Enzo Biochem, Inc.

2024 Annual Report

Enzo Biochem Today

Enzo Biochem, Inc. has operated as a life sciences company for over 45 years. The primary business of Enzo today is conducted through its Life Sciences division, Enzo Life Sciences, which focuses on labeling and detection technologies from DNA to whole cell analysis, including a comprehensive portfolio of thousands of high-quality products, including antibodies, genomic probes, assays, biochemicals, and proteins. The Company's proprietary products and technologies play central roles in translational research and drug development areas, including cell biology, genomics, assays, immunohistochemistry, and small molecule chemistry. The Company monetizes its technology primarily via sales through our global distribution network and licensing.

To Our Shareholders:

At Enzo Biochem, we use scientific innovation to create and support a broad portfolio of products that researchers worldwide need. As a life sciences tools provider, we support researchers focused on various stages of discovery at a variety of institutions, including pharmaceutical companies, biotechnology companies, and academic institutions. Regardless of type or location, we strive to exceed our customers' expectations and anticipate their needs. We devote attention to every detail because we understand that scientific discovery depends on a chain built on a results-driven process. Each link in the chain must be reliable, consistent, and strongly connected to enable progress.

Our continued goal is to develop and manufacture high-value, reliable life sciences products and services using our scientific know-how, proprietary technologies, and intellectual property. We leverage decades of innovation and technical expertise to support research, drug discovery and development, and diagnostic solutions through our core technology platforms. In 2024, Enzo was awarded a researchers' choice award, citing, among other things, our scientific support and quality products provided to this demanding market.

Despite the challenges in the life sciences market, including increasing price pressures and regulatory changes, we were pleased to report single-digit revenue growth for fiscal year 2024, along with improvements in gross margin and operating profit. Since exiting the clinical lab business, Enzo has focused on stabilizing revenue, optimizing global infrastructure, enhancing gross margin performance, and launching new products.

Here are some recent highlights:

- The Company's revenues in the 2024 period of $31.9 million improved year-over-year by 3%. In particular, Enzo's sales to its industrial customers, which include biotech and pharmaceutical companies, increased, driven by our drug development and cell and gene therapy focus.
- The Company launched an enhanced website with e-commerce functionality and an optimized user experience, which we expect will provide our customers better access to the products and support they need.
- An agreement was reached with the Attorneys General of New York, New Jersey, and Connecticut, resolving inquiries pertaining to the ransomware attack the Company experienced in April 2023.
- Our Board of Directors declared a special cash dividend for the first time. The cash dividend of $0.10 per share on its common stock is payable on December 2, 2024 to the holders of record as of November 15, 2024.
- In November 2024, our board of directors appointed Jon Couchman to the Board and its Audit Committee, Compensation Committee, and Nominating/Governance Committee. Mr. Couchman is the Managing Member of Couchman Management LLC, a private investment management company. He also has significant experience from other director positions and several executive officer roles.
- Brian Fisher joined the Company as its General Counsel in May 2024. Before joining the Company, Mr. Fisher served in various roles within the legal department of Tenerity, Inc.,

including as its general counsel for the last ten years. Before that, Mr. Fisher was a corporate attorney for Akin, Gump, Strauss, Hauer & Feld, LLP, and Sidley Austin LLP. Mr. Fisher holds a Juris Doctor from New York University School of Law and an A.B. degree in Economics from Harvard University.

We have identified three key critical areas that will drive us forward in addressing the changing needs of our customers and enhancing value for our shareholders:

Enabling Innovation and Quality

With a rich history in labeling and detection technologies, we are focused on providing quality life science products and services backed by expert scientific support and delivered with an elevated customer experience.

We leverage over 45 years of innovation and technical expertise to support research, drug discovery and development, and diagnostic solutions through our core technology platforms. With over 160,000 citations and GMP and ISO certification, our highly sensitive, quality products are tested, validated, and trusted, delivering consistent results. We maintain product integrity and reliability with our in-house U.S. manufacturing facility. We deploy our bench of expert PhD scientists, 25% of our workforce, to provide technical, tailored support for our customers and their projects.

Enabling Partnerships

Adapting to our customers' needs is our specialty. Our customer-focused approach enables us to be true scientific partners. Accessible and dedicated, we deliver custom technical expertise to each unique project—large or small. We know why you research and why you discover. We are scientists enabling scientists. We are nimble and flexible, allowing us to easily adjust to specialized projects. Our scientists and manufacturing teams are skilled and experienced, ready to scale up projects fast and efficiently.

Enabling Efficiency

With in-house U.S. manufacturing, direct sales offices in six countries, two logistics centers in the United States and Europe, and a network of over 45 distributors, Enzo is able to deliver our products to our customers when they need them—often shipping within 24 to 48 hours. To accelerate responsiveness to customer needs, we offer sales and technical support in local languages across the globe.

Together, we expect these efforts will lead to increased market presence and improved financial results, ultimately delivering greater value to our shareholders. For the first time, our Board of Directors declared a special cash dividend to be paid to our shareholders. I am appreciative of the support received from our shareholders and Board of Directors. Finally, I would like to express my gratitude to our employees for their hard work and dedication this past year.

Kara Cannon
Chief Executive Officer

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 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, 2024

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 001-09974

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.)
21 Executive Blvd. Farmingdale, NY	11735
(Address of principal executive offices)	(Zip Code)

(631) 755-5500

(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $.01 par value	ENZ	The New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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 whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of ''large accelerated filer,'' ''accelerated filer'', ''smaller reporting company'' and ''emerging growth company'' in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act of 1934). Yes ☐ No ☒

The aggregate market value of the registrant's voting stock held by non-affiliates of the registrant was approximately $57,494,000 as of January 31, 2024.

The number of shares of the Company's common stock, $.01 par value, outstanding at October 25, 2024 was 52,244,074.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement to be delivered to shareholders in connection with the Annual Meeting of Shareholders to be held on or before January 31, 2025 are incorporated by reference into Part III of this annual report.

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PART I

Item 1. Business

Overview

Enzo Biochem, Inc. (the ''Company'', ''we'', ''our'' or ''Enzo'') has operated as a life sciences company for over 45 years. The primary business of Enzo today is conducted through its Life Sciences division (''Enzo Life Sciences''), which focuses on labeling and detection technologies from DNA to whole cell analysis, including a comprehensive portfolio of thousands of high-quality products, including antibodies, genomic probes, assays, biochemicals, and proteins. The Company's proprietary products and technologies play central roles in translational research and drug development areas, including cell biology, genomics, assays, immunohistochemistry, and small molecule chemistry. The Company monetizes its technology primarily via sales through our global distribution network and licensing. Enzo Life Sciences is operated through the Company's wholly-owned subsidiary Enzo Life Sciences, Inc. and its wholly-owned foreign subsidiaries.

Costs excluded from Enzo Life Sciences financial results consist of corporate general and administrative costs and minimal therapeutic research and development expenses. These costs are reported within the consolidated financial statements as the ''Corporate and Other'' segment.

In prior years, the Company also had a clinical lab business, operated as Enzo Clinical Labs, Inc. (''Clinical Labs''). In July 2023, we sold certain assets and assigned certain liabilities of Clinical Labs to Laboratory Corporation of America Holdings for $113.25 million, pursuant to an Asset Purchase Agreement dated March 16, 2023, as amended July 3, 2023 (''APA''). In accordance with the terms of the APA, Enzo ceased its Clinical Labs operations, the results of which are reflected as discontinued operations for all consolidated financial statement periods presented.

Our Strategy

We are scientists, passionate about empowering other scientists to achieve innovations in research, drug discovery and development, and diagnostic solutions. We are driven to help our customers be the agents of change that make the world a healthier place. With a rich history in labeling and detection technologies, we are focused on providing exceptional life science products and services, backed by expert scientific support, and delivered with an elevated customer experience. In Enzo Life Sciences, we commercialize new products and maintain availability of our deep product portfolio via our global marketing and sales distribution infrastructure.

Our objective is to continue to develop and manufacture high value, reliable life sciences products and services using our proprietary technologies to allow our customers to meet their discovery and development needs. We leverage our years of innovation and technical expertise to support research, drug discovery and development, and diagnostic solutions through our core technology platforms. With over 160,000 scientific publications, and GMP and ISO certification, our highly-sensitive, quality products are tested, validated, and trusted, so that we can deliver consistent results, emphasizing sustainable, profitable revenue growth, since our exit from the Clinical Labs business.

Our global sales, marketing, manufacturing, product development and distribution infrastructure is integrated and consolidated as a single global business. Enzo operates, under its own name, worldwide through wholly owned subsidiaries in the U.S., Switzerland, Benelux, Germany, and the UK, with a branch office in France and a network of third-party distributors in other significant markets worldwide. Our comprehensive product portfolio allows us to deliver integrated solutions to basic researchers, drug developers and clinical researchers around the globe. Our research provides solutions in all key research areas, including: Genomics, Cell Biology, Biomarker Detection, and in a multitude of applied research markets, including: Spatial Biology, Cell and Gene Therapy, Bioprocess, Personal Care, Cancer Research, and Neuroscience.

In addition, with in-house U.S. manufacturing, direct sales offices in six countries, two logistics centers in US and Europe, and a network of over 45 distributors, Enzo is able to deliver our products to our customers when they need them – often shipping within 24 to 48 hours. We offer sales and technical support in local languages across the globe to accelerate responsiveness to customer needs.

Markets

Life Sciences – Drug Discovery, Development and Diagnostics

There is a large and growing global demand by biomedical and pharmaceutical companies for research and diagnostic tools that both facilitate and accelerate the generation of biological information. This demand can be met by gene and protein target-based diagnostics for which a variety of formats and tools have been developed that enable researchers to study biological pathways. These tools can identify mutations in gene sequences and variations in gene expression levels that can lead to disease, or they can quantify biomarkers that provide insight into disease and potential therapeutic solutions. These techniques use instruments, such as DNA sequencing and genotyping equipment, microarrays, fluorescent microscopes, high content screening platforms, flow cytometers and plate readers. Common among these instruments is the need for reagents that allow the identification, quantification and characterization of interactions of specific genes or nucleic acid sequences, proteins, cells, and other cellular structures and organelles.

We believe this global life sciences market will continue to grow as a result of:

- long term commitment to research spending by academic, government and private organizations to determine the function and clinical relevance of the gene sequences and proteins that have been identified by genomics research, as well as investments in nucleic acid and protein detection in various sample mediums;
- development of commercial applications based on information derived from this research expansion into new methods of visualization and detection including a multi-dimensional approach to visualize results such as spatial biology; and,
- on-going advancements in tools that accelerate these research and development activities.

We are a global manufacturer of cost-effective, high-quality solutions to enable drug discovery, development and translational research workflows supported by Good Manufacturing Practices (‘‘GMP’’) manufacturing. Enzo participates in this broad market that includes technology platforms and products used by a wide array of customer types including: academic researchers, clinical researchers, biotechnology and pharmaceutical companies and diagnostic manufacturers. Our broad spectrum of products, such as labels, dyes, antibodies, genomic probes, immunoassays, biochemicals, and proteins are used to label, detect and visualize a biological target of interest in drug discovery exploration and drug development process development. Enzo leverages its differentiated capabilities in labeling and detection, assay kitting and validations, and integrated manufacturing to serve as a ‘‘one stop shop’’ for thousands of reagents that are critical to workflows across various technologies and applications, validated by over 160,000 scientific publications.

Patents

In the course of our research and development activities, we have built a portfolio of intellectual property assets, along with extensive scientific know-how and enabling technologies. Some of this technology portfolio supports and protects our products and our competitive position within the life sciences market.

Since our inception, we have followed a strategy of creating a patent position in the life sciences and therapeutics areas. During fiscal years 2024 and 2023, we were issued twenty-five patents and seven patents, respectively. When developing technology and launching new product platforms, we consider patent protection for certain core technology platforms, as well as for ancillary technologies that support these platforms.

At the end of fiscal 2024, we owned a portfolio of patents relating to products, methods and procedures resulting from our internal or sponsored research projects. There can be no assurance that patents will be issued on pending applications or that any owned patents will not be challenged (see Item 3, Legal Proceedings), or that they 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.

Our intellectual property portfolio can be divided into patents that provide claims in primary categories, as described below:

Dye Chemistry

We have done extensive work in developing patents and proprietary technologies for dyes useful in the detection of cellular organelles and dyes to detect the status of cells in terms of enzyme activity, oxidation or health status. Enzo also has patents directed to proprietary dyes and quenchers that may be used to label and detect nucleic acids.

Core Technologies for Gene, Protein, Cell and Tissue Analysis

We have developed a portfolio of patents and proprietary technologies for a variety of research, diagnostic and therapeutic applications. Technology platforms and products are developed and offered for use by our customers to label, detect and visualize their target of interest.

Enzo has patent coverage for a unique highly sensitive method of making probes to detect RNA transcripts in cells or tissue, which may be used to detect disease. We also have patent coverage for the attachment of an oligo nucleic acid to a monoclonal antibody, which can further enhance detection of a specific target.

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.

Historically, we have swiftly and decisively responded to challenges within the life sciences market. As the market demanded methods to specifically and accurately identify disease targets, we believe Enzo has provided tools to meet such needs. Whether it was our various gene analysis solutions for HPV detection or broader platforms for the labeling, detection, amplification and analysis of nucleic acids, Enzo has translated our technological know-how into market relevant tools for solving customers' technological challenges.

We have recently expanded in this area with our AMPIVIEW® *in situ* hybridization technology, thereby creating potential opportunities with various drug development segments.

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 patents for an amplification process for multicopy production of nucleic acids, 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.

Non-Radioactive Labeling and Detection for Gene Analysis

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, and 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 and avoid 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.

Research and Development

Our principal research and development efforts are directed toward developing innovative new research platforms and selective expansion of our research product lines, given our manufacturing and distribution capability. We have developed our core research expertise in the life sciences field due to over 45 years of dedicated focus in this area. We conduct our research and other product development efforts through internal research and collaborative relationships.

In the fiscal years ended July 31, 2024 and 2023, the Company incurred costs of approximately $2.6 million and $3.9 million, respectively, for research and development activities.

We are focusing our research and development efforts to translate our technological know-how into relevant products, including a continued focus on the development of detection systems for nucleic acid, protein, cell and tissue analysis.

Enzo is committed to delivering a robust line of products and services that will provide relevant, high-quality solutions that are easily adaptable to the workflow of drug discovery, development and diagnostic customers.

Our professional staff, including individuals with doctoral degrees, performs our internal research and development activities. Our product development programs incorporate various scientific areas of expertise, including recombinant DNA, monoclonal antibody development, enzymology, microbiology, biochemistry, molecular biology, organic chemistry, immunology, flow cytometry and fermentation. In addition, we continuously review in-licensing opportunities in connection with new technology.

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.

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, the collaborating party may obtain a patent, 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 may 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.

Sales and Marketing

Our sales and marketing strategy is to sell our life sciences products through: (i) direct sales to end-users under the Enzo Life Sciences name, with direct recognition to our acquired brands; (ii) direct sales to end users under the Axxora electronic market place name; (iii) supply agreements with manufacturers; and (iv) distributors in major geographic markets. Axxora is a proven distribution platform for original manufacturers of innovative research reagents. Researchers use our unique marketplace to connect with over 45 specialty manufacturers and gain access to over 200,000 products. We operate with an understanding of local markets and a well-functioning distribution network system across the globe. We have a worldwide customer support group operated by scientists to consult with our broad and deep customer base that is situated in dozens of countries around the globe. Scientists around the world who recognize the brands Alexis, Assay Designs, Biomol, Enzo and Stressgen now receive products directly from Enzo Life Sciences, and we believe we are recognized for innovative high quality products, supported directly by our qualified global technical staff. Our direct marketing and sales network includes fully-owned subsidiaries in the U.S., Switzerland, Germany, Benelux, and UK, a branch office in France and a network of third party distributors in most other significant markets worldwide.

Distribution Arrangements

We distribute our life science products internationally through a network of distributors. Through these arrangements, we are able to leverage the established marketing and distribution infrastructure of these companies in certain market places.

Competition

We compete with other life science and biotechnology companies, as well as pharmaceutical, chemical and other companies. Competition in our industry is intense. Many of these companies are performing research targeting the same technologies, applications and markets as we do. Many of these competitors are significantly larger than

we are and have more resources. The primary competitive factors in our industry are the ability to create scientifically advanced technology, offer quality products at the forefront of technological development to targeted market segments, 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.

REGULATIONS AFFECTING OUR PRODUCTS BUSINESS AND DISCONTINUED OPERATIONS

Privacy and Data Security Regulations

Privacy, security and breach notification requirements under the Health Insurance Portability and Accountability Act (''HIPAA'') apply to the Company's continuing operations in a limited manner due to Enzo providing a self-insured health plan to eligible employees. With respect to our discontinued operations, we also need to continuously ensure that there are mechanisms in place to safeguard the privacy of protected health information (''PHI'') that is transmitted or maintained in any format (e.g., oral, written, or electronic). We are required to maintain numerous policies and procedures in order to comply with these requirements. Failure to comply with these requirements can result in criminal and civil penalties. In addition, to comply with the HIPAA security regulations in particular, we must ensure the confidentiality, integrity and availability of all electronic PHI (''EPHI'') that we create, receive, maintain, or transmit. We have some flexibility to fashion our own security measures to accomplish these goals. The security regulations strongly emphasize that we must periodically conduct an accurate and thorough assessment of the potential risks and vulnerabilities to the confidentiality, integrity and availability of our EPHI and then document our response to the various security regulations on the basis of that assessment.

In April 2023, the Company experienced a ransomware attack that impacted certain critical information technology systems, principally of the discontinued operation. In response, we promptly deployed containment measures, including disconnecting our systems from the internet, launching an investigation with assistance from third-party cybersecurity experts, and notifying law enforcement. We adhered to our disaster recovery plan, which enabled us to maintain operations throughout the incident response process. The Company's facilities remained open, and the discontinued operation continued to provide reference lab testing services to patients and partners. We later became aware that certain data, including names, test information, and Social Security numbers, was accessed, and in some instances, exfiltrated from the Company's information technology systems as part of this incident. The investigation identified unauthorized access to or acquisition of clinical test information of approximately 2,470,000 individuals. The Social Security numbers of approximately 600,000 of these individuals may also have been involved. Additionally, the Company has determined that some employees' information may have been involved. The Company has provided notice to the individuals whose information may have been involved, as well as to regulatory authorities, in accordance with applicable law. There is related class action litigation relating to this ransomware attack (see Item 3, Legal Proceedings).

In the United States, various federal and state regulators, including governmental agencies like the Federal Trade Commission (''FTC''), have adopted, or are considering adopting, laws and regulations regarding the processing of personal information, privacy and/or data security. According to the FTC, failing to take appropriate steps to keep consumers' personal information secure or using or disclosing personal information in violation of a company's privacy notice may constitute unfair or deceptive acts or practices in or affecting commerce in violation of the FTC Act.

There are also state laws which require data owners to implement reasonable security measures to protect the personal information collected from residents. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, international or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. For example, the California Consumer Privacy Act of 2018, which provides comprehensive consumer privacy rights for California residents and imposes obligations on companies that process their personal information and meet certain revenue or volume processing thresholds, came into effect on January 1, 2020, and was further amended by the California Privacy Rights Act (''CPRA''), effective January 1, 2023 (collectively, the ''CCPA''). The CCPA is also subject to extensive regulations, which are still being finalized. Among other things, the CCPA requires covered companies to provide certain disclosures to California residents and provide such residents consumer privacy rights, including the ability to opt-out of certain sales of their personal information, as well as to be able to delete or access personal information.

International laws, regulations and standards in many jurisdictions apply to certain collection, use, retention, security, disclosure, transfer, marketing and other processing of personal information. For example, the EU General Data Protection Regulation (''GDPR''), which became effective in May 2018, increased the jurisdictional reach of data protection laws of the European Economic Area and introduced new requirements for handling personal data. EU member states are tasked under the GDPR to enact, and have enacted, certain implementing legislation that adds to and/or further interprets the GDPR requirements and potentially extends our obligations and potential liability for failing to meet such obligations. The GDPR, together with national legislation, regulations and guidelines of the EU member states governing the processing of personal data, impose strict obligations and restrictions on the ability to collect, use, retain, protect, disclose, transfer and otherwise process personal data.

Following the withdrawal of the United Kingdom from the European Union, data privacy and security laws that are substantially similar to the GDPR are in effect in the United Kingdom, which carry similar risks and authorize similar fines for certain violations. Certain legal regimes outside of the United States, including in the United Kingdom and under the GDPR in the European Economic Area, restrict the transfer of personal data to the United States unless certain measures are in place, including, for example, executing Standard Contractual Clauses through certification to the Data Privacy Framework.

We use third-party credit card processors to process payments from our customers. Through our agreements with our third-party credit card processors, we are subject to payment card association operating rules, including the Payment Card Industry Data Security Standard (''PCI-DSS''), which governs a variety of areas, including how consumers and customers may use their cards, the security features of cards, security standards for processing, data security and allocation of liability for certain acts or omissions, including liability in the event of a data breach.

Waste

We are subject to licensing and regulation under federal, state and local laws relating to the handling and disposal of hazardous waste, as well as to the safety and health of laboratory employees. Our manufacturing facility is required to operate in accordance with applicable federal and state laws and regulations relating to disposal of all hazardous waste. We use outside vendors to dispose of such waste. Although we believe that we comply in all 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 U.S. Federal Occupational Safety and Health Administration (''OSHA'') has established extensive requirements relating to workplace safety. We are 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 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 Regulations

Our business is and will continue to be subject to regulation under various state and federal environmental, safety and health laws, including the 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 hazardous waste and radioactive materials.

We believe that we are in compliance with applicable environmental, safety and health laws in the United States and internationally and that our continued compliance with these laws 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 we use qualified third-party vendors to dispose of hazardous wastes. Although we believe that we comply in all 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 for the Company.

Regulation of Diagnostic Products

We do not currently offer for sale any products or services intended to provide clinical diagnostic or health assessment information in relation to individual patients, for use by those patients or their healthcare providers in connection with treatment. We offer technology, products and services to a broad range of customers in the life sciences industry. Our customers may themselves be directly regulated by The U.S. Food and Drug Administration (''the FDA'') or other regulatory authorities.

