. Income before (provision) benefit for taxes on income from the clinical reference laboratories activities amounted to \$2.4 million (8% of clinical laboratory services) as compared to \$2.2 million (8% of clinical laboratory services) in fiscal 1998. This increase resulted principally from the increase in the operating revenues of esoteric testing.

In fiscal 1999, we recorded a benefit for income taxes of \$1.1 million versus a benefit of \$.8 million in fiscal 1998. In the fourth quarter of fiscal 1999, we recorded a deferred tax benefit of \$1.6 million resulting from a reversal of a portion of the deferred tax asset valuation allowance. This was based on management's determination that it was more likely than not that a portion of the deferred tax asset would be realized.

Item 7A Quantitative and Qualitative Disclosures About Market Risk

Not Applicable

Item 8. Financial Statements and Supplementary Data

The response to this item is submitted in a separate section of this report. See Item 14(a) (1) and (2)

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

PART III

Item 10. Directors and Executive Officers of the Registrant

(a) Directors - The following sets forth certain information regarding directors of the Company who are not executive officers of the Company. Information with respect to directors of the Company who are also executive officers of the Company appears below under the subcaption "Executive Officers." The Company has a classified Board of Directors consisting of three classes.

JOHN B. SIAS (age 73) has been a Director of the Company since January 1982. Mr. Sias has been President and Chief Executive Officer of Chronicle

Publishing Company from April 1993 to August, 2000. From January 1986 until December 1992, Mr. Sias served as President of ABC Television Network Division and Executive Vice President, Capital Cities/ABC, Inc. From 1977 until January 1986 he was the Executive Vice President, President of the Publishing Division (which includes Fairchild Publications) of Capital Cities Communications, Inc.

JOHN J. DELUCCA (age 57) has been a Director of the Company since January 1982. Since January 1999, Mr. Delucca has been Chief Financial Officer & Executive Vice President, Finance & Administration of Coty, Inc. From October 1993 until January 1999, he was Senior Vice President and Treasurer of RJR Nabisco, Inc. From January 1992 until October 1993, he was managing director and Chief Financial Officer of Hascoe Associates, Inc. From October 1, 1990 to January 1992 he was President of The Lexington Group. From September 1989 until September 1990, he was Senior Vice President-Finance of the Trump Group. From May 1986 until August 1989, he was senior Vice President-Finance at International Controls Corp. From February 1985 until May 1986, he was a Vice President and Treasurer of Textron, Inc. Prior to that he was a Vice President and Treasurer of the Avco Corporation, which was acquired by Textron.

During the fiscal year ended July 31, 2000, there were four formal meetings of the Board of Directors, several actions by unanimous consent and several informal meetings. The Board of Directors has an Audit Committee and Stock Option Committee. The Audit Committee had one formal meeting and the Stock Option Committee had two formal meetings in fiscal 2000.

The Audit Committee is authorized to review proposals of the Company's auditors regarding annual audits, recommend the engagement or discharge of the auditors, review recommendations of such auditors concerning accounting principles and the adequacy of internal controls and accounting procedures and practices, to review the scope of the annual audit, to approve or disapprove each professional service or type of service other than standard auditing services to be provided by the auditors, and to review and discuss the audited financial statements with the auditors. Its members are Shahram K. Rabbani and Messrs. Sias and Delucca.

The Stock Option Committee has the plenary authority in its discretion to determine the purchase price of the Common Stock issuable upon the exercise of each option, to determine the employees to whom, and the time or times at which, options shall be granted and the number of shares to be issuable upon the exercise of each option, to interpret the plans, to prescribe, amend and rescind rules and regulations relating to them, to determine the term and provisions of the respective option agreements and to make all other determinations deemed necessary or advisable for the administration of the plans. Its members are Messrs. Sias and Delucca.

The Company does not have a formal Executive Committee or Nominating Committee of the Board of Directors.

(b) Executive Officers - The following table sets forth the names and positions of all of the current executive officers of the Company:

Name ----	Position -----
Elazar Rabbani, Ph.D.	Chief Executive Officer, Chairman of the Board of Directors
Shahram K. Rabbani	Chief Operating Officer, Secretary, Treasurer
Barry W. Weiner	President
Dean Engelhardt, Ph.D.	Executive Vice President
Norman E. Kelker, Ph.D.	Senior Vice President
Herbert B. Bass	Vice President of Finance
Barbara E. Thalenfeld, Ph.D.	Vice President, Corporate Development
David C. Goldberg	Vice President, Business Development

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DR. ELAZAR RABBANI (age 56) has served as President and a Director of the Company since its organization in 1976. Dr. Rabbani received his B.A. degree from New York University in Chemistry and his Ph.D. degree in Biochemistry from Columbia University. He is a member of the American Society for Microbiology.

SHAHRAM K. RABBANI (age 48) has served as Chief Operating Officer, Secretary, and Treasurer of the Company since November 1996, as Executive Vice President from September 1981 to November 1996 and as Vice President, Treasurer and a Director of the Company since its organization. Mr. Rabbani received a B.A. degree in chemistry from Adelphi University.

BARRY W. WEINER (age 50) has served as President of the Company since November 1996 and as a Director of the Company since its organization. Mr. Weiner served as an Executive Vice President of the Company from September 1981 to November 1996, as a Vice President of the Company from the Company's organization to November 1996 and as Secretary of the Company from March 1980 to November 1996. He was employed by Colgate-Palmolive Company, New York, New York from August 1974 until March 1980, when he joined the Company on a full-time basis. Mr. Weiner received his B.S. degree in Economics from New York University

and M.B.A. from Boston University. Mr. Weiner is a Director of the New York State Biotechnology Association.

DR. DEAN ENGELHARDT (age 60) has served as Executive Vice President since July 13, 2000, as Senior Vice President since January 1989, and as Vice President since September 1981. Prior to joining the Company he was Associate Professor of Microbiology at Columbia University College of Physicians and Surgeons. He obtained his Ph.D. from Rockefeller University.

DR. NORMAN E. KELKER (age 61) has been a Vice President of the Company since September 1981. Effective January 1, 1989, he was promoted to Senior Vice President. From 1975 until he joined the Company, Dr. Kelker was an Associate Professor in the Department of Microbiology of the New York University School of Medicine. He holds a Ph.D. from Michigan State University.

HERBERT B. BASS (age 52) has been Vice President of Finance of the Company since 1986. Prior to his promotion, Mr. Bass was the Corporate Controller of Enzo. Before joining Enzo in 1986, Mr. Bass held various positions at Danziger & Friedman, Certified Public Accountants, from 1979 to 1986, the most recent of which was audit manager. For the preceding seven years he held various positions at Berenson & Berenson, C.P.A.'s. Mr. Bass holds a Bachelor degree in Business Administration from Baruch College.

DR. BARBARA E. THALENFELD (age 60) is Vice President of Corporate Development and has been with Enzo since 1982. Prior to joining the Company she held an NIH research fellowship at Columbia University. She received a Ph.D. from Hebrew University-Hadassah Medical Center and an M.S. from Yale University.

DAVID C. GOLDBERG (age 43) has been Vice President of Business Development. Prior to joining Enzo in 1985, he was employed at DuPont NEN Products. He received an M.S. from Rutgers University and an MBA from New York University.

Dr. Elazar Rabbani and Shahram K. Rabbani are brothers and Barry W. Weiner is their brother-in-law.

Item 11. Executive Compensation

The information required under this item will be set forth in the Company's proxy statement to be filed with the Securities and Exchange Commission on or before November 28, 2000 and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management

The information required under this item will be set forth in the Company's proxy statement to be filed with the Securities and Exchange Commission on or before November 28, 2000 and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions

The information required under this item will be set forth in the Company's proxy statement to be filed with the Securities and Exchange Commission on or before November 28, 2000 and is incorporated herein by reference.

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PART IV

Item 14. Exhibits, Financial Statement Schedules, and Reports on Form 8-K

- (a) (1) Consolidated Financial Statements
 - Consolidated Balance Sheet - July 31, 2000 and 1999
 - Consolidated Statement of Operations-
Years ended July 31, 2000, 1999 and 1998
 - Consolidated Statement of Stockholders' Equity-
Years ended July 31, 2000, 1999 and 1998
 - Consolidated Statement of Cash Flows-
Years ended July 31, 2000, 1999 and 1998
 - Notes to Consolidated Financial Statements.
- (2) Financial Statement Schedule
 - Schedule II - Valuation and Qualifying Accounts

All other schedules have been omitted because the required information is included in the consolidated financial statements or the notes thereto or because they are not required.

