ACCELERATING INNOVATION INTO THE FUTURE



2022 Annual Report



Dr. Prahlad Singh

President & CEO



My excitement for what's next is only matched by my appreciation of what we have achieved together as one organization over the last several years, building upon the advancements of all the employees and leaders who have come before us.

Dear Fellow Shareholders,

Reflecting on 2022, it was a year during which we continued to make great strides on the historic transformation journey the Company embarked on several years ago. We announced our intent to divest the Analytical and Enterprise Services business and become a pure-play Life Sciences and Diagnostics company with faster growth, higher margins and a science-first focus. This transformation is intended to deliver significant value for our customers, our shareholders and our employees, as both businesses will be able to unlock even greater potential with a dedicated focus.



Perkin-Elmer employees at the Glenbrook, Connecticut plant in 1942

My excitement for what's next is only matched by my appreciation of what we have achieved together as one organization over the last several years, building upon the advancements of all the employees and leaders who have come before us. PerkinElmer has a rich, 85-year history and a legacy of making life better for generations, which has positively impacted millions around the globe.

The new Life Sciences and Diagnostics organization will be dedicated to maximizing the full scientific, operational and financial potential of our new company with a soon-to-be announced new company name, brand and mission. Within Life Sciences, we will lead with technology to drive preclinical research, increasing the pace of novel, contiguous solutions in key focus areas, and accelerating scientific development from the research lab to the clinic. In our Diagnostics business, our goal will be to serve as a partner throughout the whole human care cycle from a continuum of care perspective, delivering impactful solutions starting in the family planning stage, during the pregnancy, newborn and postnatal periods, and all the way through a person's prime years.



PerkinElmer employees unveil our new Cellaca® PLX Image Cytometry System at the 2022 BioTech Week Boston Conference

We are starting this new chapter from an incredibly strong foundation, as evident in an extraordinary 2022. From an innovation standpoint, the level of focused product development occurring within the Company has significantly elevated over the last twelve months. For example, we brought to market our cutting-edge Cellaca® PLX Image Cytometry System. This first-in-class platform supports the development of cell and gene therapies by enabling researchers to assess complex cell samples for quality and viability across their research and manufacturing processes using a single instrument along with optimized reagent kits that are supported by our BioLegend business.



PerkinElmer employees demo our new GC 2400™ Platform

In our Diagnostics business, we continued to help democratize access to critical technologies that can test and diagnose newborns around the world, the most recent example being our new EONIS[™] SCID-SMA kit, which was the first to receive marketing authorization from the U.S. FDA for SMA screening. From our Analytical and Enterprise Services teams, we introduced the new GC 2400[™] platform, bringing together systems, software, columns and consumables to help analytical labs in the industrial, environmental, pharmaceutical and food and beverage spaces simplify operations, drive precise results, and perform more flexible monitoring. In addition to these more prominent solutions, we also introduced over 1,500 new life science antibodies, kits and reagents to optimize workflows and accelerate research from target to cure.

Given that our mission is centered on making the world and the lives of people on it better and healthier, I'm also incredibly proud of how we progressed in supporting our own communities and our employees. We continued to evolve our culture and help our colleagues connect with each other through the creation of dedicated resource and network groups, as well as through our annual Impact Day during which we provide our team members the opportunity to give back and further demonstrate how they live and breathe our mission every day.

Strengthening our investments across our Environmental, Social & Governance (ESG) program, we reached two notable milestones - signing onto the United Nations Global Compact, the world's largest sustainability initiative, and increasing our commitment to further reduce our emissions in the coming years by adjusting our carbon emissions goals to align with updated guidance from the Science Based Targets Initiative (SBTi). As we move ahead, we will build upon our ESG progress last year by weaving our philosophy deeper into the fabric of our culture – from further infusing the United Nations Sustainable Development Goals into our own initiatives to continuously driving process changes to align with or exceed international guidelines and best practices.

Looking ahead, when I think about the significance of reimagining our Company, it is not just about changing our name or replacing our logo. It is the identity we are forming, the best-in-class culture we are creating, the values we will embody, and how we will serve our customers going forward. As I have shared with our team, I have no doubt that the future Life Sciences and Diagnostics and Analytical and Enterprise Services organizations will carry with them the same passion for science and commitment to improving life that has united PerkinElmer for years.

In this new chapter, I am eager to witness how we will continue to accelerate innovation that will both help our customers and have a profound impact on improving global health in the future.

Regards

Prahlad



PerkinElmer employees in Brazil collect blankets to donate to those less fortunate during the upcoming winter months

CORPORATE GOVERNANCE

BOARD OF DIRECTORS

Prahlad Singh, PhD President and Chief Executive Officer PerkinElmer, Inc.

Peter Barrett, PhD Partner, Atlas Venture

Samuel R. Chapin Retired Executive Vice Chairman Bank of America Merrill Lynch

Sylvie Grégoire, PharmD Co-founder and Executive Chair EIP Pharma, Inc.

Michelle McMurry-Heath, MD, PhD Consultant to Biotechnology Industry

Alexis P. Michas Managing Partner Juniper Investment Company, LLC

Michel Vounatsos Former Chief Executive Officer Biogen Inc.

Frank Witney, PhD Former Chief Executive Officer Affymetrix, Inc.

Pascale Witz Founder and President PWH Advisors

CORPORATE OFFICERS

Prahlad Singh, PhD President and Chief Executive Officer

Joel S. Goldberg Senior Vice President, Administration, General Counsel and Secretary

Max Krakowiak Senior Vice President and Chief Financial Officer

Daniel R. Tereau Senior Vice President, Strategy and Business Development

Miriame Victor Senior Vice President, Chief Commercial Officer

Tajinder Vohra Senior Vice President, Global Operations

Andrew Okun Vice President, Chief Accounting Officer and Treasurer

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

Form 10-K

(Mark One)

\mathbf{V} **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended January 1, 2023

or

\square 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 001-5075

PerkinElmer, Inc. (Exact name of registrant as specified in its charter)

Massachusetts

(State or other jurisdiction of incorporation or organization)

940 Winter Street, Waltham, Massachusetts

(Address of Principal Executive Offices)

04-2052042

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

02451

(Zip Code)

(781) 663-6900

(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol (s)	Name of Each Exchange on Which Registered		
Common Stock, \$1 Par Value	PKI	The New York Stock Exchange		
1.875% Notes due 2026	PKI 21A	The New York Stock Exchange		
Securities registered pursuant to Section 12(g) of the Act: None				

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: (1) has filed all reports required to be filed by Section 13 or Section 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 has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes 🗹 No \square

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or 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	$\mathbf{\nabla}$	Accelerated filer	
Non-accelerated filer		Smaller reporting company	
Emerging growth company			

Emerging growth company

If an emerging growth company, indicate by check mark whether 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. \square

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 Exchange Act). Yes 🗆 No 🗹

The aggregate market value of the common stock, \$1 par value per share, held by non-affiliates of the registrant on July 1, 2022, the last business day of the registrant's most recently completed second fiscal quarter, was \$18,089,645,853 based upon the last reported sale of \$144.07 per share of common stock on July 1, 2022.

As of February 24, 2023, there were outstanding 126,411,985 shares of common stock, \$1 par value per share.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of PerkinElmer, Inc.'s Definitive Proxy Statement for its Annual Meeting of Shareholders to be held on April 25, 2023 are incorporated by reference into Part III of this Form 10-K.

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PART I

Item 1. Business

Overview

We are a leading provider of products, services and solutions for the diagnostics, life sciences and applied markets. Through our advanced technologies and differentiated solutions, we address critical issues that help to improve lives and the world around us.

Our headquarters are in Waltham, Massachusetts, and we market our products and services in more than 190 countries. As of January 1, 2023, we employed approximately 16,700 employees. Our common stock is listed on the New York Stock Exchange under the symbol "PKI" and we are a component of the S&P 500 Index.

We maintain a website with the address <u>http://www.perkinelmer.com</u>. We are not including the information contained in our website as part of, or incorporating it by reference into, this annual report on Form 10-K. We make available free of charge through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports, as soon as reasonably practicable after we electronically file these materials with, or otherwise furnish them to, the Securities and Exchange Commission.

Our Strategy

Our strategy is to develop and deliver innovative products, services and solutions in high-growth markets that utilize our knowledge and expertise to address customers' critical needs and drive scientific breakthroughs. To execute on our strategy and accelerate revenue growth, we focus on broadening our offerings through both the investment in research and development and the acquisition of innovative technology. Our strategy includes:

- Strengthening our position within key markets by expanding our global product and service offerings, maintaining superior product quality and driving an enhanced customer experience;
- Attracting, retaining and developing talented and engaged employees;
- Accelerating transformational innovation through both internal research and development and third-party collaborations and alliances;
- Augmenting growth in both of our core business segments, Discovery & Analytical Solutions and Diagnostics, through strategic acquisitions and licensing;
- · Engraining focused operational excellence to improve organizational efficiency and agility; and
- Opportunistically utilizing our share repurchase programs to help drive shareholder value.

Recent Developments

As part of our strategy to grow our core businesses and transform our portfolio, we have recently taken the following actions:

Discontinued Operations in Fiscal Year 2022:

In August 2022, we entered into a Master Purchase and Sale Agreement (the "Purchase Agreement") with Polaris Purchaser, L.P. (the "Purchaser"), a Delaware limited partnership owned by funds managed by affiliates of New Mountain Capital L.L.C. (the "Sponsor"), under which we agreed to sell to the Purchaser certain assets and the equity interests of certain entities constituting our Analytical, Food and Enterprise Services businesses (the "Business") (as further defined in the Purchase Agreement), for cash consideration of up to approximately \$2.45 billion and the Purchaser's assumption of certain liabilities relating to the Business (collectively, the "Transaction"). Approximately \$2.30 billion of the purchase price will be payable at closing, subject to certain customary adjustments, which includes \$75.0 million in deferred payments tied to the transfer of the PerkinElmer brand and related trademarks to the Purchaser (which may be completed within 24 months following the date of the closing at our election). The Purchase Agreement also provides for potential post-closing payments totaling up to \$150.0 million, which are contingent on the exit valuation the Sponsor and its affiliated funds receive on a sale or other capital events related to the Business. The Transaction is expected to close in the first quarter of fiscal year 2023, subject to regulatory approvals and other customary closing conditions.

Business Segments and Products

We report our business in two segments: Discovery & Analytical Solutions and Diagnostics.

Discovery & Analytical Solutions Segment

Our comprehensive portfolio of technologies helps life sciences researchers better understand diseases and develop treatments. In addition, we enable scientists to detect, monitor and manage contaminants and toxic chemicals that impact our environment and food supply as well as enable manufacturers to verify product quality and safety. Our Discovery & Analytical Solutions segment serves the life sciences and applied markets.

Life Sciences:

In the life sciences market, we provide a broad suite of products, solutions and services that facilitate optimized workflows, increase productivity, and accelerate every stage of the drug discovery and development pipeline. Our offerings span the areas of cell, gene, and protein research, enabling scientists to work smarter, make research breakthroughs, and transform those breakthroughs into real-world outcomes. We partner with global pharmaceutical, biotech and contract research organizations, as well as academic institutions, to enable them to discover and develop better treatments and therapeutics to fight disease faster and more efficiently.

Applied Markets:

The applied markets consist of environmental, food and industrial markets.

For the environmental market, we develop and provide analytical technologies, solutions and services that enable our customers to understand and characterize the health and quality of our environment, including air, water and soil. Our solutions are used to detect and help reduce the impact commercial products and industrial processes have on our environment. For example, our solutions help ensure compliance with regulatory standards that protect the purity of the world's water supply by detecting harmful substances, including trace metals such as lead, organic pollutants such as pesticides and benzene, and emerging contaminants such as microplastics and polyfluoroalkyl substances (PFAS). We provide the tools needed to meet rigorous regulatory requirements for environmental testing, meet quality specifications and safety standards, and innovate for next generation analytical products.

We also offer a variety of solutions that help farmers and food producers provide a growing population with food that is safe, nutritious and appealing, and assist manufacturers with ensuring product consistency and maximizing production yield. Our solutions confirm food quality, including the level of moisture in grain or the level of fat in butter and nutritional elements, as well as detect the presence of potentially dangerous contaminants, such as veterinary drug residues in milk and harmful microbiological pathogens in foods. Our workflows can also be used to identify the origin of food products such as olive oil, which helps prevent counterfeiting. Our methods and analyses are transferable throughout the supply chain to enable customers to keep pace with industry standards as well as governmental regulations and certifications.

We also provide analytical instrumentation for industrial markets, which include the chemical, semiconductor, mining, energy, lubricant, petrochemical and polymer industries. Our solutions are used to meet the testing needs for quality assurance standards and in on-going product research and development. By providing material and chemical identification, characterization and quantification techniques, we help organizations drive the advancement and innovation of new products, with a focus on sustainability to increase the recyclability and biodegradability of materials as well as improving renewable energy solutions and energy storage.

We also provide services designed to help customers in the laboratory services market increase efficiencies and production time while reducing laboratory maintenance costs. Our OneSource[®] laboratory service business is aligned with customers' needs, enabling them to accelerate scientific progress and commercial opportunities.

Principal Products:

Our principal products and services for Discovery & Analytical Solutions applications include the following:

Life Sciences Market:

- Radiometric detection solutions, including over 750 radiochemicals and instrumentation such as the Tri-Carb[®] and Quantulus[™] GCT families of liquid scintillation analyzers, Wizard^{2®} Gamma counters and MicroBeta^{2®} plate based LSA, which are used for beta, gamma and luminescence counting in microplate and vial formats utilized in research, environmental and drug discovery applications.
- The Opera Phenix[®] Plus high-content screening system, which is used for sensitive and high-speed phenotypic drug screening of complex cellular models.
- The Operetta[®] CLS[™] high-content analysis system, which enables scientists to reveal fine sub-cellular details from everyday assays as well as more complex studies, for example using live cells, 3D and stem cells.
- Reagents and solutions for microscopy and imaging applications. These include PhenoVueTM cellular imaging reagents and cell painting kits, PhenoPlate (formerly CellCarrier UltraTM) cellular imaging microplates and GrowDex[®] hydrogels, fluorophore-conjugated and enzyme-conjugated antibodies, as well as buffers and solutions, such as our Ce3DTM collection of buffers for 3D tissue imaging.
- The MuviCyte[™] live-cell imaging system, designed to operate inside a cell-culture incubator, enabling researchers to study cellular behaviors and pathways in living cells to gain a deeper understanding of functions, disease mechanisms and responses to treatments.
- The Signals Image ArtistTM next-generation image analysis and management platform for drug discovery research, to help scientists process and analyze high-content screening (HCS) and cellular imaging data in a matter of hours versus days or weeks, so they can make more informed decisions faster.
- The VICTOR Nivo[®] multimode plate reader benchtop system, which is designed for assay development and academic labs, including those using HTRF[®] and AlphaLISA[®] assay technologies.
- The EnSight[®] multimode plate reader benchtop system, which offers well plate imaging alongside labeled detection technologies for target-based and phenotypic assays.
- The EnVision[®] multimode plate reader, which is designed for high-throughput screening laboratories, including those using HTRF[®], AlphaScreen[®] and AlphaLISA[®] assay technologies.
- A wide range of homogeneous biochemical and cell-based reagents using HTRF[®], LANCE[®] Ultra[™], DELFIA[®], AlphaLISA[®], AlphaLISA[®] SureFire[®] Ultra, AlphaScreen[®], AlphaPlex[®] and luminescence assay technologies.
- A broad portfolio of recombinant GPCR and ion channel cell lines, including over 300 products and 120 ready-touse frozen cell lines for a wide range of disease areas.
- BioLegend[®] ELISA MAXTM Standard Sets, ELISA MAXTM Deluxe Sets, LEGEND MAXTM ELISA Kits and RAPID MAXTM ELISA Kits as well as complementary solutions and buffers for immunoassays to cover more than 200 targets for human, mouse, and rat samples, many of which are designed to assess the immune environment and its inflammatory state for vaccine, infectious disease and autoimmune disease research.
- LEGENDplex[™] bead-based reagents, which, in contrast to single analyte assays such as enzyme-linked immunosorbent assays ("ELISAs"), can quantitate up to 14 targets, from one small sample volume in a flow cytometry assay, and include both desktop and cloud-based analysis software.
- In vivo imaging technologies and reagents for preclinical research, comprised of the IVIS[®] Spectrum[™] series for 2D and 3D optical imaging and optionally integrated low-dose CT imaging and the IVIS[®] Lumina[™] series for benchtop 2D imaging, along with IVISbrite[™] bioluminescent and IVISense[™] fluorescent imaging agents, cell lines and dyes.
- The QuantumTM GX2 system, which enables low-dose in vivo CT imaging of multiple species and areas of anatomical interest across multiple disease areas by way of high-resolution, tomographic imaging.
- GoInVivoTM as well as Ultra-LEAFTM and LEAFTM functional antibodies, which provide an affordable solution for researchers performing in vivo and ex vivo studies.
- Nexcelom BioScience high-throughput, microwell Celigo[®] image cytometry system, Cellaca[™] MX high-throughput cell counter, the new Cellaca[™] PLX image cytometry system, and Cellometer[®] automated cell counters, complemented by consumables and reagents, including reagents and kits for cell counting assays and cell viability, microplates, slides, and counting beads.
- Horizon Discovery tools and services that support drug discovery and development for greater understanding of gene function, identify genetic drivers behind human disease, develop and validate diagnostic workflows, and help deliver biotherapeutics, cellular and gene therapies for precision medicine with a portfolio of cell engineering tools, including Dharmacon[™] Reagents, gene modulation technologies such as RNAi, and the Pin-point[™] base editing technology.