Certain in vitro diagnostic (''IVD'') products can be marketed without going through an FDA premarket review process if they are intended for use in the laboratory research phase of development and not represented as an effective IVD (i.e., labeled for Research Use Only (''RUO'')) or for use in product testing prior to full commercial marketing (i.e. for Investigational Use Only (''IUO'')). Because RUO and IUO-labeled products are exempt from most regulatory requirements that would otherwise apply to medical devices, it is important that they are not distributed for clinical diagnostic use. Mere placement of an RUO or IUO label on an IVD product does not render the device exempt from otherwise applicable regulatory requirements; indeed, the FDA may determine that the device is intended for use in clinical diagnosis on the basis of other evidence, including how the device is marketed. The FDA recommends that manufacturers assess the totality of the circumstances surrounding the distribution of their RUO and IUO labeled products to ensure that they are not engaging in practices that conflict with their labeling. The FDA expressed its intent to exercise heightened enforcement with respect to IUO and RUO devices improperly commercialized without FDA clearance, authorization or approval in a 2013 final guidance document.

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, our failure to comply with the regulatory limitations on the sale and distribution of RUO devices could result in enforcement action by the FDA, including the imposition of restrictions on our distribution of these products.

In so far as the products that we manufacture or distribute are subject to regulation as medical devices, a host of additional regulatory requirements may apply beyond premarket review requirements, including establishment registration, device listing, 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. Unanticipated changes in existing regulatory requirements or adoption of new requirements could adversely affect 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 with applicable requirements, 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, operating restrictions, partial suspension or total shutdown of production, 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.

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, authorizations, and approvals, as well as patent issuances and licensing agreements. We cannot assure you that future clinical diagnostic products developed by us or our collaborators will not be required to be reviewed by the FDA under the more expensive and time consuming pre-market approval process.

Manufacturing and Research Facilities

Our product development, manufacture and scientific efforts currently take place primarily at two adjacent facilities in Farmingdale, New York. One facility is utilized entirely by Enzo as its global headquarters, and also for research and manufacturing with special handling capabilities and clean rooms suitable for our operations. The second facility includes the Enzo call center and warehouse space. The European logistics operations is based in Lausen, Switzerland. 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, 2024, we employed 125 full-time and 11 part-time employees. Of the full-time employees, approximately 80% were engaged in research, development, manufacturing, and marketing of research products. Our scientific staff, including individuals with post graduate degrees, possesses a wide range of experience and expertise in the areas of recombinant DNA, nucleic acid chemistry, molecular biology and immunology. We believe that we have established and currently maintain good relationships with our employees.

Information Systems

Information systems are used extensively in virtually all aspects of our businesses. Our success depends, in part, on the continued and uninterrupted performance of our information technology systems. Computer systems are vulnerable to damage from a variety of sources, including telecommunications or network failures, malicious human acts and natural disasters.

Moreover, despite network security measures, some of our servers are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. We have invested heavily in the upgrade of our information and telecommunications systems to improve the quality, efficiency and security of our businesses.

Despite the precautionary measures that we have taken to prevent unanticipated problems that could affect our information technology systems, sustained or repeated system failures could adversely affect our reputation and result in a loss of customers and net revenues.

As noted above, in April 2023, the Company experienced a ransomware attack that impacted certain critical information technology systems, principally of the discontinued operation. In response, we promptly deployed containment measures, including disconnecting our systems from the internet, launched an investigation with assistance from third-party cybersecurity experts, and notified law enforcement. We adhered to our disaster recovery plan, which enabled us to maintain operations throughout the incident response process. During the disaster recovery, the discontinued operation's ability to perform clinical reference testing was severely curtailed, and we were forced to outsource much of the testing to third parties, including Labcorp. This negatively impacted the 2023 fiscal period's services revenue of the discontinued operations, and costs increased due to a higher volume of outsourcing testing to third parties. The Company has incurred, and may continue to incur, certain expenses related to this attack, including expenses to respond to, remediate and investigate this matter, as well as related litigation and regulatory inquiries (see Item 3, Legal Proceedings).

FORWARD - LOOKING AND CAUTIONARY STATEMENTS

This Annual Report contains ‘‘forward-looking statements,’’ as defined in the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact, including, without limitation, the statements under ‘‘Management’s Discussion and Analysis of Financial Condition and Results of Operations’’ are ‘‘forward-looking statements.’’ Forward-looking statements may include the words ‘‘believes,’’ ‘‘expects,’’ ‘‘plans,’’ ‘‘intends,’’ ‘‘anticipates,’’ ‘‘continues’’ or other similar expressions. These statements are based on the Company’s current expectations of future events and are subject to a number of risks and uncertainties that may cause the Company’s actual results to differ materially from those described in the forward-looking statements. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, estimated or projected. The Company assumes no obligation to revise or update any forward-looking statements for any reason, except as required by law.

The Company files annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission (the ‘‘SEC’’). These filings are available to the public via the Internet at the SEC’s website located at http://www.sec.gov. You may also read and copy any document the Company files with the SEC at the SEC’s public reference room located at 100 F Street, N.E., Washington, D.C. 20549. For more information, please call the SEC at 1-800-SEC-0330.

The Company’s website is located at www.enzo.com. The Company makes available on its website a link to all filings that it makes with the SEC. You may request a copy of the Company’s filings with the SEC (excluding exhibits) at no cost by writing or telephoning us at the following address or telephone number:

Enzo Biochem, Inc.
21 Executive Blvd.
Farmingdale, NY 11735
Tel: (631) 755-5500
Attn: Investor Relations

Business Risks

Our operating results may vary from period to period.

Our operating results may vary significantly from quarter to quarter and from year to year, depending on a variety of factors, including:

- customer demand for our products due to changes in purchasing requirements and research needs;
- the introduction of new products by us or our competitors;
- the timing of our research and development, sales and marketing expenses;
- general worldwide economic conditions affecting funding of research;
- expenses associated with defending our intellectual property portfolio;
- foreign currency exchange rate fluctuations;
- changes in tax laws, the results of tax audits or the measurement of tax uncertainties; and
- the success of identifying, acquiring and integrating businesses that complement our product offerings, add new technology or add presence in a market.

Consequently, results for any interim or full year period may not necessarily be indicative of results in subsequent periods.

A significant proportion of our Products revenues are from academic centers, funded by government grants in our major markets globally.

Governments around the world have been reviewing long term public funding of life science research in response to the problems arising from global financial pressures. As a result, the available funds for discretionary purchases from market to market have been capped or reduced based on available national budgets. Reduced grants for researchers could impact our business, in the amount, price and type of products bought and used by customers.

A significant proportion of our Products revenues are from customers in pharmaceutical and biotech companies.

Globally, pharmaceutical companies are challenging internal budgets and the return of investment from their R&D spend. This could impact our business, in the amount, price and type of products bought and used by customers.

Our future success will depend in part upon our ability to enhance existing products, develop and introduce new products and realize commercial acceptance of those products, in a rapidly changing technological environment.

The market for our products is characterized by rapidly changing technology, evolving industry standards and new product introductions, which may make our existing products obsolete. Our future success will depend in part upon our ability to enhance existing products, develop and introduce new products, and realize commercial acceptance of those products.

The development of new or enhanced products is a complex and uncertain process requiring the accurate anticipation of technological and market trends, as well as precise technological execution. In addition, the successful development of new products will depend on the development of new technologies. We will be required to undertake time-consuming and costly development activities and may need to seek regulatory approval for these new products. We may experience difficulties that could delay or prevent the successful development, introduction and marketing of these new products. Regulatory clearance or approval of any new products may not be granted by the FDA, state-wide agency or foreign regulatory authorities on a timely basis, or at all, and the new products may not be successfully commercialized.

Our inability to carry out certain of our marketing and sales plans may make it difficult for us to grow or maintain our business.

Our marketing program is designed to more directly service its end users, while simultaneously promoting the Enzo Life Sciences brand, with reference to our acquired brands. We will continue to reach out to our customers using our direct field sales force, in-house business team, the on-going enhancement of our interactive websites, continued attendance at top industry trade meetings, and publications to customers and in leading scientific journals. In addition to our direct sales, we operate worldwide through wholly-owned subsidiaries in the U.S., Switzerland, Belgium, Germany, and the UK, a branch office in France and a network of third-party distributors in most other significant markets. If we are unable to successfully continue these programs, we may be unable to grow and our business could suffer.

We face significant competition, which could cause us to decrease the prices for our products or render our products uneconomical or obsolete, any of which could reduce our revenues and limit our growth.

Our competitors in the biotechnology industry in the United States and abroad are numerous and include major pharmaceutical, energy, food and chemical companies, as well as specialized genetic engineering firms. Many of our large competitors have substantially greater resources than us and have the capability of developing products which compete directly with our products. Many of these companies are performing research in the same areas as we are. The markets for our products are also subject to competitive risks because markets are highly price competitive. Our competitors have competed in the past by lowering prices on certain products.

These competitive conditions could, among other things:

- require us to reduce our prices to retain market share;
- require us to increase our marketing efforts, which could reduce our profit margins;
- increase our cost of labor to attract qualified personnel;
- render our biotechnology products uneconomical or obsolete; or
- reduce our revenue.

We depend on distributors and contract manufacturers and suppliers for materials, which could impair our ability to manufacture or distribute our products.

We manufacture and distribute our own brand products and the products of third party manufacturers and suppliers. Distributors also sell our branded products. To the extent we are unable to maintain or replace a distributor in a reasonable time period, or on commercially reasonable terms, if at all, our operations could be disrupted.

Outside distributors, suppliers and contract manufacturers provide key finished goods, components and raw materials used in the sale and manufacture of our products. Although we believe that alternative sources for components and raw materials are available, any supply interruption in a limited or sole source component or raw material would harm our ability to manufacture our products until a new source of supply is identified and qualified. In addition, an uncorrected defect or supplier's variation in a component or raw material, either unknown to us or incompatible with our manufacturing process, could harm our ability to manufacture products. We might not be able to find a sufficient alternative supplier in a reasonable time period, or on commercially reasonable terms, if at all. If we fail to obtain a supplier for the components of our products, our operations could be disrupted.

We use hazardous materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be costly and time-consuming.

Our manufacturing and research and development processes involve the storage, use and disposal of hazardous substances, including hazardous chemicals, biological hazardous materials and radioactive compounds. We are subject to governmental regulations governing the use, manufacture, storage, handling and disposal of materials and waste products. Although we believe that our safety and environmental management practices and procedures for handling and disposing of these hazardous materials are in accordance with good industry practice and comply with applicable laws, permits, licenses and regulations, the risk of accidental environmental or human

contamination or injury from the release or exposure of hazardous materials cannot be completely eliminated. In the event of an accident, we could be held liable for any damages that result, including environmental clean-up or decontamination costs, and any such liability could exceed the limits of, or fall outside the coverage of, our insurance.

We may not be able to maintain insurance on acceptable terms, or at all. We could be required to incur significant costs to comply with current or future environmental and public and workplace safety and health laws and regulations.

Risks relating to our Intellectual Property and Regulatory Approval

We are currently subject to, and may in the future become subject to additional, U.S. state and federal, and non-U.S. laws and regulations, industry guidelines, and contracts, imposing obligations on how we collect, store, use and process personal information. Our actual or perceived failure to comply with such obligations could harm our business. Ensuring compliance with such laws could also impair our efforts to maintain and expand our customer base, and thereby decrease our revenue.

We are, and may increasingly become, subject to various laws and regulations, as well as contractual obligations and mandatory industry standards, relating to data privacy and security in the jurisdictions in which we operate and/or offer our goods and/or services. The regulatory environment related to data privacy and security is increasingly rigorous, with new and constantly changing requirements potentially applicable to our business, and some enforcement practices are likely to remain uncertain for the foreseeable future. These laws and regulations may be interpreted and applied differently over time and from jurisdiction to jurisdiction, and it is possible that they will be interpreted and applied in ways that may have a material adverse effect on our business, financial condition, results of operations and prospects. As an example, the HIPAA privacy regulations govern the use and disclosure of protected health information by covered healthcare providers, as well as health insurance plans. They also set forth certain rights that an individual has with respect to his or her protected health information maintained by a covered plan, including the right to access or amend certain records containing protected health information or to request restrictions on the use or disclosure of protected health information. The HIPAA security regulations establish requirements for safeguarding the confidentiality, integrity and availability of protected health information that is electronically transmitted or electronically stored. HIPAA violations are subject to civil and criminal penalties. In the United States, various federal and state regulators, including governmental agencies like the FTC, have adopted, or are considering adopting, laws and regulations regarding the processing of personal information, privacy and/or data security. According to the FTC, failing to take appropriate steps to keep consumers' personal information secure or using or disclosing personal information in violation of a company's privacy notice may constitute unfair or deceptive acts or practices, in or affecting commerce in violation of the FTC Act. The FTC generally expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business and the cost of available tools to improve security and reduce vulnerabilities. On the state specific level, several state laws generally require data owners to implement reasonable security measures to protect the personal information collected from residents. These laws generally require a data owner to implement reasonable security procedures and practices appropriate to the nature of the information, and to protect the personal information from unauthorized access, destruction, use, modification, or disclosure. As state laws are changing rapidly, we may also become subject to additional data privacy and security laws and regulations in the future, and we anticipate that states and potentially, the federal government, could enact new or amended legislation to strengthen data privacy and security standards, which may cause us to incur additional costs and expenses to maintain compliance and could subject us to fines, penalties and negative publicity in the event of a breach or violation under any such law or regulation. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, international or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. For example, the California Consumer Privacy Act of 2018, which provides comprehensive consumer privacy rights for California residents and imposes obligations on companies that process their personal information and meet certain revenue or volume processing thresholds, came into effect on January 1, 2020, and was further amended by the CPRA, effective January 1, 2023. The CCPA is also subject to extensive regulations, which are still being finalized. Among other things, the CCPA requires covered companies to provide certain disclosures to California residents and provide such residents consumer privacy rights, including the ability to opt-out of certain sales of their personal information, as well as to be able to delete or access personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches. This

limited private right of action may increase the likelihood of, and risks associated with, data breach litigation, including class action litigation. In addition, laws in all 50 U.S. states require businesses to provide notice to individuals, and in some states, to regulators and consumer reporting agencies, in the event of a data breach. Notification triggers and exceptions vary by state. Generally, all states with breach notification laws require notice if the information breached includes a state resident's name in combination with: a Social Security number, state ID or driver's license number, or financial account information. Some states include other types of personal information as a trigger, such as health information, biometrics, login credentials, tax ID or date of birth. The majority of state data security breach notification laws also provide a safe harbor from the laws' notification requirements if the personal information affected by the security breach was encrypted and the encryption key was not affected by the security breach. International laws, regulations and standards in many jurisdictions apply to certain collection, use, retention, security, disclosure, transfer, marketing and other processing of personal information. For example, the GDPR, which became effective in May 2018, increased the jurisdictional reach of data protection laws of the European Economic Area and introduced new requirements for handling personal data. EU member states are tasked under the GDPR to enact, and have enacted, certain implementing legislation that adds to and/or further interprets the GDPR requirements and potentially extends our obligations and potential liability for failing to meet such obligations. The GDPR, together with national legislation, regulations and guidelines of the EU member states governing the processing of personal data, impose strict obligations and restrictions on the ability to collect, use, retain, protect, disclose, transfer and otherwise process personal data. In particular, the GDPR includes requirements to establish a legal basis for processing, higher standards for obtaining consent from individuals to process certain types of personal data, more robust disclosures to individuals, a strengthened individual data rights regime, requirements to implement safeguards to protect the security and confidentiality of personal data, data breach notification obligations to appropriate data protection authorities or individuals, limitations on retention and secondary uses of personal information, increased requirements pertaining to health data and other sensitive types of personal data, and additional obligations when entities contract with third-party processors to process personal data, including personal data transfer restrictions. The GDPR allows for fines for certain serious violations of up to 4% of global annual revenue or €20 million, whichever is greater, and other administrative penalties. Following the withdrawal of the United Kingdom from the European Union, data privacy and security laws that are substantially similar to the GDPR are in effect in the United Kingdom, which carry similar risks and authorize similar fines for certain violations. Certain legal regimes outside of the United States, including in the United Kingdom and under the GDPR in the European Economic Area, restrict the transfer of personal data to the United States unless certain measures are in place, including, for example, executing Standard Contractual Clauses through certification to the Data Privacy Framework. Due to evolving regulatory guidance, we are continuing to evaluate the validity of the data transfer mechanisms and we may need to invest in additional technical, legal and organizational safeguards in the future to avoid disruptions to data flows within our business and to and from our customers and service providers. We use third-party credit card processors to process payments from our customers. Through our agreements with our third-party credit card processors, we are subject to payment card association operating rules, including the PCI-DSS, which governs a variety of areas, including how consumers and customers may use their cards, the security features of cards, security standards for processing, data security and allocation of liability for certain acts or omissions, including liability in the event of a data breach. Any change in these rules or standards and related requirements could make it difficult or impossible for us to comply. Additionally, any data breach or failure to hold certain information in accordance with PCI-DSS may have an adverse effect on our business and its operations. All of these evolving compliance and operational requirements impose significant costs, such as costs related to organizational changes, implementing additional protection technologies, training employees and engaging consultants and legal advisors, which are likely to increase over time. In addition, such requirements may require us to modify our data processing practices and policies, utilize management's time or divert resources from other initiatives and projects, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Any failure or perceived failure by us to comply with any applicable federal, state or similar non-U.S. laws and regulations relating to data privacy and security could result in damage to our reputation, as well as proceedings or litigation by governmental agencies or other third parties, including class action privacy litigation in certain jurisdictions, which could subject us to significant fines, sanctions, awards, injunctions, penalties or judgments. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

Protecting our proprietary rights is difficult and costly. If we fail to adequately protect or enforce our proprietary rights, we could lose potential revenue from licensing and royalties.

Our potential revenue may be affected by our ability to obtain, maintain and enforce our patents. In addition, our ability to commercialize any product successfully may depend on our ability to obtain and maintain patents of sufficient scope to prevent third parties from developing similar or competitive products. In the absence of patent protection, competitors may impact our business by developing and marketing substantially equivalent products and technology.

Patent disputes are frequent and can preclude the commercialization of products. We have in the past been, are currently, and may in the future be, involved in material patent litigation, such as the matters discussed under ''Part I - Item 3. Legal Proceedings'' in this report. Patent protection litigation is time-consuming, and we have incurred and anticipate continuing to incur significant legal costs. In addition, an adverse decision could force us to either obtain third-party licenses at a material cost or cease using the technology or product in dispute.

We have filed applications for United States and foreign patents covering certain aspects of our technology, but there is no assurance that pending patents will issue or as to the degree of protection which any owned patent might afford.

Lawsuits, including claimed patent infringements, in the biotechnology industry are not uncommon. If we become involved in any significant litigation, we would suffer as a result of the diversion of our management's attention, the expense of litigation and any judgments against us.

In addition to intellectual property litigation for infringement, other substantial, complex or extended litigation could result in large expenditures by us and distraction of our management. Patent litigation is time-consuming and costly in its own right and could subject us to significant liabilities to third parties. In addition, an adverse decision could force us to either obtain third-party licenses at a material cost or cease using the technology or product in dispute. In addition, lawsuits by employees, stockholders, collaborators or distributors could be very costly and substantially disrupt our business. Disputes from time to time with companies or individuals are not uncommon in the biotechnology industry, and we cannot assure you that we will always be able to resolve them out of court.

We also utilize certain unpatented proprietary technology, and no assurance can be given that others will not independently develop substantially equivalent proprietary technology, that such proprietary technology will not be disclosed or that we can meaningfully protect our rights to such proprietary technology.

We market certain of our products as Research Use Only, or RUO, in the United States. Our RUO products support the research and development activities conducted by academic/research institutions and biopharmaceutical companies of potential diagnostic and therapeutic products and services for which they may later pursue investigation and clearance, authorization or approval from regulatory authorities, such as the FDA.

RUO products belong to a separate regulatory classification under a long-standing FDA regulation. From an FDA perspective, products that are intended for research use only and are labeled as RUO are not regulated by the FDA as in vitro diagnostic devices for clinical use, and are therefore not subject to those specific regulatory requirements. RUO products may be used or distributed for research use without first obtaining FDA clearance, authorization or approval. The products must bear the statement: ''For Research Use Only. Not for Use in Diagnostic Procedures.'' RUO products cannot make any claims related to safety, effectiveness or diagnostic utility, and they cannot be intended for human clinical diagnostic use. Accordingly, a product labeled RUO, but intended or promoted for clinical diagnostic use, may be viewed by the FDA as adulterated and misbranded under the Food, Drug and Cosmetic Act (''FDCA'') and subject to FDA enforcement action. The FDA will consider the totality of the circumstances surrounding distribution and use of an RUO product, including how the product is marketed and to whom, when determining its intended use. If the FDA disagrees with our RUO status for our product, we may be subject to FDA enforcement activities, including, without limitation, requiring us to seek clearance, authorization or approval for our products.

If we are unable to meet regulatory quality and manufacturing requirements and standards applicable to the products we manufacture, our business, financial condition and operating results could be harmed.

As a manufacturer of products for the biopharmaceutical, research and development, diagnostic manufacturing, and personal care industries, we are required to comply with certain quality and good manufacturing practices requirements and standards.

We maintain compliance with various quality management systems and good manufacturing practices requirements and standards imposed by the FDA and international regulatory authorities, including ensuring that we maintain documentation and standard operating procedures for quality control, quality assurance, and the manufacturing of our products. We are also required to register our diagnostic manufacturing facilities and list our diagnostic products with the FDA. As such, we are subject to review and inspections by regulators and our customers to assess our compliance with these requirements. Accordingly, we must continue to spend time, money, and effort to ensure regulatory compliance.

Any failure to comply with ongoing regulatory requirements or to meet customer expectations may significantly and adversely affect our ability to commercialize and generate revenue from our products, and the value of our business and our operating results may be adversely affected.

Financial Risks

We have experienced significant losses in our continuing operations in fiscal years ended July 31, 2024 and 2023, and our losses have resulted in the use of cash in operations. If such losses and cash uses continue, the value of your investment could decline significantly.

We incurred net losses before income taxes from continuing operations of $9.8 million and $25.0 million for the fiscal years ended July 31, 2024 and 2023, respectively. If our revenues do not increase, or if our operating expenses exceed expectations or cannot be reduced, we may continue to suffer substantial losses and use cash in operations, which could have an adverse effect on our business and adversely affect your investment in our Company. We have an accumulated deficit of $294.4 million as of July 31, 2024. For fiscal 2024, net cash used in operating activities of the continuing operations was $11.3 million, which is net of approximately $15.0 million used in the discontinued operations. We may continue to generate net losses. We believe our cash and cash equivalents at July 31, 2024 are sufficient for our operations and non-discretionary capital needs for at least twelve months from the filing of this report. Failure to generate additional product revenues at higher margins, obtain additional capital or manage discretionary spending could have an adverse effect on our financial position, results of operations and liquidity.

Other risks relating to our business

Our failure to establish and maintain effective internal controls over financial reporting and information technology access could result in material misstatements in our consolidated financial statements, our failure to meet our reporting obligations and cause investors to lose confidence in our reported financial information, which in turn could cause the trading price of our common stock to decline.