(3) Exhibits

The following documents are filed as Exhibits to this Annual Report on Form 10-K:

Exhibit No ----	Description -----
3(a)	Certificate of Incorporation, as amended March 17, 1980.(1)
3(b)	June 16, 1981 Certificate of Amendment of the Certificate of Incorporation.(2)
3(c)	Certificate of Amendment to the Certificate of Incorporation.(11)
3(d)	Bylaws.(1)
10(a)	Investment Agreement between the registrant and Johnson & Johnson Development Corp., dated June 25, 1982.(3)
10(b)	Agreement between the registrant and Ortho Diagnostic System, Inc. dated June 25, 1982.(4)
10(c)	1983 Incentive Stock Option Plan.(5)
10(d)	Letter Agreement between the Company and Ortho Diagnostic Systems, Inc. dated as of January 1, 1985.(6)
10(e)	Restricted Stock Plan.(7)
10(f)	Agreement with First New York Bank for Business.(8)
10(g)	Agreement with BioHealth Laboratories, Inc. shareholders.(9)
10(h)	Agreement with Johnson & Johnson, Inc.(10)
10(i)	1993 Incentive Stock Option Plan.(10)
10(j)	Employment Agreement with Elazar Rabbani.(10)
10(k)	Employment Agreement with Shahram Rabbani.(10)
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10(l)	Employment Agreement with Barry Weiner.(10)
10(m)	1994 Stock Option Plan.(11)
10(n)	Stipulation of Settlement with the City of New York.(12)
10(o)	Agreement with Corange International Limited (Boehringer Mannheim) effective April 1994.(13) (15)
10(p)	Agreement with Amersham International effective February 1995.(12) (20)
10(q)	Agreement with Dako A/S effective May 1995.(12) (15)
10(r)	Agreement with Baxter Healthcare Corporation (VWR Scientific Products) effective September 1995.(12) (15)
10(s)	Agreement with Yale University and amendments thereto.(13) (15)
10(t)	Agreement with The Research Foundation of the State of New York effective May 1987.(12) (15)
10(u)	1999 Stock Option Plan filed.(14)
10(v)	Amendment to Elazar Rabbani's employment agreement filed herein.
10(w)	Amendment to Shahram Rabbani's employment agreement filed herein.
10(x)	Amendment to Barry Weiner's employment agreement filed herein.
10(z)	Lease addendum filed herein.
21	Subsidiaries of the registrant: Enzo Clinical Labs, Inc., a New York corporation. Enzo Diagnostics, Inc., a New York corporation. Enzo Therapeutics, Inc., a New York corporation.
23	Consent of Independent Auditors filed herewith.
27	Financial Data Schedule filed herewith.
	Notes to (a) (3)

- (1) The exhibits were filed as exhibits to the Company's Registration Statement on Form S-18 (File No. 2-67359) and are incorporated herein by reference.
- (2) This exhibit was filed as an exhibit to the Company's Form 10-K for the year ended July 31, 1981 and is incorporated herein by reference.
- (3) This exhibit was filed as an exhibit to the Company's Current Report on Form 8-K dated June 29, 1982 and is incorporated herein by reference.
- (4) This exhibit was filed as an exhibit to the Company's Annual Report on Form 10-K for the year ended July 31, 1983 and is incorporated herein by reference.
- (5) This exhibit was filed with the Company's definitive proxy statement dated February 4, 1983 and is incorporated herein by reference.
- (6) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 1985 and is incorporated herein by reference.
- (7) These exhibits were filed as exhibits to the Company's Quarterly Report on Form 10-Q for the quarter ended January 31, 1986 and are incorporated herein by reference.

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- (8) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 1992 and is incorporated herein by reference.
- (9) This exhibit was filed as an exhibit to the Company's Registration Statement on Form S-3 (33-72170) and is incorporated herein by reference.
- (10) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 1994 and is incorporated herein by reference.
- (11) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 1995 and is incorporated herein by reference.
- (12) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 1996 or previously filed Amendment thereto and is incorporated by reference.
- (13) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 1997 or previously filed Amendment thereto and is incorporated by reference.
- (14) This exhibit was filed with the Company's Registration Statement on Form S-8 (333-87153) and is incorporated herein by references
- (15) These exhibits are subject to a confidential treatment request pursuant to Securities Exchange Act Rule 24b-2
 - (b) The Company's Current Reports on Form 8-K filed during the quarter ended July 31, 2000 -- none
 - (c) See Item 14(a)(3), above.
 - (d) See Item 14(a)(2), above.

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S I G N A T U R E S

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

ENZO BIOCHEM, INC.

Date: October 27, 2000

By: /s/ Elazar Rabbani Ph.D.

Chairman of the Board

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

By: Elazar Rabbani Ph.D.

October 27, 2000

Elazar Rabbani
Chairman of Board of Directors

(Principal Executive Officer)

By: Shahram K. Rabbani

October 27, 2000

Shahram K. Rabbani,
Chief Operating Officer, Secretary
and Director (Principal Financial and
Accounting Officer)

By: Barry W. Weiner

October 27, 2000

Barry W. Weiner,
President and Director

John B. Sias, Director

John J. Delucca, Director

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FORM 10-K, ITEM 14(a) (1) and (2)
ENZO BIOCHEM, INC.

LIST OF CONSOLIDATED FINANCIAL STATEMENTS AND
FINANCIAL STATEMENT SCHEDULE

The following consolidated financial statements and financial statement schedule of Enzo Biochem, Inc. are included in Item 14(a):

Report of Independent Auditors	F-2
Consolidated Balance Sheet -- July 31, 2000 and 1999	F-3
Consolidated Statement of Operations -- Years ended July 31, 2000, 1999 and 1998	F-4
Consolidated Statement of Stockholders' Equity -- Years ended July 31, 2000, 1999 and 1998	F-5
Consolidated Statement of Cash Flows -- Years ended July 31, 2000, 1999 and 1998	F-6
Notes to Consolidated Financial Statements	F-8
Schedule II - Valuation and Qualifying Accounts -- Years ended July 31, 2000, 1999 and 1998	F-19

All other schedules for which provision is made in the applicable accounting regulation of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore have been omitted.

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Report of Independent Auditors

Board of Directors and Stockholders
Enzo Biochem, Inc.

We have audited the accompanying consolidated balance sheets of Enzo Biochem, Inc. (the "Company") as of July 31, 2000 and 1999, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended July 31, 2000. Our audits also included the financial statement schedule listed in the Index at Item 14(a). These financial

statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of Enzo Biochem, Inc. at July 31, 2000 and 1999 and the consolidated results of its operations and its cash flows for each of the three years in the period ended July 31, 2000, in conformity with accounting principles generally accepted in the United States. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

/s/ Ernst & Young LLP

Melville, New York
October 16, 2000

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ENZO BIOCHEM, INC.
CONSOLIDATED BALANCE SHEET
July 31, 2000 and 1999

<TABLE> <CAPTION>	ASSETS	2000	
1999		----	

<S>		<C>	<C>
Current assets:			
Cash and cash equivalents		\$ 51,027,000	\$
43,218,000			
Accounts receivable, less allowance for doubtful accounts of \$5,890,000		20,211,200	
in 2000 and \$6,027,000 in 1999			
15,007,700			
Inventories		1,798,900	
1,426,700			
Deferred taxes		3,008,500	
1,186,300			
Other		1,071,100	
846,700			
-----		-----	----
Total current assets		77,116,700	
61,685,400			
Property and equipment, at cost less accumulated depreciation and amortization		2,800,600	
2,824,200			
Cost in excess of fair value of net tangible assets acquired, less accumulated		8,193,200	
amortization of \$4,610,100 in 2000 and \$4,239,600 in 1999			
8,563,700			
Deferred patent costs, less accumulated amortization of \$4,802,800 in 2000 and		4,047,900	
\$4,080,400 in 1999			
4,311,900			
Deferred taxes		--	
1,388,700			
Other		126,800	
127,000			
-----		-----	----
		\$ 92,285,200	\$
78,900,900		=====	
=====			
	LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liability:			
Trade accounts payable		\$ 1,470,500	\$
1,196,100			
Income taxes payable		375,700	

300,000		
Accrued legal fees	664,600	
65,000		
Accrued payroll	301,400	
364,000		
Other accrued expenses	812,100	
437,300		
-----		----
Total current liabilities	3,624,300	
2,362,400		
Deferred taxes	688,900	
--		
Deferred liability	795,700	
890,500		
Commitments and contingencies (Notes 5, 6, and 9)		
Stockholders' equity:		
Preferred Stock, \$.01 par value; authorized 25,000,000 shares; no shares		
issued or outstanding Common Stock, \$.01 par value; authorized 75,000,000		
shares; shares issued and outstanding:		
25,583,700 in 2000 and 24,957,700 in 1999	255,800	
249,600		
Additional paid-in capital	97,349,600	
92,452,200		
Accumulated deficit	(10,429,100)	
(17,053,800)		
-----		----
Total stockholders' equity	87,176,300	
75,648,000		
-----		----
	\$ 92,285,200	\$
78,900,900		
=====	=====	

</TABLE>

See accompanying notes.