- Sirion Biotech consultancy services and technologies to design and manufacture viral vectors for cell and gene therapy research and preclinical development.
- BioLegend best-in-class antibodies, recombinant proteins and related reagents, which are used across multiple applications and research areas, including proteogenomics, tissue, cell and protein analysis, cancer research, immunology, cell and gene therapy, stem cell therapy and neuroscience.
- Fluorophore-conjugated antibodies, which are used in flow cytometers to characterize protein expression on the surface and in internal compartments of cells. The large collection of dyes and antibodies allows for an increasing number of conjugate options, facilitating the use of bigger and better flow cytometry panels using conventional and spectral flow cytometers. Notable products are Brilliant VioletTM and the SparkTM and Fire dye series, among others.
- TotalSeq[™] reagents, which are oligonucleotide-barcoded antibodies that enable protein detection by sequencing that can be combined with traditional RNA or DNA sequencing experiments with high-parameter protein detection, including comprehensive cloud-based analysis software.
- Cell culture and biofunctional assay reagents, including bioactive recombinant proteins, as well as other specialized reagents such as Cell-ViveTM T-NK Xeno-Free Serum Substitute (compliant with Good Manufacturing Practice requirements ("GMP")), and other GMP-produced recombinant proteins and reagents. These products serve several markets, notably cell and gene therapy applications.
- MojoSortTM and LymphopureTM reagents for cell separation that complement our fluorophore-antibody conjugates, used for FACS (Fluorescence-activated Cell Sorting), thus covering most cell separation and cell sorting technologies and applications.
- Flex-TTM reagents that utilize peptide-loaded major histocompatibility molecules assembled into tetramers for the identification of antigen-specific T cells. Our Flex-T products can be used to screen the efficacy of antigen peptides for vaccine and drug trials, as well as characterize the dominance of cancer-specific self-peptides, and more recently, SARS-CoV2 peptides for COVID-19 research.
- Antibodies and solutions for Western blotting. A large collection of validated antibodies, as well as supporting buffers and substrates, which provide a convenient set of tools to characterize protein size and relative expression levels in cell or tissue lysates.
- OneSource[®] laboratory services, a comprehensive portfolio of multivendor instrument management, QA/QC, lab relocation, scientific, laboratory Information Technology and regulatory compliance services. OneSource[®] services programs are tailored to the specific needs and goals of individual customers and offer a series of informatics-based consulting, planning and management offerings to assist in laboratory productivity and the optimization of complex Information Technology platforms.
- OneSource[®] Dashboard software, a TIBCO[®] Spotfire[®] technology-driven interactive graphical platform, which provides visibility to a customer's global asset population, service event and downtime distribution, as well as key performance indicators to assist in asset operation.
- OneSource[®] Insights as a ServiceTM offerings which leverage comprehensive OneSource[®] analytics and industry data to develop and deliver customer-need-driven recommendations to optimize, integrate and accelerate lab operations.
- PerkinElmer Signals Medical ReviewTM software, which empowers medical monitors to detect safety signals faster and reduce overall time to submission by combining innovative medical review workflows with advanced analytics.
- PerkinElmer Signals Lead DiscoveryTM software, which enables researchers to quickly gain new insights into chemical and biomolecular research data, featuring guided search and analysis workflows and dynamic data visualizations for on-the-fly exploration.
- PerkinElmer SignalsTM electronic notebook, a scientific research data management solution, which allows researchers to record research data and experiments in digital notebooks, drag and drop, store, organize, share, find and filter data easily.
- PerkinElmer Signals TranslationalTM data management, aggregation and analysis platform, which offers out-of-thebox support for the complete precision medicine workflow from data acquisition to biomarker discovery and validation.
- ChemDraw[®] 18 platform, a chemical structure drawing and visualization application for scientists and researchers.
- Lead DiscoveryTM Premium software, which allows scientists to import, filter by, analyze and interpret chemical structures and biosequences alongside other related data in a highly visual and interactive environment for faster insights and better decisions.
- OneSource[®] Asset GeniusTM monitoring solution, part of the Asset Genius family, which offers a 360-degree view of laboratory instruments regardless of the manufacturer, correlating instrument usage, age and service data, allowing customers to visually pinpoint under-performing, ideally-performing and over-burdened assets, and to make informed decisions.
- Horizon CHOSOURCE[™] platform, which was expanded to include CHO-K1 ADCC+ expression cell line for development of therapeutic antibodies in oncology, infectious disease and autoimmune conditions.

- A catalog of more than 20,000 SKUs from our recent acquisition of BioLegend, incorporating antibodies as well as a large collection of antibody conjugates and modifications. Other products include recombinant proteins, immunoassays and other supportive reagents and solutions for cell and molecular analysis.
- The T-SPOT[®] *Discovery* SARS-CoV-2 research use only assay to investigate cell-mediated immunity related to COVID-19.

Applied Markets:

- The series of Clarus[®] gas chromatographs and gas chromatographs/mass spectrometers, and the family of TurboMatrix[™] sample-handling equipment, which are used to identify and quantify compounds in the environmental, forensics, food and beverage, hydrocarbon processing/biofuels, materials testing, pharmaceutical and semiconductor industries.
- A comprehensive gas chromatography ("GC") column portfolio spanning many popular and application-specific phases that cover the vast majority of the GC market's separation requirements.
- The LC 300[™] ultra-high performance liquid chromatography ("UHPLC") and LC 300 high performance liquid chromatography ("HPLC") systems, which provide high throughput along with superior performance and sensitivity.
- The SimplicityChrom[™] [™] Chromatography Data System ("CDS") Software, an easy-to-learn, modern and intuitive CDS software platform that enables efficient control of PerkinElmer HPLC, UHPLC, GC and gas chromatography/mass spectrometry ("GC/MS") solutions while integrating the overall chromatographic workflow. For labs requiring compliance, SimplicityChrom CDS Software supports 21 CFR Part 11.
- A comprehensive Liquid Chromatography ("LC") Column portfolio of innovative and highly efficient HPLC/ UHPLC and supercritical fluid chromatography chemistries.
- The NexSARTM HPLC, which is a speciation analysis ready system engineered with a completely inert and metal-free fluid path, enabling laboratories to meet low chromatographic background requirements on the most challenging speciation applications in food, water or consumer products such as children's toys.
- The Flexar[™] UHPLC and Flexar advanced LC systems, which provide high throughput and resolution chromatographic separations.
- The QSight[®] Triple Quadrupole LC/MS/MS, a flow-based mass spectrometry system that enables high levels of efficiency and productivity to meet both standard and regulatory requirements for food, cannabis and environmental testing laboratories.
- The Torion[®] T-9 portable GC/MS, a fast person-portable GC/MS system, enabling rapid detection and actionable results to potentially hazardous and emergency environmental conditions.
- Atomic spectroscopy portfolio of instruments, including the families of PinAAcle[®] atomic absorption spectrometers, Avio[®] Max inductively coupled plasma ("ICP") optical emission spectrometers and NexION[®] ICP mass spectrometers, all of which are used in the environmental, food, pharmaceutical and chemical industries, among others, to determine the elemental content of a sample.
- The LPC 500[™] liquid particle counter featuring single particle optical sizing technology. Coupled with the Avio[®] 550 Max ICP-OES oils system, particle counting and sizing as well as wear metals analysis of in-service oils and lubricants are performed in one run with results delivered in less than a minute.
- Our infrared ("IR") spectroscopy family of instruments, the Spectrum Two[™] IR & NIR spectrometers, which are compact and portable and used for advanced infrared analysis for unknown substance identification, material qualification or concentration determination in fuel and lubricant analysis, polymer analysis and pharmaceutical and environmental applications.
- The OilExpressTM 4 systems, which deliver highly automated, rapid, reliable oil condition monitoring results using recognized industry standard protocols such as ASTM[®], JOAP and Caterpillar[®] S•O•SSM.
- The series of LAMBDA[®] UV/Vis spectrophotometers that provide sampling flexibility to enable measurement of a wide range of sample types, including liquids, powders and solid materials, both in regulated industries as well as QC/QA and research applications.
- The FL 6500TM and FL 8500TM fluorescence spectrophotometers, which address the challenges of bioscience, industrial, chemical, environmental, pharmaceutical, agricultural and academic application.
- The 2400 Series II CHNS/O elemental analyzer, one of the leading organic elemental analyzers, which is ideal for the rapid determination of carbon, hydrogen, nitrogen, sulfur and oxygen content in organic and other types of materials.
- Our thermal analysis family, which includes our series of Differential Scanning Calorimetry (DSC) instruments that
 offer exclusive HyperDSCTM capability for unparalleled sensitivity and new insights into material processes, our
 Thermogravimetric and Simultaneous Thermal Analysis instruments that can be coupled with Fourier Transform
 Infrared ("FT-IR"), mass spectrometry ("MS"), or GC/MS technologies to provide a complete and advanced line of
 Evolved Gas Analysis (EGA) platforms for greater analysis power and knowledge with materials characterization in
 polymers, pharmaceuticals, chemicals, petroleum, rubber, food and other areas.

- Perten[®] Falling Number[®], which is the world standard method for measuring sprout damage. This is an important factor affecting the price of wheat and, ultimately, bread, baked goods, and pasta/noodle quality.
- RVATM performance analyzer, which provides a screening tool for both producers and users of food ingredients and can be used to test the viscous properties of starch, grain, dairy products and other foods.
- The Bioo Scientific[®] and Meizheng Group test kits for detection of toxins, veterinary drug residues and contaminants, which enable rapid and easy testing at different steps in the food value chain.
- AuroFlow[®] AQ Mycotoxin platform that includes strip test versions for total Aflatoxin, Deoxynivalenol (DON), Fumonisin, Ochratoxin A, Zearalenone and T-2/HT-2.
- The PerkinElmer FT 9700[™] compact, high-performance and full-wavelength-range FT Near Infrared ("NIR") spectrometer, which helps food and feed laboratories perform quick analyses for quality assurance of food and feed materials and reduces variations in production.
- The DA 7250 diode-array based NIR lab and at-line system, which simultaneously measures multiple constituents (moisture, protein, fat fiber, etc.) in 10 seconds.
- The IM 9500 Whole Grain NIR, which measures moisture, protein, oil, and more in less than 40 seconds.
- The AM 5200 grain moisture meter, which is based on the latest moisture meter technology, including the use of the Unified Grain Moisture Algorithm (UGMA) and 149MHz.
- The QSight[®] SP50 online solid phase extraction (SPE) system, which facilitates sample clean-up, enrichment and concentration, obviating the need for elaborate and time-consuming sample preparation procedures.
- MaxSignal HTSTM mycotoxin kits featuring automated and easy-to-use testing workflows for the six most commonly tested mycotoxins.
- PerkinElmer Solus OneTM Listeria monocytogenes ELISA Assay. This offering is designed to help high throughput food processors and contract labs focus on L. mono testing for food and environmental surface samples.
- DA 7350TM and DA 7440TM in-line and on-line NIR instruments combined with Process PlusTM cloud-based software provide continuous quality control of food and food ingredient manufacturing processes.
- Perten® Glutomatic[®] 2000 system for gluten quantity and quality testing of wheat, durum, semolina and flour.
- LactoScope[™] FT- instruments, which deliver quick and accurate full spectrum in-lab component testing and adulterant screening for liquid dairy products such as whey, raw and skim milk, shelf stable milk and cream with under 40% fat content.
- Lactoscope Wine LQA 300 FT-IR, which is a fit-for-purpose wine analyzer for the analysis of finished wine, grape must, and must under fermentation for a number of key quality parameters, including acidity, brix, pH, glucose and fructose, in less than 45 seconds.
- The Indiscope, a simple FT-IR milk analyzer designed for analysis by novice users at animal milk collection stations that can provide results for fat, protein, and solids-non-fat, as well as targeted and untargeted adulterants screening in 30 seconds.
- MappIR[™] accessory for Spectrum[™] 3 FT-IR, which helps ensure quality of incoming raw materials and final product quality for better outcomes in semiconductor wafer manufacturing.
- The Polymer ID analyzer, which provides accurate verification of identity, quality and composition of polymers and their blends used in industries such as food packaging, construction and automotive.
- The Tablet AnalyzerTM and portable Silica AnalyzerTM platform, which are dedicated analyzers launched to address customer needs for quick and accurate characterization of pharmaceutical tablet testing and respirable crystalline silica in mining environments, respectively.
- PureViewTM Certified and PureView MS Certified vials, manufactured from Type 1 borosilicate glass which meets all USP, JP and EP requirements. The low-expansion, coefficient glass exhibits excellent thermal conductivity and provides an inert surface with a low free ion content, giving accurate and repeatable results every time.

New Products:

New products introduced or acquired for Discovery & Analytical Solutions applications in fiscal year 2022 include the following:

Life Sciences Market:

• Vega[®] ultrasound imaging system, which is a hands-free, automated, high-throughput preclinical ultrasound imaging system that delivers high-resolution 2D and 3D ultrasound images in just a few minutes and was originally developed by SonoVol Inc., which was acquired by PerkinElmer in early 2022. The system is complemented by VesselVue[®] microbubble contrast agents which can be used to study tissue perfusion and blood flow characteristics.