Under Section 404 of the Sarbanes-Oxley Act of 2002 and rules promulgated by the SEC, companies are required to conduct a comprehensive evaluation of their internal control over financial reporting. As part of this process, we are required to document and test our internal control over financial reporting; and management is required to assess and issue a report concerning our internal control over financial reporting. Our internal control over financial reporting may not prevent or detect misstatements because of its inherent limitations, including the possibility of human error, the circumvention or overriding of controls, or fraud.

Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be prevented or detected timely. Even effective internal controls over financial reporting can provide only reasonable assurance with respect to the preparation and fair presentation of consolidated financial statements.

The existence of a material weakness could result in errors in our consolidated financial statements that could result in a restatement of consolidated financial statements, which could cause us to fail to meet our reporting obligations, lead to a loss of investor confidence and have a negative impact on the trading price of our common stock.

In connection with our July 31, 2023 audited consolidated financial statements, Enzo's management identified a deficiency, which it considered to be a ''material weakness,'' which could have reasonably resulted in a material misstatement in the Company's consolidated financial statements. The Company has implemented remediation measures. As of the year ended July 31, 2024, management believes that it has implemented measures sufficient to fully remediate the deficiency that had resulted in the material weakness.

Material weaknesses in our internal control over financial reporting could materially adversely affect our ability to timely and accurately report our results of operations and financial condition. The accuracy of Enzo's financial reporting depends on the effectiveness of its internal controls over financial reporting.

Internal controls over financial reporting can provide only reasonable assurance with respect to the preparation and fair presentation of consolidated financial statements and may not prevent or detect misstatements. Failure to maintain effective internal controls over financial reporting, or lapses in disclosure controls and procedures, could undermine the ability to provide accurate disclosure (including with respect to financial information) on a timely basis, which could cause investors to lose confidence in Enzo's disclosures (including with respect to financial information), require significant resources to remediate the lapse or deficiency, and expose it to legal or regulatory proceedings. In connection with our July 31, 2023 audited consolidated financial statements, Enzo's management identified a deficiency, which it considered to be a ''material weakness,'' which could have reasonably resulted in a material misstatement in the Company's consolidated financial statements. As noted above, the Company implemented remediation measures. As of our fiscal year ended July 31, 2024, management believes that it has implemented measures sufficient to fully remediate the deficiency resulting in the material weakness. Management concluded that the internal controls over financial reporting were effective as of July 31, 2024.

Cyber security risks and the failure to maintain the confidentiality, integrity, and availability of our computer hardware, software, and Internet applications and related tools and functions could result in damage to the Company's reputation and/or subject the Company to costs, fines, or lawsuits.

The integrity and protection of our own data, and that of our customers and employees, is critical to the Company's business. The regulatory environment governing information, security and privacy laws is increasingly demanding and continues to evolve. Maintaining compliance with applicable security and privacy regulations may increase the Company's operating costs and/or adversely impact the Company's ability to market its products and services to customers. Although the Company's computer and communications hardware is protected through physical and software safeguards, it is still vulnerable to fire, storm, flood, power loss, earthquakes, telecommunications failures, physical or software break-ins, software viruses, and similar events. These events could lead to the unauthorized access, disclosure and use of non-public information. The techniques used by criminal elements to attack computer systems are sophisticated, change frequently and may originate from less regulated and remote areas of the world. As a result, the Company may not be able to address these techniques proactively or implement adequate preventative measures. If the Company's computer systems are compromised, it could be subject to fines, damages, litigation, and enforcement actions, customers could curtail or cease using its applications, and the Company could lose trade secrets, the occurrence of which could harm its business.

We rely on network and information systems and other technology whose failure or misuse could cause, and has caused, a disruption of services or loss or improper disclosure of personal data, business information, including intellectual property, or other confidential information, resulting in increased costs, loss of revenue or other harm to our business.

Network and information systems and other technologies, including those related to the Company's network management, are important to its business activities. The Company also relies on third party providers for certain technology and ''cloud-based'' systems and services that support a variety of business operations. Network and information systems-related events affecting the Company's systems, or those of third parties upon which the Company's business relies, such as computer compromises, cyber threats and attacks, ransomware attacks, computer viruses, worms or other destructive or disruptive software, process breakdowns, denial of service attacks, malicious social engineering or other malicious activities, or any combination of the foregoing, as well as power outages, equipment failure, natural disasters (including extreme weather), terrorist activities, war, human or technological error or malfeasance that may affect such systems, could result in disruption of the Company's business and/or loss, corruption or improper disclosure of personal data, business information, including

intellectual property, or other confidential information. In addition, any design or manufacturing defects in, or the improper implementation of, hardware or software applications the Company develops or procures from third parties could unexpectedly compromise information security. In recent years, there has been a rise in the number of cyber-attacks and ransomware attacks on companies' network and information systems, and such attacks have become more sophisticated, targeted and difficult to detect and prevent. As a result, the risks associated with such an event continue to increase, particularly as the Company's digital businesses expand. The Company's security measures and internal controls that are designed to protect personal data, business information, including intellectual property, and other confidential information, to prevent data loss, and to prevent or detect security breaches, have not always provided, and cannot provide, absolute security and have at times failed and may not be successful in preventing these events from occurring, particularly given that techniques used to access, disable or degrade service, or sabotage systems change frequently, and any network and information systems-related events have required and could continue to require the Company to expend significant resources to remedy such event. Moreover, the development and maintenance of these measures is costly and requires ongoing monitoring and updating as technologies change and efforts to overcome security measures become more sophisticated. The Company's cyber risk insurance may not be sufficient to cover all losses from any future breaches of our systems.

A significant cyber attack, ransomware attack, failure, compromise, breach or interruption of the Company's systems, or those of third parties upon which its business relies, could result in a disruption of its operations, damage to its reputation or brands, regulatory investigations and enforcement actions, lawsuits, remediation costs, a loss of customers, or revenues and other financial losses. If any such failure, interruption or similar event results in the improper disclosure of information maintained in the Company's information systems and networks or those of its vendors, including financial, personal, credit card, confidential and proprietary information relating to personnel, customers, vendors and the Company's business, including its intellectual property, the Company could also be subject to liability under relevant contractual obligations and laws and regulations protecting personal data and privacy. In addition, media or other reports of perceived security vulnerabilities to our systems or those of third parties upon which the Company's business relies, even if nothing has actually been attempted or occurred, could also adversely impact our brand and reputation and materially affect our business.

In April 2023, the Company experienced a ransomware attack that impacted certain critical information technology systems, principally of the discontinued operation. The Company has incurred, and may continue to incur, certain expenses related to this attack and remains subject to risks and uncertainties as a result of the incident. Additionally, security and privacy incidents have led to, and may continue to lead to, additional regulatory scrutiny and class action litigation exposure. This incident severely curtailed our ability to perform clinical reference testing, and we were forced to outsource much of the testing to third parties, including Labcorp, which negatively impacted the 2023 fiscal period's services revenue and increased costs due to a higher volume of outsourcing testing to third parties in the discontinued operations. See Item 3 Legal Proceedings for additional information.

If we fail to attract and retain key personnel, including our senior management, our business could be adversely affected.

Most of our products and services are highly technical in nature. In general, only highly qualified and trained scientists and technician personnel have the necessary skills to develop proprietary technological products and market our products and support our research and development programs.

In addition, some of our manufacturing, quality control, safety and compliance, information technology and e-commerce related positions are highly technical as well. Further, our sales personnel are highly trained and are important to retaining and growing our businesses. Our success depends in large part upon our ability to identify, hire, retain and motivate highly skilled professionals.

We face intense competition for these professionals from our competitors, customers, marketing partners and other companies throughout the industries in which we compete. Since our inception, we have successfully recruited and hired qualified key employees. Any failure on our part to hire, train, and retain a sufficient number of qualified professionals would seriously damage our business.

We depend heavily on the services of our senior management. We believe that our future success depends on the continued services of such management. Our business may be harmed by the loss of a significant number of our senior management in a short period of time.

The insurance we purchase to cover our potential business risk may be inadequate.

Although we believe that our present insurance coverage is sufficient to cover our current estimated exposures, there can be no assurance that we will not incur losses or liabilities in excess of our policy limits. In addition, although we believe that we will be able to continue to obtain adequate coverage, there can be no assurance that we will be able to do so at acceptable costs.

We are, and may become subject to, legal proceedings, arbitration proceedings, investigations, and other claims or disputes, which are costly to defend and, if determined adversely to us, could require us to pay fines or damages, undertake remedial measures, or prevent us from taking certain actions, any of which could adversely affect our business.

We are, and in the future may become, a party to legal proceedings, arbitration proceedings, investigations, and other claims or disputes, which have related and may relate to subjects including our recent ransomware attack and data breach, breach of fiduciary duties relating to our commercial transactions, intellectual property, securities, employee relations, or compliance with applicable laws and regulations (see Part I - Item 3, Legal Proceedings).

We face a significant risk due to ongoing litigation that has the potential to result in future financial obligations, adversely impacting the company's business and profitability. The outcome of the present legal proceedings may lead to financial liabilities, such as settlements or damages, posing a material threat to our financial condition and cash flow. Moreover, adverse litigation outcomes may harm our reputation, affecting customer trust and investor confidence, thereby influencing market share and brand value. While we are actively managing and addressing the litigation, uncertainties persist, emphasizing the importance of transparency in communication with stakeholders and the implementation of effective risk mitigation strategies.

Risks relating to our international operations

Foreign currency exchange rate fluctuations may adversely affect our business.

Since we operate as a multinational corporation that sells and sources products in many different countries, changes in exchange rates could in the future adversely affect our cash flows and results of operations.

Furthermore, reported sales and purchases made in non-U.S. currencies by our international businesses, when translated into U.S. dollars for financial reporting purposes, fluctuate due to exchange rate movement. Due to the number of currencies involved, the variability of currency exposures and the potential volatility of currency exchange rates, we cannot predict the effect of exchange rate fluctuations on future sales and operating results.

We are subject to economic, political and other risks associated with our significant international business, which could adversely affect our financial results.

We operate internationally primarily through wholly-owned subsidiaries located in North America and Europe. Revenues outside the United States were approximately 39% of total revenues in fiscal year 2024. Our sales and earnings could be adversely affected by a variety of factors resulting from our international operations, including

- future fluctuations in foreign currency exchange rates;
- complex regulatory requirements and changes in those requirements;
- trade protection measures and import or export licensing requirements;
- multiple jurisdictions and differing tax laws, as well as changes in those laws;
- restrictions on our ability to repatriate investments and earnings from foreign operations;
- changes in the political or economic conditions in a country or region;
- changes in shipping costs; and
- difficulties in collecting on accounts receivable.

If any of these risks materialize, we could face substantial increases in costs, the reduction of profits and the inability to do business.

With our commercialization activities outside of the United States, we are subject to the risk of inadvertently conducting activities in a manner that violates the U.S. Foreign Corrupt Practices Act and similar laws. If that occurs, we may be subject to civil or criminal penalties which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

We are subject to the U.S. Foreign Corrupt Practices Act (''FCPA''), which prohibits corporations and individuals from paying, offering to pay, or authorizing the payment of anything of value to any foreign government official, government staff member, political party, or political candidate in an attempt to obtain or retain business or to otherwise influence a person working in an official capacity. We are also subject to the UK Anti-Bribery Act, which prohibits both domestic and international bribery, as well as bribery across both public and private sectors.

In the course of establishing and expanding our commercial operations and seeking regulatory approvals outside of the United States, we will need to establish and expand business relationships with various third parties and we will interact more frequently with foreign officials, including regulatory authorities. Expanded programs to maintain compliance with such laws will be costly and may not be effective. Any interactions with any such parties or individuals where compensation is provided that are found to be in violation of such laws could result in substantial fines and penalties and could materially harm our business. Furthermore, any finding of a violation under one country's laws may increase the likelihood that we will be prosecuted and be found to have violated another country's laws. If our business practices outside the United States are found to be in violation of the FCPA, UK Anti-Bribery Act or other similar law, we may be subject to significant civil and criminal penalties, which could have a material adverse effect on our financial condition and results of operations.

International political, compliance and business factors, including the military conflict in Ukraine, the conflict in Gaza, and trade tensions between the U.S. and China, can negatively impact our operations and financial results.

We engage in business globally, with approximately 39% of our revenue in fiscal 2024 coming from outside the U.S. Changes, potential changes or uncertainties in social, political, regulatory, and economic conditions or laws and policies governing foreign trade, manufacturing, and development and investment in the territories and countries where we or our customers operate, or governing the health care system, can adversely affect our business and financial results. Such impacts could negatively impact certain markets we serve, resulting in an adverse impact on our sales revenue.

Political and military conflicts may disrupt our business or negatively impact global economic or business conditions. For example, Russia's military invasion of Ukraine, and the response by the US and European countries to that invasion, have caused severe political, humanitarian and economic crises, not only in Europe but globally. Restrictions on trade, particularly involving certain foods and energy supplies, have increased prices, led to widespread inflation and otherwise aggravated economic challenges. While we have not historically had significant business in either Russia, Ukraine, or Israel, the broader impact of the conflict could negatively impact our operations and financial results.

The application of laws and regulations impacting global transactions is often unclear and may at times conflict. Compliance with these laws and regulations may involve significant costs or require changes in our business practices that result in reduced revenue and profitability. Non-compliance could also result in fines, damages, criminal sanctions, prohibited business conduct, and damage to our reputation. We incur additional legal compliance costs associated with our global operations and could become subject to legal penalties in foreign countries if we do not comply with local laws and regulations, which may be substantially different from those in the U.S.

Risks Relating to our Common Stock

Our stock price has been volatile, which could result in substantial losses for investors.

Our common stock is quoted on the New York Stock Exchange, and there has been historical volatility in the market price of our common stock. The trading price of our common stock has been, and is likely to continue to be, subject to significant fluctuations due to a variety of factors, including:

- fluctuations in our quarterly operating and earnings per share results;
- the gain or loss of significant contracts;
- loss of key personnel;

- announcements of technological innovations or new products by us or our competitors;
- delays in the development and introduction of new products;
- legislative or regulatory changes;
- general trends in the industries in which we operate;
- recommendations and/or changes in estimates by equity and market research analysts;
- biological or medical discoveries;
- disputes and/or developments concerning intellectual property, including patents and litigation matters;
- public concern as to the safety of new technologies;
- sales of common stock of existing holders;
- securities class action or other litigation;
- developments in our relationships with current or future customers and suppliers; and
- general economic conditions, both in the United States and worldwide.

In addition, the stock market in general has experienced extreme price and volume fluctuations that have affected the market price of our common stock, as well as the stock of many companies in our industries. Often, price fluctuations are unrelated to the operating performance of the specific companies whose stock is affected.

In the past, following periods of volatility in the market price of a company's stock, securities class action litigation has often occurred against the issuing company. If we were subject to this type of litigation in the future, we could incur substantial costs and a diversion of our management's attention and resources, each of which could have a material adverse effect on our revenue and earnings. Any adverse determination in this type of litigation could also subject us to significant liabilities.

It may be difficult for a third party to acquire us, which could inhibit stockholders from realizing a premium on their stock price.

Our certificate of incorporation, as amended, and by-laws contain provisions that could have the effect of delaying, deferring or preventing a change in control of the Company that stockholders may consider favorable or beneficial due to a majority stockholder vote requirement. These provisions could discourage proxy contests and make it more difficult for stockholders to elect directors and take other corporate actions. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock. These provisions include advance notice requirements for the submission by stockholders of nominations for election to the board of directors and for proposing matters that can be acted upon by stockholders at a meeting.

Future sales of shares of our common stock or the issuance of securities senior to our common stock could adversely affect the trading price of our common stock and our ability to raise funds in new equity offerings.

We are not restricted from issuing additional common stock, preferred stock or securities convertible into or exchangeable for common stock. Future sales of a substantial number of our shares of common stock or equity-related securities in the public market or privately, or the perception that such sales could occur, could adversely affect prevailing trading prices of our common stock, and could impair our ability to raise capital through future offerings of equity or equity-related securities. No prediction can be made as to the effect, if any, that future sales of shares of common stock or the availability of shares of common stock for future sale will have on the trading price of our common stock.

Our audit committee does not currently have three (3) independent members. If we fail to appoint an independent director that meets the New York Stock Exchange listing requirements for audit committees, the New York Stock Exchange could delist our common stock.

Upon the resignation of Dr. Mary Tagliaferri from the Board, effective as of August 6, 2024, our audit committee is composed of two independent directors, which is insufficient for purposes of Section 303A.07(a) of the NYSE Listed Company Manual, which requires an audit committee of at least three independent directors (the ''Audit Committee Requirements'').

Although as of the date of this Annual Report on Form 10-K we have not regained compliance with the Audit Committee Requirements, we are in the process of searching for an independent director for appointment to the Board who can serve on our audit committee in accordance with NYSE listing requirements. We intend to regain compliance with the Audit Committee Requirements but cannot be sure that such compliance will be achieved.

If we fail to satisfy the Audit Committee Requirements, the NYSE may suspend from trading or delist our common stock. Such suspension or delisting would likely have a negative effect on the liquidity and price of our common stock and would impair the ability of investors to sell or purchase our common stock. In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with the Audit Committee Requirements would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, or prevent future non-compliance with the NYSE's listing requirements.

Item 1B. Unresolved Staff Comments

None

Item 1C. Cybersecurity

Risk Management and Strategy

We have implemented and maintain various information security processes and technologies designed to identify, assess and manage material risks from cybersecurity threats to our computer networks, third party hosted services, communications systems, hardware and software, and our critical data, including intellectual property and confidential information that is proprietary, strategic, or competitive in nature (''Information Systems and Data'').

Our Senior VP of Global IT and System Operations, IT Security Officer and the information security team, in conjunction with our legal team and third-party service providers, help identify, assess and manage our cybersecurity threats and risks. Our Senior VP of Global IT and System Operations, IT Security Officer and the information security team identify and assess risks from cybersecurity threats by continuously monitoring and evaluating our threat environment using various methods, including, for example: conducting vulnerability assessments to identify vulnerabilities, conducting scans of corporate devices and network infrastructure, analyzing reports of potential, known and identified threats and actors, using automated and manual tools to monitor for, identify, or evaluate threats and risks, conducting audits and threat assessments, and utilize third party managed detection and response (MDR) 24/7/365 cybersecurity vendor services that help identify cybersecurity threats, using third party threat assessments and external intelligence feeds, and evaluating our company's and our industry's risk profile.

We implement and maintain technical, physical, and organizational measures, processes, and policies that are designed to manage and mitigate material risks from cybersecurity threats to our Information Systems and Data, including, for example: dedicated cybersecurity staff, an incident response plan and policy, a vulnerability management policy, risk assessment process, processes and policies to address access to systems and networks, physical security protocols, processes for asset management, encryption of certain Company data, systems and networks, penetration testing, IT risk assessments and employee training. We also maintain cybersecurity insurance.

Our assessment and management of risks from cybersecurity threats are integrated into our overall risk management processes. For example, cybersecurity risk is identified and addressed as a component of our general risk management strategy. We have also established a cybersecurity committee consisting of our Senior VP of Global IT and System Operations, IT Security Officer, information security team, and other senior leaders to oversee our cybersecurity risk management process and strategies to mitigate cybersecurity threats.

We use third-party service providers to assist us from time to time to identify, assess, and manage risks from cybersecurity threats, including professional services firms, cybersecurity consultants, managed cybersecurity service providers and penetration testing firms.

We have a vendor management program to manage cybersecurity risks associated with our use of certain service providers. The program includes, depending on the nature of the services and the identity of the service provider, completion of security questionnaires, review of the service provider's written security program, and imposition of cybersecurity-related contractual obligations on the provider.

For a description of the risks from cybersecurity threats that may materially affect us and how they may do so, see our risk factors under Item 1A. Risk Factors of this Form 10-K, including ''*Cybersecurity risks and the failure to maintain the confidentiality, integrity, and availability of our computer hardware, software and internet applications and related tools and functions could result in damage to the Company's reputation and/or subject the Company to costs, fines, or lawsuits",* and ''*We rely on network and information systems and other technology whose failure or misuse could cause, and has caused, a disruption of services or loss or improper disclosure of personal data, business information, including intellectual property, or other confidential information, resulting in increased costs, loss of revenue or other harm to our business."*

Governance

Our Board addresses the Company's cybersecurity risk management as part of its general oversight function. The Board is responsible for overseeing our cybersecurity risk management processes, including oversight of mitigation of risks from cybersecurity threats.

Our cybersecurity risk assessment and management processes are implemented and maintained by our Senior VP of Global IT and System Operations and IT Security Officer.

Our Senior VP of Global IT and System Operations in conjunction with the IT Security Officer implements programs and policy recommendations to integrate cybersecurity risk considerations into our overall risk management strategy and works with the information security team to communicate key priorities. Our Senior VP of Global IT and System Operations and IT Security Officer are responsible for helping to prepare the Company for cybersecurity incidents, approving cybersecurity processes, and reviewing security assessments and other security-related reports.

Our incident response plan is designed to escalate certain cybersecurity incidents to members of our incident response team and members of management depending on the circumstances, including executive management and the Board. Our Senior VP of Global IT and System Operations, IT Security Officer and information security team work with our incident response team to help us mitigate and remediate cybersecurity incidents of which they are notified. In addition, our incident response plan includes reporting to the Governance and Compliance Committee (''the Committee'') for certain cybersecurity incidents. The Committee periodically evaluates overall business continuity, compliance, regulatory, quality and safety systems effectiveness. The Committee includes, but is not limited to, the Company's IT Security Officer, Data Privacy Officer, Safety Officer, and Senior VP of Global IT and System Operations.

The Committee is updated during the quarterly Committee meetings by the Senior VP of Global IT and System Operations and the IT Security Officer concerning the Company's significant cybersecurity threats and risk and the processes we have implemented to address them. The Committee also receives reports, summaries or presentations related to cybersecurity threats, risk and mitigation. The Company's Senior VP of Commercial Operations, General Counsel, Chief Financial Officer and Chief Executive Officer may also participate in Committee meetings and will receive updates from the Committee as appropriate.

Item 2. Properties

The following are the principal facilities of the Company as of July 31, 2024:

Location	Primary use	Segments	Leased or Owned	Square footage
Farmingdale, NY	Manufacturing, research, sales and administrative office	Products	Owned	22,000
Farmingdale, NY	Manufacturing and administrative office	Products	Owned	36,000
New York, NY (Note 1)	Administrative office	Corporate and Other	Leased	11,300
Lausen, Switzerland (Note 2)	Operational headquarters in Europe, including sales and distribution	Products	Leased	9,626

Note 1 In June 2017, the lease was extended through June 2028. In July 2022, we sublet 7,200 square feet of this space for the remaining term of the lease, expiring June 2028.