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ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENT OF OPERATIONS
Years ended July 31, 2000, 1999 and 1998

<TABLE>			
<CAPTION>			
	2000	1999	1998
	----	----	----
-			
<S>	<C>	<C>	<C>
Revenues:			
Research product revenues	\$ 18,553,500	\$ 16,278,600	\$
12,660,900			
Clinical laboratory services	31,475,100	28,040,800	
27,756,100			

	50,028,600	44,319,400	
40,417,000			
Costs and expenses:			
Cost of research product revenues	7,521,700	7,883,700	
7,496,600			
Cost of clinical laboratory services	8,505,700	8,285,000	
8,247,200			
Research and development expense	5,430,900	4,427,000	
3,983,500			
Selling expense	3,240,800	2,782,800	
2,728,000			
Provision for uncollectable accounts receivable	11,294,000	9,960,800	
9,627,500			
General and administrative expense	8,951,700	7,577,400	
7,648,600			

	44,944,800	40,916,700	
39,731,400			
-----	-----	-----	-----

Income before interest income, and (provision) benefit for taxes on 685,600 income	5,083,800	3,402,700	
Interest income, net 1,884,600	2,584,600	1,983,900	
-----	-----	-----	-----
Income before (provision) benefit for taxes on income 2,570,200	7,668,400	5,386,600	
(Provision) benefit for taxes on income 821,600	(1,043,700)	1,128,400	
-----	-----	-----	-----
Net income 3,391,800	\$ 6,624,700	\$ 6,515,000	\$
=====	=====	=====	
Net income per common share:			
Basic .14	\$.26	\$.26	\$
=====	=====	=====	
Diluted .13	\$.25	\$.26	\$
=====	=====	=====	
Denominator for per share calculation:			
Basic 24,653,000	25,330,000	24,933,000	
=====	=====	=====	
Diluted 25,746,000	26,986,000	25,477,000	
=====	=====	=====	

</TABLE>

See accompanying notes.

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ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
Years ended July 31, 2000, 1999 and 1998

<TABLE>				
<CAPTION>				
Total	Common	Common	Additional	
Accumulated Shareholders'	Stock	Stock	Paid-in	
Equity	Shares	Amount	Capital	Deficit
--	-----	-----	-----	-----
<S>	<C>	<C>	<C>	<C>
<C>				
Balance at July 31, 1997	23,329,900	\$ 233,300	\$ 90,736,200	
\$(26,960,600) \$ 64,008,900				
Increase in common stock and paid-in capital due to 5% stock dividend (fair value on date declared \$18,010,800)	1,166,500	11,700	(11,700)	--
--				
Net income for the year ended July 31, 1998	--	--	--	3,391,800
3,391,800				
Increase in common stock and paid-in capital due to exercise of stock options and warrants	399,200	4,000	1,093,800	--
1,097,800				
Increase in paid-in capital due to issuance of warrants				
Exchange of stock for debt, net of offering costs as compensation for services performed	--	--	150,000	--

150,000				
Issuance of stock for employee 401(k) plan 134,500	9,700	100	134,400	--
--	-----	-----	-----	-----
Balance at July 31, 1998 (23,568,800) 68,783,000	24,905,300	249,100	92,102,700	
Net income for the year ended July 31, 1999 6,515,000	--	--	--	6,515,000
Increase in common stock and paid-in capital due to exercise of stock options and warrants 162,500	34,200	300	162,200	--
Issuance of stock for employee 401(k) plan 187,500	18,200	200	187,300	--
--	-----	-----	-----	-----
Balance at July 31, 1999 (17,053,800) 75,648,000	24,957,700	249,600	92,452,200	
Net income for the year ended July 31, 2000 6,624,700	--	--	--	6,624,700
Increase in common stock and paid-in capital due to exercise of stock options and warrants 4,126,200	621,600	6,100	4,120,100	--
Issuance of stock for employee 401(k) plan 201,600	4,400	100	201,500	--
Increase in paid-in capital due to issuance of warrants as compensation for services performed 100,000	--	--	100,000	--
Tax benefit from stock options exercised 418,400	--	--	418,400	--
Increase in paid-in capital due to stock issued for services performed 57,400	--	--	57,400	--
--	-----	-----	-----	-----
Balance at July 31, 2000 (\$10,429,100) \$ 87,176,300	25,583,700	\$ 255,800	\$ 97,349,600	
=====	=====	=====	=====	=====

</TABLE>
See accompanying notes.

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ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENT OF CASH FLOWS
Years ended July 31, 2000, 1999 and 1998

<TABLE> <CAPTION>	2000	1999	
1998	----	----	

<S>	<C>	<C>	<C>
Cash flows from operating activities:			
Net income	\$ 6,624,700	\$ 6,515,000	\$
3,391,800			
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization of property and equipment	832,100	883,300	
853,000			
Amortization of costs in excess of fair value of net tangible assets acquired	370,500	370,500	
370,500			
Amortization of deferred patent costs	722,400	677,800	
640,000			
Provision for uncollectible accounts receivable	11,294,000	9,960,800	
9,627,500			
Deferred income tax provision (benefit)	255,400	(1,550,000)	
(1,025,000)			
Issuance of warrants as compensation for services performed	100,000	--	
150,000			
Issuance of stock as compensation for services performed	57,400	--	

--			
Other	--	--	
6,600			
Accretion of interest on note receivable	--	(58,400)	
(253,000)			
Issuance of stock for employee 401(k) plan	201,600	187,500	
134,500			
Deferred liability	(94,800)	(64,500)	
(35,500)			
Changes in operating assets and liabilities:			
Note receivable - litigation settlement	--	5,000,000	
5,000,000			
Accounts receivable before provision for uncollectible amounts	(16,497,500)	(10,772,100)	
(11,838,500)			
Inventories	(372,200)	(33,700)	
166,000			
Other assets	160,600	(2,800)	
967,500			
Trade accounts payable and accrued expenses	246,200	(199,300)	
211,900			
Income taxes payable	494,100	136,000	
36,000			
Accrued legal fees	599,600	15,000	
(5,800)			
Accrued payroll	(62,600)	4,200	
(142,000)			
	-----	-----	---
Total adjustments	(1,693,200)	4,554,300	
4,863,700			
	-----	-----	---
Net cash provided by operating activities	4,931,500	11,069,300	
8,255,500			

</TABLE>

(Continued on following page.)
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ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENT OF CASH FLOWS
Years ended July 31, 2000, 1999, and 1998

<TABLE>
<CAPTION>

	2000	1999	1998
	----	----	----
<S>	<C>	<C>	<C>
Cash flows from investing activities:			
Capital expenditures	\$ (790,500)	\$ (1,137,600)	\$ (577,700)
Patent costs deferred	(458,400)	(431,000)	(441,100)
Decrease in security deposits	200	21,200	4,200
	-----	-----	-----
Net cash used in investing activities	(1,248,700)	(1,547,400)	(1,014,600)
Cash flows from financing activities:			
Payments of obligations under capital leases	--	(8,900)	(8,900)
Proceeds from the exercise of stock options and warrants	4,126,200	162,500	1,097,800
Payment of long term debt	--	--	(37,700)
	-----	-----	-----
Net cash provided by financing activities	4,126,200	153,600	1,051,200
	-----	-----	-----
Net increase in cash and cash equivalents	7,809,000	9,675,500	8,292,100
Cash and cash equivalents at the beginning of the year	43,218,000	33,542,500	25,250,400
	-----	-----	-----
Cash and cash equivalents at the end of the year	\$ 51,027,000	\$ 43,218,000	\$ 33,542,500
	=====	=====	=====

</TABLE>

See accompanying notes.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
July 31, 2000, 1999, and 1998

Note 1 - Business and summary of significant accounting policies

Business

Enzo Biochem, Inc. (the "Company") is engaged in research, development, manufacturing and marketing of diagnostic and research products based on genetic engineering, biotechnology and molecular biology. These products are designed for the diagnosis of and/or screening for infectious diseases, cancers, genetic defects and other medically pertinent diagnostic information. The Company is conducting research and development activities in the development of therapeutic products based on the Company's technology platform of genetic modulation and immune modulation. The Company also operates a clinical reference laboratory that offers and provides diagnostic medical testing services to the health care community.

Summary of significant accounting policies

Principles of consolidation

The accompanying consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany transactions and balances have been eliminated.

Cash and cash equivalents

The Company considers all highly liquid debt instruments purchased with maturities of three months or less to be cash equivalents.

Cash equivalents consist of short-term debt securities of domestic companies that the Company intends to hold to maturity which is approximately three months from date purchased. The market values of these securities, as determined by quoted sources, aggregated \$49,789,900 and \$ 42,637,800 at July 31, 2000 and 1999, respectively, and approximated cost at the respective dates.