- New assay kits for Adeno-associated Virus Vectors (AAVs) and gene therapy applications in our range of HTRF[®] and AlphaLISA[®] reagents, for detecting and quantifying CHO HCP impurities in biotherapeutics development, as well as kits across oncology, neuroscience, and targeted protein degradation applications.
- Cellaca PLX[™] image cytometry system, which combines best-in-class image cytometer hardware, software, validated consumables and optimized reagent kits with validated antibodies from our BioLegend business, and trackable data reporting to enable the simultaneous detection of multiple markers and to streamline cell and gene therapy workflows.
- New fluorescent stains, reagents and secondary antibodies in our PhenoVueTM cellular imaging reagents portfolio for the detection and analysis of cellular components.
- The latest version of the Signals Image Artist[™] next-generation image analysis and management platform, which provides improved 3D cell segmentation and analysis, an AWS S3 cloud deployment option and enhanced cloud security, and compatibility with a broader range of systems, including the Nexcelom from PerkinElmer Celigo[®] image cytometer.
- An updated VICTOR[®] NivoTM multimode plate reader with a new software version for streamlined data analysis.
- OptiScintTM NPE-free scintillation cocktails and quench standards, providing a more environmentally friendly alternative without compromising performance.
- Expansion of our Western blotting reagents with the addition of the Western Lightning[™] One range, which has a premixed one component chemiluminescent HRP substrate for more consistent results.
- Additional Spark[™] and Fire dye-conjugated antibodies, enabling higher-parameter flow cytometry. Notable products are the Spark UV[™] 387 and Spark Red[™] 718 conjugates.
- For the TotalSeq reagent portfolio, more large panels of pre-titrated oligo-conjugated antibodies released in Universal Panels for the analysis of human and mouse samples.
- Software solutions for LEGENDplex[™] assays, multiomics analysis with TotalSeq reagents, and flow cytometry-based cell analysis software (Ryvett) that are now part of BioLegend's data integration offerings.
- OneSource Laboratory Services: Instrument Concierge[™] Flow Cytometry, which helps labs streamline the entire flow cytometry workflow by providing a range of support-based services for each lab's unique needs, including expert onsite flow cytometry specialists to help manage instruments and processes more efficiently and effectively, facilitating reduced downtime, increased productivity as well as better data integrity and reproducibility.
- OneSource Laboratory Services: Instrument Concierge[™] Purification, which offloads the complex and timeconsuming process of prepping, purifying and analyzing to provide high quality data output for scientific discovery.
- OneSource Laboratory Services: MES (Manufacturing Execution Systems) IT support, which drives production and minimizes downtime in pharmaceutical manufacturing environments by providing customized IT infrastructure support and maintenance, onsite or remotely.
- OneSource Laboratory Services: LabIT per PC Delivery Model, which eliminates the complexity of other pricing models for customers by providing a flat rate for each PC being serviced that includes maintenance and repair as well as a network of IT expertise in benchtop support and scientific applications.
- OneSource Laboratory Services: Food Service Offering, which provides support in various food quality and safety activities such as QA/QC lab testing, on-site troubleshooting and repair of instruments and coordinating vendor visits.

Applied Markets:

- The MPS 320TM, a microwave digestion system for PerkinElmer's AA, ICP-OES, and ICP-MS instruments, which accommodates a wide range of sample matrices and elemental analysis applications across environmental, food, cannabis, pharmaceutical or manufacturing QA/QC applications and more.
- GC 2400TM Gas Chromatography Platform with Detachable Touchscreen, featuring GC system, Liquid and Headspace Autosampler, FID and MS Detectors, offering innovative technology that enables access to real-time information on the go. With easy-to-learn SimplicityChrom Software, labs in all markets can take advantage of integrated workflows, and benefit from lab efficiency through the smart, simplified, and sustainable GC 2400 Platform.
- LAMBDA[®] 365+ double-beam UV/V is a spectrometer, which delivers the performance researchers and analysts need to measure high absorbance liquids and unravel chemical kinetics. The large sample compartment and wide range of accessories fully integrated with software provide sampling flexibility and simplified workflows to meet all throughput needs without requiring extensive training.

Brand Names:

Our Discovery & Analytical Solutions segment offers additional products under various brand names:

Life Sciences Market:

AccellTM, AdenoBOOSTTM, AlphaLISA[®], AlphaPlex[™], AlphaScreen[®], AlphaTM SureFire[®], Brilliant VioletTM, Ce3DTM, CellCarrier[®], CellacaTM, Celigo^{®TM}, Cellometer^{®TM}, cell::explorer[™], Cell-ViveTM, ChaliceTM, Chem3D[®], ChemDraw[®], ChemOffice[®], CHOSOURCETM, DharmaconTM, DharmaFECTTM, Edit-RTM, ELISA MAXTM, EnSight[®], EnVision[®], Flex-TTM,

FMT[®], FolateRSense[™], GoInVivo[™], HTRF[®], IVIS[®], IVIS[®], IVISbrite[™], IVISense[™], LANCE[®], LANCE[®] Ultra[™], LEAF[™], LEGEND MAX[™], LEGENDplex[™], LentiBOOST[™], Lincode[™], Living Image[®], Lumina[™], Lymphopure[™], MicroBeta^{2®}, Mini ELISA Plate Reader[™], miRIDIAN[™], MojoSort[™], MuviCyte[™], OneSource[®], ON-TARGET[™], ON-TARGETplus[™], Opera Phenix[®] Plus, Operetta[®] CLS[™], OptiScint[™], PerkinElmer Signals for Translational[™], PhenoPlate[™], PhenoVue[™], Pinpoint[™], Quantulus[™] GCT, RAPID MAX[™], RediJect[™], RNAiONE[™], Signals Image Artist[™], SMARTpools[™], SMARTvector[™], Spark[™], Spectrum[™], TotalSeq[™], Tri-Carb[®], T-SPOT[®], Ultra-LEAF[™], Vega[®], VesselVue[®], ViaStain[™], VICTOR Nivo[™] Western Lightning[™], and Wizard^{2®}.

Applied Markets:

Aquamatic[™], AuroFlow[®], Clarus[®], DairyGuard[™], DoughLab[™], Falling Number[®], FL 6500TM, FL 8500TM, FlexarTM, Frontier[™], GC 2400TM, Glutomatic[®], Honigs Regression[™], HyperDSC[®], Inframatic[™], LAMBDA[®], LPC 500TM, MaxSignal[™], NexION[®], NexSARTM, OilExpress[™], OilPrep[™], Optima[®], Perten[®], Perten Instruments[®], PinAAcle[®], PureViewTM, QSight[®], SimplicityChrom[™], Spectrum[™], Spectrum Two[™], Spotlight[™], Supra-clean[®], Supra-d[™], Supra-poly[®], SyngistixTM, Torion[®], TruQTM, TurboMatrix[™] and Ultraspray[®].

Diagnostics Segment

We offer instruments, reagents, assay platforms and software to hospitals, medical labs, clinicians and medical research professionals to help improve the health of families. Our Diagnostics segment is especially focused on reproductive health, immunodiagnostics, emerging market diagnostics and applied genomics.

We provide early detection for genetic disorders from pregnancy to early childhood, and infectious disease testing for the diagnostics market. Our screening products are designed to provide early and accurate insights into the health of expectant mothers during pregnancy and into the health of their babies. Diagnostic labs use our instruments, reagents and software for testing and screening genetic abnormalities and certain disorders and diseases, including Down syndrome, hypothyroidism, muscular dystrophy, infertility and various metabolic conditions. We also develop technologies that enable and support genomic workflows using PCR and next-generation DNA sequencing for applications in oncology, immunodiagnostics and drug discovery.

Principal Products:

Our principal products and services for Diagnostics applications include the following:

- The DELFIA[®] Xpress screening platform, a complete solution for prenatal and maternal health screening, which includes a fast continuous loading system. It is supported by kits for first, second and third trimester analyses for prenatal screening and clinically validated LifeCycleTM software.
- The DELFIA[®] Xpress sFlt-1 kit, which enables short term prediction of pre-eclampsia and aids in diagnosis in the second and third trimesters of pregnancy together with the previously launched DELFIA[®] Xpress PIGF 1-2-3TM assay. The NeoBaseTM non-derivatized MS/MS AAAC kits, which are used to support detection of metabolic disorders in newborns through tandem mass spectrometry. The kits analyze newborn dry blood spot samples for measurement of amino acids and other metabolic analytes for specific diseases.
- The GSP[®] Neonatal hTSH, T4 17á-OHP, GALT IRT, BTD, PKU, Total Galactose, CK-MM and G6PD kits, used for screening congenital neonatal conditions from a drop of blood.
- The Specimen Gate® informatics data management solution, designed specifically for newborn screening laboratories.
- The NeoLSDTM MS/MS kit, the first commercial IVD kit for screening of Pompe, MPS-I, Fabry, Gaucher, Niemann-Pick A/B and Krabbe disorders from a single dried blood spot sample.
- QSight[®] 210MD and 225MD UHPLC MS/MS instruments, which are used for newborn screening.
- ViaCord[®] umbilical cord blood banking services for the banking of stem cells harvested from umbilical cord blood and cord tissue, for potential therapeutic application in transplant and regenerative medicine.
- An expanded portfolio of molecular-based infectious disease screening technologies for blood bank and clinical laboratory settings in China. The tools include a qualitative 3-in-1 assay for the detection of hepatitis B, hepatitis C and HIV, as well as assays for other communicable diseases.
- TRF-based Anti HBs/HCV/TP kits for infectious disease testing.
- Chitas[®] instrument and HBV/HCV/HIV 3-in-1 PCR reagents for blood screening, and Hi Sensitivity HBV DNA and HCV RNA assays for clinical infectious disease testing.
- The Bead Ruptor[™] Elite Bead Mill Homogenizer, which enables grinding, lysing, and homogenizing of biological samples prior to molecular extraction delivering repeatable sample disassociation.
- The chemagic[™] Prime[™] instrument, a fully automated, LIMS-compatible solution for primary sample transfer, DNA and RNA isolation, optional normalization and the setup of PCR and Next Generation Sequencing ("NGS") applications.

- Automated liquid handling platforms (JANUS[®], Sciclone[®], Zephyr[®] and FlexDropTM) that offer a choice of robotic solutions in genomics, biotherapeutics, high throughput screening and high content analysis to assist life science research from bench to clinic.
- JANUS[®] BioTx[™] and PreNAT IITM workstations for automated small-scale purification, offering column, tip and platebased chromatography on a single platform.
- HIVETM scRNAseq Solution, which integrates sample storage and single cell profiling into a complete workflow, solving the issues that limit single cell RNA analysis. The LabChip[®] GXII Touch[™] protein characterization system, which provides a means of characterizing multiple protein product attributes for research labs through QC.
- The explorer[™] automated workstation, which allows integration of multiple laboratory instrumentation using a centralized robotic interface, allowing high throughput and turnkey-application focused solutions.
- Vanadis[®] NIPT, a non-PCR non-sequencing fully automated cfDNA technology for use in any laboratory for screening common trisomies in the pregnant population.
- PerkinElmer Genomics, a global laboratory network offering services for testing in cytogenetics, biochemical genetics (prenatal and postnatal), molecular genetics and immunodiagnostics. The laboratory network includes testing laboratories in the United States, Sweden, India, China and the United Kingdom.
- The EONISTM assay, a CE marked and United States Food and Drug Administration ("FDA") authorized system utilizing real-time PCR technology, which allows for simultaneous screening of SMA, SCID and XLA in newborns from a single DBS punch.
- Immune fluorescence testing ("IFT"), ELISAs, chemiluminescence-based immunotesting, immunoblots, molecular microarrays, PCR for infectious disease, autoimmune and allergy diagnostics as well as liquid handlers and software solutions for automated processing of those test systems.
- Chemiluminescence immunoassays covering endocrinology, autoimmunity, infectious diseases, allergy and therapeutic drug monitoring.
- ELISAs covering endocrinology, autoimmunity, diabetes monitoring, steroids, thyroid monitoring, animal research and tumor markers.
- Radioactive immunoassays in calcium metabolism.
- Autoimmune testing covering rheumatology, hepatology, gastroenterology, endocrinology, neurology, nephrology, dermatology, and infertility.
- Allergy testing covering allergen-specific immunoglobin E (IgE), measuring the level of different IgE antibodies in blood using ELISA and EUROLINETM assays.
- Infectious disease testing covering bacteria, viruses, fungi and parasites.
- IFT, ELISA and EUROLINETM assays for veterinary diagnostics.
- EUROIMMUN SARS-CoV-2 Antigen ELISA for specific determination of the SARS-CoV-2 protein.
- EURORealTime SARS-CoV-2 Fast: real-time PCR test for direct detection of SARS-CoV-2.
- EURORealTime SARS-CoV-2/Influenza A/B real-time PCR test for direct detection of SARS-CoV-2, influenza virus type A and influenza virus type B.
- Immunoassays for detection of antibodies and T-cells against SARS-CoV-2.
- Anti-SARS-CoV-2 QuantiVacTM ELISA (IgG) to quantify IgG antibodies against the SARS-CoV-2 S1 antigen.
- SARS-CoV-2 NeutraLISA to identify neutralizing antibodies against SARS-CoV-2 (CE-marked).
- EUROLabPolaris, which provides the secure transfer of indirect immunofluorescence data to several locations enabling central evaluation within the software (CE-marked).
- MyFoodProfile immunoblots for the determination of IgG and IgE reactivity against more than 200 foods (CE-marked).
- Prenatal and Postnatal testing utilizing PerkinElmer Genomics Next Generation Sequencing products including gene panels, exomes and genomes.
- PerkinElmer Genomics Whole Genome Sequencing test, which detects single nucleotide and copy number variants and includes screening for Spinal Muscular Atrophy and more than 30 short tandem repeat disorders.
- PerkinElmer Genomics Digital Genome test for Facioscapularhumeral dystrophy (FSHD) Genome Optical Mapping technology.
- Oxford Immunotec T-SPOT[®] Technology platform, a modified ELISPOT used to detect a T cell immune response to infection. Tests available using the platform include:
 - The T-SPOT[®]. TB test, an FDA-approved and CE-marked test to aid the diagnosis of Tuberculosis infection.
 - The T-Cell *Select*TM reagent kit, which is intended for use with the T-SPOT[®].*TB* test for the isolation of peripheral blood mononuclear cells from whole blood using positive selection via a magnetic bead-based cell separation system.
 - The T-Cell *Xtend*[®] reagent kit, which is intended for use with the T-SPOT[®].*TB* test for the pretreatment of whole blood prior to lymphocyte separation. The reagent aids in the removal of selected white blood cells from whole blood.

- The T-SPOT[®].*COVID* test, a CE marked test to detect a T cell immune response to SARS-CoV-2 infection and vaccination.
- The T-SPOT®. CMV test, a CE marked test to assess anti-CMV T cell mediated immunity.