Note 2 In June 2019, the lease was amended and extended through July 2020 and automatically renews for one year on each anniversary.

We believe the above facilities are suitable and adequate for the Company's current operating needs for its Products and ''Corporate and Other'' segments and that the production capacity in various locations is sufficient to manage services and product requirements.

We also are in a related party lease for a building formerly used by the clinical laboratory, which expires March 31, 2027.

Item 3. Legal Proceedings

Ransomware Attack

In April 2023, the Company experienced a ransomware attack (the ‘‘ransomware attack’’) that impacted certain critical information technology systems, principally of the discontinued operation. The Company later became aware that certain data, including names, test information, and Social Security numbers, was accessed, and in some instances, exfiltrated from the Company’s information technology systems as part of this incident. The investigation identified unauthorized access to or acquisition of clinical test information of approximately 2,470,000 individuals. The Social Security numbers of approximately 600,000 of these individuals may also have been involved. Additionally, the Company determined that some employees’ information may have been involved. The Company provided notice to the individuals whose information may have been involved, as well as to regulatory authorities, in accordance with applicable law.

As a result of the ransomware attack, Enzo was subject to regulatory inquiry from the New York Attorney General, a joint inquiry from the Connecticut and New Jersey Attorneys General and an inquiry from the Utah Attorney General. All inquiries asked questions about the ransomware attack, as well as the corrective actions taken in response. The Company responded to all such inquiries, and there have been no further inquiries from the Utah Attorney General. The matters with the New York, Connecticut and New Jersey Attorneys General are now closed, as they were resolved by agreements with each of the three states signed on August 8, 2024 for New York, August 12, 2024 for Connecticut, and August 13, 2024 for New Jersey. A provision was recorded in the consolidated financial statements as of July 31, 2024 based on the settlement terms of the agreements.

Enzo was also subject to regulatory inquiries from the U.S. Department of Health and Human Services Office for Civil Rights (the ‘‘Office for Civil Rights’’) regarding the ransomware attack. The Company has responded to all requests. It is not known at this time whether the Office for Civil Rights will seek a penalty against the Company. We are unable to evaluate the likelihood of an outcome, favorable or unfavorable, to the Company or to estimate the amount or range of any potential liability, if any, at this time.

There is also pending class action litigation:

In re Enzo Biochem Data Breach Litigation, No. 2:23-cv-04282 (EDNY)

In the Eastern District of New York (‘‘EDNY’’), twenty putative class actions were consolidated alleging various harms stemming from the April 2023 data incident. Lead counsel was appointed and filed a Consolidated Amended Complaint on November 13, 2023. The complaint sought to certify a federal class, as well as several state subclasses. The Consolidated Amended Complaint brings various statutory and common law claims including negligence, negligence per se, breach of fiduciary duty, breach of implied contract, breach of the implied covenant of good faith and fair dealing, violation of New York’s General Business Law § 349, Invasion of Privacy, violations of the Connecticut Unfair Trade Practices Act, and violations of the New Jersey Consumer Fraud Act. An agreement in principle to settle the case has been reached. We expect to have the agreement formalized before the end of the 2024 calendar year.

Maria Sgambati et al., v. Enzo Biochem, Inc., et al., Index No. 619511/2023 (N.Y. Sup. Ct.)

This is a putative class action pending in state court alleging various harms stemming from the April 2023 data incident. The complaint seeks to certify a class of New York residents. The complaint brings claims of negligence; negligence *per se*; breach of implied covenant and good faith and fair dealing; breach of duty; breach of implied contract; and violations of New York’s Deceptive Acts and Practices § 349. The Company has filed a motion to stay this action pending the resolution of the EDNY Federal Action, and the motion was granted by the court. The Company anticipates that the case will be dismissed once the settlement in the federal case receives final approval from the court, likely sometime in 2025.

Louis v. Enzo Biochem, Inc. et al., Index No. 653281/2023 (N.Y. Sup. Ct.)

This is a putative class action pending in state court alleging various harms stemming from the April 2023 data incident. The complaint seeks to certify a class of New York citizens. The complaint brings claims of negligence; negligence *per se*; breach of duty; breach of implied contract; breach of implied covenant of good faith and fair

dealing; and violations of New York's Deceptive Acts and Practices § 349. The Company has filed a motion to stay this action pending the resolution of the EDNY Federal Action and the motion remains pending. The Company anticipates that the case will be dismissed once the settlement in the federal case receives final approval from the court, likely sometime in 2025.

A provision was made in the consolidated financial statements as of July 31, 2023 for the above class action litigation matters based on a reasonable estimate of loss and updated as of July 31, 2024; however, the actual exposure may differ.

Patent Matters

The Company (as plaintiff) has brought cases in the United States District Court for the District of Delaware (''the Court''), alleging patent infringement against various companies. At this time, all of such cases have been resolved, except for one described below.

There is currently one case that was originally brought by the Company that is still pending in the Court. In that case, Enzo alleges patent infringement of the '197 patent against Becton Dickinson defendants. The claims in that case are stayed.

On September 2, 2021, the U.S. Patent and Trademark Office (''PTO'') issued a non-final office action in an *ex parte* reexamination concerning the '197 Patent. In the office action, the PTO rejected certain claims of the '197 Patent under 35 U.S.C. §§ 102 and 103, and for nonstatutory double-patenting. Enzo responded to the office action on January 3, 2022, and the proceeding remains pending. Becton Dickinson requested another *ex parte* reexamination concerning the '197 patent on July 26, 2022. On September 16, 2022, the PTO ordered that *ex parte* reexamination as to certain claims of the '197 patent. Enzo filed a petition to terminate that second reexamination proceeding on November 16, 2022, which was denied on July 26, 2024. The PTO merged the *ex parte* reexamination proceedings as of August 2, 2024. On September 17, 2024, the PTO issued an office action, rejecting the claims subject to the merged reexamination proceedings.

Arbitration with former executives

The Company terminated the employment of Elazar Rabbani, Ph.D., the Company's former Chief Executive Officer, effective April 21, 2022. Dr. Rabbani was a board director of the Company until the Annual Meeting on January 31, 2024, when his term expired. Dr. Rabbani was a party to an employment agreement with the Company that entitled him to certain termination benefits, including severance pay, acceleration of vesting of share-based compensation, and continuation of benefits. Based on the terms of his employment agreement, the Company estimated and accrued a charge of $2.6 million in fiscal year 2022. The charge was partially offset by the reversal of bonus accruals. In May 2022, the Company paid Dr. Rabbani $2.123 million in severance (the payment constituted taxable income, but the Company did not withhold taxes from the payment). In July 2022, the Company paid Dr. Rabbani's income and other withholding taxes of $1.024 million related to that payment on Dr. Rabbani's behalf. On July 8, 2022, the Company filed a demand for arbitration with the American Arbitration Association (the ''AAA'') seeking, among other things, a declaration that the Company had fully satisfied its contractual obligations to Dr. Rabbani and seeking the tax withholding reimbursement referenced above. On August 4, 2022, Dr. Rabbani filed counterclaims in the arbitration seeking, among other things, a bonus for fiscal year 2021 and additional severance that he asserted was owed to him. At the parties' joint request, the arbitration has been stayed while the parties work towards resolving the matter. A provision was made in the consolidated financial statements as of July 31, 2023 based on a reasonable estimate of loss; however, the actual exposure may differ.

On February 25, 2022, Barry Weiner, the Company's co-founder and President, notified the Company that he was terminating his employment as President of the Company for ''Good Reason,'' as defined in his employment agreement. The Company accepted Mr. Weiner's termination, effective April 19, 2022, but disagreed with Mr. Weiner's assertion regarding ''Good Reason.'' On October 24, 2023, the Company and Mr. Weiner reached an agreement resolving the dispute, and a provision was made in the consolidated financial statements as of July 31, 2023 based on the settlement agreement. The Company paid Mr. Weiner $3.6 million, less applicable withholding taxes, related to the agreement in November 2023.

Other Matters

On or about March 2, 2023, a Verified Complaint was filed in the Supreme Court of the State of New York, New York County captioned Elazar Rabbani (as plaintiff) v. Mary Tagliaferri, et al. (as defendants), Index No. 651120/2023. The Verified Complaint purports to assert causes of action for breach of fiduciary duty and corporate waste under N.Y.B.C.L. § 720, and seeks an accounting and certain injunctive relief. On August 4, 2023, defendants moved to dismiss all the causes of action asserted in the Verified Complaint. Plaintiff filed an amended complaint on or about October 4, 2023, adding, among other things, an additional cause of action for violation of N.Y.B.C.L. § 626. On October 23, 2023, defendants filed a reply in further support of their motion to dismiss. On November 6, 2023, plaintiff filed an opposition to defendants' motion to dismiss. On November 17, 2023, defendants filed a reply brief in further support of their motion to dismiss the amended complaint. On or about July 17, 2024, the Court granted, in part, the defendants' motion to dismiss the amended complaint. On or about August 16, 2024, plaintiff noticed an appeal from the order granting that dismissal. On or about September 18, 2024, plaintiff filed a Verified Second Amended Complaint. On October 11, 2024, the defendants filed a joint stipulation and letter requesting the court to extend the deadline to respond to the Second Amended complaint from October 18, 2024 to November 18, 2024. We intend to file a motion to dismiss the Second Amended complaint with prejudice. The Company cannot predict the outcome of this matter or estimate the amount or range of any potential liability, if any, at this time.

On or about September 26, 2023, James G. Wolf, individually and as the trustee of the Wolf Family Charitable Foundation, Barbaranne R. Wolf, Stephen Paul Wolf, and Preston M. Wolf (collectively the ''Petitioners'') initiated an appraisal action against Enzo in the New York Supreme Court for Suffolk County. Petitioners seek an appraisal of the value of their shares in the Company. The amount of damages sought by the Petitioners is unspecified. On or about August 21, 2024, the Court dismissed the Company's Second and Third Affirmative Defenses. On or about September 19, 2024, the Court granted the Company permission to move for leave to reargue the Court's dismissal decision. Motion papers were filed by the Company on October 16, 2024, opposition papers are due November 18, 2024, and reply papers are due December 4, 2024. We do not anticipate a decision until sometime in the first quarter of 2025. The Company intends to vigorously litigate both (i) Petitioners' alleged entitlement to dissenting shareholder appraisal rights and (ii) the correct valuation of Petitioners' shares.

In our discontinued Clinical Labs operations, third-party payers, including government programs, may decide to deny payment or recoup payments for testing that they contend was improperly billed or not medically necessary, against their coverage determinations, or for which they believe they have otherwise overpaid (including as a result of their own error), and we may be required to refund payments that we received. In April 2024, the Company engaged in settlement negotiations for a government payer and reached a verbal settlement. The settlement was finalized in a formal written settlement agreement on August 14, 2024. The settlement resolved allegations that Clinical Labs overbilled the Connecticut Medicaid program for testing services. A provision is included in the consolidated financial statements based on the agreement, and the settlement was paid in August 2024 for $1.7 million.

Provisions for the above matters, based on a reasonable estimate of loss, totaled approximately $11.3 million at July 31, 2023 and $15.2 million at July 31, 2024, for both continuing and discontinued operations, including matters separately disclosed in Item 3 (Legal Proceedings) above.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The common stock of the Company is traded on the New York Stock Exchange (Symbol: ENZ).

As of October 25, 2024, the Company had approximately 685 stockholders of record of its common stock.

The Board of Directors of the Company has declared a cash dividend of $0.10 per share on its common stock, payable on December 2, 2024, to the holders of record as of the close of business on November 15, 2024. Prior to the declaration of this dividend, the Company has not paid a cash dividend on its common stock. The Company reviews and considers its dividend policy from time to time. No decision as to the payment of additional dividends has been made, and there is no assurance that additional dividends will be declared and paid.

Item 6. [Reserved]

Not applicable, reserved.

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

See in this Form 10-K for the fiscal year ended July 31, 2024 Part 1. Item 1. *Business*, for Forward Looking Cautionary Statements.

The Company has operated as a life sciences company for over 45 years. The primary business of Enzo today is conducted through its Enzo Life Sciences division, which is our sole reportable segment, Products (refer to Note 18 in the Notes to Consolidated Financial Statements for further segment information). The Products segment focuses on labeling and detection technologies from DNA to whole cell analysis, including a comprehensive portfolio of thousands of high-quality products, including antibodies, genomic probes, assays, biochemicals, and proteins. The Company's proprietary products and technologies play central roles in translational research and drug development areas, including cell biology, genomics, assays, immunohistochemistry, and small molecule chemistry. Enzo strives to enable a healthier world using scientific innovation through drug discovery, development and diagnostic solutions. During the fiscal years ended July 31, 2024 and 2023, the segment generated product revenues of $31.9 million and $31.1 million, respectively. Enzo is a global company affected by different U.S. and global economic conditions, which are included in Item 1A, Risk Factors.

Costs excluded from the Products segment performance consist of corporate general and administrative costs and minimal therapeutic research and development expenses. These costs are reported within the consolidated financial statements as ''Corporate and Other'' (see Note 18 in the Notes to Consolidated Financial Statements for further segment information).

Discontinued operations – Labcorp Asset Purchase Agreement

Effective July 24, 2023, we completed the sale of certain assets used in the operation of Clinical Labs and the assignment of certain Clinical Labs' liabilities for an aggregate purchase price of $113.25 million in cash, subject to customary closing adjustments. In accordance with the sale, we ceased our clinical services operations. As a consequence of the sale, for fiscal years 2024 and 2023, we have classified as discontinued operations all income and expenses attributable to the clinical services business, and in fiscal 2023, the gain from the sale of the clinical services assets, and the income tax expense attributed to the sale of the clinical services assets. Excluded from the sale of the clinical services assets were its cash and accounts receivable.

Discontinued Operations Carve Out and Expense Allocations

For fiscal years ended July 31, 2024 and 2023, results from operations for our clinical services business are classified as discontinued operations. For fiscal 2023, the carve out of the discontinued operations was prepared in accordance with the SEC's carve out rules under Accounting Standards Codification (ASC) 205-20 Discontinued Operations and are derived from identifying and carving out the specific assets, liabilities, operating expenses and interest expense associated with the clinical services business's operations. Certain administrative

and overhead expenses, including personnel expenses, which were incurred by us and previously allocated to the discontinued operation (for which the discontinued operation benefited from such resources), are reclassified out of the discontinued operations based upon the identification of those allocated expenses and to the continuing operations.

For the fiscal year ended July 31, 2023, we reclassified $2.1 million of previously allocated selling, general and administrative expenses from the discontinued operations to the continuing operations in the accompanying results of operations tables and explanations.

Ransomware Attack

In April 2023, the Company experienced a ransomware attack that impacted certain critical information technology systems, principally of the discontinued operation. In response, we promptly deployed containment measures, including disconnecting our systems from the internet, launching an investigation with assistance from third-party cybersecurity experts, and notifying law enforcement. We adhered to our disaster recovery plan, which enabled us to maintain operations throughout the incident response process. The Company's facilities remained open, and we continued to provide services to patients and partners. We later became aware that certain data, including names, test information, and Social Security numbers, was accessed, and in some instances, exfiltrated from the Company's information technology systems as part of this incident. The investigation identified unauthorized access to or acquisition of clinical test information of approximately 2,470,000 individuals. The Social Security numbers of approximately 600,000 of these individuals may also have been involved. Additionally, the Company determined that some employees' information may have been involved. The Company provided notice to the individuals whose information may have been involved, as well as to regulatory authorities, in accordance with applicable law. The Company has incurred, and may continue to incur, related expenses. The Company's cybersecurity insurance carrier covered up to $3 million of the remediation costs related to the incident and paid service providers from the policy proceeds.

The Company remains subject to risks and uncertainties as a result of the incident, including as a result of the data that was accessed or exfiltrated from the Company's network as noted above. Additionally, security and privacy incidents have led to, and may continue to lead to, additional regulatory scrutiny and class action litigation exposure. See Item 3 Legal Proceedings of the consolidated financial statements for litigation in connection with this incident.

Results of Operations from Continuing Operations
Fiscal year ended July 31, 2024 compared to July 31, 2023
(in $000s)

Comparative financial data from continuing operations for the fiscal years ended July 31,

	2024	2023	Favorable (Unfavorable)	% Change
Revenues	$ 31,907	$ 31,061	$ 846	3
Operating costs and expenses:				
Cost of revenues	17,275	17,866	591	3
Cost of revenue – inventory provision	—	1,629	1,629	100
Research and development	2,642	3,904	1,262	32
Selling, general and administrative	21,723	27,202	5,479	20
Legal and related expenses	2,632	5,196	2,564	49
Total operating costs and expenses	44,272	55,797	11,525	21
Operating loss	(12,365)	(24,736)	12,371	50
Other income (expense):				
Interest, net	3,341	(1,122)	4,463	**
Fair value adjustment	(1,095)	(824)	(271)	(33)
Other	494	380	114	30
Foreign exchange (loss) gain	(192)	1,280	(1,472)	(115)
Loss before income taxes	$ (9,817)	$(25,022)	$15,205	61

** **not meaningful**

Consolidated Results:

The ‘‘2024 period’’ and the ‘‘2023 period’’ refer to the fiscal years ended July 31, 2024 and July 31, 2023, respectively.

Product revenues were $31.9 million in the 2024 period and $31.1 million in the 2023 period, an increase of approximately $0.8 million or 3%. During the 2024 period, we experienced a 5% revenue increase in the U.S. market and a 1% increase in the European market, and a 5% decrease in the Asia Pacific market. The increase in overall revenues was driven by an increase in the marketing effort in drug development and cell and gene therapy markets.

The cost of Product revenues was $17.3 million in the 2024 period and $17.9 million in the 2023 period, a decrease of $0.6 million or 3%. The gross profit margin for Products was approximately 46% in the 2024 period and 42% in the 2023 period. The 2024 period gross profit was positively impacted by the more profitable mix of the types of products sold, higher revenues sourced from the US market, and lower input costs. The 2023 period was negatively impacted by the impact of inflation on materials cost and market adjustment salary increases.

The cost of Product revenues – inventory provision was $1.6 million for finished goods of high throughput machines we intended to sell to Product customers, which we fully reserved in the 2023 period. This expense represented 5.2% of the period’s Products revenues.

Research and development expenses were $2.6 million in the 2024 period and $3.9 million in the 2023 period, a decrease of $1.3. million or 32%. As of the start of the 2024 period, we had ended our research and development activities into translation products due to our exit from the clinical reference laboratory business.

Selling, general and administrative expenses were $21.7 million during the 2024 period versus $27.2 million during the 2023 period, a decrease of $5.5 million or 20%. The Corporate and Other segment expense decreased $5.8 million during the 2024 period primarily due to the consulting and other professional fees incurred in the

2023 period related to the Asset Purchase Agreement, a revolving credit facility, and the ransomware attack; there were also lower salaries and share based compensation for our senior officers in the 2024 period. The Products segment expense in the 2024 period increased approximately $0.3 million compared to the 2023 period due to investments in information technology and sales and marketing.

Legal and related expenses were $2.6 million during the 2024 period and $5.2 million in the 2023 period, a decrease of $2.6 million or 49%. During the 2023 period, we required significant legal expertise and assistance associated with matters related to the Asset Purchase Agreement, a credit facility, the ransomware attack, the convertible debentures, and matters relating to arbitrations with two former senior executives, one of which was settled during the 2024 period and one of which is ongoing. The 2023 period expense is net of a reimbursement of $0.8 million under our directors' and officers' insurance policy.

Interest income, net was $3.3 million in the 2024 period. Interest expense, net was $1.1 million in the 2023 period, a favorable variance of $4.5 million. The 2024 period's interest income was earned on the net proceeds from the Asset Purchase Agreement, which are on deposit in a money market fund. During most of the 2024 period, we incurred interest expense on the 10% Debentures, which partially offset some of the interest income. In the 2023 period, we earned some interest in a money market fund, which was fully offset by interest expense, primarily on a mortgage, a revolving credit facility and the Debentures, and set up fees and penalties.

During the 2024 period, we recorded a fair value adjustment charge of approximately $1.1 million for the Debentures based on their fair value when they were due and fully repaid in May 2024. During the 2023 period, the fair value adjustment charge was $0.8 million based on their fair value as of July 31, 2023.

Other income in both periods is primarily from the subletting of a portion of our office space in New York, NY.

The foreign exchange loss recognized by the Products segment during the 2024 period was approximately ($0.2) million compared to gain of $1.3 million in the 2023 period, an unfavorable variance of $1.5 million. The foreign exchange revaluation loss in the 2024 period was primarily due to the slight appreciation of the U.S. dollar versus the Swiss franc and Euro as at the end of the period compared to its start and the negative impact that had occurred when the Swiss operating entity's U.S. dollar liabilities and Euro assets were revalued into Swiss francs. The gain during the 2023 period was due to the significant depreciation of the U.S. dollar versus the British pound and Swiss franc as of the end of that period compared to its start and the positive impact from revaluing certain British pound denominated assets and the Swiss operating entity's U.S. dollar liabilities into U.S. dollars.

Liquidity and Capital Resources

Our aggregate cash and cash equivalents and restricted cash as of July 31, 2024 and 2023 was $52.4 million and $83.4 million, respectively. Our working capital was $45.2 million and $58.5 million as of July 31, 2024 and July 31, 2023, respectively. The decrease of $31.0 million in our cash and cash equivalents and restricted cash balance as of July 31, 2024 was primarily due to the period net loss and by cash used to pay down the convertible Debentures, accounts payable - trade, and accrued liabilities, particularly those of the discontinued operations. Based on the current available working capital, management believes the Company has sufficient funds to meet its operating requirements for at least the next twelve months from the date of the filing of this report.

Net cash used in operating activities during the 2024 period was $26.3 million, compared to $37.0 million during the 2023 period, a favorable variance of $10.7 million, due to the smaller net loss from continuing operations in the 2024 period.

Net cash used in investing activities during the 2024 period was approximately $0.5 million and represents capital expenditures. Net cash provided by investing activities during the 2023 period was approximately $99.0 million and is primarily the net proceeds from the sale of the discontinued operations.

Net cash used in financing activities in the 2024 period amounted to $4.2 million and primarily represents repayment of the convertible Debentures which were due May 2024. Net cash used in financing activities in the 2023 period amounted to $1.1 million and primarily represents early repayment of a mortgage and repayments of convertible Debentures, partially offset by the proceeds from the convertible Debentures.