Concentration of credit risk

Approximately 82% and 88% at July 31, 2000 and 1999, respectively, of the Company's net accounts receivable relates to its clinical reference laboratory business which operates in the New York Metropolitan area. The Company believes that the concentration of credit risk with respect to accounts receivable is limited due to the diversity of the Company's client base. However, the Company provides services to certain patients covered by various third-party payors, including the Federal Medicare program. Revenue, net of contractual allowances, from direct billings under the Federal Medicare program during July 31, 1998 was approximately 10% of the Company's total revenue. For the years ended July 31, 2000 and 1999, there were no payors with revenue, net of contractual allowances, from direct billings accounting for more than 10% of the Company's total revenues.

At July 31, 2000 and 1999, 5% and 2% of the Company's net accounts receivable relate to amounts due from the one major distributor, under a non-exclusive distribution and supply agreement. Research product revenues from the distributor represented approximately 16%, 22% and 21% of consolidated operating revenues in fiscal 2000, 1999 and 1998, respectively.

Inventories

Inventories are stated at the lower of cost (first-in, first-out method) or market.

Property and equipment

Property and equipment are stated at cost, and depreciated on the straight-line and accelerated methods over the estimated useful lives of the assets. Leasehold improvements are amortized over the term of the related leases or estimated useful lives of the assets, whichever is shorter.

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ENZO BIOCHEM, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
July 31, 2000, 1999 and 1998

Note 1 - Business and summary of significant accounting policies (Cont'd)

Amortization of intangible assets

The cost in excess of fair value of net tangible assets acquired is being amortized on the straight-line method over periods of fifteen to forty years.

Patent costs

The Company has filed applications for United States and foreign patents covering certain aspects of its technology. The costs incurred in filing such applications have been deferred and are amortized over the estimated useful lives of the patents beginning upon issue. Costs related to unsuccessful patent applications are expensed.

Revenue Recognition

Revenues from services from the clinical reference laboratory are recognized when services are provided. The Company's revenue is based on amounts billed or billable for services rendered, net of contractual adjustments and other arrangements made with third-party payors to provide services at less than established billing rates. Revenues from research product sales are recognized when the products are shipped.

Reimbursement Contingencies

Laws and regulations governing the Medicare program are complex and subject to interpretation for which action for noncompliance includes fines, penalties and exclusion from the Medicare program. The Company believes that it is in compliance with all applicable laws and regulations and is not aware of any pending or threatened investigations involving allegations of potential wrongdoing.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amount of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and amounts of income and expenses during the reporting period. Actual results could differ from those estimates.

Income Taxes

The Company accounts for income taxes under Statement of Financial Accounting Standards ("SFAS") No. 109, "Accounting for Income Taxes" ("SFAS No. 109"). SFAS No. 109 requires the liability method of accounting for income taxes. Under the liability method of SFAS No. 109, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. SFAS No. 109 requires that any tax benefits recognized for net operating loss carryforwards and other items be reduced by a valuation allowance where it is more likely than not that the benefits may not be realized. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Under SFAS No. 109, the effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

Impairment of long-lived assets

In accordance with SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of" ("SFAS No. 121"), the Company evaluates the requirement to recognize impairment losses on long-lived assets used in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount. Company management believes that no impairment to its long-lived assets has occurred.

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ENZO BIOCHEM, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
July 31, 2000, 1999 and 1998

Note 1 - Business and summary of significant accounting policies (Cont'd)

Effect of recently issued accounting pronouncements

In December 1999, the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin No. 101 "Revenue Recognition" ("SAB 101"), which provides guidance on the recognition, presentation and disclosure of revenue in financial statements filed with the SEC. SAB 101 outlines the basic criteria that must be met to recognize revenue and provides guidance for disclosures related to revenue recognition policies. In recent actions, the SEC has further delayed the required implementation date which, for the Company, will be no later than the fourth quarter of fiscal 2001, retroactive to the beginning of the fiscal year. Although the Company cannot fully assess the impact of SAB 101 at this time, the Company's preliminary conclusion is that the implementation of SAB 101 will not have a material effect on the timing of when the Company recognizes revenue.

In July, 2000 the Financial Accounting Standards Board's Emerging Issues Task Force (EITF or Task Force) reached a consensus on Issue No. 99-19, "Reporting Revenue Gross as a Principal versus Net as an Agent" (Issue 99-19). This Issue

interprets SAB 101 and addresses when a company should report revenue as the gross amount billed to a customer versus the net amount earned by the company in the transaction. At the EITF's July 2000 meeting, the Task Force reached a conclusion that specific "indicators" should be used by companies to determine if it is more appropriate for them to record revenues on a "gross" versus a "net" basis. These "indicators" include, but are not limited to, 1) whether the vendor is the primary obligor in the transaction, 2) whether the vendor assumes general inventory risk, and 3) whether the vendor has latitude for setting the pricing for the goods or services it sells to its customers. Absence of these indicators might indicate that revenue should be recorded on a "net" basis. However, these three indicators are not considered by the Task Force to be presumptive, and their absence would not necessarily require that revenue be recorded on a "net" basis. Instead, additional indicators, prepared by the Task Force, should also be evaluated based on a facts and circumstances basis to determine the appropriate revenue reporting.

Currently, the Company reports revenue from certain non-exclusive distribution agreements under the "gross" method based on amounts billed to their customers. If the Company were to have to change their revenue reporting to the "net" method, the Company would record revenue equal to net amounts earned (i.e. the gross profit) under certain non-exclusive distribution agreements. The Company would have to apply the Consensus reached under Issue 99-19 no later than the fourth quarter of fiscal 2001. Upon application, prior period financial statements would be reclassified to conform to the Consensus. Application of Issue 99-19 would have no impact on previously reported gross profit, operating income, or net income, but could result in the Company reporting lower revenues from certain non-exclusive distribution agreements for all periods presented. The Company is currently reviewing the Consensus and related indicators to determine the impact that the Consensus may have on the way the Company reports certain non-exclusive distribution agreement revenues.

Net income per share

The Company reports basic and diluted earnings per share in accordance with SFAS No. 128, "Earnings Per Share" ("SFAS No. 128"). Basic earnings per share excludes any dilutive effects of options and warrants. Diluted earnings per share includes the dilutive effects of common stock equivalents such as stock options and warrants.

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ENZO BIOCHEM, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
July 31, 2000, 1999 and 1998

Note 1 - Business and summary of significant accounting policies (Cont'd)

The following table sets forth the computation of basic and diluted net income per share pursuant to SFAS No. 128.

<TABLE>
<CAPTION>

	2000 ----	1999 ----	1998 ----
<S>	<C>	<C>	<C>
Numerator:			
Net income for numerator for basic and diluted net income per common share	\$6,624,700 =====	\$ 6,515,000 =====	\$3,391,800 =====
Denominator:			
Denominator for basic net income per common share-weighted- average shares	25,330,000	24,933,000	24,653,000
Effect of dilutive employee and director stock options and warrants (a)	1,656,000 -----	544,000 -----	1,093,000 -----
Denominator for diluted net income per share-adjusted weighted- average shares	26,986,000 =====	25,477,000 =====	25,746,000 =====
Basic net income per share	\$.26 =====	\$.26 =====	\$.14 =====
Diluted net income per share	\$.25 =====	\$.26 =====	\$.13 =====

</TABLE>

(a) Potentially dilutive employee and director stock options and warrants that have been excluded from this amount because they are anti-dilutive amounted to 0, 724,000 and 89,000 in fiscal 2000, 1999 and 1998, respectively.

Note 2 - Supplemental disclosure for statement of cash flows

For the year ended July 31, 1998, the Company paid cash for interest of approximately \$5,000.

For the years ended July 31, 2000, 1999 and 1998, the Company paid cash for income taxes of approximately \$294,000, \$286,000 and \$176,000 respectively.

Note 3 - Inventories

At July 31, 2000 and 1999 inventories consist of:

	2000	1999
	----	----
Raw materials	\$ 94,800	\$ 108,100
Work in process	1,040,000	833,400
Finished products	664,100	485,200
	-----	-----
	\$1,798,900	\$1,426,700
	=====	=====

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ENZO BIOCHEM, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
July 31, 2000, 1999 and 1998

Note 4 - Property and equipment

At July 31, 2000 and 1999, property and equipment consist of:

	2000	1999
	----	----
Laboratory machinery and equipment	\$ 2,551,600	\$ 2,349,200
Leasehold improvements	2,470,800	2,266,500
Office furniture and equipment	5,107,600	4,848,800
	-----	-----
	10,130,000	9,464,500
Accumulated depreciation and amortization	7,329,400	6,640,300
	-----	-----
	\$ 2,800,600	\$ 2,824,200
	=====	=====

Note 5 - Lease obligations

Enzo Clinical Labs, Inc. ("Enzo Clinical Labs"), a wholly-owned subsidiary of the Company, leases its office and laboratory space under several leases that expire between December 31, 2000 and November 30, 2004. Certain officers and directors of the Company own the building that Enzo Clinical Labs uses as its main facility. In addition to the minimum annual rentals of space, this lease is subject to an escalation clause. Rent expense under this lease approximated \$1,017,000, \$986,000 and \$924,000 in fiscal 2000, 1999 and 1998, respectively.