New Products:

New products or services introduced or acquired for Diagnostics applications in fiscal year 2022 include the following:

- EONISTM Q for Research Use Only (RUO), which is a novel 'dry-chemistry' qPCR reader.
- GAMT RUO assay for Mass Spectrometry that detects the Guanidinoacetate methyltransferase molecule in dried blood spots.
- RONIA[™] Platform for Research Use Only, which is a novel point of care device for quantitative determination of Placental Growth Factor.
- The BioQule[™] NGS System combines automation, reagents, consumables, and scripts, enabling walkaway automation to simplify low throughput NGS library prep and quantitation.
- PKamp[™] Monkeypox Virus Real-time PCR RUO Kit V1 which specifically targets the Monkeypox virus' F3L gene and offers seamless integration with PerkinElmer's sample prep workflow.
- HDPCR[™] Tick-Borne Pathogen Research Use Only Panel and HDPCR[™] Multi-Drug Resistance Panel for Research Use Only.
- NeoMDx[™] cCMV Real-time PCR assay to amplify and detect cCMV DNA.
- OMNI Prep 96 Automated Homogenizer Workstation, which is a fully automated homogenization workstation, enabling true walk-away processing.
- chemagic[™] 360-D instrument (IVDR) and chemagic[™] Prime[™] Junior-D instrument (IVDR) for automated nucleic acid isolation, and related kits such as CE-IVD chemagic[™] Nucleic Acid Purification Kits and chemagic[™] miRNA 200 Kit.
- NEXTFLEX® Small RNA-Seq Kit v4 enables gel-free miRNA library prep while delivering exceptional miRNA discovery.
- NEXTFLEX® Rapid XP V2 DNA-Seq Kit incorporates normalization beads shortening the time needed for quantification and pooling preparation for sequencing and library prep costs.
- NEXTFLEX[®] Variant-Seq[™] SARS-CoV-2 V2 Kit, which reduces the costs and time of SARS-CoV-2 variant detection by incorporating normalization beads into an NGS workflow.
- The PG-SeqTM Rapid Kit v2 analyzes picogram quantities of DNA from an embryo biopsy for preimplantation genetic research with enhanced whole genome coverage and accuracy.
- DOPlify® WGA V2 Kit performs fast whole genome amplification on single cells or limited template DNA samples, allowing cell chromosome copy number status to be determined.
- PerkinElmer® COVID-19 Antigen Self-Test is a CE marked in vitro diagnostic device for the qualitative detection of SARS-CoV-2 nucleocapsid protein antigen in nasal swab specimen in a non-professional setting by non-professional users.
- PerkinElmer Genomics WholePanel test, which is an enhanced panel testing (WholeCancer, WholeAtaxia, WholeCardiology and WholeMuscularDystrophy panels) using genome sequencing as a backbone and provides full intrinsic coverage and short tandem repeat screening in on test.
- PerkinElmer Genomics UltraRapid Whole Genome Sequencing with StepOne, which provides the sickest babies in NICU multiomic testing results in five days or less.
- EURORealTime SARS-CoV-2 Fast, which is real-time PCR test for direct detection of SARS-CoV-2 (CE-marked)
- Microwell Imager (CE-marked).
- EUROMicroblot Anti-Borrelia (IgG, IgM) (CE-marked) Miniaturised immunoblots for borrelia diagnostics in microplate format where processing can be carried out on automated ELISA systems and evaluation is done fully automatically by the Microwell Imager device and the EUROLineScan software.
- EUROLINE Autoimmune Inflammatory Myopathies 20 Ag (IgG) (CE-marked), in which the immunoblot profile combines 20 target antigens including the exclusive cN-1A in one test strip, allowing parallel and monospecific detection of antibodies for the diagnostics of idiopahtic inflammatory myopathies, e.g. myositis.
- Neurology: Complete portfolio of chemiluminescence immunoassays (ChLIA) for precise Alzheimer's disease diagnostics, which provides reliable analysis of the established CSF biomarkers beta-amyloid (1-40), beta-amyloid (1-42), total tau and pTau(181) and high degree of standardisation due to fully automated processing:
 - Beta-Amyloid (1-40) ChLIA (CE-marked). Chemiluminescence immunoassay (ChLIA) for quantitative in vitro determination of beta-amyloid (1-40) in human cerebrospinal fluid. Supports the diagnosis of amyloid pathology (Alzheimer's disease). Fully automated processing on the random-access devices IDS-iSYS Multi-Discipline Automated System and IDS-i10.

- Beta-Amyloid (1-42) ChLIA (CE-marked). Chemiluminescence immunoassay (ChLIA) for quantitative determination of beta-amyloid (1-40) in human cerebrospinal fluid. Supports the diagnosis of amyloid pathology (Alzheimer's disease). Calibrated against certified reference material. Fully automated processing on the random-access devices IDS-iSYS Multi-Discipline Automated System and IDS-i10.
- Total-Tau ChLIA (CE-marked). Chemiluminescence immunoassay (ChLIA) for quantitative determination of total tau in human cerebrospinal fluid. Supports the diagnosis of Alzheimer's disease. Fully automated processing on the random-access devices IDS-iSYS Multi-Discipline Automated System and IDS-i10.
- pTau(181) ChLIA (CE-marked). Chemiluminescence immunoassay (ChLIA) for quantitative determination of total tau in human cerebrospinal fluid. Supports the diagnosis Supports the diagnosis of Alzheimer's disease. Fully automated processing on the random-access devices IDS-iSYS Multi-Discipline Automated System and IDS-i10.
- EUROArray PneuVir (CE-marked). PCR-based multiplex test (Microarray) to detect 17 respiratory viruses including SARS-CoV-2 in just one analysis. The differential diagnostic approach for quick virus identification may thus help to rule out a bacterial infection and avoid unnecessary antibiotic treatment.
- Anti-Herpes simplex Virus 1 ChLIA (IgG) (CE-marked). Chemiluminescence immunoassay (ChLIA) for the quantitative determination of human IgG antibodies against herpes simplex virus 1 (HSV-1) High reliability of the HSV type-specific IgG determination due to the use of glycoprotein G1 (gG1).). Fully automated processing on the random-access devices IDS-iSYS Multi-Discipline Automated System and IDS-i10.
- Anti-Herpes simplex Virus 2 ChLIA (IgG) (CE-marked). Chemiluminescence immunoassay (ChLIA) for quantitative determination of human IgG antibodies against herpes simplex virus 2 (HSV-2). High reliability of the HSV type-specific IgG determination due to the use of glycoprotein G2 (gG2). Fully automated processing on the random-access devices IDS-iSYS Multi-Discipline Automated System and IDS-i10.
- Anti-SARS-CoV-2 RBD ChLIA (IgG) (CE-marked). Chemiluminescence immunoassay (ChLIA) for quantitative determination of human IgG antibodies against the receptor binding domain (RBD) of SARS-CoV-2 with the possibility of conversion into standardised units (BAU/ml). Fully automated processing on the random-access devices IDS-iSYS Multi-Discipline Automated System and IDS-i10.

Brand Names:

Our Diagnostics segment offers additional products under various brand names, including AutoDELFIA[®], BACS-on-Beads[®], BIOCHIPs, Bioo Scientific[®], BoBs[®], chemagicTM, Chitas[®], Datalytix[™], DELFIA[®], DELFIA[®] Xpress, DOPlify[®], EONISTM, EUROArrayTM, EUROIMMUN[®], EUROLabWorkstationTM, EUROLINETM, EUROPatternTM, Evolution[™], Evoya[®], explorerTM, Genoglyphix[®], GSP[®], HaoyuanTM, IDS[®] Immunodiagnosticsystems, IDS-i10[®], IDS-i10T[®], IDS-iSYS[®], iLab[™], JANUS[®], LabChip[®], LifeCycle[™], LimsLink[™], MigeleTM, MultiPROBE[®], NEXTFLEX[®], NextPrepTM, Pannoramic[™], Panthera PuncherTM, PG-SeqTM, PG-FindTM, PKampTM, PreNAT IITM, Protein ClearTM, ProteinEXactTM, QSight[®], QuantiVacTM, RONIATM, Sciclone[®], SimplicityChromTM, Specimen Gate[®], SuperflexTM, SymbioTM, T-SPOT[®], Twister[®], Vanadis[®], VariSpec[™], ViaCord[®], VICTOR 2TM D, and Zephyr[®].

Marketing

All of our businesses market their products and services primarily through their own specialized sales forces. As of January 1, 2023, we employed approximately 6,300 sales and service representatives operating in approximately 40 countries and marketing products and services in more than 190 countries. In geographic regions where we do not have a sales and service presence, we utilize distributors to sell our products.

Raw Materials, Key Components and Supplies

Each of our businesses uses a wide variety of raw materials, key components and supplies that are generally available from alternate sources of supply and in adequate quantities from domestic and foreign sources. We generally have multi-year contracts, with no minimum purchase requirements, with our suppliers. For certain critical raw materials, key components and supplies required for the production of some of our principal products, we have qualified only a limited or a single source of supply. We periodically purchase quantities of some of these critical raw materials in excess of current requirements, in anticipation of future manufacturing needs. With sufficient lead times, we believe we would be able to qualify alternative suppliers for each of these raw materials and key components. See the applicable risk factor in "Item 1A. Risk Factors" for an additional description of this risk.

Intellectual Property

We own numerous United States and foreign patents and have patent applications pending in the United States and abroad. We also license intellectual property rights to and from third parties, some of which bear royalties and are terminable in specified circumstances. In addition to our patent portfolio, we possess a wide array of unpatented proprietary technology and know-how. We also own numerous United States and foreign trademarks and trade names for a variety of our product names, and have applications for the registration of trademarks and trade names pending in the United States and abroad. We believe that patents and other proprietary rights are important to the development of both of our reporting segments, but we also rely upon trade secrets, know-how, continuing technological innovations and licensing opportunities to develop and maintain the competitive position of both of our reporting segments. We do not believe that the loss of any one patent or other proprietary right would have a material adverse effect on our overall business or on any of our reporting segments.

In some cases, we may participate in litigation or other proceedings to defend against or assert claims of infringement, to enforce our patents or our licensors' patents, to protect our trade secrets, know-how or other intellectual property rights, or to determine the scope and validity of our or third parties' intellectual property rights. Litigation of this type could result in substantial cost to us and diversion of our resources. An adverse outcome in any litigation or proceeding could subject us to significant liabilities or expenses, require us to cease using disputed intellectual property or cease the sale of a product, or require us to license the disputed intellectual property from third parties.

Competition

Due to the range and diversity of our products and services, we face many different types of competition and competitors. Our competitors range from foreign and domestic organizations, which produce a comprehensive array of goods and services and that may have greater financial and other resources than we do, to more narrowly focused firms producing a limited number of goods or services for specialized market segments.

We compete on the basis of service level, price, technological innovation, operational efficiency, product differentiation, product availability, quality and reliability. Competitors range from multinational organizations with a wide range of products to specialized firms that in some cases have well-established market positions. We expect the proportion of large competitors to increase through the continued consolidation of competitors.

Regulatory Affairs

Our operations are subject to regulation by different state and federal government agencies in the United States and other countries, as well as to the standards established by international standards bodies. Some of our products are subject to regulation by the FDA and similar foreign agencies. These regulations govern a wide variety of our product activities, and if we fail to comply with those regulations or standards, we may face, among other things, warning letters; adverse publicity; investigations or notices of non-compliance, fines, injunctions, and civil penalties; import or export restrictions; partial suspensions or total shutdown of production facilities or the imposition of operating restrictions; increased difficulty in obtaining required FDA clearances or approvals or foreign equivalents; seizures or recalls of our products or those of our customers; or the inability to sell our products.

We have agreements relating to the sale of our products and services to government entities and, as a result, we are subject to various statutes and regulations that apply to companies doing business with the government. We are also subject to investigation for compliance with the regulations governing government contracts. A failure to comply with these regulations could result in suspension of these contracts, as well as other penalties.

We are also subject to a variety of laws, regulations and standards that govern, among other things, the importation and exportation of products, and our business practices in the United States and abroad such as anti-bribery, anti-corruption and competition laws. In addition, changes in governmental regulations may reduce demand for our products or increase our expenses. The healthcare industry, including the genetic screening market, is subject to extensive and frequently changing international and United States federal, state and local laws and regulations. This requires that we devote substantial resources to maintaining our compliance with those laws, regulations and standards.

If we fail to comply with applicable laws and regulations, we could suffer civil and criminal damages, fines and penalties, exclusion from participation in governmental healthcare programs, and the loss of various licenses, certificates and authorizations necessary to operate our business, as well as incur liabilities from third-party claims, all of which could have a significant adverse effect on our business.

Environmental Matters

Our operations are subject to various foreign, federal, state and local environmental and safety laws and regulations. These requirements include the handling, transportation, manufacture and disposal of toxic or hazardous substances, the remediation of contaminated soil and groundwater, the regulation of radioactive materials, and the health and safety of our employees.

We may have liability under the Comprehensive Environmental Response Compensation and Liability Act and comparable state statutes that impose liability for investigation and remediation of contamination without regard to fault, in connection with materials that we or our former businesses sent to various third-party sites. We have incurred, and expect to incur, costs pursuant to these statutes.

We are conducting a number of environmental investigations and remedial actions at our current and former locations and, along with other companies, have been named a potentially responsible party ("PRP") for certain waste disposal sites. We accrue for environmental issues in the accounting period that our responsibility is established and when the cost can be reasonably estimated. We have accrued \$12.2 million and \$11.9 million as of January 1, 2023 and January 2, 2022, respectively, which represents our management's estimate of the cost of the remediation of known environmental matters, and does not include any potential liability for related personal injury or property damage claims. Our environmental accrual is not discounted and does not reflect the recovery of any material amounts through insurance or indemnification arrangements. The cost estimates are subject to a number of variables, including the stage of the environmental investigations, the magnitude of the possible contamination, the nature of the potential remedies, possible joint and several liability, the time period over which remediation may occur, and the possible effects of changing laws and regulations. For sites where we have been named a PRP, our management does not currently anticipate any additional liability to result from the inability of other significant named parties to contribute. We expect that the majority of such accrued amounts could be paid out over a period of up to ten years. As assessment and remediation activities progress at each individual site, these liabilities are reviewed and adjusted to reflect additional information as it becomes available. There have been no environmental problems to date that have had, or are expected to have, a material adverse effect on our consolidated financial statements. While it is possible that a loss exceeding the amounts recorded in the consolidated financial statements may be incurred, the potential exposure is not expected to be materially different from those amounts recorded.

We may become subject to new or unforeseen environmental costs or liabilities. Compliance with new or more stringent laws or regulations, stricter interpretations of existing laws, or the discovery of new contamination could cause us to incur additional costs.

Human Capital Management

As of January 1, 2023, we employed approximately 16,700 employees on a worldwide basis. Roughly 80% of our workforce is based outside of the United States. Several of our subsidiaries outside the United States have employment contracts with our employees where the terms and conditions are influenced by labor unions and workers' councils' agreements that involve approximately 5,000 of our employees. During fiscal year 2022, our voluntary turnover rate was 14%. We believe that management of our human capital resources is vital to the continued growth and success of our company, and we endeavor to create an environment that encourages productivity, rewards performance and values diversity. There are several ways in which we attempt to attract, develop and retain highly qualified employees, as set forth below.

Our human capital objectives include, as applicable, identifying, recruiting, developing, retaining, incentivizing, and integrating our existing and new employees. We strive to meet this objective by offering competitive compensation and benefits, in a diverse, inclusive and safe workplace, with opportunities for our employees to grow and develop in their careers. We hold our employees to high performance standards and our compensation plans are designed to deliver competitive base pay and attractive incentive opportunities. Our benefits programs are specifically tailored to the various countries in which we operate and maintain a significant workforce. We benchmark for market practices and adjust our compensation and benefits programs to ensure they remain both equitable and competitive.

Diversity and Inclusion

We believe in an inclusive workforce, where employees from a number of cultures and countries are engaged and encouraged to leverage their collective talents. We have employees in roughly 40 countries around the world. As of the date of filing of this annual report on Form 10-K, women comprised roughly 34% of our leadership positions on a global basis, which we define as director level and above. We have provided further information regarding our diversity demographics in our

Environmental, Social, and Governance (ESG) Report and elsewhere on our website at esg.perkinelmer.com, including summarized data from our EEO-1 form.

esg.perkinelmer.com is a home for information related to ESG policies and initiatives at PerkinElmer. The site provides information for our employees, customers and investors on our environmental and social metrics and policies, our global efforts to preserve our environment and our global efforts to promote social equality. It helps our employees and stakeholders know and understand of our commitment to make positive impacts on our employees, customers, local communities and the environment, while engaging others in our efforts.

Our EEO-1 form is a report filed with the United States Equal Employment Opportunity Commission describing the racial, ethnic and gender composition of our U.S.-based workforce. Information on our website, including the ESG Report, shall not be deemed incorporated by reference into this annual report.