Labcorp Asset Purchase Agreement and Cash in Escrow

We have indemnification obligations to Labcorp under the Asset Purchase Agreement that may require us to make future payments to Labcorp and other related persons for any damages incurred by Labcorp or such related persons as a result of any breaches of our representations, warranties, covenants or agreements contained in the Asset Purchase Agreement, or arising from the Retained Liabilities (as such term is defined in the Asset Purchase Agreement) or certain third-party claims specified in the Asset Purchase Agreement. Generally, our representations and warranties survive for a period of 15 months from the closing date, which was July 24, 2023, other than certain fundamental representations, which survive until the expiration of the applicable statute of limitations. There is an indemnification cap with respect to a majority of the Company's indemnification obligations under the Asset Purchase Agreement with the exception of claims for actual fraud, the breach of any fundamental representations and certain other items, which are subject to a higher indemnification cap (up to the purchase price).

Pursuant to the terms of the Asset Purchase Agreement, we, Labcorp, and an escrow agent entered into an Escrow Agreement at closing, pursuant to which Labcorp deposited $5 million of the aggregate purchase price of the clinical service business into an escrow account established with the Escrow Agent in order to satisfy, in whole or in part, certain of our indemnity obligations, if any, that arise under the Asset Purchase Agreement. If, on the 15-month anniversary of the closing date, there are funds remaining in the escrow account, the Escrow Agent will release any funds remaining in the escrow account to us minus any amounts being reserved for escrow claims asserted by Labcorp prior to such date. Upon the resolution of any pending escrow claims, the Escrow Agent will, within two business days of receipt of joint instructions or a final order from a court (as described in the Escrow Agreement) disburse such reserved amount to the parties entitled to such funds. We have agreed in principle that there are no material charges against the escrow funds, which are expected to be released in the first quarter of our fiscal year 2025.

General

The Company is a defendant in a number of legal matters. We face a significant risk due to ongoing litigation that has the potential to result in future financial obligations, adversely impacting the Company's business and profitability. See Item 3 Legal Proceedings.

Management is not aware of any other trends, events or uncertainties that have or are reasonably likely to have a material negative impact upon our (i) short-term or long-term liquidity, or (ii) net sales or income from continuing operations. Our business is subject to seasonal variations thereby impacting our liquidity and working capital during the course of our fiscal year. To the extent that we do not generate sufficient cash from operations, our cash balances will decline. We may also use our cash to explore and/or acquire new product technologies, applications, product line extensions, or other new business opportunities. In the event that our available cash is insufficient to support such initiatives, we may need to incur indebtedness or issue Common Stock to finance plans for growth. Volatility in the credit markets and the liquidity of major financial institutions may have an adverse effect on our ability to fund our business strategy through borrowings, under either existing or newly created instruments in the public or private markets on terms that we believe to be reasonable, if at all.

Effect of New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In August 2020, the Financial Accounting Standards Board (''FASB'') issued Accounting Standards Update (''ASU'') No. 2020-06 *Accounting for Convertible Instruments and Contracts in an Entity's Own Equity (Subtopic 470-20).* The amendments in the ASU simplify the settlement assessment by removing requirements to (1) consider whether the contract would be settled in registered shares, (2) consider whether collateral is required to be posted, and (3) assess shareholder rights. The amendments require instruments that are required to be classified as an asset or liability to be measured subsequently at fair value, with changes reported in earnings and disclosed in the consolidated financial statements. The amendments improve the consistency of EPS calculations by amending the guidance to align the diluted EPS calculation for convertible instruments by requiring that an entity use the if-converted method rather than the treasury stock method. The amendments also require that the effect of potential share settlement be included in the diluted EPS calculation when an instrument may be settled

in cash or shares. Until the issuance of the Debentures (see Note 9), the Company had no instruments affected by ASU 2020-06. We adopted the amendments in this ASU effective with the issuance of the Debentures in the fiscal quarter ended July 31, 2023, which did not have a material impact on our financial position or results of operations.

In June 2016, FASB issued ASU No. 2016-13 *Financial Instruments – Credit Losses* (Topic 326). This standard changes the impairment model for most financial instruments, including trade receivables, from an incurred loss method to a new forward-looking approach, based on expected losses. The estimate of expected credit losses requires entities to incorporate considerations of historical information, current information and reasonable and supportable forecasts. We adopted this standard for our interim period beginning August 1, 2023 using a modified retrospective transition approach. The impact of the adoption of this standard on our results of operations, financial position and cash flows was not material.

Pronouncements Issued but Not Yet Adopted

In December 2023, the FASB issued ASU 2023-09, *Income Taxes(Topic 740): Improvements to Income Tax Disclosures*. The amended guidance enhances income tax disclosures primarily related to the effective tax rate reconciliation and income taxes paid information. This guidance requires disclosure of specific categories in the effective tax rate reconciliation and further information on reconciling items meeting a quantitative threshold. In addition, the amended guidance requires disaggregating income taxes paid (net of refunds received) by federal, state, and foreign taxes. It also requires disaggregating individual jurisdictions in which income taxes paid (net of refunds received) is equal to or greater than 5 percent of total income taxes paid (net of refunds received). The amended guidance will be effective for our fiscal year beginning August 1, 2025. The guidance can be applied either prospectively or retrospectively. We are currently in the process of evaluating the impact this amended guidance may have on the footnotes to our consolidated financial statements.

In November 2023, FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* (ASU 2023-07), which requires an enhanced disclosure of significant segment expenses on an annual and interim basis. This guidance will be effective for our annual period ending July 31, 2026 and our interim periods beginning August 1, 2025. Early adoption is permitted. Upon adoption, we expect the guidance will be applied retrospectively to all prior periods presented in the consolidated financial statements. We do not expect the adoption of this guidance to have a material impact on our consolidated financial statements.

We reviewed all other recently issued accounting pronouncements and have concluded they are not applicable or not expected to be significant to the accounting for our operations.

Critical Accounting Policies and Estimates

General

The Company's discussion and analysis of its financial condition and results of operations are based upon Enzo Biochem, Inc.'s consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. These estimates and judgments also affect related disclosure of contingent assets and liabilities.

On an on-going basis, we evaluate our estimates, including those related to, allowance for current expected credit losses, income taxes, inventory, and long-lived assets. The Company bases its estimates on experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Contingencies

Contingencies are evaluated and a liability is recorded when the matter is both probable and reasonably estimable. Gain contingencies are evaluated and not recognized until the gain is realizable or realized.

Product revenues

Products revenues consist of the sale of single-use products used in the identification of genomic information and are recognized at a point in time following the transfer of control of such products to the customer, which generally occurs upon shipment. Payment terms for shipments to end-user and distributor customers may range from 30 to 90 days. Any claims for credit or return of goods may be made generally within 30 days of receipt. Revenues are reduced to reflect estimated credits and returns, although historically these adjustments have not been material. Taxes collected from customers relating to product sales and remitted to governmental authorities are excluded from revenue. Amounts billed to customers for shipping and handling are included in revenue, while the related shipping and handling costs are reflected in cost of products.

Accounts Receivable

Accounts receivable are reported at realizable value, net of allowances for current expected credit losses, which is estimated and recorded in the period of the related revenue.

As of July 31, 2024 and 2023, Products accounts receivable, net were $3,988 and $4,808, respectively. As of July 31, 2024 and 2023, these totals include foreign receivables, net of $1,185 and $1,277, respectively. As of July 31, 2022, Products accounts receivable, net were $4,762, and include foreign receivables, net of approximately $1,142.

Income Taxes

The Company accounts for income taxes under the liability method of accounting for income taxes. Under the liability method, 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. The liability method requires that any tax benefits recognized for net operating loss carry forwards and other items be reduced by a valuation allowance where it is not more likely than not the benefits will be realized in the foreseeable future. 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 the liability method, 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. It is the Company's policy to provide for uncertain tax positions, if any, and the related interest and penalties based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. To the extent the Company prevails in matters for which a liability for an unrecognized tax benefit is established or is required to pay amounts in excess of the liability, the Company's effective tax rate in a given financial statement period may be affected.

Inventory

The Company values inventory at the lower of cost (first-in, first-out) or net realizable value. Work-in-process and finished goods inventories consist of material, labor, and manufacturing overhead. Write downs of inventories to net realizable value are based on a review of inventory quantities on hand and estimated sales forecasts based on sales history and anticipated future demand. Unanticipated changes in demand could have a significant impact on the value of our inventory and require additional write downs of inventory, which would impact our results of operations.

Long-Lived Assets

The Company reviews the recoverability of the carrying value of long-lived depreciable assets of an asset or asset group for impairment if indicators of potential impairment exist. Should indicators of impairment exist, the carrying values of the depreciable assets are evaluated in relation to the operating performance and future undiscounted cash flows of an asset or asset group. The net book value of the depreciable long lived asset is adjusted to fair value if its expected future undiscounted cash flow is less than its book value. During fiscal years 2024 and 2023, there was no impairment of depreciable long-lived assets used in continuing operations.

Item 7A.

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 15(a) (1) and (2).

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

None.

Item 9A. Controls and Procedures

1. Disclosure Controls and Procedures

We maintain disclosure controls and procedures (''Disclosure Controls'') within the meaning of Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Our Disclosure Controls are designed to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act, such as this Annual Report on Form 10-K, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms. Our Disclosure Controls are also designed to ensure that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our Disclosure Controls, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management necessarily applied its judgment in evaluating and implementing possible controls and procedures.

As of the end of the period covered by this Annual Report on Form 10-K, we evaluated the effectiveness of the design and operation of our Disclosure Controls, which was done under the supervision and with the participation of our management, including our principal executive officer and principal financial officer. Based on the evaluation of our Disclosure Controls, our principal executive officer and principal financial officer have concluded that, as of July 31, 2024, our Disclosure Controls were effective to ensure that information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

2. Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the year ended July 31, 2024, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting except as noted below.

3. Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, a company's principal executive and principal financial officers and effected by the company's board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our consolidated financial statements.

There are inherent limitations on the effectiveness of any system of internal controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Also,

projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies and procedures may deteriorate. Accordingly, even effective internal controls and procedures can only provide reasonable assurance of achieving their control objectives.

We previously identified and disclosed on Form 8-K's dated April 13, 2023 and May 30, 2023, in our Annual Report on Form 10-K for the fiscal year ended July 31, 2023, and in our Form 10-Q's for each quarter during the fiscal year ended July 31, 2024, that the Company experienced a ransomware attack that impacted certain critical information technology systems. As a result of the ransomware attack and the subsequent investigation, the Company determined a material weakness existed that impaired the Company's ability to assure that standard systems and accounting processes could operate effectively.

In the current fiscal year, we implemented changes to our processes and controls in response to the identified material weakness. As a result, we believe the material weakness has been sufficiently remediated.

Management assessed the effectiveness of our internal control over financial reporting as of July 31, 2024. In making this assessment, management used the criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (''COSO''). Based on this assessment, management has concluded that, as of July 31, 2024, our internal control over financial reporting was effective.

Remediation of Material Weaknesses

As of the year ended July 31, 2024, management believes that it has implemented measures sufficient to fully remediate the deficiency that had resulted in the material weakness. Specific remedial actions undertaken by management have included, without limitation:

- enhanced integration of multiple gating and monitoring tools to our global infrastructure since April 2023, including vulnerability alert system, password monitoring and end point detection; and
- added control testing for network security monitoring and anti-virus / malware protection.

4. Report of Independent Registered Accounting Firm

Not applicable.

Item 9B. Other Information

None

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None

Part III

Item 10. Directors, Executive Officers and Corporate Governance

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 29, 2024 and is incorporated herein by reference.

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 29, 2024 and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

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 29, 2024 and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

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 29, 2024 and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

The information required under this item will be set forth in the Company's proxy statement expected to be filed with the Securities and Exchange Commission on or before November 29, 2024 and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

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)	Restated Certificate of Incorporation[1]
3(b)	Amended and Restated Bylaws[15]
4.1*	Description of Capital Stock
10 (a)	Lease agreement with Pari Management[2]
10 (b)	Amendment No. 1 to Amended and Restated Employment Agreement with Elazar Rabbani[3]
10 (c)	Amendment No. 1 to Amended and Restated Employment Agreement with Barry Weiner[3]
10 (d)	Amendment of Lease with Pari Management[4]
10 (e)	Settlement Release Agreement between the Company and Roche Diagnostics GmbH and Roche Molecular Systems Inc.[5]
10 (f)	Settlement Release Agreement between the Company and Hologic, Inc., Grifolds, S.A. and Grifolds Diagnostic Solutions Inc.[6]
10 (g)	Fee and Leasehold Mortgage and Security Agreement from the Town of Babylon Industrial Development Agency and Enzo Realty II, LLC, to Citibank, N.A.[7]
10 (h)	Amended and Restated 2011 Incentive Plan[8]
10 (i)	Cooperation agreement by and among Enzo Biochem, Inc. and the Radoff Parties[9]
10 (j)	First Amended and Restated Employment Agreement between Enzo Biochem, Inc. and Kara Cannon, effective as of October 20, 2022[10]
10 (k)	Second Amended and Restated Employment Agreement between Enzo Biochem, Inc. and Hamid Erfanian, effective as of October 20, 2022[10]

Exhibit No.	Description
10 (l)	Asset Purchase Agreement, dated as of March 16, 2023, by and among Laboratory Corporation of America Holdings, Enzo Clinical Labs, Inc. and Enzo Biochem, Inc.[11]
10 (m)	Credit Agreement, dated as of March 31, 2023, by and among Enzo Clinical Labs, Inc., Enzo Life Sciences, Inc., Gemino Healthcare Finance, LLC d/b/a SLR Healthcare ABL, Enzo Biochem, Inc. and certain other parties thereto.[12]
10 (n)	Form of Debenture[13]
10 (o)	Form of Warrant[13]
10 (p)	Securities Purchase Agreement, dated May 19, 2023, by and among Enzo Biochem, Inc., the purchasers named therein, and JGB Collateral, LLC.[13]
10 (q)	Registration Rights Agreement, dated May 19, 2023, by and among Enzo Biochem, Inc. and the purchasers named therein.[13]
10 (r)	Security Agreement, dated May 19, 2023, by and among Enzo Biochem, Inc., each of Enzo Biochem, Inc.'s specified subsidiaries named therein, the purchasers named therein and JGB Collateral, LLC.[13]
10 (s)	Form of Subsidiary Guarantee[13]
10 (t)	Amendment No. 1 to Asset Purchase Agreement, dated as of July 3, 2023, by and among Enzo Biochem, Inc., Enzo Clinical Labs, Inc., and Laboratory Corporation of America Holdings.[14]
10 (u)	Sublease agreement between Enzo Biochem, Inc. and Siemens Corporation[16]
10 (v)	Amendment Agreement by and among JGB Capital, LP, JGB (Cayman) Sussex Ltd., Enzo Biochem, Inc. and JGB Collateral LLC[17]
10 (w)	Separation Agreement and General Release between Hamid Erfanian and Enzo Biochem, Inc.[17]
10 (x)	Settlement Agreement between Barry Weiner, Shahla Weiner, Roya Weiner, and Jonathan Weiner and Enzo Biochem, Inc., Mary Tagliaferri, Ian Walters, Brad Radoff, and Hamid Erfanian[17]
14 (a)	Code of Ethics[10]
21*	List of subsidiaries of the Company
23.1*	Consent of Independent Registered Public Accounting Firm
31 (a)*	Certification of CEO Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31 (b)*	Certification of CFO Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32 (a)*	Certification of CEO Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32 (b)*	Certification of CFO Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
97.1	Clawback Policy[17]

Exhibit No.	Description
101.INS*	Inline XBRL Instance Document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document.
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document.
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
104*	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

Notes to exhibits

* Filed herewith

** XBRL (Extensible Business Reporting Language) information is being furnished and not filed for purposes of Sections 11 and 12 of the Securities Act of 1933 and Section 18 of the Securities Exchange Act of 1934.

(1) This exhibit was filed with the Company's Current Report on Form 8-K on April 27, 2022 and is incorporated herein by reference.

(2) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 2005 and is incorporated herein by reference.

(3) This exhibit was filed with the Company's Current Report on Form 8-K on January 10, 2017 and is incorporated herein by reference.

(4) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 2015 and is incorporated herein by reference.

(5) This exhibit was filed with the Company's Current Report on Form 8-K on February 11, 2019 and is incorporated herein by reference.

(6) This exhibit was filed with the Company's Current Report on Form 8-K on April 22, 2019 and is incorporated herein by reference.

(7) This exhibit was filed with the Company's Current Report on Form 8-K on December 3, 2018 and is incorporated herein by reference.

(8) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 2021.

(9) This exhibit was filed with the Company's Current Report on Form 8-K on January 4, 2022 and is incorporated herein by reference.

(10) This exhibit was filed with the Company's Annual Report on Form 8-K on November 4, 2022 and is incorporated herein by reference.

(11) This exhibit was filed with the Company's Current Report on Form 8-K on March 16, 2023 and is incorporated herein by reference.

(12) This exhibit was filed with the Company's Current Report on Form 8-K on April 5, 2023 and is incorporated herein by reference.

(13) This exhibit was filed with the Company's Current Report on Form 8-K on May 22, 2023 and is incorporated herein by reference.

(14) This exhibit was filed with the Company's Current Report on Form 8-K on July 10, 2023 and is incorporated herein by reference.

(15) This exhibit was filed with the Company's Current Report on Form 8-K on October 30, 2023 and is incorporated herein by reference.

(16) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 2022 and is incorporated herein by reference.

(17) This exhibit was filed with the Company's Annual Report on Form 10-K for the year ended July 31, 2023 and is incorporated herein by reference.

SIGNATURES

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 29, 2024

By: /s/ Kara Cannon
Kara Cannon
Chief Executive Officer

POWER OF ATTORNEY

Know all persons by these presents, that each individual whose signature appears below constitutes and appoints Kara Cannon, our Chief Executive Officer, as a true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for her and in her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments to this Annual Report together with all schedules and exhibits thereto, (ii) act on, sign and file with the Securities and Exchange Commission any and all exhibits to this Annual Report and any and all exhibits and schedules thereto, (iii) act on, sign and file any and all such certificates, notices, communications, reports, instruments, agreements and other documents as may be necessary or appropriate in connection therewith and (iv) take any and all such actions which may be necessary or appropriate in connection therewith, granting unto such agent, proxy and attorney-in-fact, full power and authority to do and perform each and every act and thing necessary or appropriate to be done, as fully for all intents and purposes as she might or could do in person, and hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact, or any of her or their substitute or substitutes may lawfully do or cause to be done by virtue hereof.

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: /s/ Kara Cannon — October 29, 2024
Kara Cannon
Chief Executive Officer

By: /s/ Patricia Eckert — October 29, 2024
Patricia Eckert,
Chief Financial Officer,
Principal Accounting Officer

By: /s/ Bradley L. Radoff — October 29, 2024
Bradley Radoff, Director

By: /s/ Steven J. Pully — October 29, 2024
Steven J. Pully, Chairman of the Board

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 15(a):

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.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Enzo Biochem, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Enzo Biochem, Inc. (the ''Company'') as of July 31, 2024 and 2023, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the years then ended, and the related notes and the financial statement schedule identified in Item 15 (collectively referred to as the ''financial statements''). In our opinion, the financial statements present fairly, in all material respects, the consolidated financial position of the Company as of July 31, 2024 and 2023, and the consolidated results of their operations and their cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (''PCAOB'') and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Contingencies

As discussed in Note 17 to the consolidated financial statements, the Company is subject to legal claims, lawsuits, and regulatory inquires. The amounts to settle any liabilities that might arise from the claims and lawsuits could result in adverse consequences to the Company. Contingencies are evaluated and a liability is recorded when the matter is both probable and reasonably estimable. Where the reasonable estimate of the probable loss is a range, management records the most likely estimate of the loss, or the low end of the range if there is no one best estimate. Management either discloses the amount of a possible loss or range of loss in excess of established accruals if estimable and appropriate, or states that such an estimate cannot be made. Management discloses significant legal proceedings even where a liability is not probable or the amount of the liability is not estimable, or both, if management believes there is at least a reasonable possibility that a loss may be incurred. Amounts estimated and accrued for both continuing and discontinued operations at July 31, 2024, totaled approximately $15.2 million.

We identified the assessment of loss contingencies relating to pending legal claims, lawsuits, and regulatory inquires as a critical audit matter due to the significant judgements required by management in assessing the likelihood of a loss being incurred and in estimating the loss or range of loss for each matter. As such, there is a high degree of auditor judgement and subjectivity, and significant audit effort was required, in selecting and performing procedures to evaluate management's assessment of contingencies.

Addressing the critical audit matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. These procedures included among others; (i) obtaining an understanding of and evaluating the design and implementation of controls related to the assessment and valuation of loss contingencies related to pending legal claims, lawsuits, and regulatory inquires; (ii) obtaining and evaluating the letters of audit inquiry with internal and external legal counsel; (iii) evaluating the reasonableness of management's assessment regarding whether an unfavorable outcome is reasonably possible or probable and reasonably estimable, and management's estimate of the amount of possible loss to be accrued; and (iv) evaluating the sufficiency of the Company's disclosures related to legal proceedings.

/s/ EisnerAmper LLP

We have served as the Company's auditor since 2013.

EISNERAMPER LLP
West Palm Beach, Florida
October 29, 2024

ENZO BIOCHEM, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	July 31, 2024	July 31, 2023
ASSETS		
Current assets:		
Cash and cash equivalents	$ 52,371	$ 82,373
Cash in escrow	5,000	—
Accounts receivable, net	3,988	4,808
Inventories, net	6,832	7,939
Prepaid expenses and other current assets, including $1,000 restricted cash at July 31, 2023	1,840	3,336
Total current assets	70,031	98,456
Property, plant, and equipment, net	12,367	13,086
Right-of-use assets	2,836	3,626
Other assets, including $5,000 cash in escrow at July 31, 2023	530	5,745
Non-current assets of discontinued operations, net	—	967
Total assets	$ 85,764	$ 121,880
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable – trade	$ 1,376	$ 3,575
Accrued liabilities	5,714	11,743
Current portion of operating lease liabilities	841	980
Other current liabilities	76	75
Convertible debentures	—	2,514
Current liabilities of discontinued operations, net	16,787	21,102
Total current liabilities	24,794	39,989
Operating lease liabilities, non-current	2,403	3,160
Long term debt, net	189	269
Non-current liabilities of discontinued operations, net	2,266	—
Total liabilities	$ 29,652	$ 43,418
Commitments and contingencies – see Notes 16 and 17		
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: 52,244,074 at July 31, 2024 and 49,997,631 at July 31, 2023	521	499
Additional paid-in capital	348,134	344,435
Accumulated deficit	(294,428)	(268,350)
Accumulated other comprehensive income	1,885	1,878
Total stockholders' equity	56,112	78,462
Total liabilities and stockholders' equity	$ 85,764	$ 121,880

The accompanying notes are an integral part of these consolidated financial statements.

ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Years ended July 31,	
	2024	**2023**
Revenues	$ 31,907	$ 31,061
Operating costs, expenses and legal settlements, net:		
Cost of revenues	17,275	17,866
Cost of revenue – inventory provision	—	1,629
Research and development	2,642	3,904
Selling, general, and administrative	21,723	27,202
Legal and related expenses	2,632	5,196
Total costs and expenses, net	44,272	55,797
Operating loss	(12,365)	(24,736)
Other income (expense):		
Interest income	3,538	277
Interest expense	(197)	(1,399)
Change in fair value of convertible debentures	(1,095)	(824)
Other	494	380
Foreign exchange (loss) gain	(192)	1,280
Loss before income taxes	(9,817)	(25,022)
Income taxes	—	—
Net loss from continuing operations	(9,817)	(25,022)
Net loss from discontinued operations	(16,261)	(37,321)
Gain on sale of discontinued operations, net of tax	—	82,631
Net (loss) income	$(26,078)	$ 20,288
Net (loss) income per common share – basic and diluted:		
Continuing operations	$ (0.19)	$ (0.51)
Discontinued operations	(0.32)	0.92
Total net (loss) income per basic and diluted common share	$ (0.51)	$ 0.41
Weighted average common shares outstanding:		
Basic	50,902	49,160
Diluted	50,902	49,160

The accompanying notes are an integral part of these consolidated financial statements.

ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Years ended July 31,	
	2024	**2023**
Net (loss) income	$(26,078)	$20,288
Other comprehensive income (loss):		
Foreign currency translation adjustments	7	(1,273)
Comprehensive income (loss)	$(26,071)	$19,015

The accompanying notes are an integral part of these consolidated financial statements.

ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
Years ended July 31, 2024 and 2023
(in thousands, except share data)

	Common Stock Shares Issued	Common Stock Amount	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders' Equity
Balance at July 31, 2022	*48,720,454*	$487	$339,462	$(288,638)	$ 3,151	$ 54,462
Net income for the year ended July 31, 2023	—	—	—	20,288	—	20,288
Vesting of restricted stock	*125,731*	1	—	—	—	1
Vesting of performance stock	*25,200*	—	—	—	—	—
Exercise of stock options	*6,667*	—	14	—	—	14
Issuance of common stock (net of expenses of $12)	*276,479*	3	383	—	—	386
Share-based compensation charges	—	—	2,268	—	—	2,268
Issuance of common stock for employee 401(k) plan match	*843,100*	8	1,071	—	—	1,079
Issuance of warrants	—	—	1,237	—	—	1,237
Foreign currency translation adjustments	—	—	—	—	(1,273)	(1,273)
Balance at July 31, 2023	*49,997,631*	$499	$344,435	$(268,350)	$ 1,878	$ 78,462
Net loss for the year ended July 31, 2024	—	—	—	(26,078)	—	(26,078)
Vesting of restricted and performance stock issued	*624,567*	6	—	—	—	6
Common stock issued for Asset Purchase Agreement bonus payment	*1,134,024*	11	1,393	—	—	1,404
Share-based compensation charges	—	—	1,696	—	—	1,696
Issuance of common stock for employee 401(k) plan match	*487,852*	5	610	—	—	615
Foreign currency translation adjustments	—	—	—	—	7	7
Balance at July 31, 2024	*52,244,074*	$521	$348,134	$(294,428)	$ 1,885	$ 56,112

The accompanying notes are an integral part of these consolidated financial statements.

ENZO BIOCHEM, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Year ended July 31,	
	2024	**2023**
Cash flows from operating activities:		
Net (loss) income	$(26,078)	$ 20,288
Adjustments to reconcile net (loss) income to net cash used in operating activities:		
Gain on sale of discontinued operations, net of tax	—	(82,631)
Change in fair value of convertible debentures	1,095	824
Depreciation and amortization of property, plant and equipment	1,272	2,682
Share-based compensation charges	1,696	2,268
Share-based 401(k) employer match expense	600	880
Foreign exchange loss (gain)	116	(1,674)
Provision for inventories	—	1,629
(Gain) loss on lease termination or impairments of other assets	(606)	200
Impairment of right-of-use asset – discontinued operations	3,900	—
Changes in operating assets and liabilities:		
Accounts receivable	2,477	5,033
Inventories	1,090	(334)
Prepaid expenses and other assets	145	105
Accounts payable – trade	(7,737)	1,159
Accrued liabilities, other current liabilities and other liabilities	(4,229)	12,595
Total adjustments	(181)	(57,264)
Net cash used in operating activities	(26,259)	(36,976)
Cash flows from investing activities:		
Net proceeds from sale of discontinued operations	—	101,740
Capital expenditures	(545)	(2,760)
Net cash (used in) provided by investing activities	(545)	98,980
Cash flows from financing activities:		
Cash payments for taxes related to net share settlements of equity compensation and awards	(474)	—
Net proceeds from issuance of common stock through ATM	—	386
Proceeds from issuance of convertible debentures and warrants	—	7,000
Repayments of convertible debentures	(3,609)	(4,000)
Cost of issuance of convertible debentures and warrants	—	(389)
Proceeds from borrowings under revolving credit agreement	—	16,846
Repayments under revolving credit agreement	—	(16,846)
Repayments under mortgage agreement and capital leases	(110)	(4,136)
Proceeds from exercise of stock options	—	14
Net cash used in financing activities	(4,193)	(1,125)
Effect of exchange rate changes on cash and cash equivalents	(5)	(109)
(Decrease) increase in cash and cash equivalents and restricted cash	(31,002)	60,770
Cash and cash equivalents and restricted cash - beginning of year	83,373	22,603
Cash and cash equivalents and restricted cash - end of year	$ 52,371	$ 83,373
Composition of cash and cash equivalents and restricted cash is as follows:		
Cash and cash equivalents	52,371	82,373
Restricted cash	—	1,000
Total cash and cash equivalents and restricted cash	$ 52,371	$ 83,373

The accompanying notes are an integral part of these consolidated financial statements.

(Dollars in thousands except share data)

Note 1 - Organization and business

Enzo Biochem, Inc. (the ''Company'', ''we'', ''our'' or ''Enzo'') has operated as a life sciences company for over 45 years. The primary business of Enzo today is conducted through its Enzo Life Sciences division (''Enzo Life Sciences''), which focuses on labeling and detection technologies from DNA to whole cell analysis, including a comprehensive portfolio of thousands of high-quality products, including antibodies, genomic probes, assays, biochemicals, and proteins. The Company's proprietary products and technologies play central roles in translational research and drug development areas, including cell biology, genomics, assays, immunohistochemistry, and small molecule chemistry. Enzo strives to enable a healthier world using scientific innovation through drug discovery, development and diagnostic solutions.

Note 2 - Discontinued operations, sale of Clinical Labs business

Prior to July 24, 2023, we operated a clinical laboratory, doing business as Enzo Clinical Labs, which provided reference, molecular and esoteric diagnostic medical testing services in the New York, New Jersey, and Connecticut medical communities. Effective July 24, 2023, we completed the sale of certain assets used in the operation of Enzo Clinical Labs and the assignment of certain clinical lab liabilities to Laboratory Corporation of America (''Labcorp'') for an aggregate purchase price of $113.25 million in cash, subject to customary closing adjustments. In accordance with the sale, we ceased our clinical services operations. As a consequence of the sale, for fiscal years 2024 and 2023, we have classified as discontinued operations all income and expenses attributable to the clinical services business, the gain from the sale of the clinical services assets, and the income tax expense attributed to the sale of the clinical services assets. Excluded from the sale of the clinical services assets were its cash and accounts receivable.

The gain on the sale of the Clinical Labs business and net proceeds were as follows:

Gross consideration from the sale of the Clinical Labs business	$113,250
Closing and transaction costs	(9,941)
Consideration from sale of the Clinical Labs business – net	103,309
Net book value of assets sold or abandoned	(19,818)
Gain on sale of the Clinical Labs business before income taxes	83,491
Income tax expense	(860)
Gain on the sale of the Clinical Labs business after income taxes	$ 82,631

Net cash proceeds from sale:

Cash paid at closing, net of closing costs paid at closing	$106,740
Proceeds due on sale of assets, cash held in escrow	(5,000)
Net cash proceeds from sale	$101,740

We incurred $9,941 in closing and transaction costs associated with the sale of the Clinical Labs business, which were comprised of (i) transaction fees and related closing costs of $7,238 and (ii) performance bonuses to certain employees associated with the sale of the business of $2,703. The compensation committee of our board of directors approved these compensation arrangements.

(Dollars in thousands except share data)

The following table sets forth the condensed operating results of the discontinued operations for the fiscal years ended July 31,

	2024	2023
Net revenues	$ —	$ 30,087
Cost of revenues	—	36,947
Selling, general and administrative	3,723	23,270
Research and development	—	720
Legal and related expenses	—	250
Other expense[(a)]	12,928	6,221
Loss from discontinued operations	(16,651)	(37,321)
Gain on sale of business – before taxes	—	83,491
Income tax refund (expense) on gain	390	(860)
(Loss) income from discontinued operations	$(16,261)	$ 45,310

(a) Other expense includes a right-of-use asset impairment charge of $3,900 for the leased building formerly used by the discontinued operations. Other expense also includes legal settlements and accruals of $7,700 and $6,216 for fiscal 2024 and 2023, respectively. See Note 17 Contingencies.

The following table sets forth the condensed carrying amounts of major classes of assets and liabilities of the discontinued operations as of July 31,

	2024	2023
Carrying amounts of major current assets included as part of discontinued operations:		
Trade receivables	$ —	$ 1,675
Prepaid and other current	182	54
Total current assets	182	1,729
Carrying amounts of major current liabilities included as part of discontinued operations:		
Accrued liabilities and trade payables	14,979	20,616
Operating lease liabilities and other	1,990	2,215
Total current liabilities	16,969	22,831
Current liabilities of discontinued operations, net	16,787	21,102
Carrying amount of major non-current assets included as part of discontinued operations:		
Right-of-use assets	$ 1,308	$ 7,001
Other	75	62
Total non- current assets	1,383	7,063
Carrying amount of major non-current liabilities included as part of discontinued operations:		
Operating lease liabilities and other	3,649	6,096
Non-current (liabilities) assets of discontinued operations, net	$ (2,266)	$ 967

During the fiscal year ended July 31, 2024, the cash used in operating activities and in investing activities of the discontinued operation was $14,972 and $0, respectively. During the fiscal year ended July 31, 2023, the cash used in operating activities of the discontinued operations was $19,000, and the cash provided by investing activities was $101,300.

Note 3 - Summary of significant accounting policies

For the fiscal years ended July 31, 2024 and 2023, our revenues from continuing operations come from the sales of our life sciences products in the Products segment.

Principles of consolidation

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”) and include the accounts of the Company and its wholly-owned subsidiaries, Enzo Life Sciences, Inc. (and its wholly-owned foreign subsidiaries), Enzo Therapeutics, Inc., Enzo Realty LLC (“Realty”), Enzo Realty II, LLC (“Realty II”), and Enzo Clinical Labs, Inc. (a corporate entity with discontinued operations). All intercompany transactions and balances have been eliminated.

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Contingencies

Contingencies are evaluated and a liability is recorded when the matter is both probable and reasonably estimable. Gain contingencies are evaluated and not recognized until the gain is realizable or realized.

Foreign Currency Translation/Transactions

The Company has determined that the functional currency for its foreign subsidiaries is the local currency. For financial reporting purposes, assets and liabilities denominated in foreign currencies are translated at current exchange rates and profit and loss accounts are translated at weighted average exchange rates. Resulting translation gains and losses are included as a separate component of stockholders’ equity as accumulated other comprehensive income or loss. Gains or losses resulting from transactions entered into in other than the functional currency are recorded as foreign exchange gains and losses in the consolidated statements of operations.

Fair Value Measurements

The Company determines fair value measurements used in its consolidated financial statements based upon the exit price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants exclusive of any transaction costs, as determined by either the principal market or the most advantageous market. Inputs used in the valuation techniques to derive fair values are classified based on a three-level hierarchy. The basis for fair value measurements for each level within the hierarchy is described below with Level 1 having the highest priority and Level 3 having the lowest.

Level 1 Quoted prices in active markets for identical assets or liabilities.

Level 2 Quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs are observable in active markets.

Level 3 Valuations derived from valuation techniques in which one or more significant inputs are unobservable.

Cash and cash equivalents

Cash and cash equivalents consist of demand deposits with banks and highly liquid money market funds. At July 31, 2024 and 2023, the Company had cash and cash equivalents in foreign bank accounts of $391 and $419, respectively.

Concentration of Credit and Other Risks

Financial instruments that potentially subject the Company to concentrations of credit risk primarily consist of cash and cash equivalents and accounts receivable. The Company believes the fair value of the aforementioned financial instruments approximates the cost due to the immediate or short-term nature of these items. At July 31, 2024 and 2023, the Company had cash deposited in certain financial institutions in excess of federally insured levels. The Company regularly monitors the financial stability of these financial institutions and believes that it is not exposed to any significant credit risk in cash and cash equivalents or restricted cash.

Concentration of credit risk with respect to the Company's Products segment is mitigated by the diversity of the Company's customers and their dispersion across many different geographic regions. To reduce risk, the Company routinely assesses the financial strength of these customers and, consequently, believes that its accounts receivable credit exposure with respect to these customers is limited.

During the fiscal year ended July 31, 2024, one unrelated vendor's branded products for distribution accounted for approximately 12% of the Products segment's total purchases.

Accounts Receivable

Accounts receivable are reported at realizable value, net of allowances for current expected credit losses, which is estimated and recorded in the period of the related revenue. As of July 31, 2024 and 2023, Products' accounts receivable, net were $3,988 and $4,808, respectively. As of July 31, 2024 and 2023, these totals include foreign receivables, net of $1,185 and $1,277, respectively. As of July 31, 2022, Products accounts receivable, net were $4,762, which includes $1,142 of foreign receivables, net.

Inventories

The Company values inventory at the lower of cost (first-in, first-out) or net realizable value. Work-in-process and finished goods inventories consist of material, labor, and manufacturing overhead. During fiscal 2023, finished goods also included high throughput machines we intended to sell to Products' customers, whose cost of approximately $1.6 million was fully reserved at July 31, 2023, which was reflected in a separate line item in the Consolidated Statements of Operations as Cost of revenues-inventory provision. The machines were sold to a liquidator in fiscal 2024 resulting in immaterial proceeds. Write downs of inventories to net realizable value are based on a review of inventory quantities on hand and estimated sales forecasts based on sales history and anticipated future demand. Unanticipated changes in demand could have a significant impact on the value of our inventory and require additional write downs of inventory, which would impact our results of operations.

Property, plant and equipment

Property, plant and equipment is stated at cost, and depreciated on the straight-line basis over the estimated useful lives of the various asset classes as follows: building and building improvements: 15-30 years; laboratory machinery and equipment, office furniture and computer equipment: 3-10 years. Leasehold improvements are amortized over the term of the related leases or estimated useful lives of the assets, whichever is shorter.

Impairment testing for Long-Lived Assets

The Company reviews the recoverability of the carrying value of long-lived assets of an asset or asset group for impairment if indicators of potential impairment exist. Should indicators of impairment exist, the carrying values of the assets are evaluated in relation to the operating performance and future undiscounted cash flows of an

asset or asset group. The net book value of the long lived asset is adjusted to fair value if its expected future undiscounted cash flow is less than its book value. During fiscal years 2024 and 2023, there was no impairment of depreciable long-lived assets used in continuing operations.

Comprehensive income (loss)

Comprehensive income (loss) consists of the Company's consolidated net income (loss) and foreign currency translation adjustments. Foreign currency translation adjustments included in comprehensive income (loss) were not tax effected as the Company has a full valuation allowance at July 31, 2024 and 2023 in the foreign jurisdictions affected. Accumulated other comprehensive income is a separate component of stockholders' equity and consists of the cumulative foreign currency translation adjustments.

Shipping and Handling Costs

Shipping and handling costs associated with the distribution of finished goods to customers are recorded in cost of goods sold.

Research and Development

Research and development costs are charged to expense as incurred.

Advertising

All costs associated with advertising are expensed as incurred. Advertising expense, included in selling, general and administrative expense, approximated $125 and $345 for the years ended July 31, 2024 and 2023, respectively.

Income Taxes

The Company accounts for income taxes under the liability method of accounting for income taxes. Under the liability method, 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. The liability method requires that any tax benefits recognized for net operating loss carry forwards and other items be reduced by a valuation allowance when 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 the liability method, 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.

It is the Company's policy to provide for uncertain tax positions and the related interest and penalties based upon management's assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. At July 31, 2024 and 2023, the Company had no uncertain tax benefits recorded. To the extent the Company prevails in matters for which a liability for an unrecognized tax benefit is established or is required to pay amounts in excess of the liability, the Company's effective tax rate in a given financial statement period may be affected.

Segment Reporting

The Company separately reports information about each operating segment that engages in business activities from which the segment may earn revenues and incur expenses, whose separate operating results are regularly reviewed by the chief operating decision maker regarding allocation of resources and performance assessment and which exceed specific quantitative thresholds related to revenue and profit or loss. The Company's Enzo Life

Sciences operating activities are reported in one segment, Products. Costs excluded from this reporting unit and reported as ''Corporate and Other'' consist of corporate general and administrative costs and operating results of Enzo Therapeutics, which are not allocable to the reportable segment (see Note 18).

Net income (loss) per share

Basic net income (loss) per share represents net income (loss) divided by the weighted average number of common shares outstanding during the period. The dilutive effect of potential common shares, consisting of outstanding stock options, and unvested restricted stock units and performance stock units, is determined using the treasury stock method.

For the years ended July 31, 2024 and 2023, the effect of approximately 2,438,000 and 3,254,500, respectively, of outstanding ''out of the money'' options to purchase common shares were excluded from the calculation of diluted weighted average shares outstanding because their effect would be anti-dilutive. For the years ended July 31, 2024 and 2023, the effect of approximately 106,000 and 120,000, respectively, of outstanding restricted stock units were excluded from the calculation of diluted weighted average shares outstanding because their effect would be anti-dilutive. During the years ended July 31, 2024 and 2023, the effect of approximately 738,000 and 16,000, respectively, of outstanding warrants were excluded from the calculation of diluted weighted average shares outstanding because their effect would be anti-dilutive. During the years ended July 31, 2024 and 2023, the effect of approximately 1,314,000 and 120,000, respectively, of shares related to the assumed conversion of the Debentures were excluded from the calculation of diluted weighted average shares outstanding because their effect would be anti-dilutive. The convertible Debentures were fully repaid by July 31, 2024.

The following table sets forth the computation of basic and diluted net income (loss) per share for the years ended July 31 (in thousands except for per share amounts):

	2024	2023
Net loss from continuing operations	$ (9,817)	$(25,022)
Net (loss) income from discontinued operations	(16,261)	45,310
Net (loss) income	$(26,078)	$ 20,288
Weighted-average common shares outstanding – basic	50,902	49,160
Net (loss) income per common share – basic and diluted:		
Continuing operations	$ (0.19)	$ (0.51)
Discontinued operations	(0.32)	0.92
Total net (loss) income per basic and diluted common share	$ (0.51)	$ 0.41

Share-Based Compensation

The Company records compensation expense associated with stock options, restricted stock units and performance stock units based upon the fair value of the stock based awards as measured at the grant date. The Company determines the award values of stock options using the Black Scholes option pricing model or the fair value of our stock at the date of grant. The expense is recognized by amortizing the fair values on a straight-line basis over the vesting period, adjusted for forfeitures when they occur.

For the years ended July 31, 2024 and 2023, share-based compensation expense relating to the fair value of stock options and restricted stock units was approximately $1,696 and $1,772, respectively (see Note 14). No excess tax benefits were recognized for the years ended July 31, 2024 and 2023.

(Dollars in thousands except share data)

The following table sets forth the amount of expense related to share-based payment arrangements included in specific line items in the accompanying consolidated statements of operations for the years ended July 31:

	2024	2023
Cost of revenues	$ 34	$ 22
Selling, general and administrative	1,662	1,750
	$1,696	$1,772

Effect of New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In August 2020, the Financial Accounting Standards Board (''FASB'') issued Accounting Standards Update (''ASU'') No. 2020-06 *Accounting for Convertible Instruments and Contracts in an Entity's Own Equity (Subtopic 470-20).* The amendments in the ASU simplify the settlement assessment by removing requirements to (1) to consider whether the contract would be settled in registered shares, (2) to consider whether collateral is required to be posted, and (3) to assess shareholder rights. The amendments require instruments that are required to be classified as an asset or liability to be measured subsequently at fair value, with changes reported in earnings and disclosed in the consolidated financial statements. The amendments improve the consistency of EPS calculations by amending the guidance to align the diluted EPS calculation for convertible instruments by requiring that an entity use the if-converted method rather than the treasury stock method. The amendments also require that the effect of potential share settlement be included in the diluted EPS calculation when an instrument may be settled in cash or shares. Until the issuance of the Debentures (see Note 9), the Company had no instruments affected by ASU 2020-06. We adopted the amendments in this ASU effective with the issuance of the Debentures in the fiscal quarter ended July 31, 2023, which did not have a material impact on our financial position or results of operations.

In June 2016, the FASB issued ASU No. 2016-13 *Financial Instruments – Credit Losses* (Topic 326). This standard changes the impairment model for most financial instruments, including trade receivables, from an incurred loss method to a new forward-looking approach, based on expected losses. The estimate of expected credit losses requires entities to incorporate considerations of historical information, current information and reasonable and supportable forecasts. We adopted this standard for our interim period beginning August 1, 2023 using a modified retrospective transition approach. The impact of the adoption of this standard on our results of operations, financial position and cash flows was not material.

Pronouncements Issued but Not Yet Adopted

In December 2023, the FASB issued ASU 2023-09, *Income Taxes(Topic 740): Improvements to Income Tax Disclosures*. The amended guidance enhances income tax disclosures primarily related to the effective tax rate reconciliation and income taxes paid information. This guidance requires disclosure of specific categories in the effective tax rate reconciliation and further information on reconciling items meeting a quantitative threshold. In addition, the amended guidance requires disaggregating income taxes paid (net of refunds received) by federal, state, and foreign taxes. It also requires disaggregating individual jurisdictions in which income taxes paid (net of refunds received) is equal to or greater than five percent of total income taxes paid (net of refunds received). The amended guidance will be effective for our fiscal year beginning August 1, 2025. The guidance can be applied either prospectively or retrospectively. We are currently in the process of evaluating the impact this amended guidance may have on the footnotes to our consolidated financial statements.