Total consolidated rent expense incurred by the Company during fiscal 2000, 1999 and 1998 was approximately \$1,547,000, \$1,527,000 and \$1,382,000 respectively. Minimum annual rentals under operating lease commitments for fiscal years ending July 31 are as follows:

2001	\$1,279,000
2002	1,234,000
2003	1,252,000
2004	1,055,000
2005	318,000

	\$5,138,000
	=====

Note 6 - Litigation

Patent Infringement - Calgene, Inc.

In March 1993, the Company filed suit in the United States District Court for the District of Delaware charging patent infringement and acts of unfair competition against Calgene, Inc. and seeking a declaratory judgment of invalidity concerning Calgene, Inc.'s plant antisense patent. On February 9, 1994, the Company filed a second suit in the United States District Court for the District of Delaware charging Calgene with infringement of a second antisense patent owned by the Company. Calgene filed a counterclaim in the second Delaware action seeking a declaration that a third patent belonging to the Company is invalid. The two Delaware actions were consolidated and were tried to the Court in April 1995. In addition, the Company filed suit on March

22, 1994 in the United States District Court for the Western District of Washington against Calgene and the Fred Hutchinson Cancer Research Center, alleging that the defendants had conspired to issue a false and misleading press release regarding a supposed "patent license" from Hutchinson to Calgene, and conspired to damage the Company's antisense patents by improperly using confidential information to challenge them in the Patent Office. The Complaint further charges that Hutchinson is infringing and inducing Calgene to infringe the Company's antisense patents. On February 2, 1996, the Delaware Court issued an opinion ruling against Enzo and in favor of Calgene, finding certain Enzo claims infringed, but the patent, as a whole not infringed, and finding the claims at issue for lack of enablement. Calgene's patent was found valid (non-obvious) over the prior art. On February 29, 1996, the Delaware Court issued an Order withdrawing its February 2, 1996 Opinion. On April 3, 1997, the European Patent Office rejected Calgene's opposition that had been lodged against the Company's related European antisense patent, thereby upholding the patent's validity. On May 23, 1997, the Japanese Patent Office issued a related antisense patent owned by the Company.

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ENZO BIOCHEM, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
July 31, 2000, 1999 and 1998

Note 6 - Litigation (Continued)

On June 1, 1998, the U.S. District Court for the District of Delaware issued its final decision in the case. In its decision the District Court held two of the Company's three antisense patents were invalid, and not infringed. The District Court declined to act on Calgene's claim that the Company's third antisense patent was invalid, citing lack of evidence. The District Court further held that the Calgene antisense patent was not invalid. Enzo appealed the District Court's judgment to the U.S. Court of Appeals for the Federal Circuit and Calgene cross-appealed. On September 24, 1999, the Court of Appeals issued its decision, rejecting Calgene's effort to invalidate Enzo's patent in genetic antisense technology, U.S. Patent No. 5,272,065, thus leaving it valid and standing. The Court of Appeals also clarified the District Court's judgment regarding two other of Enzo's genetic antisense patents (5,190,931 and 5,208,149), limiting judgment of invalidity only to the claims of the two patents which had been asserted against Calgene. The Court of Appeals remanded the case to the district court for determination of whether the case was exceptional, which related to Calgene's claim for attorney fees. On October 7, 1999, Calgene filed a petition for rehearing directed to the Court of Appeal's disposition of Calgene's cross-appeal as to Enzo's '065' patent. The petition was denied on December 1, 1999. There can be no assurance that the Company will be successful in connection with Calgene's petition for rehearing and Calgene's claim that the case is exceptional, which will be the subject of further proceedings in the District Court. However, even if the Company is not successful, management does not believe there will be a significant monetary impact.

Patent Infringement - Other

In June 1999, the Company filed suit in the United States District Court for the Southern District of New York against Gen-Probe Incorporated, Chugai Pharma U.S.A., Inc., Chugai Pharmaceutical Co., Ltd., bioMerieux, Inc., bioMerieux SA, and Becton Dickinson and Company, charging them with infringing the Company's U.S. Patent 4,900,659, which concerns probes for the detection of the bacteria that causes gonorrhoea. The case remains at an early stage. There can be no assurance that the Company will be successful in these proceedings. However, even if the Company is not successful, management does not believe that there will be a significant monetary impact.

Note 7 - Income taxes

The tax (provision) benefit is calculated under the provisions of SFAS No. 109.

<TABLE>
<CAPTION>

	2000 ----	1999 ----	1998 ----
<S>	<C>	<C>	<C>
Current			
Federal	\$ (616,300)	\$ (108,000)	\$ (76,000)
State and local	(172,000)	(313,600)	(127,400)
Deferred	(255,400)	1,550,000	1,025,000
	-----	-----	-----
(Provision) benefit for income taxes	\$ (1,043,700)	\$ 1,128,400	\$ 821,600
	=====	=====	=====

</TABLE>

Current Federal income taxes provided for in fiscal 2000, 1999 and 1998 are based on the alternative minimum tax method.

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 ENZO BIOCHEM, INC.
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 July 31, 2000, 1999 and 1998

Note 7 - Income taxes (Continued)

Deferred income taxes arise from temporary differences between the tax basis of assets and liabilities and their reported amounts in the financial statements. The components of deferred income taxes are as follows:

	2000 ----	1999 ----
Deferred tax liability:		
Deferred patent costs	\$ (1,693,600)	\$ (1,804,000)
Deferred tax assets:		
Provision for uncollectable accounts receivable	914,500	1,517,000
Net operating loss carry forwards	2,023,400	4,473,000
Alternative minimum tax credits	742,500	586,000
Other	332,800	373,000
	-----	-----
	4,013,200	6,949,000
Valuation allowance for deferred tax assets	--	(2,570,000)
	-----	-----
Net deferred tax asset	\$ 2,319,600	\$ 2,575,000
	=====	=====

In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax asset will be realized. The ultimate realization of the deferred tax asset is dependent upon the generation of future taxable income. Management considers scheduled reversals of deferred tax liabilities, projected future taxable income and tax planning strategies which can be implemented by the Company in making this assessment. The Company had provided a full valuation allowance for the net deferred tax asset at July 31, 1997. In fiscal 1999 and 1998, management reversed a portion of the deferred tax asset valuation allowance as management considered that it was more likely than not that a portion of the deferred tax asset would be realized. The valuation allowance decreased \$2,570,000, \$3,928,000 and \$2,326,000 in fiscal 2000, 1999 and 1998, respectively.

The Company has net operating loss carry forwards of approximately \$4,924,000 which are due to expire through 2011. The Company realized a benefit from the utilization of net operating loss carryforwards of \$2,450,000, \$2,306,000 and \$1,877,000 in fiscal 2000, 1999 and 1998, respectively. The Company also has alternative minimum tax credits which do not expire.

The provision (benefit) for income taxes were at rates different from U.S. federal statutory rates for the following reasons:

<TABLE>
 <CAPTION>

	2000 ----	1999 ----	1998 ----
<S>	<C>	<C>	<C>
Federal statutory rate	34%	34%	34%
Expenses not deductible for income tax return purposes	4%	4%	7%
State income taxes, net of federal tax deduction and change in deferred tax asset valuation reserve	9%	--	(2%)
Change in deferred tax asset valuation reserve and benefits recognized from net operating losses	(33%)	(59%)	(71%)
	---	---	---
	14%	(21%)	(32%)
	===	===	===

</TABLE>

Note 8 - Stock options and warrants

The Company follows the disclosure provisions of SFAS No. 123. SFAS No. 123 defines a fair value method of accounting for the issuance of stock options and other equity instruments. Under the fair value method, compensation cost is measured at the grant date based on the fair value of the award and is recognized over the service period, which is usually the vesting period. Pursuant to SFAS No. 123, companies are encouraged, but are not required, to adopt the fair value method of accounting for employee stock-based transactions. Companies are also permitted to continue to account for such transactions under Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," but are required to disclose in a note to the consolidated financial statements proforma net income and per share amounts as if the Company had applied the new method of accounting. SFAS No. 123 also requires increased disclosures for stock-based compensation arrangements.