We understand that our ability to operate in a multicultural world is critical to our long-term value creation. By maintaining a culture of diversity and inclusion, we believe that we can innovate more effectively. To that end, we seek to promote diverse perspectives throughout our organization and are an equal opportunity employer committed to making employment decisions without regard to race, religion, national or ethnic origin, sex, sexual orientation, gender identity or expression, age, disability, protected veteran status or other characteristics protected by law.

Our commitment to diversity is evidenced by the establishment of our internal Inclusion and Diversity Committee, formed in fiscal year 2020, which is comprised of a wide cross-section of leaders across all regions and backgrounds. The committee focuses on driving increased diversity within our workforce, as well as creating a safe and engaging platform for dialogue on these issues for all of our employees. Our commitment to creating a diverse and inclusive work environment is further validated by our employees, as reflected in the results of our 2021 PerkinElmer People Experience Engagement Survey, where we received high scores in the areas of Diversity & Inclusion, Inclusiveness, and Non-Discrimination. Among other comments, employees shared that they are proud of the emphasis we place on diversity and inclusion, and on making our company a place where everyone is valued and respected. We furthered our journey to maintain a diverse and inclusive workplace in 2022 through the launch of three additional employee resource groups offering our Hispanic and Veteran communities enhanced opportunities and visibility as well our Able group highlighting the power of individuals with disabilities. Focusing also on engagement and belonging, we launched four new Employees Networking Groups during fiscal year 2022 to allow our employees to regroup and connect over their passions or common areas of interest.

Training and Development

We are committed to the continued development and training of our employees and we seek to provide them with meaningful learning opportunities to help grow their capabilities and careers. We provide such opportunities across all levels of our organization, covering a variety of professional, technical and leadership topics. We do so through a variety of channels and formats, including formal (classroom-based, blended learning solutions, digital learning) and informal, on-the-job learning.

A pivotal component of our annual performance review and goal-setting process focuses on providing employees with constructive and actionable feedback, as well as management engagement in the creation and completion of development goals. In addition, employees have access to confidential, anonymous feedback through a process that is used as a development tool to help raise awareness on how they are perceived. Lastly, we recognize that professional development requires support of the whole person, and we therefore offer virtual coaching to help eligible employees meet their unique development goals, whether such goals are leadership or well-being focused.

With regards to career growth, we regularly fill open vacancies with internal candidates. Our internal mobility program empowers employees to explore many different career options available to them.

Lastly, management periodically assesses succession planning for certain key positions and reviews our workforce to identify high potential employees for future growth and development.

Health and Safety

Our success depends on the well-being of our employees, and one of our top priorities is to protect the health and safety of our employees. We maintain a culture focused on safety and strive to identify, eliminate and control risk in the workplace to prevent injury and illness. Our employees have access to a global safety management system and are encouraged to report incidents, near misses, or other observations in the system. The system has been widely adopted in our manufacturing locations across the globe, and management uses the information generated by it to set safety-related policies and to establish goals for future performance. Further, we provide our employees with a comprehensive benefits package that includes health insurance and other resources that support their physical and mental well-being. In relation to the COVID-19 pandemic, we have continued to take actions to protect the health and safety of our employees, customers, partners and suppliers. In particular,

during fiscal year 2022, we have followed rigorous safety measures in China, during the country's various lockdowns and subsequent re-openings, and provided well-being support activities for our employees and their families.

Community

At PerkinElmer, we have long held the view that responsible global citizenship along with good governance principles and ethical business practices are essential tenets for sustainability and success. We encourage our employees to support the communities in which they live and where we operate, and to assist in that effort, we fund a long-term charitable matching program for our employees. In addition, we have established a group comprised of management and subject matter experts at our company to focus on developing and delivering on measurable advancements in the areas of reducing waste, reducing carbon emissions and improving employee engagement and diversity.

Item 1A. Risk Factors

The following important factors affect our business and operations generally or affect multiple segments of our business and operations:

Risks Related to our Business Operations and Industry

If the markets into which we sell our products decline or do not grow as anticipated due to a decline in general economic conditions, or there are uncertainties surrounding the approval of government or industrial funding proposals, or there are unfavorable changes in government regulations, we may see an adverse effect on the results of our business operations.

Our customers include pharmaceutical and biotechnology companies, laboratories, academic and research institutions, public health authorities, private healthcare organizations, doctors and government agencies. Our quarterly revenue and results of operations are highly dependent on the volume and timing of orders received during the quarter. In addition, our revenues and earnings forecasts for future quarters are often based on the expected trends in our markets. However, the markets we serve do not always experience the trends that we may expect. Negative fluctuations in our customers' markets, the inability of our customers to secure credit or funding, restrictions in capital expenditures, general economic conditions, cuts in government funding or unfavorable changes in government regulations would likely result in a reduction in demand for our products and services. In addition, government funding is subject to economic conditions and the political process, which is inherently fluid and unpredictable. Our revenues may be adversely affected if our customers delay or reduce purchases as a result of uncertainties surrounding the approval of government or industrial funding proposals. Such declines could harm our consolidated financial position, results of operations, cash flows and trading price of our common stock, and could limit our ability to sustain profitability.

The pandemic caused by COVID-19 has had, and may continue to have, a negative effect on the demand for certain of our products and our global operations including our manufacturing capabilities, logistics and supply chain that may materially and adversely impact our business, financial conditions, results of operations and cash flows.

We face risks related to public health crises and pandemics, including the COVID-19 pandemic. The global impact of COVID-19 resulted in an adverse impact on our operations, supply chains and distribution systems, due to significant global mitigation measures, including government-directed quarantines, social distancing and shelter-in-place mandates, and travel restrictions and/or bans. Continued uncertainty with respect to the severity and duration of the COVID-19 pandemic has contributed to the volatility of financial markets. The COVID-19 pandemic has caused extended global economic disruption, and a global recession is possible.

We have experienced significant reductions in demand for certain of our products due to the COVID-19 pandemic and although the severity and duration of the COVID-19 pandemic cannot be reasonably estimated at this time, additional impacts that we may experience include, but are not limited to: fluctuations in our stock price due to market volatility; further decreases in demand for certain of our products; reduced profitability; large-scale supply chain disruptions impeding our ability to ship and/or receive product; potential interruptions of, or limitations on manufacturing operations imposed by local, state or federal governments; shortages of key raw materials or components; workforce absenteeism and distraction; labor shortages including those resulting from unwillingness to comply with vaccination or other requirements; customer credit concerns; cybersecurity risks and data accessibility disruptions due to remote working arrangements; reduced sources of liquidity; increased borrowing costs; fluctuations in foreign currency markets; potential impairment in the carrying value of goodwill; other asset impairment charges; increased obligations related to our pension and other postretirement benefit plans; and deferred tax valuation allowances.

Substantial uncertainty remains regarding the further development of the COVID-19 pandemic, however, we currently anticipate that business disruptions and market volatility resulting from the COVID-19 pandemic will continue to have a material adverse impact on the growth rate of certain of our businesses, and may also have a material adverse impact on our overall financial condition, results of operations and cash flows.

Our Diagnostics segment experienced an increase in revenue resulting from increased demand for our immunodiagnostics and applied genomics COVID-19 product offerings during fiscal years 2020 and 2021, as well as from the COVID-19 testing laboratory facilities we developed to service the State of California and the United Kingdom. The laboratory in the United Kingdom closed earlier in 2022 and the laboratory in the State of California closed in the second quarter of 2022. As a result of these closures, and the general reduction in COVID-19 testing spending by our customers, the demand for these products and services declined in fiscal year 2022 and we expect it will continue to decline in fiscal year 2023, with revenue largely contingent upon consumer demand for COVID-19 testing as well as our ability to develop, produce and market COVID-19 products.

Our growth and profitability is subject to global economic and political conditions, and operational disruptions at our facilities.

Our business is affected by global economic and political conditions as well as the state of the financial markets, particularly as the United States and other countries balance concerns around debt, inflation, growth and budget allocations in their policy initiatives. There can be no assurance that global economic conditions and financial markets will not worsen and that we will not experience any adverse effects that may be material to our consolidated cash flows, results of operations, financial position or our ability to access capital, such as the adverse effects resulting from a prolonged shutdown in government operations both in the United States and internationally. Our business is also affected by local economic environments, including inflation, recession, financial liquidity and currency volatility or devaluation. Political changes, including war or other conflicts, such as the current conflict in Ukraine, some of which may be disruptive, could interfere with our supply chain, our customers and all of our activities in a particular location.

While we take precautions to prevent production or service interruptions at our global facilities, a major earthquake, fire, flood, power loss or other catastrophic event that results in the destruction or delay of any of our critical business operations could result in our incurring significant liability to customers or other third parties, cause significant reputational damage or have a material adverse effect on our business, operating results or financial condition.

Certain of these risks can be hedged to a limited degree using financial instruments, or other measures, and some of these risks are insurable, but any such mitigation efforts are costly and may not always be fully successful. Our ability to engage in such mitigation efforts has decreased or become even more costly as a result of recent market developments.

If we do not introduce new products in a timely manner, we may lose market share and be unable to achieve revenue growth targets.

We sell many of our products in industries characterized by rapid technological change, frequent new product and service introductions, and evolving customer needs and industry standards. Many of the businesses competing with us in these industries have significant financial and other resources to invest in new technologies, substantial intellectual property portfolios, substantial experience in new product development, regulatory expertise, manufacturing capabilities, and established distribution channels to deliver products to customers. Our products could become technologically obsolete over time, or we may invest in technology that does not lead to revenue growth or continue to sell products for which the demand from our customers is declining, in which case we may lose market share or not achieve our revenue growth targets. The success of our new product offerings will depend upon several factors, including our ability to:

- accurately anticipate customer needs,
- innovate and develop new reliable technologies and applications,
- receive regulatory approvals in a timely manner,
- successfully commercialize new technologies in a timely manner,
- · price our products competitively, and manufacture and deliver our products in sufficient volumes and on time, and
- differentiate our offerings from our competitors' offerings.

Many of our products are used by our customers to develop, test and manufacture their products. We must anticipate industry trends and consistently develop new products to meet our customers' expectations. In developing new products, we may be required to make significant investments before we can determine the commercial viability of the new product. If we fail to accurately foresee our customers' needs and future activities, we may invest heavily in research and development of

products that do not lead to significant revenue. We may also suffer a loss in market share and potential revenue if we are unable to commercialize our technology in a timely and efficient manner.

In addition, some of our licensed technology is subject to contractual restrictions, which may limit our ability to develop or commercialize products for some applications.

We may not be able to successfully execute acquisitions or divestitures, such as the divestiture of the Analytical, Food and Enterprise Services businesses, license technologies, integrate acquired businesses or licensed technologies into our existing businesses, or make acquired businesses or licensed technologies profitable.

We have in the past supplemented, and may in the future supplement, our internal growth by acquiring businesses and licensing technologies that complement or augment our existing product lines. However, we may be unable to identify or complete promising acquisitions or license transactions for many reasons, such as:

- competition among buyers and licensees,
- the high valuations of businesses and technologies,
- the need for regulatory and other approval, and
- our inability to raise capital to fund these acquisitions.

Some of the businesses we acquire may be unprofitable or marginally profitable, or may increase the variability of our revenue recognition. If, for example, we are unable to successfully commercialize products and services related to significant in-process research and development that we have capitalized, we may have to impair the value of such assets. Accordingly, the earnings or losses of acquired businesses may dilute our earnings. For these acquired businesses to achieve acceptable levels of profitability, we would have to improve their management, operations, products and market penetration. We may not be successful in this regard and may encounter other difficulties in integrating acquired businesses into our existing operations, such as incompatible management, information or other systems, cultural differences, loss of key personnel, unforeseen regulatory requirements, previously undisclosed liabilities or difficulties in predicting financial results. To finance our acquisitions, we may have to raise additional funds, either through public or private financings. We may be unable to obtain such funds or may be able to do so only on terms unacceptable to us. We may also incur expenses related to completing acquisitions or licensing technologies, or in evaluating potential acquisitions or technologies, which may adversely impact our profitability.

Additionally, if we are not successful in selling businesses we seek to divest, such as our recent agreement to divest our Analytical, Food and Enterprise Service businesses to New Mountain Capital L.L.C., the activity of such businesses may dilute our earnings and we may not be able to achieve the expected benefits of such divestitures. Divestitures could involve difficulties in the separation of operations, services, products and personnel, the diversion of management's attention, the disruption of our business and the potential loss of key employees. The transaction may be subject to the satisfaction of preclosing conditions, including obtaining necessary regulatory and government approvals as well as establishing operational segregations, which, if not satisfied or obtained, may prevent us from completing the transaction. Divestitures may also involve continued financial involvement in or liability with respect to the divested assets and businesses, such as indemnities or other financial obligations, in which the performance of the divested assets or businesses could impact our results of operations. Our ability to provide transition services and support to assist the buyer in the transition to certain functions, including, but not limited to, information technology, accounting and human resources, for a certain period of time may cause us to incur unanticipated costs and liabilities and could adversely affect our financial condition and results of operations.

If we do not compete effectively, our business will be harmed.

We encounter aggressive competition from numerous competitors in many areas of our business. We may not be able to compete effectively with all of these competitors. To remain competitive, we must develop new products and periodically enhance our existing products. We anticipate that we may also have to adjust the prices of many of our products to stay competitive. In addition, new competitors, technologies or market trends may emerge to threaten or reduce the value of entire product lines.

Our quarterly operating results could be subject to significant fluctuation, and we may not be able to adjust our operations to effectively address changes we do not anticipate, which could increase the volatility of our stock price and potentially cause losses to our shareholders.

Given the nature of the markets in which we participate, we cannot reliably predict future revenue and profitability. Changes in competitive, market and economic conditions may require us to adjust our operations, and we may not be able to make those adjustments or make them quickly enough to adapt to changing conditions. A high proportion of our costs are fixed in the short term, due in part to our research and development and manufacturing costs. As a result, small declines in sales could disproportionately affect our operating results in a quarter. Factors that may affect our quarterly operating results include:

- demand for and market acceptance of our products,
- competitive pressures resulting in lower selling prices,
- changes in the level of economic activity in regions in which we do business, including as a result of the COVID-19 pandemic and other global health crises or pandemics,
- changes in general economic conditions or government funding,
- settlements of income tax audits,
- expenses incurred in connection with claims related to environmental conditions at locations where we conduct or formerly conducted operations,
- contract termination and litigation costs,
- differing tax laws and changes in those laws, or changes in the countries in which we are subject to taxation,
- changes in our effective tax rate,
- changes in industries, such as pharmaceutical and biomedical,
- changes in the portions of our revenue represented by our various products and customers,
- our ability to introduce new products,
- our competitors' announcement or introduction of new products, services or technological innovations,
- costs of raw materials, labor, energy, supplies, transportation or other indirect costs,
- changes in healthcare or other reimbursement rates paid by government agencies and other third parties for certain of our products and services,
- our ability to realize the benefit of ongoing productivity initiatives,
- changes in the volume or timing of product orders,
- fluctuation in the expense related to the mark-to-market adjustment on postretirement benefit plans,
- changes in our assumptions underlying future funding of pension obligations,
- · changes in assumptions used to determine contingent consideration in acquisitions, and
- changes in foreign currency exchange rates.

A significant disruption in third-party package delivery and import/export services, or significant increases in prices for those services, could interfere with our ability to ship products, increase our costs and lower our profitability.

We ship a significant portion of our products to our customers through independent package delivery and import/export companies, including UPS and Federal Express in the United States; TNT, UPS and DHL in Europe; and UPS in Asia. We also ship our products through other carriers, including commercial airlines, freight carriers, national trucking firms, overnight carrier services and the United States Postal Service. If one or more of the package delivery or import/export providers experiences a significant disruption in services or institutes a significant price increase, we may have to seek alternative providers and the delivery of our products could be prevented or delayed. Such events could cause us to incur increased shipping costs that could not be passed on to our customers, negatively impacting our profitability and our relationships with certain of our customers.