In November 2023, FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* (ASU 2023-07), which requires an enhanced disclosure of significant segment expenses on an annual and interim basis. This guidance will be effective for our annual period ending July 31, 2026 and our interim periods beginning August 1, 2025. Early adoption is permitted. Upon adoption, we expect the guidance will be applied retrospectively to all prior periods presented in the consolidated financial statements. We do not expect the adoption of this guidance to have a material impact on our consolidated financial statements.

(Dollars in thousands except share data)

We reviewed all other recently issued accounting pronouncements and have concluded they are not applicable or not expected to be significant to the accounting for our operations.

Reclassification

Certain prior period amounts have been reclassified to conform to the current period presentation. These reclassifications had no effect on the reported results of operations.

Note 4 - Revenue Recognition

Products Revenue

The Company generates revenue from the sale of our single-use products used in the identification of genomic information. Revenue is recorded net of sales tax. The Company considers revenue to be earned when all of the following criteria are met: the Company has a contract with a customer that creates enforceable rights and obligations; promised products are identified; the transaction price is determinable; and the Company has transferred control of the promised items to the customer. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account in the contract. The transaction price for the contract is measured as the amount of consideration the Company expects to receive in exchange for the goods expected to be transferred. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, control of the distinct good or service is transferred. Transfer of control for the Company's products is generally at shipment or delivery, depending on contractual terms, but occurs when title and risk of loss transfers to the customer, which represents the point in time when the customer obtains the use of and substantially all of the remaining benefit of the product. As such, the Company's performance obligation related to product sales is satisfied at a point in time. The Company recognizes a receivable when it has an unconditional right to payment, which represents the amount the Company expects to collect in a transaction and is most often equal to the transaction price in the contract. Payment terms for shipments to end-user and distributor customers may range from 30 to 90 days. Amounts billed to customers for shipping and handling are included in revenue, while the related shipping and handling costs are reflected in cost of revenues.

Products revenue by customer location is as follows:

	2024	2023
United States	$19,489	$18,551
Europe	8,560	8,448
Asia Pacific	3,858	4,062
Products revenue	$31,907	$31,061

Note 5 - Supplemental disclosure for statement of cash flows

In the year ended July 31, 2024, interest paid by the Company approximated $395. In the year ended July 31, 2023, interest paid by the Company, including penalties and fees, approximated $1,246.

For the years ended July 31, 2024 and 2023, the net reductions in the measurement of right-of-use assets and liabilities included in cash flows from operating activities was approximately $366 and $38, respectively. The changes are included in changes in accrued liabilities, other current liabilities, and other liabilities in the consolidated statements of cash flows.

In connection with the completed sale of certain assets used in the operation of Enzo Clinical Labs at the end of fiscal 2023, $5,000 of escrowed proceeds are included in cash in escrow as of July 31, 2024 and in other assets as of July 31, 2023.

During the year ended July 31, 2024, state taxes paid on the gain on the sale of the Enzo Clinical Labs business was $730. For the year ended July 31, 2023, tax on capital paid by the Company was $22.

(Dollars in thousands except share data)

During the years ended July 31, 2024 and 2023, the Company issued common stock in connection with its share-based 401(k) employer match in the amount of $615 and $1,079, respectively.

During fiscal 2024, the Company issued 1,134,024 shares of common stock in settlement of Asset Purchase Agreement bonuses totaling $1,404 to an officer and a former officer.

Note 6 - Inventories

Inventories, net consisted of the following at July 31:

	2024	2023
Raw materials	$1,794	$2,206
Work in process	2,461	2,599
Finished products	2,577	3,134
	$6,832	$7,939

Note 7 - Property, plant, and equipment

At July 31, 2024 and 2023, property, plant, and equipment consist of:

	2024	2023
Building and building improvements	$ 11,696	$ 12,501
Machinery and equipment	7,149	6,988
Office furniture and computer equipment	7,214	7,928
Leasehold improvements	1,040	887
	27,099	28,304
Accumulated depreciation and amortization	(16,794)	(17,280)
	10,305	11,024
Land and land improvements	2,062	2,062
	$ 12,367	$ 13,086

At July 31, 2023, building and building improvements included construction in progress of approximately $436.

Note 8 - Income taxes

The Company recorded no benefit or provision for income taxes with respect to continuing operations for fiscal years ended July 31, 2024 and 2023. Deferred tax assets and liabilities arise from temporary differences between the tax basis of assets and liabilities and their reported amounts in the consolidated financial statements. The components of deferred tax assets (liabilities) as of July 31 are as follows:

	2024	2023
Deferred tax assets:		
Federal tax carryforward losses	$16,405	11,345
Provision for uncollectible accounts receivable	13	878
State and local tax carry forward losses	1,706	97
Stock compensation	250	2,349
Depreciation	438	563
Research and development and other tax credit carryforwards	1,596	1,652
Lease liabilities	2,086	3,232
Foreign tax carryforward losses	4,096	3,708
Intangibles and goodwill	—	83

(Dollars in thousands except share data)

	2024	2023
Inventory	1,707	1,623
Accrued expenses	2,848	4,463
Other, net	—	13
Deferred tax assets	31,145	30,006
Right-of-use assets	(1,063)	(2,757)
Prepaid expenses	(420)	(507)
Other, net	—	(57)
Deferred tax liabilities	(1,483)	(3,321)
Net deferred tax assets before valuation allowance	29,662	26,685
Less: valuation allowance	(29,662)	(26,685)
Net deferred tax assets	$ —	$ —

The Company recorded a valuation allowance during the years ended July 31, 2024 and 2023 equal to domestic and foreign net deferred tax assets. The Company believes that the valuation allowance is necessary as it is not more likely than not that the deferred tax assets will not be realized in the foreseeable future based on positive and negative evidence available at this time. This conclusion was reached because of uncertainties relating to future taxable income, in terms of both its timing and its sufficiency, which would enable the Company to realize the deferred tax assets. For fiscal years 2024 and 2023, the change in the valuation allowance was $2,977 and ($7,925), respectively.

As of July 31, 2024, the Company had U.S. federal net operating loss carryforwards of approximately $78,118 of which $17,422, if not fully utilized, expire between 2033 and 2038 and which $60,696 do not expire. The Company has State and local net operating loss carryforwards of $16,324 and $7,289, respectively, which expire through 2044. Utilization is dependent on generating sufficient taxable income prior to expiration of the tax loss carryforwards.

In addition, the Company has research and development tax credit carryforwards of approximately $1,596 as of July 31, 2024, which expire between 2025 and 2043. As of July 31, 2024, the Company had foreign loss carryforwards of approximately $20,189, which with few exceptions do not expire.

The geographic components of loss before income taxes consisted of the following for the years ended July 31:

	2024	2023
United States operations	$(7,664)	$(23,714)
International operations	(2,153)	(1,308)
Loss before taxes	$(9,817)	$(25,022)

The benefit for income taxes was at rates different from U.S. federal statutory rates for the following reasons for the years ended July 31:

	2024	2023
Federal statutory rate	21.0%	21.0%
Compensation and other expenses not deductible for income tax return purposes	(7.6)	(1.4)
Change in valuation allowance, net	(13.4)	(19.6)
	—%	—%

(Dollars in thousands except share data)

Because there are no undistributed earnings at the Company's foreign subsidiaries at July 31, 2024, no U.S. federal income taxes have been provided. As of July 31, 2024, the Company has no liabilities for uncertain tax positions. It is the Company's policy to record tax-related interest and penalties as a component of tax expense. The Company files income tax returns in the U.S. Federal jurisdiction, various U.S. state jurisdictions and several foreign jurisdictions. With few exceptions, the fiscal years that remain subject to examination are July 31, 2021 through July 31, 2024.

Note 9 - Convertible debentures and other current debt

In May 2023, the Company entered into a Securities Purchase Agreement (the ''Purchase Agreement'') with the Purchasers, as defined in the Purchase Agreement, and JGB Collateral, LLC, as collateral agent for the Purchasers (the ''Agent''). Pursuant to the Purchase Agreement, the Company agreed to sell to the Purchasers (i) 10% Original Issue Discount Secured Convertible Debentures (the ''Debentures'') with an aggregate principal amount of $7,608 and (ii) warrants to purchase up to 1,000,000 shares of the Company's common stock, par value $0.01 per share (the ''Common Stock''), for an exercise price of $2.31 per share, subject to adjustments as set forth in the Warrants, for a total purchase price of $7,000. The Purchase Agreement contained customary representations, warranties and covenants.

The transactions contemplated by the Purchase Agreement were consummated in May 2023. Pursuant to ASC 825, *Fair Value Option*, the Company made an irrevocable election at the time of issuance to report the Debentures at fair value with changes in fair value recorded through the Company's consolidated statements of operations as other income (expense) in each reporting period.

Debentures

The Debentures bore interest at a rate of 10% per annum. The Debentures were convertible, at any time after their issuance date at the option of the Purchasers, into shares of Common Stock at a conversion price equal to $3.01 per share (the ''Conversion Price''), subject to adjustment as set forth in the Debentures. Following the July 24, 2023 consummation of the Company's sale of certain assets and assignment of certain liabilities of Enzo Clinical Labs, Inc., to Labcorp pursuant to the Asset Purchase Agreement dated March 16, 2023, the Company prepaid $4,000 of the outstanding principal amount prior to July 31, 2023. In May 2024, the Company repaid in full the remaining principal balance of $3,609.

The following table presents a reconciliation of the beginning and ending balances of the convertible Debentures measured at fair value on a recurring basis that use significant unobservable inputs (Level 3) and the related unrealized losses recorded in the consolidated statements of operations during the years ended July 31, 2024 and 2023:

	2024	2023
Beginning balance	$ 2,514	$ —
Issuance of convertible Debentures and warrants at fair value	—	7,000
Allocation of warrants to additional paid in capital based on relative fair value	—	(1,310)
Change in fair value of convertible Debentures	1,095	824
Repayment	(3,609)	(4,000)
Fair value, July 31	$ —	$ 2,514

Warrants

The Warrants are exercisable for five years from May 19, 2023, at an exercise price of $2.31 per share, subject, with certain exceptions, to adjustments in the event of stock splits, dividends, subsequent dilutive offerings and certain fundamental transactions, as more fully described in the Warrant.

Registration Rights Agreement

In connection with the Purchase Agreement, on May 19, 2023, the Company and the Purchasers entered into a Registration Rights Agreement, pursuant to which the Company was obligated to register the shares of Company

(Dollars in thousands except share data)

Common Stock issuable upon exercise of the Debentures and the Warrants. The Company registered the shares effective July 18, 2023. With the full payoff of the Debentures, there is no longer a right to a conversion of the Debentures into shares.

Other

In March 2023, the Company entered into a Revolving Loan and Security Agreement with Gemino Healthcare Finance, LLC d/b/a SLR Healthcare ABL as lender specializing in direct lending to middle-market companies in the healthcare sector. The credit facility provided for a maximum $8,000 revolving line of credit based on the Company's eligible accounts receivable. The annual interest rate was equal to the 90 day term SOFR rate plus 5.5%. The line of credit would terminate one year from closing and unused line fees and early prepayment penalties would apply. We repaid this loan in July 2023 using proceeds from the Labcorp transaction and paid a $240 prepayment penalty recorded to interest expense in the consolidated statements of operations.

Note 10 - Long term debt

In connection with the purchase of a building in Farmingdale, NY in November 2018, Realty II, LLC, a wholly-owned subsidiary (the ''mortgagor subsidiary'') of the Company entered into a Fee Mortgage and Security Agreement (the ''mortgage agreement'') with Citibank, N.A. (the ''mortgagee''). The mortgage agreement provided for a loan of $4,500 for a term of 10 years, bore a fixed interest rate of 5.09% per annum and required monthly mortgage payments of principal and interest of $30. The Company's obligations under the mortgage agreement were secured by the building and by a $1,000 cash collateral deposit with the mortgagee as additional security. In July 2023, we repaid in full the mortgage balance of $3,834 without prepayment penalty. The $1,000 cash collateral deposit was released in August 2023 and was included in prepaid and other assets as of July 31, 2023.

In April 2020, our subsidiary in Switzerland received a loan of CHF 400 (or $400, based on the foreign exchange rate as of July 31, 2020) from the Swiss government under the ''Corona Krise'' emergency loan program in response to the COVID-19 pandemic. This loan is uncollateralized and bears 0% interest. In January 2022, the bank agent of the Swiss government informed our subsidiary that the loan had to be fully amortized within a maximum of eight years and that the first of semiannual amortization payments of CHF 33 would begin in March 2022. In March 2022, the subsidiary made its first semi-annual principal repayment of CHF 33 (or $35 based on exchange rates). Based on this amortization schedule, the loan will be repaid by September 2027. The current portion of this loan is included in other current liabilities and the long term portion in long term debt – net as of July 31, 2024 and 2023.

Minimum future annual principal payments under this agreement as of July 31, 2024 are as follows:

July 31,	Total
2025	$ 76
2026	76
2027	76
2028	37
Total principal payments	265
Less: current portion, included in other current liabilities	(76)
Long term debt – net	$189

Note 11 - Leases

The Company determines if an arrangement is or contains a lease at contract inception. The Company leases buildings, office space, patient service centers, and equipment through operating leases. Generally, a right-of-use asset, representing the right to use the underlying asset during the lease term, and a lease liability, representing the payment obligation arising from the lease, are recognized on the balance sheet at lease commencement based

(Dollars in thousands except share data)

on the present value of the payment obligation. For operating leases, expense is recognized on a straight-line basis over the lease term. Short-term leases with an initial term of 12 months or less are not recorded on the balance sheet; the Company recognizes lease expense for these leases on a straight-line basis over the lease term. The Company primarily uses its incremental borrowing rate in determining the present value of lease payments as the Company's leases generally do not provide an implicit rate.

The Company has lease agreements with (i) right-of-use asset payments and (ii) non-lease components (e.g. payments related to maintenance fees, utilities, etc.), which have generally been combined and accounted for as a single lease component. The Company's leases have remaining terms of less than 1 year to 4 years. The Company's lease terms may include renewal options that are reasonably certain to be exercised and termination options that are reasonably certain not to be exercised.

Certain of the Company's lease agreements include rental payments adjusted periodically for inflation or a market rate, which are included in the lease liabilities.

Leases	Balance Sheet Classification	July 31, 2024	July 31, 2023
Assets			
Operating	Right-of-use assets	$2,836	$3,626
Total lease assets		$2,836	$3,626
Liabilities			
Current:			
Operating	Current portion of operating lease liabilities	$ 841	$ 980
Non-current:			
Operating	Operating lease liabilities, non-current	2,403	3,160
Total lease liabilities		$3,244	$4,140

Components of lease cost were as follows for the years ended July 31,:

Lease Cost	2024	2023
Operating lease cost – net[(a)]	$548	$689

(a) Net of $504 and $378 sublease income for the years ended July 31, 2024 and 2023, respectively.

The maturity of the Company's lease liabilities as of July 31, 2024 is as follows:

Maturity of lease liabilities, years ending July 31,	Operating leases
2025	$ 978
2026	886
2027	881
2028	808
Total lease payments	3,553
Less: Interest[(a)]	(309)
Present value of lease liabilities	$3,244

(a) Primarily calculated using the Company's incremental borrowing rate.

(Dollars in thousands except share data)

Lease term and discount rate were as follows for the years ended July 31,:

Lease term and discount rate	2024	2023
Weighted-average remaining lease term (years):		
Operating leases	3.8 years	3.9 years
Weighted-average discount rate:		
Operating leases	5.2%	5.1%

See Note 5 for cash flow information on cash paid for amounts included in the measurement of lease liabilities for the years ended July 31, 2024 and 2023.

Note 12 - Accrued Liabilities

At July 31, accrued liabilities consist of:

	2024	2023
Payroll, benefits and commissions	$3,459	$ 7,421
Professional fees	405	610
Legal	1,235	2,248
Other	615	1,464
	$5,714	$11,743

Self-Insured Medical Plan

The Company self-funds medical insurance coverage for certain of its U.S. based employees. The risk to the Company is believed to be limited through the use of individual and aggregate stop loss insurance. As of July 31, 2024 and 2023, the Company had established reserves of $114 and $631, respectively, which are included in accrued liabilities for payroll, benefits and commissions, for claims that have been reported but not paid and for claims that have been incurred but not reported. The reserve is based upon the Company's historical payment trends, claim history and current estimates.

Note 13 - Other current liabilities

At July 31, 2024 and 2023, other current liabilities consist of the current portion of the Swiss government loan of $76 and $75, respectively.

Note 14 - Stockholders' equity

Controlled Equity Offering

In May 2023, the Company entered into a sales agreement (the ''Sales Agreement'') with B. Riley Securities, Inc. as sales agent (''Riley''). Under the Sales Agreement, the Company may offer and sell, from time to time, through Riley, shares of the Company's common stock, par value $0.01 per share, (''Shares'') having an aggregate offering price of up to $30 million. The Company pays Riley a commission of 3.0% of the aggregate gross proceeds received under the Sale Agreement. The Company is not obligated to make any sales of Shares under the Sales Agreement. The offering of Shares pursuant to the Sales Agreement will terminate upon the earlier of (a) the sale of all of the Shares subject to the Sales Agreement or (b) the termination of the Sales Agreement by Riley or the Company, as permitted therein. In May 2023, the Company filed with the SEC a ''shelf'' registration and sales agreement prospectus covering the Sales Agreement. A total of $150 million of securities, including those covered by the Sales Agreement, may be sold under the shelf registration, which was declared effective in July 2023. During the fourth quarter of the fiscal year ended July 31, 2023, the Company sold 276,479 shares for net proceeds of $386. There was no activity during the fiscal year ended July 31, 2024.

Common stock issuances

In fiscal 2024, the Company issued 487,852 shares of common stock pursuant to its employees' 401(k) matching contribution obligation of $615. In fiscal 2023, the Company issued 843,100 shares of common stock pursuant to its employees' 401(k) matching contribution obligation of $1,079. During fiscal 2024, the Company issued 1,134,024 shares of common stock in settlement of Asset Purchase Agreement bonuses totaling $1,404 to an officer and former officer.

Incentive stock plans

In January 2011, the Company's stockholders approved the adoption of the 2011 Incentive Plan (the ''2011 Plan'') for the issuance of equity awards, including, among others, options, restricted stock, restricted stock units and performance stock units for up to 3,000,000 shares of common stock. In January 2018, the Company's stockholders approved the amendment and restatement of the 2011 Plan (the ''Amended and Restated 2011 Plan'') to increase the number of shares of common stock available for grant under the 2011 Plan by 2,000,000 shares of common stock bringing the total number of shares available for grant to 5,000,000 shares of common stock. On October 7, 2020, the Company's Board of Directors approved the amendment and restatement of the Amended and Restated 2011 Plan, with an effective date of October 7, 2020 and subject to approval by the Company's stockholders at the 2020 annual meeting of stockholders of the Company. The amendment and restatement of the Amended and Restated 2011 Plan was for purposes of, among other things, (i) increasing the shares of common stock available for grant under the Amended and Restated 2011 Plan by an additional 4,000,000 shares of common stock bringing the total number of shares available for grant to 9,000,000 shares of common stock and (ii) extending the term of the Amended and Restated 2011 Plan until October 7, 2030. In January 2021, the Company's stockholders approved the amendment and restatement of the Amended and Restated 2011 Plan.

The exercise price of options granted under the Amended and Restated 2011 Plan is equal to or greater than fair market value of the common stock on the date of grant. The Amended and Restated 2011 Plan will terminate at the earliest of (a) such time as no shares of common stock remain available for issuance under the plan, (b) termination of the plan by the Company's Board of Directors, or (c) October 7, 2030. Awards outstanding upon expiration of the Amended and Restated 2011 Plan will remain in effect until they have been exercised or terminated, or have expired. As of July 31, 2024, there were approximately 4,701,000 shares of common stock available for grant under the Amended and Restated 2011 Plan.

The Company estimates the fair value of each stock option award on the measurement date using a Black-Scholes option pricing model or the fair value of our stock at the date of grant. The fair value of awards is amortized to expense on a straight-line basis over the requisite service period. The Company expenses restricted stock awards based on vesting requirements, primarily time elapsed. Performance stock awards are not recognized until it is probable they will be earned. At such time, their expense is then recognized over the requisite service period, including that portion of the service period already elapsed.

(Dollars in thousands except share data)

Options granted pursuant to the plans may be either incentive stock options or non-statutory options. The Amended and Restated 2011 Plan provides for the issuance of stock options, restricted stock and restricted stock unit awards which generally vest over a two or three year period. The below is a summary of the option activity pursuant to the Company's stock option plan and non-plan options for the years ended July 31, 2024 and 2023:

	2024		2023	
	Options	Weighted - Average Exercise Price	Options	Weighted - Average Exercise Price
Outstanding at beginning of year	3,829,500	$2.61	3,941,783	$3.00
New Grants	435,000	$1.80	640,000	$2.01
Exercised	—	$ —	(6,667)	$2.14
Expired or forfeited	(2,127,630)	$1.58	(745,616)	$4.15
Outstanding at end of year	2,136,870	$2.31	3,829,500	$2.61
Exercisable at end of year	1,373,537	$2.44	2,195,867	$2.65
Weighted average fair value of options granted during year		$0.51		$1.03

The intrinsic value of stock option awards represents the value of the Company's closing stock price on the last trading day of the fiscal year in excess of the exercise price multiplied by the number of options that are outstanding. Total intrinsic value of outstanding options that were exercisable at July 31, 2024 and 2023 was $0. The intrinsic value of options outstanding at July 31, 2024 and 2023 was $0. The intrinsic value of the options exercised in fiscal 2023 was $3.

Listed below are the assumptions used to determine the fair value of options granted during fiscal years 2024 and 2023:

Grant Year	Options Granted	Exercise Price Range	Term (years)	Vesting Period (years)	FMV of Options Granted/Per Share	Expected Life (years)	Expected Volatility %	Interest Rate %
2024	435,000	$1.11 – $2.00	5	3	$0.39 – $0.73	3.5	70.00 – 73.25	4.85 – 5.20
2023	640,000	$1.97 – $2.42	5	3	$1.07 – $1.28	3.5	73.44 – 73.77	3.03 – 4.10

The following table summarizes information for stock options exercisable at July 31, 2024:

Range of Exercise prices	Shares	Weighted-Average Remaining Contractual Life in Years	Weighted-Average Exercise Price
$1.11 - $2.33	724,900	1.8	$2.18
$2.63 - $2.65	530,470	1.2	$2.64
$2.98 - $3.36	118,167	2.6	$3.17
	1,373,537		

The following table summarizes information for stock options outstanding at July 31, 2024:

Range of Exercise prices	Shares	Weighted-Average Remaining Contractual Life in Years	Weighted-Average Exercise Price
$1.11 - $2.33	1,429,900	2.4	$2.08
$2.63 - $2.65	530,470	1.2	$2.64
$2.98 - $3.36	176,500	2.6	$3.17
	2,136,870		

Restricted Stock Units

During fiscal year 2024, the Company awarded to its three independent directors 255,825 RSUs, which vest over one year and had a fair market value of $325 at the time of grant, and to its CEO 150,000 RSUs, which vest over three years and had a fair market value of $207 at the time of grant. One director resigned, thereby forfeiting 79,365 RSU's. During fiscal year 2024, the Company recognized share based compensation expense, net of $176 for these RSUs.