ENZO BIOCHEM, INC.
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 July 31, 2000, 1999 and 1998

Note 8 - Stock options and warrants (Continued)

The Company has elected to comply with Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB 25") and related Interpretations, in accounting for its stock options because, as discussed below, the alternative fair value accounting provided for under SFAS No. 123, requires use of option valuation models which were not developed for use in valuing employee stock options. Under APB 25, because the exercise price of the Company's employee stock options equals the market price of the underlying stock on the date of grant, no compensation expense is recognized.

The Company has an incentive stock option plan and a restricted stock incentive plan and has issued other options and warrants, as described below.

Incentive stock option plan

The Company has an incentive stock option plan ("1983 plan") under which the Company may grant options for up to 1,041,863 shares of common stock. No additional options may be granted under the 1983 plan. The exercise price of options granted under such plan is equal to or greater than fair market value of the common stock on the date of grant. The Company has stock option plans ("1993 plan" and "1994 plan") under which the Company may grant options for up to 1,736,438 shares (1993 plan) and for up to 1,099,744 shares (1994 plan) of common stock. No additional options may be granted under the 1993 plan or the 1994 plan. In fiscal 1999, the Company set up a new incentive stock option plan ("1999 plan") under which the Company may grant up to 950,000 shares of common stock. The options granted pursuant to the plans may be either incentive stock options or nonstatutory options. To date, the Company has only granted incentive stock options under these plans.

A summary of the information pursuant to the Company's stock option plans for the years ended July 31, 2000, 1999 and 1998 under SFAS No. 123 is as follows:

<TABLE>
<CAPTION>

	2000		1999		1998	
	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Outstanding at beginning of year	2,700,939	\$ 8.98	2,169,251	\$ 9.15	2,124,989	\$ 8.13
Granted	84,000	25.38	603,500	8.41	273,000	13.51
Exercised	(571,650)	7.04	(26,432)	5.98	(212,612)	3.72
Terminated	(17,964)	11.93	(45,380)	13.40	(16,126)	12.41
Outstanding at end of year	2,195,325	\$ 10.08	2,700,939	\$ 8.98	2,169,251	\$ 9.15
Exercisable at end of year	1,554,465	\$ 9.42	1,793,183	\$ 8.40	1,602,767	\$ 8.51
Weighted average fair value of options granted during year	\$ 19.50		\$ 5.80		\$ 9.40	

</TABLE>

ENZO BIOCHEM, INC.
 NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 July 31, 2000, 1999 and 1998

Note 8 - Stock options and warrants (Continued)

The following table summarizes information for stock options outstanding at July 31, 2000:

<TABLE>
<CAPTION>

Exercisable	Options Outstanding			Options	
	Range of Weighted-Average Exercise prices	Shares	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Shares
<S>	<C>	<C>	<C>	<C>	<C>
<C>					
\$1.61	\$1.29-\$2.93	66,608	.54 years	\$1.61	66,608
4.21	\$3.89-\$6.59	52,826	2.25 years	4.21	52,826
8.34	\$6.70-\$9.83	1,172,645	4.96 years	8.08	951,301
12.98	\$10.13-\$13.38	777,901	7.25 years	12.24	454,986
16.64	\$15.71-\$21.37	110,345	8.05 years	19.49	28,744
	\$43.81	15,000	9.46 years	43.81	---
		2,195,325			1,554,465

</TABLE>

Incentive stock options generally become exercisable at 25% per year after one year and expire ten years after the date of grant.

Pro-forma information regarding net income and net income per share is required by SFAS No. 123, and has been determined as if the Company had accounted for its stock options under the fair value method of that statement. The fair value for these options was estimated at the date of grant using a Black-Sholes option pricing model with the following assumptions: risk free interest rate ranging from 4.54% to 6.88%; no dividend yield; volatility factor of the expected market price of the Company's common stock of .69 for grants during July 31, 1998, .68 for grants during fiscal year 1999 and .80 for grants during fiscal year 2000, and a weighted-average expected life of the options of 7 years at July 31, 2000, 1999 and 1998.

The Black-Sholes option valuation model was developed for use in estimating the fair value of traded options which have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions including the expected stock price volatility. Because the Company's stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of its employee stock options.

For purposes of pro forma disclosures, the estimated fair value of the options is amortized to expense over the options' vesting period. The Company's pro forma information is as follows:

	2000	1999	1998
<S>	<C>	<C>	<C>
Pro forma net income:	\$4,278,000	\$4,426,080	\$1,841,000
Pro forma net income per share:			
Basic	\$.17	\$.18	\$.08
Diluted	\$.16	\$.18	\$.07

The SFAS No. 123 method of accounting has not been applied to options granted prior to Aug 1, 1995. As a result, the pro forma compensation cost may not be representative of that to be expected in future years.

Restricted stock incentive plan

The Company has a restricted stock incentive plan whereby the Company may award up to 231,525 shares of its common stock. Under the terms of the plan, any shares issued are restricted in regard to sales and transfers for a period of five years after award. Such restrictions begin to expire at 25% per year after the second year of ownership. As of July 31, 2000, the Company has not awarded any shares of common stock under this plan.

Note 8 - Stock options and warrants (Continued)

Warrants

In November 1991, the Company issued warrants to purchase 297,510 shares of common stock with an exercise price of \$1.72 per share expiring ten years after the date of issue. In fiscal 2000, 1999 and 1998, 7,460, 7,800 and 186,579 of these warrants were exercised, respectively. In fiscal 1996, the Company issued warrants to purchase 89,854 shares of common stock with an exercise price ranging from \$9.06 to \$15.87 per share which expire five years after the date of issue. In fiscal 2000, 42,490 of these warrants were exercised and 24,212 were canceled. As of July 31, 2000, there are no warrants outstanding.

As of July 31, 2000, the Company has reserved 4,211,133 shares under the arrangements described above.

Note 9 - Commitments

The Company has an exclusive licensing agreement to an invention covered by licensed patents. Under this agreement, the Company is required to make certain minimum royalty payments with a minimum of \$200,000 per year through the life of the patents.

Note 10 - Employee benefit plan

The Company has a qualified Salary Reduction Profit Sharing Plan (the "Plan") for eligible employees under Section 401(k) of the Internal Revenue Code. The Plan provides for voluntary employee contributions through salary reduction and voluntary employer contributions at the discretion of the Company. For the years ended July 31, 2000, 1999 and 1998, the Company has authorized employer contributions of 50% of the employees' contribution up to 6% of the employees' compensation in Enzo Biochem, Inc. common stock. The 401(k) employer contributions expense, which was funded by stock issuances, was \$201,600, \$187,500 and \$134,500 in fiscal years 2000, 1999, and 1998, respectively.

Note 11 - Quarterly financial data (unaudited)

Unaudited quarterly financial data (in thousands, except per share amounts) for fiscal 2000 is summarized as follows:

<TABLE>
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	Three Months Ended			
	October 31, 1999	January 31, 2000	April 30, 2000	July 31, 2000
<S>	<C>	<C>	<C>	<C>
Revenues	\$11,612	\$11,564	\$12,579	\$14,274
Gross profit	7,634	7,937	8,592	9,838
Income before (provision) benefit for taxes on income	1,614	1,575	2,033	2,446
Net income	\$ 1,517	\$ 1,520	\$ 2,003	\$ 1,585
Basic income per common share	\$ 0.06	\$ 0.06	\$ 0.08	\$ 0.06
Diluted income per common share	\$ 0.06	(1) \$0.05	\$ 0.08	\$ 0.06

</TABLE>

(1) The Company's \$0.01 difference in the fully diluted income per common share as reported in the January 31, 2000. Form 10-Q relates to an adjustment in the calculation of the impact of dilutive employee and director stock options and warrants.

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ENZO BIOCHEM, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
July 31, 2000, 1999 and 1998

Note 12 - Segment Information

The Company follows the provisions of SFAS No. 131, "Disclosures about Segments

of an Enterprise and Related Information" ("SFAS No. 131") and retroactively applied it to fiscal 1998 and 1997. The Company has two reportable segments: research and development and clinical reference laboratories. The Company's research and development segment conducts research and development activities as well as selling products derived from these activities. The clinical reference laboratories provide diagnostic services to the health care community. The Company evaluates performance based on income before (provision) benefit for taxes on income. The accounting policies of the reportable segments are the same as those described in the summary of significant accounting policies. Costs excluded from income before (provision) benefit for taxes on income and reported as other consist of corporate general and administrative costs which are not allocable to the two reportable segments. Management of the Company assesses assets on a consolidated basis only and therefore, assets by reportable segment has not been included in the reportable segments below.