Disruptions in the supply of raw materials, certain key components and other goods from our limited or single source suppliers could have an adverse effect on the results of our business operations, and could damage our relationships with customers.

The production of our products requires a wide variety of raw materials, key components and other goods that are generally available from alternate sources of supply. However, certain critical raw materials, key components and other goods required for the production and sale of some of our principal products are available from limited or single sources of supply. We generally have multi-year contracts with no minimum purchase requirements with these suppliers, but those contracts may not fully protect us from a failure by certain suppliers to supply critical materials or from the delays inherent in being required to change suppliers and, in some cases, validate new raw materials. Such raw materials, key components and other goods can

usually be obtained from alternative sources with the potential for an increase in price, decline in quality or delay in delivery. A prolonged inability to obtain certain raw materials, key components or other goods is possible and could have an adverse effect on our business operations, and could damage our relationships with customers. In addition, a global health crisis or pandemic such as the COVID-19 pandemic, wars, conflicts, or other changes in a country's or region's political or economic conditions, could have a significant adverse effect on our supply chain.

We are subject to the rules of the Securities and Exchange Commission requiring disclosure as to whether certain materials known as conflict minerals (tantalum, tin, gold, tungsten and their derivatives) that may be contained in our products are mined from the Democratic Republic of the Congo and adjoining countries. As a result of these rules, we may incur additional costs in complying with the disclosure requirements and in satisfying those customers who require that the components used in our products be certified as conflict-free, and the potential lack of availability of these materials at competitive prices could increase our production costs.

If we do not retain our key personnel, our ability to execute our business strategy will be limited.

Our success depends to a significant extent upon the continued service of our executive officers and key management and technical personnel, particularly our experienced engineers and scientists, and on our ability to continue to attract, retain, and motivate qualified personnel. The competition for these employees is intense. The loss of the services of key personnel could have a material adverse effect on our operating results. In addition, there could be a material adverse effect on us should the turnover rates for key personnel increase significantly or if we are unable to continue to attract qualified personnel. We do not maintain any key person life insurance policies on any of our officers or employees.

Our success also depends on our ability to execute leadership succession plans. The inability to successfully transition key management roles could have a material adverse effect on our operating results.

If we experience a significant disruption in, or breach in security of, our information technology systems or those of our customers, suppliers or other third parties, or cybercrime, resulting in inappropriate access to or inadvertent transfer of information or assets, or if we fail to implement new systems, software and technologies successfully, our business could be adversely affected.

We rely on several centralized information technology systems throughout our company to develop, manufacture and provide products and services, keep financial records, process orders, manage inventory, process shipments to customers and operate other critical functions. Our and our third-party service providers' information technology systems may be susceptible to damage, disruptions or shutdowns due to power outages, hardware failures, computer viruses, attacks by computer hackers, telecommunication failures, user errors, catastrophes or other unforeseen events. If we were to experience a prolonged system disruption in the information technology systems that involve our interactions with customers, suppliers or other third parties, it could result in the loss of sales and customers and significant incremental costs, which could adversely affect our business. In addition, security breaches of our information technology systems or cybercrime, resulting in inappropriate access to or inadvertent transfer of information or assets, could result in losses or misappropriation of assets or unauthorized disclosure of confidential information belonging to us or to our employees, partners, customers or suppliers, which could result in our suffering significant financial or reputational damage.

Our results of operations will be adversely affected if we fail to realize the full value of our intangible assets.

As of January 1, 2023, our total assets included \$9.9 billion of net intangible assets. Net intangible assets consist principally of goodwill associated with acquisitions and costs associated with securing patent rights, trademark rights, customer relationships, core technology and technology licenses and in-process research and development, net of accumulated amortization. We test certain of these items—specifically all of those that are considered "indefinite-lived"—at least annually for potential impairment by comparing the carrying value to the fair market value of the reporting unit to which they are assigned. All of our amortizing intangible assets are also evaluated for impairment should events occur that call into question the value of the intangible assets.

Adverse changes in our business, adverse changes in the assumptions used to determine the fair value of our reporting units, or the failure to grow our Discovery & Analytical Solutions and Diagnostics segments may result in impairment of our intangible assets, which could adversely affect our results of operations.

Risks Related to our Intellectual Property

We may not be successful in adequately protecting our intellectual property.

Patent and trade secret protection is important to us because developing new products, processes and technologies gives us a competitive advantage, although it is time-consuming and expensive. We own many United States and foreign patents and intend to apply for additional patents. Patent applications we file, however, may not result in issued patents or, if they do, the claims allowed in the patents may be narrower than what is needed to protect fully our products, processes and technologies. The expiration of our previously issued patents may cause us to lose a competitive advantage in certain of the products and services we provide. Similarly, applications to register our trademarks may not be granted in all countries in which they are filed. For our intellectual property that is protected by keeping it secret, such as trade secrets and know-how, we may not use adequate measures to protect this intellectual property.

Third parties have in the past and may in the future also challenge the validity of our issued patents, may circumvent or "design around" our patents and patent applications, or claim that our products, processes or technologies infringe their patents. In addition, third parties may assert that our product names infringe their trademarks. We may incur significant expense in legal proceedings to protect our intellectual property against infringement by third parties or to defend against claims of infringement by third parties. Claims by third parties in pending or future lawsuits could result in awards of substantial damages against us or court orders that could effectively prevent us from manufacturing, using, importing or selling our products in the United States or other countries.

If we are unable to renew our licenses or otherwise lose our licensed rights, we may have to stop selling products or we may lose competitive advantage.

We may not be able to renew our existing licenses, or licenses we may obtain in the future, on terms acceptable to us, or at all. If we lose the rights to a patented or other proprietary technology, we may need to stop selling products incorporating that technology and possibly other products, redesign our products or lose a competitive advantage. Potential competitors could inlicense technologies that we fail to license and potentially erode our market share.

Our licenses typically subject us to various economic and commercialization obligations. If we fail to comply with these obligations, we could lose important rights under a license, such as the right to exclusivity in a market, or incur losses for failing to comply with our contractual obligations. In some cases, we could lose all rights under the license. In addition, rights granted under the license could be lost for reasons out of our control. For example, the licensor could lose patent protection for a number of reasons, including invalidity of the licensed patent, or a third-party could obtain a patent that curtails our freedom to operate under one or more licenses.

Risks Related to Legal, Government and Regulatory Matters

The manufacture and sale of products and services may expose us to product and other liability claims for which we could have substantial liability.

We face an inherent business risk of exposure to product and other liability claims if our products, services or product candidates are alleged or found to have caused injury, damage or loss. We may be unable to obtain insurance with adequate levels of coverage for potential liability on acceptable terms or claims of this nature may be excluded from coverage under the terms of any insurance policy that we obtain. If we are unable to obtain such insurance or the amounts of any claims successfully brought against us substantially exceed our coverage, then our business could be adversely impacted.

If we fail to maintain satisfactory compliance with the regulations of the United States Food and Drug Administration and other governmental agencies in the United States and abroad, we may be forced to recall products and cease their manufacture and distribution, and we could be subject to civil, criminal or monetary penalties.

Our operations are subject to regulation by different state and federal government agencies in the United States and other countries, as well as to the standards established by international standards bodies. If we fail to comply with those regulations or standards, we could be subject to fines, penalties, criminal prosecution or other sanctions. Some of our products are subject to regulation by the United States Food and Drug Administration and similar foreign and domestic agencies. These regulations govern a wide variety of product activities, from design and development to labeling, manufacturing, promotion, sales and distribution. If we fail to comply with those regulations or standards, we may have to recall products, cease their manufacture and distribution, and may be subject to fines or criminal prosecution.

We are also subject to a variety of laws, regulations and standards that govern, among other things, the importation and exportation of products, the handling, transportation and manufacture of toxic or hazardous substances, the collection, storage, transfer, use, disclosure, retention and other processing of personal data, and our business practices in the United States and abroad such as anti-bribery, anti-corruption and competition laws. This requires that we devote substantial resources to maintaining our compliance with those laws, regulations and standards. A failure to do so could result in the imposition of civil, criminal or monetary penalties having a material adverse effect on our operations.

Changes in governmental regulations may reduce demand for our products or increase our expenses.

We compete in markets in which we or our customers must comply with federal, state, local and foreign regulations, such as environmental, health and safety, data privacy and food and drug regulations. We develop, configure and market our products to meet customer needs created by these regulations. Any significant change in these regulations could reduce demand for our products or increase our costs of producing these products.

The healthcare industry is highly regulated and if we fail to comply with its extensive system of laws and regulations, we could suffer fines and penalties or be required to make significant changes to our operations which could have a significant adverse effect on the results of our business operations.

The healthcare industry, including the genetic screening market, is subject to extensive and frequently changing international and United States federal, state and local laws and regulations. In addition, legislative provisions relating to healthcare fraud and abuse, patient privacy violations and misconduct involving government insurance programs provide federal enforcement personnel with substantial powers and remedies to pursue suspected violations. We believe that our business will continue to be subject to increasing regulation as the federal government continues to strengthen its position on healthcare matters, the scope and effect of which we cannot predict. If we fail to comply with applicable laws and regulations, we could suffer civil and criminal damages, fines and penalties, exclusion from participation in governmental healthcare programs, and the loss of various licenses, certificates and authorizations necessary to operate our business, as well as incur liabilities from third-party claims, all of which could have a significant adverse effect on our business.

Risks Related to our Foreign Operations

Economic, political and other risks associated with foreign operations could adversely affect our international sales and profitability.

Because we sell our products worldwide, our businesses are subject to risks associated with doing business internationally. Our sales originating outside the United States represented the majority of our total revenue in fiscal year 2022. We anticipate that sales from international operations will continue to represent a substantial portion of our total revenue. In addition, many of our manufacturing facilities, employees and suppliers are located outside the United States. Accordingly, our future results of operations could be harmed by a variety of factors, including:

- changes in actual, or from projected, foreign currency exchange rates,
- a global health crisis of unknown duration, such as the COVID-19 pandemic,
- wars, conflicts, or other changes in a country's or region's political or economic conditions, particularly in developing or emerging markets,
- longer payment cycles of foreign customers and timing of collections in foreign jurisdictions,
- trade protection measures including embargoes, sanctions and tariffs, such as the sanctions and other restrictions implemented by the United States and other governments on the Russian Federation and related parties in connection with the conflict in Ukraine,
- import or export licensing requirements and the associated potential for delays or restrictions in the shipment of
 our products or the receipt of products from our suppliers,
- policies in foreign countries benefiting domestic manufacturers or other policies detrimental to companies headquartered in the United States,
- differing tax laws and changes in those laws, or changes in the countries in which we are subject to tax,
- adverse income tax audit settlements or loss of previously negotiated tax incentives,
- differing business practices associated with foreign operations,
- difficulty in transferring cash between international operations and the United States,
- difficulty in staffing and managing widespread operations,
- differing labor laws and changes in those laws,
- · differing protection of intellectual property and changes in that protection,
- expanded enforcement of laws related to data protection and personal privacy,
- · increasing global enforcement of anti-bribery and anti-corruption laws, and

• differing regulatory requirements and changes in those requirements.

Risks Related to our Debt

We have a substantial amount of outstanding debt, which could impact our ability to obtain future financing and limit our ability to make other expenditures in the conduct of our business.

We have a substantial amount of debt and other financial obligations. Our debt level and related debt service obligations could have negative consequences, including:

- requiring us to dedicate significant cash flow from operations to the payment of principal and interest on our debt, which reduces the funds we have available for other purposes, such as acquisitions and stock repurchases;
- reducing our flexibility in planning for or reacting to changes in our business and market conditions;
- exposing us to interest rate risk as a portion of our debt obligations are at variable rates;
- increasing our foreign currency risk as a portion of our debt obligations are in denominations other than the U.S. dollar; and
- increasing the chances of a downgrade of our debt ratings due to the amount or intended purpose of our debt obligations.

We may incur additional indebtedness in the future to meet future financing needs. If we add new debt, the risks described above could increase. In addition, the market for both public and private debt offerings could experience liquidity concerns and increased volatility as a result of the COVID-19 pandemic, which could ultimately increase our borrowing costs and limit our ability to obtain future financing.

Restrictions in our senior unsecured revolving credit facility and other debt instruments may limit our activities.

Our senior unsecured revolving credit facility, senior unsecured notes due in 2023 ("2023 Notes"), senior unsecured notes due in 2024 ("2024 Notes"), senior unsecured notes due in 2026 ("2026 Notes"), senior unsecured notes due in 2028 ("2028 Notes"), senior unsecured notes due in 2029 ("2029 Notes"), senior unsecured notes due in 2031 ("March 2031 Notes"), senior unsecured notes due in 2031 ("September 2031 Notes") and senior unsecured notes due in 2051 ("2051 Notes") include restrictive covenants that limit our ability to engage in activities that could otherwise benefit our company. These include restrictions on our ability and the ability of our subsidiaries to:

- pay dividends on, redeem or repurchase our capital stock,
- sell assets,
- incur obligations that restrict our subsidiaries' ability to make dividend or other payments to us,
- guarantee or secure indebtedness,
- enter into transactions with affiliates, and
- consolidate, merge or transfer all, or substantially all, of our assets and the assets of our subsidiaries on a consolidated basis.

We are also required to meet specified financial ratios under the terms of certain of our existing debt instruments. Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control, such as foreign exchange rates, interest rates, changes in technology and changes in the level of competition. In addition, if we are unable to maintain our investment grade credit rating, our borrowing costs would increase and we would be subject to different and potentially more restrictive financial covenants under some of our existing debt instruments.

Any future indebtedness that we incur may include similar or more restrictive covenants. Our failure to comply with any of the restrictions in our senior unsecured revolving credit facility, the 2023 Notes, the 2024 Notes, the 2026 Notes, the 2028 Notes, the 2029 Notes, the March 2031 Notes, the September 2031 Notes, the 2051 Notes or any future indebtedness may result in an event of default under those debt instruments, which could permit acceleration of the debt under those debt instruments, and require us to prepay that debt before its scheduled due date under certain circumstances.

Discontinuation or replacement of LIBOR may adversely affect our variable rate debt.

Our indebtedness under our senior unsecured revolving credit facility bears interest at fluctuating interest rates, primarily based on the London Interbank Offered Rate ("LIBOR") for deposits of U.S. dollars. In July 2017, the United Kingdom Financial Conduct Authority (the authority that regulates LIBOR) announced that it intends to stop compelling banks to submit rates for the calculation of LIBOR after 2021. The discontinuation date for submission and publication of rates for certain tenors of U.S. dollar LIBOR (1-month, 3-month, 6-month, and 12-month) was subsequently extended by the ICE Benchmark Administration (the administrator of LIBOR) until June 30, 2023. The Alternative Reference Rates Committee in the United States has proposed that the Secured Overnight Financing Rate ("SOFR"), calculated using short-term repurchase agreements backed by U.S. Treasury securities, is the rate that represents best practice as the alternative to U.S. dollar LIBOR for use in derivatives and other financial contracts that are currently indexed to LIBOR. No later than June 30, 2023, our indebtedness under our senior unsecured revolving credit facility will be indexed to a replacement benchmark based on SOFR in accordance with the terms of that facility. This change could cause the effective interest rate under our senior unsecured revolving credit facility and our overall interest expense to increase, in which event we may have difficulties making interest payments and funding our other fixed costs, and our available cash flow for general corporate requirements may be adversely affected.

Risks Related to Ownership of our Common Stock

Our share price will fluctuate.