During fiscal year 2023, the Company awarded to its former CEO 100,000 RSUs, which were to cliff vest annually over three years and had a fair market value of $197 at the time of grant. In November 2021, 260,000 non-plan RSUs were awarded to the former CEO, which were to vest over three years on the anniversary of his hiring. The fair market value of those RSUs at the date of grant was $881. During the fiscal year 2024, the vesting of the remaining 173,333 RSUs from the November 2021 award was accelerated and the 100,000 RSUs from his fiscal year 2023 award were cancelled as a result of his termination. In fiscal year 2024, the Company recognized share based compensation expense, net of $318 for these RSUs.

During fiscal year 2023, the Company awarded to its three independent directors 225,564 RSUs, which vest over one year and had a fair market value of $300 at the time of grant. During fiscal years 2024 and 2023, the Company recognized share based compensation expense of $150 for these RSUs.

The following table summarizes plan and non-plan RSU activity for the fiscal year ended July 31, 2024:

	Number of RSUs outstanding	Weighted Average Fair Value per Unit at Date of Grant or Vesting	Weighted Average Remaining Contractual Term	Aggregate Intrinsic Value (000s)
Outstanding at beginning of fiscal year	557,490	$2.21	1.1 years	$825
Granted	405,825	$1.31		532
Vested	(475,222)	$2.24		
Cancelled	(179,363)	$1.66		
Outstanding at end of period	308,730	$1.31	1.5 years	$352
Expected to vest at end of period	308,730	$ 131	1.5 years	$352

Certain directors had not taken their vested RSU shares, totaling 144,530, as of July 31, 2023. These shares were issued during fiscal 2024. As of July 31, 2024, there was $256 of total unrecognized compensation cost related to non-vested share-based payment arrangements granted under the Amended and Restated 2011 Plan, which will be recognized over a weighted average remaining life of approximately one and a half years.

Performance Stock Units

In fiscal 2024, the Company recognized no share based compensation for Performance Stock Units (''PSUs'') because no PSUs were outstanding during the period, and issued 4,817 shares of stock, net of taxes to a senior executive who had previously vested in the shares. In fiscal 2023, the Company recognized $2 net of share based compensation for PSUs and issued 25,200 shares for awards made in fiscal year 2019 and vested at the end of fiscal 2022.

Note 15 - Employee benefit plans

The Company has a qualified Salary Reduction Profit Sharing Plan (the ''Plan'') for eligible U.S. 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, 2024 and 2023, the Company authorized employer matched contributions of 50% of the employees' contribution, payable in Enzo Biochem, Inc. common stock.

The share-based 401(k) employer expense was approximately $600 and $880 in fiscal years 2024 and 2023, respectively. As of July 31, 2024 and 2023, the Company accrued a total of $248 and $263, respectively, in 401(k) matching contribution obligations within the accrued liabilities account.

The Company's Swiss operation provides a Pillar 2 government sponsored defined benefit pension plan under the Swiss government's social security system for Swiss employees (the ''Swiss Plan''). Under the Swiss Plan, the Company and its employees are obligated to pay agreed upon amounts into the Swiss Plan at the same time. During the fiscal years ended July 31, 2024 and 2023, the Company contributed $335 and $182, respectively to the Swiss Plan.

Under Pillar 2 plans, the accumulated benefit balance of a former employee is transferred to their new employer or a government retirement account and the sponsoring company's liability regarding its former employee is thereby released. The contract for the Company's Swiss Plan automatically renews on its annual anniversary unless notice of termination is provided three months prior. The current contract will automatically renew on December 31, 2024. Currently, the Company has no plans to change the current funding or plan design. No events have occurred that would impact the Swiss Plan status.

Note 16 - Commitments

Related Party Lease

A related party entity owned by former executive officers of the Company owns the building that the Company leases which was its main facility for the discontinued operation. The lease expires March 3, 2027. In addition to the minimum annual rentals of space, the lease is subject to annual increases, based on the consumer price index. Annual increases are limited to 3% per year. Rent expense for this lease, inclusive of real estate taxes, approximated $2,032 and $1,937 during fiscal years 2024 and 2023, respectively. The minimum payments under this related party lease as of July 31, 2024 are $2,195, $2,259 and $1,535 for fiscal years ending July 31, 2025, July 31, 2026 and July 31, 2027, respectively.

Note 17 - Contingencies

Ransomware Attack

In April 2023, the Company experienced a ransomware attack (the ''ransomware attack'') that impacted certain critical information technology systems, principally of the discontinued operations. The Company later became aware that certain data, including names, test information, and Social Security numbers, was accessed, and in some instances, exfiltrated from the Company's information technology systems as part of this incident. The investigation identified unauthorized access to or acquisition of clinical test information of approximately 2,470,000 individuals. The Social Security numbers of approximately 600,000 of these individuals may also have been involved. Additionally, the Company determined that some employees' information may have been involved. The Company provided notice to the individuals whose information may have been involved, as well as to regulatory authorities, in accordance with applicable law.

As a result of the ransomware attack, Enzo was subject to regulatory inquiry from the New York Attorney General, a joint inquiry from the Connecticut and New Jersey Attorneys General and an inquiry from the Utah Attorney General. All inquiries asked questions about the ransomware attack, as well as the corrective actions taken in response. The Company responded to all such inquiries, and there have been no further inquiries from the Utah Attorney General. The matters with the New York, Connecticut and New Jersey Attorneys General are now closed, as they were resolved by agreements with each of the three states signed on August 8, 2024 for New York, August 12, 2024 for Connecticut, and August 13, 2024 for New Jersey. A provision was recorded in the consolidated financial statements as of July 31, 2024 based on the settlement terms of the agreements.

Enzo was also subject to regulatory inquiries from the U.S. Department of Health and Human Services Office for Civil Rights (the ''Office for Civil Rights'') regarding the ransomware attack. The Company has responded to all requests. It is not known at this time whether the Office for Civil Rights will seek a penalty against the Company. We are unable to evaluate the likelihood of an outcome, favorable or unfavorable, to the Company or to estimate the amount or range of any potential liability, if any, at this time.

There is also pending class action litigation:

***In re Enzo Biochem Data Breach Litigation*, No. 2:23-cv-04282 (EDNY)**

In the Eastern District of New York (''EDNY''), twenty putative class actions were consolidated alleging various harms stemming from the April 2023 data incident. Lead counsel was appointed and filed a Consolidated Amended Complaint on November 13, 2023. The complaint sought to certify a federal class as well as several state subclasses. The Consolidated Amended Complaint brings various statutory and common law claims, including negligence, negligence per se, breach of fiduciary duty, breach of implied contract, breach of the implied covenant of good faith and fair dealing, violation of the New York's General Business Law § 349, Invasion of Privacy, violations of the Connecticut Unfair Trade Practices Act, and violations of the New Jersey Consumer Fraud Act. An agreement in principle to settle the case has been reached. The Company expects to have the agreement formalized before the end of the 2024 calendar year.

***Maria Sgambati et al., v. Enzo Biochem, Inc., et al*., Index No. 619511/2023 (N.Y. Sup. Ct.)**

This is a putative class action pending in state court alleging various harms stemming from the April 2023 data incident. The complaint seeks to certify a class of New York residents. The complaint brings claims of negligence; negligence *per se*; breach of implied covenant and good faith and fair dealing; breach of duty; breach of implied contract; and violations of New York's Deceptive Acts and Practices § 349. The Company has filed a motion to stay this action pending the resolution of the EDNY Federal Action, and the motion was granted by the court. The Company anticipates that the case will be dismissed once the settlement in the federal case receives final approval from the court, likely sometime in 2025.

***Louis v. Enzo Biochem, Inc. et al.*, Index No. 653281/2023 (N.Y. Sup. Ct.)**

This is a putative class action pending in state court alleging various harms stemming from the April 2023 data incident. The complaint seeks to certify a class of New York citizens. The complaint brings claims of negligence; negligence *per se*; breach of duty; breach of implied contract; breach of implied covenant of good faith and fair dealing; and violations of New York's Deceptive Acts and Practices § 349. The Company has filed a motion to stay this action pending the resolution of the EDNY Federal Action, and the motion remains pending. The Company anticipates that the case will be dismissed once the settlement in the federal case receives final approval from the court, likely sometime in 2025.

A provision was made in the consolidated financial statements as of July 31, 2023 for the above class action litigation matters based on a reasonable estimate of loss and updated as of July 31, 2024; however, the actual exposure may differ.

Patent Matters

The Company (as plaintiff) has brought cases in the United States District Court for the District of Delaware (''the Court''), alleging patent infringement against various companies. At this time, all of such cases have been resolved, except for one described below.

There is currently one case that was originally brought by the Company that is still pending in the Court. In that case, Enzo alleges patent infringement of the '197 patent against Becton Dickinson defendants. The claims in that case are stayed.

On September 2, 2021, the U.S. Patent and Trademark Office (''PTO'') issued a non-final office action in an *ex parte* reexamination concerning the '197 Patent. In the office action, the PTO rejected certain claims of the '197 Patent under 35 U.S.C. §§ 102 and 103, and for nonstatutory double-patenting. Enzo responded to the office action on January 3, 2022, and the proceeding remains pending. Becton Dickinson requested another *ex parte* reexamination concerning the '197 patent on July 26, 2022. On September 16, 2022, the PTO ordered that *ex parte* reexamination as to certain claims of the '197 patent. Enzo filed a petition to terminate that second reexamination proceeding on November 16, 2022, which was denied on July 26, 2024. The PTO merged the *ex parte* reexamination proceedings as of August 2, 2024. On September 17, 2024, the PTO issued an office action, rejecting the claims subject to the merged reexamination proceedings.

Arbitration with former executives

The Company terminated the employment of Elazar Rabbani, Ph.D., the Company's former Chief Executive Officer, effective April 21, 2022. Dr. Rabbani was a board director of the Company until the Annual Meeting on January 31, 2024, when his term expired. Dr. Rabbani was a party to an employment agreement with the Company that entitled him to certain termination benefits, including severance pay, acceleration of vesting of share-based compensation, and continuation of benefits. Based on the terms of his employment agreement, the Company estimated and accrued a charge of $2,600 in fiscal year 2022. The charge was partially offset by the reversal of bonus accruals. In May 2022, the Company paid Dr. Rabbani $2,123 in severance (the payment constituted taxable income, but the Company did not withhold taxes from the payment). In July 2022, the Company paid Dr. Rabbani's income and other withholding taxes of $1,024 related to that payment on Dr. Rabbani's behalf. On July 8, 2022, the Company filed a demand for arbitration with the American Arbitration Association (the ''AAA'') seeking, among other things, a declaration that the Company had fully satisfied its contractual obligations to Dr. Rabbani and seeking the tax withholding reimbursement referenced above. On August 4, 2022, Dr. Rabbani filed counterclaims in the arbitration seeking, among other things, a bonus for fiscal year 2021 and additional severance that he asserted was owed to him. At the parties' joint request, the arbitration has been stayed while the parties work towards resolving the matter. A provision was made in the consolidated financial statements as of July 31, 2023 based on a reasonable estimate of loss; however, the actual exposure may differ.

On February 25, 2022, Barry Weiner, the Company's co-founder and President, notified the Company that he was terminating his employment as President of the Company for ''Good Reason,'' as defined in his employment agreement. The Company accepted Mr. Weiner's termination, effective April 19, 2022, but disagreed with Mr. Weiner's assertion regarding ''Good Reason.'' On October 24, 2023, the Company and Mr. Weiner reached an agreement resolving the dispute, and a provision was made in the financial consolidated statements as of July 31, 2023 based on the settlement agreement. The Company paid Mr. Weiner $3,600, less applicable withholding taxes, related to the agreement in November 2023.

Other Matters

On or about March 2, 2023, a Verified Complaint was filed in the Supreme Court of the State of New York, New York County captioned Elazar Rabbani (as plaintiff) v. Mary Tagliaferri, et al. (as defendants), Index No. 651120/2023. The Verified Complaint purports to assert causes of action for breach of fiduciary duty and corporate waste under N.Y.B.C.L. § 720, and seeks an accounting and certain injunctive relief. On August 4,

2023, defendants moved to dismiss all the causes of action asserted in the Verified Complaint. Plaintiff filed an amended complaint on or about October 4, 2023, adding, among other things, an additional cause of action for violation of N.Y.B.C.L. § 626. On October 23, 2023, defendants filed a reply in further support of their motion to dismiss. On November 6, 2023, plaintiff filed an opposition to defendants' motion to dismiss. On November 17, 2023, defendants filed a reply brief in further support of their motion to dismiss the amended complaint. On or about July 17, 2024, the Court granted, in part, the defendants' motion to dismiss the amended complaint. On or about August 16, 2024, plaintiff noticed an appeal from the order granting that dismissal. On or about September 18, 2024, plaintiff filed a Verified Second Amended Complaint. On October 11, 2024, the defendants filed a joint stipulation and letter requesting the court to extend the deadline to respond to the Second Amended complaint from October 18, 2024 to November 18, 2024. We intend to file a motion to dismiss the Second Amended complaint with prejudice. The Company cannot predict the outcome of this matter or estimate the amount or range of any potential liability, if any, at this time.

On or about September 26, 2023, James G. Wolf, individually and as the trustee of the Wolf Family Charitable Foundation, Barbaranne R. Wolf, Stephen Paul Wolf, and Preston M. Wolf (collectively the ''Petitioners'') initiated an appraisal action against Enzo in the New York Supreme Court for Suffolk County. Petitioners seek an appraisal of the value of their shares in the Company. The amount of damages sought by the Petitioners is unspecified. On or about August 21, 2024, the Court dismissed the Company's Second and Third Affirmative Defenses. On or about September 19, 2024, the Court granted the Company permission to move for leave to reargue the Court's dismissal decision. Motion papers were filed on October 16, 2024, opposition papers are due November 18, 2024, and reply papers are due December 4, 2024. We do not anticipate a decision until sometime in the first quarter of 2025. The Company intends to vigorously litigate both (i) Petitioners' alleged entitlement to dissenting shareholder appraisal rights and (ii) the correct valuation of Petitioners' shares.

In our discontinued Clinical Labs operations, third-party payers, including government programs, may decide to deny payment or recoup payments for testing that they contend was improperly billed or not medically necessary, against their coverage determinations, or for which they believe they have otherwise overpaid (including as a result of their own error), and we may be required to refund payments that we received. In April 2024, the Company engaged in settlement negotiations for a government payer and reached a verbal settlement. The settlement was finalized in a formal written settlement agreement on August 14, 2024. The settlement resolved allegations that Enzo Clinical Labs, Inc. overbilled the Connecticut Medicaid program for testing services. A provision is included in the consolidated financial statements based on the agreement, and the settlement was paid in August 2024 for $1,700.

Provisions for the above matters, based on a reasonable estimate of loss, totaled approximately $11,300 at July 31, 2023 and $15,200 at July 31, 2024, for both continuing and discontinued operations, including matters separately disclosed in Note 17 above.

Note 18 - Segment reporting

The Company has one reportable segment, Products, which focuses on labeling and detection technologies from DNA to whole cell analysis, including a comprehensive portfolio of thousands of high-quality products, including antibodies, genomic probes, assays, biochemicals, and proteins. The Company's proprietary products and technologies play central roles in translational research and drug development areas, including cell biology, genomics, assays, immunohistochemistry, and small molecule chemistry. The Company evaluates segment performance based on segment income (loss) before taxes. Costs excluded from segment income (loss) before taxes and reported as ''Corporate & Other'' consist of corporate general and administrative costs, which are not allocable to the Products segment.

Legal and related expenses incurred to defend the Company's intellectual property, which may result in settlements recognized in another segment, and other general corporate matters are considered a component of the Corporate & Other segment. Legal and related expenses specific to the Products' segment's activities are allocated to that segment.

The accounting policies of the reportable segment are the same as those described in the summary of significant accounting policies.

(Dollars in thousands except share data)

The following financial information represents the operating results of the reportable segments of the Company:

Year ended July 31, 2024	Products	Corporate & Other	Consolidated
Revenues – Services and Products	$31,907	$ —	$ 31,907
Operating costs and expenses:			
Cost of revenues	17,275	—	17,275
Research and development	2,615	27	2,642
Selling, general and administrative	12,571	9,152	21,723
Legal and related expenses	51	2,581	2,632
Total operating costs and expenses	32,512	11,760	44,272
Operating loss	(605)	(11,760)	(12,365)
Other income (expense)			
Interest	141	3,200	3,341
Other, net	(26)	520	494
Fair value adjustment	—	(1,095)	(1,095)
Foreign exchange loss	(192)	—	(192)
Loss before taxes	$ (682)	$ (9,135)	$ (9,817)
Depreciation and amortization included above	$ 714	$ 551	$ 1,265
Share-based compensation included above:			
Selling, general and administrative	129	1,533	1,662
Cost of sales	34	—	34
Total	$ 163	$ 1,533	$ 1,696
Capital expenditures	$ 417	$ 128	$ 545

(Dollars in thousands except share data)

Year ended July 31, 2023	Products	Corporate & Other	Consolidated
Revenues – Products	$31,061	$ —	$ 31,061
Operating costs and expenses:			
Cost of revenues	17,866	—	17,866
Costs of revenues – inventory provision	1,629	—	1,629
Research and development	3,864	40	3,904
Selling, general and administrative	12,302	14,900	27,202
Legal and related expenses	73	5,123	5,196
Total operating costs and expenses	35,734	20,063	55,797
Operating loss	(4,673)	(20,063)	(24,736)
Other income (expense)			
Interest	118	(1,240)	(1,122)
Change in fair value of convertible debentures	—	(824)	(824)
Other	7	373	380
Foreign exchange gain	1,280	—	1,280
Loss before taxes	$ (3,268)	$(21,754)	$(25,022)
Depreciation and amortization included above	$ 687	$ 365	$ 1,052
Share-based compensation included above:			
Selling, general and administrative	81	1,669	1,750
Cost of sales	22	—	22
Total	$ 103	$ 1,669	$ 1,772
Capital expenditures	$ 1,694	$ 650	$ 2,344

Note 19 - Departure and Appointment of Certain Officers

In September 2023, the Company entered into a Separation Agreement and General Release (the ''Separation Agreement'') with Hamid Erfanian, the Company's Chief Executive Officer, which provided for Mr. Erfanian's separation of employment, resignations from his positions as Chief Executive Officer and as a director of the Company and the payment of severance benefits as described below. Pursuant to the Separation Agreement, Mr. Erfanian's resignations as Chief Executive Officer and as a director became effective immediately and his final date of employment with the Company was November 18, 2023 (the ''Separation Date'').

Pursuant to the Separation Agreement, Mr. Erfanian is entitled to the following severance benefits: (i) a payment equaling twelve (12) months of his annual base salary of $624, subject to standard payroll deductions and withholdings; (ii) a lump-sum payment of $187, representing his annual bonus; (iii) a grant of restricted shares of the Company's common stock, par value $0.01 per share (the ''Common Stock''), in an amount equal to $1,502 with 50% of the restricted Common Stock granted as soon as reasonably practicable after September 13, 2023, and the remaining 50% granted on the earlier of July 24, 2024 or a Change in Control of the Company (as defined in Mr. Erfanian's employment agreement with the Company); and (iv) the immediate vesting on the Separation Date of the remainder of a restricted stock unit award of 260,000 shares of Common Stock and option to purchase 700,000 shares of Common Stock that were previously granted to Mr. Erfanian upon his employment

outside of the Company's 2011 Plan. The foregoing are subject to continued compliance with existing restrictive covenants under Mr. Erfanian's employment agreement with the Company and his reaffirmation.

The severance benefits with respect to salary and bonus were accrued during the first quarter of fiscal 2024. The share-based charges related to the immediate vesting of the remainder of the restricted stock unit award and options granted upon employment were also recognized during the first quarter of fiscal 2024.

Note 20 - Subsequent Events

The Board of Directors of the Company has declared a cash dividend of $0.10 per share on its common stock, payable on December 2, 2024, to the holders of record as of the close of business on November 15, 2024.

ENZO BIOCHEM, INC
SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS
As of and for the Years ended July 31, 2024 and 2023
(in thousands)

Year ended July 31,	Description	Balance at Beginning of Year	Charged (credited) to costs and expenses	Charged to other accounts	Deductions	Balance at end of Year
2024	Allowance for expected credit losses	$ 170	$ 59		$(103)[1]	$ 126
2023	Allowance for expected credit losses	$ 161	$ 9		$ —	$ 170
2024	Deferred tax valuation allowance	26,685	2,977		—	29,662
2023	Deferred tax valuation allowance	34,610	(7,925)		—	26,685

(1) Write-off of uncollectible accounts receivable.

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Corporate Information

Board of Directors

Steven J. Pully, Chair

Kara Cannon

Bradley L. Radoff

Jon Couchman

Officers and Management

Kara Cannon
Chief Executive Officer

Patricia Eckert
Chief Financial Officer

Brian Fisher
General Counsel

Corporate Office

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Farmingdale, NY 11735
(631) 755-5500

Corporate Information

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BakerHostetler LLP
45 Rockefeller Plaza
New York, NY 10111

Independent Auditors
EisnerAmper LLP
505 South Flagler Drive
West Palm Beach, FL 33401

Transfer Agent and Registrar
Equiniti Trust Company, LLC
48 Wall St. Floor 23
New York, NY 10043

Common Stock
Listed on NYSE
(Symbol:ENZ)

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 closing high and low sale price of the Company's Common Stock for the periods indicated as reported on the New York Stock Exchange.

2024 Fiscal Year (August 1, 2023 to July 31, 2024):	High	Low	***2023 Fiscal Year (August 1, 2022 to July 31, 2023):***	High	Low
1st Quarter	$ 1.64	$ 1.30	1st Quarter	$ 2.73	$ 2.08
2nd Quarter	$ 1.50	$ 1.21	2nd Quarter	$ 2.42	$ 1.16
3rd Quarter	$ 1.39	$ 1.04	3rd Quarter	$ 2.61	$ 1.00
4th Quarter	$ 1.25	$ 1.04	4th Quarter	$ 2.66	$ 1.30

As of October 25, 2024, the Company had approximately 685 stockholders of record of its Common Stock.

Enzo Biochem, Inc.
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