The following financial information (in thousands) represents the reportable segments of the Company:

<TABLE>
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	Research and Development			Clinical Reference Laboratories		
	Fiscal Year Ended July 31,		Fiscal Year Ended July 31,	Fiscal Year Ended July 31,		
	2000	1999	1998	2000	1999	1998
	----	----	----	----	----	----
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Operating revenues:						
Research product revenues	\$18,554	\$16,279	\$12,661	--	--	--
Clinical laboratory services	--	--	--	\$31,475	\$28,041	\$27,756
Cost and expenses:						
Cost of research product revenues	7,522	7,884	7,497	--	--	--
Cost of clinical laboratory services	--	--	--	8,506	8,285	8,247
Research and development expense	5,431	4,427	3,983	--	--	--
Depreciation and amortization	814	744	691	1,111	1,188	1,173
Interest income	--	--	--	--	23	39
Income before (provision) benefit for taxes on income	\$ 3,840	\$ 2,661	\$ 157	\$ 3,720	\$ 2,363	\$ 2,195
	-----	-----	-----	-----	-----	-----

</TABLE>

[RESTITUBED TABLE]

<TABLE>
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	Other			Consolidated		
	Fiscal Year Ended July 31,		Fiscal Year Ended July 31,	Fiscal Year Ended July 31,		
	2000	1999	1998	2000	1999	1998
	----	----	----	----	----	----
<S>	<C>	<C>	<C>	<C>	<C>	<C>
Operating revenues:						
Research product revenues	--	--	--	\$18,554	\$16,279	\$12,661
Clinical laboratory services	--	--	--	31,475	28,041	27,756
Cost and expenses:						
Cost of research product revenues	--	--	--	7,522	7,884	7,497
Cost of clinical laboratory services	--	--	--	8,506	8,285	8,247
Research and development expense	--	--	--	5,431	4,427	3,983
Depreciation and amortization	--	--	--	1,925	1,932	1,864
Interest income	2,585	1,961	1,846	2,585	1,984	1,885
Income before (provision) benefit for taxes on income	\$ 108	\$ 363	\$ 218	\$ 7,668	\$ 5,387	\$ 2,570
	-----	-----	-----	-----	-----	-----

</TABLE>

The Company's reportable segments are determined based on the services they performed and the products they sell, not on the geographic area in which they operate. The Company's clinical reference laboratories segment operates 100% in the United States with all revenue derived from this country. The research and development segment earns revenue both in the United States and foreign countries. The following is a summary of research and development revenues attributable to customers located in the United States and foreign countries:

	2000 ----	1999 ----	1998 ----
United States	\$8,076	\$3,813	\$1,171
Foreign Countries	10,478	12,466	11,490
	-----	-----	-----
	\$18,554	\$16,279	\$12,661
	=====	=====	=====

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ENZO BIOCHEM, INC.
SCHEDULE II - VALUATION
AND QUALIFYING ACCOUNTS
Years ended July 31, 2000, 1999, and 1998

<TABLE>
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Balance at Description end of period ----- -----	Balance at Beginning of period -----	Additions -----		(Additions) Deductions -----
		Charged (credited) to costs and expenses -----	Charged to other accounts -----	
<S>	<C>	<C>	<C>	<C>
<C>				
2000				
Allowance for doubtful accounts receivable 5,890,000	\$ 6,027,000	\$ 11,294,000	--	11,431,000 (1)
Allowance for deferred tax valuation --	\$ 2,570,000	(\$ 2,570,000)	--	--
1999				
Allowance for doubtful accounts receivable \$ 6,027,000	\$ 5,148,500	\$ 9,960,800	--	\$ 9,082,300 (1)
Allowance for deferred tax valuation \$ 2,570,000	\$ 6,498,000	(\$ 1,550,000)	--	\$ 2,378,000
1998				
Allowance for doubtful accounts receivable \$ 5,148,500	\$ 4,105,200	\$ 9,627,500	--	\$ 8,584,200 (1)
Allowance for deferred tax valuation \$ 6,498,000	\$ 8,824,000	\$ (1,025,000)	--	\$ 1,301,000

</TABLE>

(1) Write-off of uncollectable accounts receivable.

AMENDMENT NO. 1

TO

AGREEMENT

AMENDMENT NO. 1 TO EMPLOYMENT AGREEMENT, dated as of July 13, 2000 and effective retroactively as of May 5, 1999, by and among ENZO BIOCHEM, INC., a New York corporation with offices at 60 Executive Blvd., Farmingdale, NY 11735 (the "Company") and Elazar Rabbani, an individual residing at 69 Fifth Avenue, New York, NY 10003 (the "Executive").

RECITALS

Executive has been President and Chairman of the Board of the Company since October 15, 1987 and possesses valuable experience, skills and know-how with respect to all aspects of the Company's business. The parties hereto are party to an Agreement, dated as of May 4, 1994 (the "Employment Agreement"), and desire to amend the Employment Agreement as hereinafter set forth. The Company desires to continue to employ Executive on the terms and conditions set forth in the Employment Agreement, as amended hereby, and Executive is willing to continue such employment on such terms and conditions.

It is therefore hereby agreed by and between the parties as follows:

1. Amendments to Employment Agreement.

Section 1.2(a) is hereby amended in its entirety to read as follows:

Except for earlier termination as provided in Section 4 hereof, the Executive's employment under this Agreement (the "Employment Term") shall be for an initial term (the "Initial Term") beginning on the date hereof and ending on May 4, 2002. The Employment Term shall be automatically renewed for an additional term (an "Additional Term") of two (2) years unless either party hereto gives written notice to the other at least one hundred eighty (180) days prior to the expiration of the Initial Term of such party's intention to terminate the Executive's employment hereunder at the end of such Initial Term. The Employment Term shall be automatically renewed for an indefinite number of subsequent Additional Terms of two (2) years unless either party hereto gives written notice to the other at least one hundred eighty (180) days prior to the expiration of the Additional Term then in effect of such party's intention to terminate the Executive's employment hereunder at the end of such Additional Term.

Section 2.1 is hereby amended in its entirety to read as follows:

Base Salary. As compensation for the Executive's employment hereunder, the Executive shall be entitled to receive a base salary at a rate of \$280,000 per annum payable (and subject to withholding) in accordance with the Company's normal payroll practices from time to time in effect, to be increased to \$312,000 per annum effective as of January 1, 2000. The base salary may be increased, but not decreased, from time to time at the discretion of the Board. (The base salary as increased from time to time being hereinafter referred to as the "Base Salary.")

2. Reaffirmation of Employment Agreement.

Except as provided herein, this Amendment No. 1 shall not constitute a waiver or modification of any term, provision or condition of the Employment Agreement; and all terms, conditions, agreements, provisions, representations and warranties contained in the Employment Agreement shall remain in full force and effect.

3. Governing Law.

This Amendment No. 1 shall be governed by, and construed and enforced in accordance with, the laws of the State of New York, applicable to agreements made and to be performed entirely in New York. In addition, each party hereto irrevocably and unconditionally agrees that any suit, action or other legal proceeding arising out of this Agreement may be brought only in the State of New York.

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 on
July 13, 2000.

ENZO BIOCHEM, INC.

/s/ Barry Weiner

Name: Barry Weiner
Title: President

EXECUTIVE:

/s/ Shahram Rabbani

Shahram Rabbani

AMENDMENT NO. 1

TO

AGREEMENT

AMENDMENT NO. 1 TO EMPLOYMENT AGREEMENT, dated as of July 13, 2000 and effective retroactively as of May 5, 1999, by and among ENZO BIOCHEM, INC., a New York corporation with offices at 60 Executive Blvd., Farmingdale, NY 11735 (the "Company") and Shahram Rabbani, an individual residing at 17 Catalina Drive, Great Neck, NY 11021 (the "Executive").

RECITALS

Executive has been an executive of the Company since October 15, 1987 and possesses valuable experience, skills and know-how with respect to all aspects of the Company's business. The parties hereto are party to an Agreement, dated as of May 4, 1994 (the "Employment Agreement"), and desire to amend the Employment Agreement as hereinafter set forth. The Company desires to continue to employ Executive on the terms and conditions set forth in the Employment Agreement, as amended hereby, and Executive is willing to continue such employment on such terms and conditions.

It is therefore hereby agreed by and between the parties as follows:

1. Amendments to Employment Agreement.

Section 1.2(a) is hereby amended in its entirety to read as follows:

Except for earlier termination as provided in Section 4 hereof, the Executive's employment under this Agreement (the "Employment Term") shall be for an initial term (the "Initial Term") beginning on the date hereof and ending on May 4, 2002. The Employment Term shall be automatically renewed for an additional term (an "Additional Term") of two (2) years unless either party hereto gives written notice to the other at least one hundred eighty (180) days prior to the expiration of the Initial Term of such party's intention to terminate the Executive's employment hereunder at the end of such Initial Term. The Employment Term shall be automatically renewed for an indefinite number of subsequent Additional Terms of two (2) years unless either party hereto gives written notice to the other at least one hundred eighty (180) days prior to the expiration of the Additional Term then in effect of such party's intention to terminate the Executive's employment hereunder at the end of such Additional Term.