Over the last several years, stock markets in general and our common stock in particular have experienced significant price and volume volatility. Both the market price and the daily trading volume of our common stock may continue to be subject to significant fluctuations due not only to general stock market conditions but also to a change in sentiment in the market regarding our operations and business prospects. In addition to the risk factors discussed above, the price and volume volatility of our common stock may be affected by:

- operating results that vary from our financial guidance or the expectations of securities analysts and investors,
- the financial performance of the major end markets that we target,
- the operating and securities price performance of companies that investors consider to be comparable to us,
- announcements of strategic developments, acquisitions and other material events by us or our competitors,
- changes in global financial markets and global economies and general market conditions, such as interest or foreign exchange rates, inflation, freight costs, commodity and equity prices and the value of financial assets, and
- changes to economic conditions arising from global health crises such as the COVID-19 pandemic or from wars or conflicts.

Dividends on our common stock could be reduced or eliminated in the future.

On October 26, 2022, we announced that our Board of Directors (our "Board") had declared a quarterly dividend of \$0.07 per share for the fourth quarter of fiscal year 2022 that was paid in February 2023. On January 26, 2023, we announced that our Board had declared a quarterly dividend of \$0.07 per share for the first quarter of fiscal year 2023 that will be payable in May 2023. In the future, our Board may determine to reduce or eliminate our common stock dividend in order to fund investments for growth, repurchase shares or conserve capital resources.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 2. *Properties*

We conduct operations for both our Discovery & Analytical Solutions and Diagnostics segments in manufacturing and assembly plants, research laboratories, administrative offices and other facilities. A majority of all such facilities utilized are leased from third parties. Our real property leases are both short-term and long-term. See Note 21, *Leases*, in the Notes to Consolidated Financial Statements for further discussion of our leases.

Item 3. *Legal Proceedings*

We are subject to various claims, legal proceedings and investigations covering a wide range of matters that arise in the ordinary course of our business activities. Although we have established accruals for potential losses that we believe are probable and reasonably estimable, in the opinion of our management, based on its review of the information available at this time, the total cost of resolving these contingencies at January 1, 2023 should not have a material adverse effect on our consolidated financial statements included in this annual report on Form 10-K. However, each of these matters is subject to uncertainties, and it is possible that some of these matters may be resolved unfavorably to us.

Item 4. *Mine Safety Disclosures*

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Listed below are our executive officers as of March 1, 2023. No family relationship exists between any one of these executive officers and any of the other executive officers or directors.

Name	Position	Age
Prahlad Singh	President and Chief Executive Officer	58
Maxwell Krakowiak	Senior Vice President and Chief Financial Officer	33
Joel S. Goldberg	Senior Vice President, Administration, General Counsel and Secretary	54
Daniel R. Tereau	Senior Vice President, Strategy and Business Development	56
Miriame Victor	Senior Vice President, Chief Commercial Officer	42
Tajinder Vohra	Senior Vice President, Global Operations	57
Andrew Okun	Vice President, Chief Accounting Officer and Treasurer	53

Prahlad Singh, 58. Dr. Singh currently serves as President and Chief Executive Officer of PerkinElmer, having previously served as President and Chief Operating Officer of PerkinElmer from January 2019 through December 2019. Dr. Singh joined PerkinElmer as the President of our Diagnostics business in May 2014. He was elected Senior Vice President in September 2016 and Executive Vice President in March 2018. Prior to joining PerkinElmer, Dr. Singh was General Manager of GE Healthcare's Women's Health business from 2012 to 2014, with responsibility for its mammography and bone densitometry businesses. Before that, Dr. Singh held senior executive level roles in strategy, business development and mergers & acquisitions at both GE Healthcare and Philips Healthcare. Earlier in his career, he held leadership roles of increasing responsibility at DuPont Pharmaceuticals and subsequently Bristol-Myers Squibb Medical Imaging, which included managing the Asia Pacific and Middle East region. Dr. Singh holds a doctoral degree in chemistry from the University of Missouri-Columbia and a Master of Business Administration from Northeastern University. His research work has resulted in several issued patents and publications in peer reviewed journals.

Maxwell Krakowiak, 33. Mr. Krakowiak was appointed Senior Vice President and Chief Financial Officer of PerkinElmer in August 2022 after having most recently served as our Vice President, Corporate Finance, focusing on driving global finance transformation through people, process and automation. Mr. Krakowiak joined PerkinElmer in October 2018, and prior to being appointed as our Senior Vice President and Chief Financial Officer held several financial leadership positions of increasing scope and responsibilities, including oversight of financial planning and analysis, commercial finance and business development. Prior to joining PerkinElmer, Mr. Krakowiak worked for General Electric Company ("GE") for seven years, most recently as Executive Audit Manager (from January 2018 to October 2018), working globally across GE's businesses on financial audits and operational excellence projects. During his tenure at GE, he served in a number of progressively responsible leadership roles across GE's Corporate Audit Staff and Financial Management leadership programs. Mr. Krakowiak holds a Bachelor of Science degree in finance from Fordham University.

Joel S. Goldberg, *54*. Mr. Goldberg currently serves as our Senior Vice President, Administration, General Counsel and Secretary, having joined as our Senior Vice President, General Counsel and Secretary in July 2008. Prior to joining us, Mr. Goldberg spent seven years at Millennium Pharmaceuticals, Inc., where he most recently served as Vice President, Chief Compliance Officer and Secretary. During his seven years with Millennium, he focused in the areas of mergers and acquisitions, strategic alliances, investment and financing transactions, securities and healthcare related compliance, and employment law. Previously, he was an associate of the law firm Edwards & Angell, LLP. Mr. Goldberg graduated from the Northeastern University School of Law and also holds a Master of Business Administration from Northeastern University. He completed his undergraduate degree at the University of Wisconsin-Madison.

Daniel R. Tereau, 56. Mr. Tereau was appointed Senior Vice President, Strategy and Business Development in January 2016, having joined PerkinElmer in April 2014 as Vice President, Strategy and Business Development. He is responsible for leading PerkinElmer's overall strategic planning and business development activities. Prior to joining PerkinElmer, Mr. Tereau served on Novartis' leadership team as Senior Vice President and Global Head of Strategy, Business Development and Licensing from 2011 to 2014, where he was responsible for global strategy and business development for the Consumer Health division. Prior to 2011, Mr. Tereau held similar roles at Thermo Fisher Scientific and GE Healthcare. Mr. Tereau holds a Bachelor of Science degree in finance from Ferris State University, a Juris Doctorate from Wayne State University, and earned his Master of Business Administration from Yale University.

Miriame Victor; 42. Ms. Victor joined PerkinElmer in October 2014 as Sales Leader for the Diagnostics business in Europe and most recently served as Vice President and General Manager for EMEAI, prior to being appointed Senior Vice President and Chief Commercial Officer in January 2021. In that role, she oversees PerkinElmer's product commercialization

efforts across all businesses, having previously completed the successful consolidation of the Diagnostics and Discovery & Analytical Solutions businesses into one unified commercial organization. Prior to joining PerkinElmer, Ms. Victor held various commercial leadership positions in the pharmaceutical industry with MSD and Novartis, and in the medical device industry with GE Healthcare. Ms. Victor holds a Bachelor of Science degree in pharmacy and pharmaceutical sciences from Cairo University and earned her Master of Business Administration from Arab Academy for Science, Technology and Maritime Transport.

Tajinder Vohra, 57. Mr. Vohra joined PerkinElmer in October 2015 as Vice President of Global Operations and was appointed Senior Vice President Global Operations in January 2018. He oversees all of PerkinElmer's global operations, including manufacturing, supply chain, customer care and distribution. Prior to joining PerkinElmer, Mr. Vohra served at ABB as a Country Operations Leader from 2011 to 2015, where he was responsible for India-wide operations and Supply Chains for India, Middle East and Africa. Prior to 2011, Mr. Vohra was a Senior Vice President with Genpact, managing Supply Chain and IT businesses, and held a number of global management operational positions with GE Healthcare. Mr. Vohra received his Bachelor's degree in Mechanical Engineering from the University of Delhi, Master's degree in Industrial Engineering from the University of Alabama and Master's degree in Manufacturing Engineering from Lehigh University. Mr. Vohra is a certified Six Sigma Black Belt, and was trained in lean manufacturing at the Shingijitsu Training Institute in Japan.

Andrew Okun, 53. Mr. Okun serves as our Vice President, Chief Accounting Officer and Treasurer. Mr. Okun has served as Vice President and Chief Accounting Officer since April 2011 and was appointed Treasurer in February 2021. Mr. Okun joined us in 2001 and has served in financial and controllership positions of increasing responsibility, including Director of Finance for the Optoelectronics business from 2001 through 2005, Vice President of Finance from 2005 through 2009 and Vice President and Corporate Controller from 2009 through 2011. Prior to joining us, Mr. Okun most recently worked for Honeywell International as a Site Controller as well as for Coopers & Lybrand. Mr. Okun is a Certified Public Accountant and earned his Master of Business Administration from the University of Virginia. He completed his undergraduate degree at the University of California, Santa Barbara.

PART II

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

Common Equity

We only have one class of common stock. Our common stock is listed on the New York Stock Exchange under the symbol "PKI". As of February 24, 2023, we had approximately 3,056 holders of record of our common stock.

Stock Repurchases

The following table provides information with respect to the shares of common stock repurchased by us for the periods indicated.

	Issuer Repurchases of Equity Securities					
Period	Total Number of Shares Purchased ⁽¹⁾		Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs ⁽²⁾	Ap Val	ximum Aggregate Number (or proximate Dollar lue) of Shares that May Yet Be Purchased nder the Plans or Programs
October 3, 2022 - October 30, 2022	44,266	\$	120.12		\$	300,000,000
October 31, 2022 - November 27, 2022	138,174		138.65	138,025		280,862,780
November 28, 2022 - January 1, 2023	179		142.98	—		280,862,780
Activity for quarter ended January 1, 2023	182,619	\$	134.16	138,025	\$	280,862,780

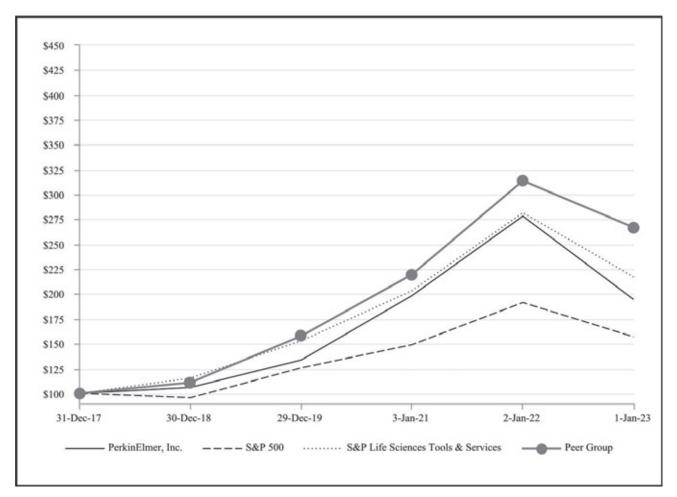
- (1) Our Board of Directors (our "Board") has authorized us to repurchase shares of common stock to satisfy minimum statutory tax withholding obligations in connection with the vesting of restricted stock awards and restricted stock unit awards granted pursuant to our equity incentive plans and to satisfy obligations related to the exercise of stock options made pursuant to our equity incentive plans. During the fourth quarter of fiscal year 2022, we repurchased 44,594 shares of common stock for this purpose at an aggregate cost of \$5.4 million. The repurchased shares have been reflected as additional authorized but unissued shares, with the payments reflected in common stock and capital in excess of par value.
- (2) On July 31, 2020, our Board authorized us to repurchase shares of common stock for an aggregate amount up to \$250.0 million under a stock repurchase program (the "Repurchase Program"). On July 22, 2022, the Repurchase Program was terminated by our Board and our Board authorized us to repurchase shares of common stock for an aggregate amount up to \$300.0 million under a new stock repurchase program (the "New Repurchase Program"). No shares remain available for repurchase under the Repurchase Program due to its termination. The New Repurchase Program will expire on July 22, 2024 unless terminated earlier by our Board and may be suspended or discontinued at any time. During the fourth quarter of fiscal year 2022, we repurchased 138,025 shares of common stock under the New Repurchase Program for an aggregate cost of \$19.1 million. As of January 1, 2023, \$280.9 million remained available for aggregate repurchases of shares under the New Repurchase Program.

Stock Performance Graph

Set forth below is a line graph comparing the cumulative total shareholder return on our common stock against the cumulative total return of the S&P Composite-500 Index, the S&P 500 Life Sciences Tools & Services Industry Index and a Peer Group Index for the five fiscal years from December 31, 2017 to January 1, 2023. Our Peer Group Index consists of Agilent Technologies Inc., Thermo Fisher Scientific Inc., and Waters Corporation. The peer group is the same as the peer group used in the stock performance graph in our Annual Report on Form 10-K for the fiscal year ended January 2, 2022.

Comparison of Five-Year Cumulative Total Return Among PerkinElmer, Inc. Common Stock, S&P Composite-500, S&P 500 Life Sciences Tools & Services Industry Index and Peer Group Index





	31	-Dec-17	30-Dec-18	29-Dec-19	 3-Jan-21	2-Jan-22	1-Jan-23
PerkinElmer, Inc.	\$	100.00	\$ 106.07	\$ 133.61	\$ 198.11	\$ 278.09	\$ 194.30
S&P 500 Index	\$	100.00	\$ 95.62	\$ 125.72	\$ 148.85	\$ 191.58	\$ 156.89
S&P 500 Life Sciences Tools & Services Industry Index	\$	100.00	\$ 115.18	\$ 152.65	\$ 203.04	\$ 281.69	\$ 217.15
Peer Group Index	\$	100.00	\$ 111.08	\$ 157.75	\$ 219.67	\$ 313.61	\$ 266.70

Item 6. [Reserved]

Reserved.

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

This annual report on Form 10-K, including the following management's discussion and analysis, contains forwardlooking information that you should read in conjunction with the consolidated financial statements and notes to consolidated financial statements that we have included elsewhere in this annual report on Form 10-K. For this purpose, any statements contained in this report that are not statements of historical fact may be deemed to be forward-looking statements. Words such as "believes," "plans," "anticipates," "expects," "will" and similar expressions are intended to identify forward-looking statements. Our actual results may differ materially from the plans, intentions or expectations we disclose in the forwardlooking statements we make. We have included important factors above under the heading "Risk Factors" in Item 1A above that we believe could cause actual results to differ materially from the forward-looking statements we make. We are not obligated to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

Accounting Period

Our fiscal year ends on the Sunday nearest December 31. We report fiscal years under a 52/53 week format and as a result, certain fiscal years will contain 53 weeks. Each of the fiscal years ended January 1, 2023 ("fiscal year 2022") and January 2, 2022 ("fiscal year 2021") included 52 weeks. The fiscal year ended January 3, 2021 ("fiscal year 2020") included 53 weeks. The fiscal year ending December 31, 2023 ("fiscal year 2023") will include 52 weeks.

Overview of Fiscal Year 2022

During fiscal year 2022, we continued to see strong returns from our acquisitions as well as our organic investments across technology, marketing and people. Our overall revenue in fiscal year 2022 decreased by \$516.0 million, or 13%, as compared to fiscal year 2021, reflecting a decrease of \$913.0 million, or 31%, in our Diagnostics segment revenue, partially offset by an increase of \$395.2 million, or 44%, in our Discovery & Analytical Solutions segment revenue. Revenue from our 2021 acquisitions contributed \$366.9 million to our overall revenue during fiscal year 2022. The decrease in our Diagnostics segment revenue during fiscal year 2022 was primarily driven by decreased demand for our COVID-19 product offerings, partially offset by an increase in our core product offerings resulting in a decrease of \$689.0 million in our immunodiagnostics revenue and a decrease of \$225.8 million in our applied genomics revenue. Revenue from our 2021 acquisitions contributed \$58.1 million to our Diagnostics segment revenue during fiscal year 2022 was driven by an increase of \$395.2 million in our life sciences market revenue. Revenue from our 2021 acquisitions contributed \$308.7 million to the increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2022 was driven by an increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2022 was driven by an increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2022 was driven by an increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2022 was driven by an increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2022 was driven by an increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2022 was driven by an increase in our Discovery & Analytical Solutions segment revenue during fiscal year 2022.