Section 2.1 is hereby amended in its entirety to read as follows:

Base Salary. As compensation for the Executive's employment hereunder, the Executive shall be entitled to receive a base salary at a rate of \$250,000 per annum payable (and subject to withholding) in accordance with the Company's normal payroll practices from time to time in effect, to be increased to \$280,000 per annum effective as of January 1, 2000. The base salary may be increased, but not decreased, from time to time at the discretion of the Board. (The base salary as increased from time to time being hereinafter referred to as the "Base Salary.")

2. Reaffirmation of Employment Agreement.

Except as provided herein, this Amendment No. 1 shall not constitute a waiver or modification of any term, provision or condition of the Employment Agreement; and all terms, conditions, agreements, provisions, representations and warranties contained in the Employment Agreement shall remain in full force and effect.

3. Governing Law.

This Amendment No. 1 shall be governed by, and construed and enforced in accordance with, the laws of the State of New York, applicable to agreements made and to be performed entirely in New York. In addition, each party hereto irrevocably and unconditionally agrees that any suit, action or other legal proceeding arising out of this Agreement may be brought only in the State of New York.

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 on July 13, 2000.

ENZO BIOCHEM, INC.

/s/ Shahram Rabbani

Name: Shahram Rabbani
Title: Chief Operating Officer

EXECUTIVE:

/s/ Elazar Rabbani

Elazar Rabbani

AMENDMENT NO. 1

TO

AGREEMENT

AMENDMENT NO. 1 TO EMPLOYMENT AGREEMENT, dated as of July 13, 2000 and effective retroactively as of May 5, 1999, by and among ENZO BIOCHEM, INC., a New York corporation with offices at 60 Executive Blvd., Farmingdale, NY 11735 (the "Company") and Barry W. Weiner, an individual residing at 69 Fifth Avenue, New York, NY 10003 (the "Executive").

RECITALS

Executive has been Executive Vice President of the Company since October 15, 1987 and possesses valuable experience, skills and know-how with respect to all aspects of the Company's business. The parties hereto are party to an Agreement, dated as of May 4, 1994 (the "Employment Agreement"), and desire to amend the Employment Agreement as hereinafter set forth. The Company desires to continue to employ Executive on the terms and conditions set forth in the Employment Agreement, as amended hereby, and Executive is willing to continue such employment on such terms and conditions.

It is therefore hereby agreed by and between the parties as follows:

1. Amendments to Employment Agreement.

Section 1.2(a) is hereby amended in its entirety to read as follows:

Except for earlier termination as provided in Section 4 hereof, the Executive's employment under this Agreement (the "Employment Term") shall be for an initial term (the "Initial Term") beginning on the date hereof and ending on May 4, 2002. The Employment Term shall be automatically renewed for an additional term (an "Additional Term") of two (2) years unless either party hereto gives written notice to the other at least one hundred eighty (180) days prior to the expiration of the Initial Term of such party's intention to terminate the Executive's employment hereunder at the end of such Initial Term. The Employment Term shall be automatically renewed for an indefinite number of subsequent Additional Terms of two (2) years unless either party hereto gives written notice to the other at least one hundred eighty (180) days prior to the expiration of the Additional Term then in effect of such party's intention to terminate the Executive's employment hereunder at the end of such Additional Term.

Section 2.1 is hereby amended in its entirety to read as follows:

Base Salary. As compensation for the Executive's employment hereunder, the Executive shall be entitled to receive a base salary at a rate of \$250,000 per annum payable (and subject to withholding) in accordance with the Company's normal payroll practices from time to time in effect, to be increased to \$280,000 per annum effective as of January 1, 2000. The base salary may be increased, but not decreased, from time to time at the discretion of the Board. (The base salary as increased from time to time being hereinafter referred to as the "Base Salary.")

2. Reaffirmation of Employment Agreement.

Except as provided herein, this Amendment No. 1 shall not constitute a waiver or modification of any term, provision or condition of the Employment Agreement; and all terms, conditions, agreements, provisions, representations and warranties contained in the Employment Agreement shall remain in full force and effect.

3. Governing Law.

This Amendment No. 1 shall be governed by, and construed and enforced in accordance with, the laws of the State of New York, applicable to agreements made and to be performed entirely in New York. In addition, each party hereto irrevocably and unconditionally agrees that any suit, action or other legal proceeding arising out of this Agreement may be brought only in the State of New York.

IN WITNESS WHEREOF, the parties have executed this Amendment No. 1 on

July 13, 2000.

ENZO BIOCHEM, INC.

/s/ Shahram Rabbani

Name: Shahram Rabbani
Title: Chief Operating Officer

EXECUTIVE:

/s/ Barry Weiner

Barry W. Weiner

THIRD AMENDMENT TO LEASE

Agreement (this "Third Amendment") made as of the 1st day of January, 2000 by and between Pari Management Corporation, a New York corporation with an address at 17 Catalina Drive, Kings Point, New York 11024 (hereinafter referred to as "Landlord"), and Enzolabs, Inc., a New York corporation with an address at 60 Executive Boulevard, Farmingdale, New York 11735 (hereinafter referred to as "Tenant").

WHEREAS, Landlord and Tenant are parties to that certain lease between them, dated December 20, 1989, as amended by that First Amendment to Lease dated as of February __, 1991 and by that Second Amendment to Lease dated as of January 1, 1993 (as amended, the "Lease"), for the premises known as 60 Executive Boulevard, Farmingdale, New York (the "Leased Premises");

WHEREAS, Paragraph 34(a) of the Lease permits the construction of additional Improvements upon the Land forming part of the Leased Premises and Landlord to rent same to Tenant or other third parties;

WHEREAS, construction of 3,000 rentable square feet of such additional Improvements has been completed (the "Additional Space");

WHEREAS, Paragraph 34(a) of the Lease provides Tenant with a Right of First Refusal to lease the Additional Space; and

WHEREAS, Tenant would like to lease the Additional Space from Landlord, and Landlord would like to rent the Additional Space to Tenant.

NOW THEREFORE, IT IS AGREED AS FOLLOWS:

1. Tenant has constructed and shall improve and complete the Additional Space at its sole cost and expense in such a manner, design and method as Landlord shall determine in its sole and absolute discretion, and according to the further terms of the Lease.
2. Tenant shall lease the entire Additional Space from Landlord as follows:
 - a. Upon the same terms and conditions as are contained in the Lease;
 - b. For a term commencing on January 1, 2000 (the "Commencement Date") and ending on the Lease Termination Date or the earlier date on which the Lease expires;
 - c. At a rental equal to the rent per rentable square foot payable by Tenant pursuant to the Lease (in addition to additional rent and adjustments), multiplied by the number of rentable square feet in the Additional Space (which the parties hereto confirm shall be 3,000);
 - d. With additional rental and adjustments payable pursuant to the terms of the Lease except that, notwithstanding anything to the contrary contained in this Third Amendment or in the Lease, with respect to the Additional Space only, for additional rent and adjustments provided for under the Lease which are calculated utilizing a base year, the Base Year shall be deemed to mean the full calendar year immediately prior to the calendar year in which the Commencement Date occurs;
 - e. In its "as is" condition on the Commencement Date; and
 - f. Tenant shall, on the Commencement Date, deposit with Landlord a sum equal to two (2) months rent for the Additional Space as an additional Security Deposit to be held pursuant to Paragraph 33 of the Lease.
3. Except as modified by this Third Amendment, all of the other terms and conditions contained in the Lease are hereby ratified and confirmed and shall remain in full force and effect.
4. If the terms and provisions contained in this Third Amendment conflict with the terms and provisions of the Lease, the terms and conditions of this Third Amendment shall prevail. All of the capitalized terms contained but not defined herein shall have the same meaning as specified in the Lease.
5. This Third Amendment cannot be changed or terminated orally and cannot be orally waived. The parties represent to each other that they are

authorized to execute this Third Amendment and that all applicable corporate approvals have been obtained.

Pari Management Corporation,
Landlord

By: /s/ Shahram Rabbani

Enzolabs, Inc.,
Tenant

By: /s/ Herb Bass

Exhibit 23

Consent of Independent Auditors

We consent to the incorporation by reference in the Registration Statements (Forms S-3, No. 333-15533, 33-58736, 33-60229, 33-78760, 33-72170, 33-68542 and Forms S-8 No. 33-45348, 33-75466, 33-88826 and 333-87153) of Enzo Biochem, Inc. and in the related Prospectus of our report dated October 16, 2000, with respect to the consolidated financial statements and schedule of Enzo Biochem, Inc. included in this Annual Report (Form 10-K) for the fiscal year ended July 31, 2000.

/s/ Ernst & Young LLP

Melville, New York
October 27, 2000

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