In our Diagnostics segment, we experienced a global decline in demand for our COVID-19 product offerings due to the cancellation of our service contracts for the State of California and the United Kingdom, and lower COVID-19 testing volumes compared to fiscal year 2021. We saw strong growth in our core immunodiagnostics business in the Americas and Europe, partially offset by the impact of extensive shutdowns in China. In our reproductive health business, an expanded range of product offerings and increased geographic reach more than offset the impact of declining birthrates.

In our Discovery & Analytical Solutions segment, the increase in our life sciences market revenue was the result of an increase in revenue in our pharmaceutical and biotechnology markets across all regions. Instruments, reagents and software experienced strong growth and we saw a positive impact from pricing actions we took in early 2022.

Our consolidated gross margins decreased 350 basis points in fiscal year 2022, as compared to fiscal year 2021, primarily due to increased amortization of acquired intangible assets and lower revenue from our COVID-19 product offerings, partially offset by a favorable shift in product mix and service productivity. Our consolidated operating margin decreased 1,045 basis points in fiscal year 2022, as compared to fiscal year 2021, primarily due to lower revenue from our COVID-19 product offerings, increased costs related to amortization of acquired intangible assets, and investments in new product development and growth initiatives. During fiscal year 2022, supply chain disruptions and inflation did not materially impact our results of operations as compared to fiscal year 2021 as the effects of our initiatives to reduce transportation costs more than offset the impact of inflation on our raw materials purchases. During fiscal year 2022, supply chain disruptions and inflation increased our cost of goods sold by less than \$10.0 million as compared to fiscal year 2021.

Overall, we believe that our strategic priorities and recent portfolio transformations, coupled with our expanded range of product offerings, leading market positions, global scale and financial strength provides us with a foundation for continued revenue growth, strong margins and cash flows, and long-term earnings per share growth.

Consolidated Results of Operations

Fiscal Year 2022 Compared to Fiscal Year 2021

Revenue

Revenue for fiscal year 2022 was \$3.3 billion, as compared to \$3.8 billion for fiscal year 2021, a decrease of \$0.5 billion, or 13%, which includes an approximate 4% decrease in revenue attributable to unfavorable changes in foreign exchange rates, partially offset by an approximate 9% increase in revenue attributable to acquisitions. Revenue from our 2021 acquisitions contributed \$366.9 million to our overall revenue during fiscal year 2022. The analysis in the remainder of this paragraph compares segment revenue for fiscal year 2022 as compared to fiscal year 2021 and includes the effect of foreign exchange rate fluctuations, and acquisitions and divestitures. The decrease in total revenue reflects a decrease in our Diagnostics segment revenue of \$913.0 million, or 31%, due to decreased demand for our COVID-19 product offerings, partially offset by an increase in our core product offerings resulting in a decrease of \$689.0 million in our immunodiagnostics revenue and a decrease of \$225.8 million in our applied genomics revenue. Our Discovery & Analytical Solutions segment revenue increased by \$395.2 million, or 44%, due to increase in revenue in our life sciences market, particularly in the pharmaceutical and biotechnology markets. As a result of adjustments to deferred revenue related to certain acquisitions required by business combination rules, we did not recognize \$0.8 million and \$2.6 million of revenue for fiscal years 2022 and 2021, respectively, that otherwise would have been recorded by the acquired businesses during each of the respective periods.

Cost of Revenue

Cost of revenue for fiscal year 2022 was \$1.3 billion, as compared to \$1.4 billion for fiscal year 2021, a decrease of approximately \$71.8 million, or 5%. As a percentage of revenue, cost of revenue increased to 40% in fiscal year 2022 from 36% in fiscal year 2021, resulting in a decrease in gross margin of approximately 350 basis points to 60% in fiscal year 2022 from 64% in fiscal year 2021. Amortization of intangible assets increased to \$141.6 million for fiscal year 2022, as compared to \$100.7 million for fiscal year 2021. Amortization of intangible assets from our 2021 acquisitions amounted to \$88.5 million for fiscal year 2022. The amortization of purchase accounting adjustments to record the inventory from certain acquisitions added an incremental expense of \$45.3 million for fiscal year 2022, as compared to \$35.2 million for fiscal year 2021. Other purchase accounting adjustments added an incremental expense of \$6.2 million for fiscal year 2022, of which \$5.6 million was acquisition-related stock compensation and \$0.6 million was increased depreciation on property, plant and equipment. The overall decrease in gross margin was partially offset by a favorable shift in product mix, pricing actions and service productivity.

Selling, General and Administrative Expenses

Selling, general and administrative expenses for fiscal year 2022 were \$1,025.5 million, as compared to \$975.2 million for fiscal year 2021, an increase of approximately \$50.3 million, or 5%. As a percentage of revenue, selling, general and administrative expenses increased to 31% in fiscal year 2022 from 25% in fiscal year 2021. Amortization of intangible assets increased to \$229.1 million for fiscal year 2022, as compared to \$155.9 million for fiscal year 2021. Amortization of intangible assets from our 2021 acquisitions amounted to \$135.3 million for fiscal year 2022. Acquisition and divestiture-related expenses added an incremental expense of \$28.9 million for fiscal year 2022, of which \$15.6 million was acquisition-related stock compensation, as compared to acquisition and divestiture-related expenses increasing expenses by \$59.7 million for fiscal year 2022, of which \$3.9 million for fiscal year 2022, resulting from a \$1.4 million change in contingent consideration, partially offset by \$0.2 million in increased depreciation on property, plant and equipment, as compared to purchase accounting adjustments increasing expenses by \$2.9 million for fiscal year 2021, which was attributable to change in contingent consideration. Asset impairment costs added an incremental expense of \$3.9 million for fiscal year 2021. Legal costs for significant litigation matters and settlements, net of reversals, decreased expenses by \$0.6 million for fiscal year 2022. In addition to the above items, the increase in selling, general and administrative expenses was primarily the result of costs related to investments in people, digital capabilities, innovation, and recent acquisitions.

Research and Development Expenses

Research and development expenses for fiscal year 2022 were \$221.6 million, as compared to \$200.3 million for fiscal year 2021, an increase of \$21.3 million, or 11%. As a percentage of revenue, research and development expenses increased to 7% in fiscal year 2022 from 5% in fiscal year 2021. Stock compensation related to our acquisitions added an incremental expense of \$5.4 million in fiscal year 2022, as compared to \$1.4 million for fiscal year 2021. Purchase accounting adjustments for depreciation on property, plant and equipment added an incremental expense of \$0.2 million in fiscal year 2022, as compared to \$0.1 million for fiscal year 2021. Excluding the factors above, the net increase in research and development

expenses was due to timing of investments in new non-COVID-19 product development, partially offset by a decrease in COVID-19 related research and development expenses.

Interest and Other Expense, Net

Interest and other expense, net, consisted of the following for the fiscal years ended:

	Janua 202		J	anuary 2, 2022	
		(in thousands)			
Interest income	\$	(3,589)	\$	(2,241)	
Interest expense including costs of bridge financing	1	03,955		102,128	
Change in fair value of financial securities		15,754		(10,985)	
Other components of net periodic pension credit	(33,158)		(37,385)	
Other expense, net		7,900		3,358	
Total interest and other expense, net	\$	90,862	\$	54,875	

The increase of \$36.0 million in interest and other expense, net, in fiscal year 2022 as compared to fiscal year 2021 was largely due to a change in fair value of financial securities of \$15.8 million in fiscal year 2022 as compared to \$(11.0) million in fiscal year 2021, an increase of \$1.8 million in interest expense and \$4.5 million in other expense, net in fiscal year 2022 and a lower net pension credit of \$33.2 million in fiscal year 2022 as compared to \$37.4 million in fiscal year 2021. A more complete discussion of our liquidity is set forth below under the heading "Liquidity and Capital Resources."

Provision for Income Taxes

The effective tax rates on continuing operations were 21.3% and 26.1% for fiscal years 2022 and 2021, respectively. Certain of our subsidiaries have, at various times, been granted tax relief in their respective countries, resulting in lower income taxes than would otherwise be the case under statutory tax rates. A reconciliation of income tax expense at the U.S. federal statutory income tax rate to the recorded tax provision is as follows for the fiscal years ended:

	J	January 1, 2023		January 2, 2022
		(In tho	usand	s)
Tax at statutory rate	\$	136,886	\$	252,752
Non-U.S. rate differential, net		(5,221)		(33,847)
U.S. taxation of multinational operations		22,102		7,964
State income taxes, net		7,820		36,832
Prior year tax matters		(10,160)		1,850
Effect of stock compensation		845		(2,187)
General business tax credits		(7,132)		(2,715)
Change in valuation allowance		4,964		(179)
Rate change on long term intangibles				14,031
Effect of foreign repatriations		(4,940)		37,147
Other, net		(6,003)		2,498
Total	\$	139,161	\$	314,146

The variation in our effective tax rate for fiscal year 2022 is primarily affected by the accrual of \$20.5 million related to a change in tax status of a certain foreign subsidiary. During fiscal year 2021, we also recognized \$37.1 million in U.S. federal, U.S. state and non-U.S. taxes related to foreign earnings that we no longer considered indefinitely reinvested. During fiscal year 2022, we adjusted these estimates and recognized a net benefit of \$4.9 million relative to our position to permanently reinvest those foreign earnings. We also recognized \$1.1 million of benefit in fiscal year 2022 derived from the tax holiday in Singapore. We recognized \$18.2 million in fiscal year 2021 of benefits derived from tax holidays in China and Singapore. The effect of these benefits, derived from tax holidays, on basic and diluted earnings per share for fiscal year 2022 was \$0.01 and \$0.01, respectively, and for fiscal year 2021 was \$0.16 and \$0.16, respectively. The tax holiday in China is renewed every three years. We expect to renew the tax holiday for one of our subsidiaries in China that is set to expire in fiscal year 2023.

Fiscal Year 2021 Compared to Fiscal Year 2020

Revenue

Revenue for fiscal year 2021 was \$3.8 billion, as compared to \$2.7 billion for fiscal year 2020, an increase of \$1.2 billion, or 44%, which includes an approximate 11% increase in revenue attributable to acquisitions, and a 1% increase in revenue attributable to favorable changes in foreign exchange rates. The analysis in the remainder of this paragraph compares segment revenue for fiscal year 2021 as compared to fiscal year 2020 and includes the effect of foreign exchange rate fluctuations, and acquisitions and divestitures. The total increase in revenue reflects an increase in our Diagnostics segment revenue of \$865.0 million, or 42%, due to increased demand for our COVID-19 product offerings resulting in an increase of \$748.0 million in our immunodiagnostics revenue. Our Diagnostics segment revenue also increased during fiscal year 2021 due to growth in our core product offerings resulting in an increase of \$58.0 million in our reproductive health revenue and an increase of \$59.0 million, or 50%, due to an increase in revenue in our life sciences market, particularly in the pharmaceutical and biotechnology markets. As a result of adjustments to deferred revenue related to certain acquisitions required by business combination rules, we did not recognize \$2.6 million and \$1.1 million of revenue for fiscal years 2021 and 2020, respectively, that otherwise would have been recorded by the acquired businesses during each of the respective periods.

Cost of Revenue

Cost of revenue for fiscal year 2021 was \$1.4 billion, as compared to \$933.1 million for fiscal year 2020, an increase of approximately \$460.8 million, or 49%. As a percentage of revenue, cost of revenue increased to 36% in fiscal year 2021 from 35% in fiscal year 2020, resulting in a decrease in gross margin of approximately 138 basis points to 64% in fiscal year 2021 from 65% in fiscal year 2020. Amortization of intangible assets increased and was \$100.7 million for fiscal year 2021, as compared to \$51.4 million for fiscal year 2020. Amortization of intangible assets from our 2021 acquisitions amounted to \$34.0 million for fiscal year 2021. The amortization of purchase accounting adjustments to record the inventory from certain acquisitions added an incremental expense of \$35.2 million for fiscal year 2021, of which \$1.6 million was acquisition-related stock compensation and \$0.2 million was increased depreciation on property, plant and equipment. Asset impairment was \$7.9 million for fiscal year 2020. The overall decrease in gross margin was partially offset by a favorable shift in product mix and service productivity.

Selling, General and Administrative Expenses

Selling, general and administrative expenses for fiscal year 2021 were \$975.2 million, as compared to \$716.5 million for fiscal year 2020, an increase of approximately \$258.7 million, or 36%. As a percentage of revenue, selling, general and administrative expenses decreased to 25% in fiscal year 2021 from 27% in fiscal year 2020. Amortization of intangible assets increased to \$155.9 million for fiscal year 2021, as compared to \$109.6 million for fiscal year 2020. Amortization of intangible assets from our 2021 acquisitions amounted to \$37.2 million for fiscal year 2021. Acquisition and divestiture-related expenses added an incremental expense of \$59.7 million for fiscal year 2021, of which \$3.9 million was acquisition-related stock compensation, as compared to acquisition and divestiture-related expenses increasing expenses by \$4.3 million for fiscal year 2020. Purchase accounting adjustments added an incremental expense of \$2.9 million for fiscal year 2021, of which \$2.8 million was change in contingent consideration and \$0.1 million was increased depreciation on property, plant and equipment, as compared to change in contingent consideration. Asset impairment costs added an incremental expense of \$3.9 million for fiscal year 2020. Which was attributable to change in contingent consideration. Asset impairment costs added an incremental expense of \$3.9 million for fiscal year 2020. Costs for significant litigation matters and settlements were \$5.9 million for fiscal year 2020. Costs for significant environmental matters were \$5.2 million for fiscal year 2020. In addition to the above items, the increase in selling, general and administrative expenses was primarily the result of costs related to investments in people, digital capabilities and innovation, and recent acquisitions amplified by pandemic-related cost controls and disruptions in the prior year.

Research and Development Expenses

Research and development expenses for fiscal year 2021 were \$200.3 million, as compared to \$146.4 million for fiscal year 2020, an increase of \$53.9 million, or 36.8%. Research and development expenses from our 2021 acquisitions were \$24.0 million. As a percentage of revenue, research and development expenses decreased and were 5.2% for fiscal year 2021, as compared to 5.5% for fiscal year 2020. Stock compensation related to our acquisitions added an incremental expense of \$1.4 million in fiscal year 2021. Purchase accounting adjustments for depreciation on property, plant and equipment added an incremental expense of \$0.1 million in fiscal year 2021. The increase in research and development expenses was driven by our investments in new product development.

Interest and Other Expense, Net

Interest and other expense, net, consisted of the following for the fiscal years ended:

	January 2, 2022	e	January 3, 2021
	(in	thousand	ds)
Interest income	\$ (2,24	1) \$	(1,010)
Interest expense including costs of bridge financing	102,12	28	49,712
Change in fair value of financial securities	(10,98	(5)	(35)
Other components of net periodic pension (credit) cost	(37,38	35)	13,819
Other expense, net	3,35	8	4,715
Total interest and other expense, net	\$ 54,8	/5 \$	67,201

The decrease of \$12.3 million in interest and other expense, net, in fiscal year 2021 as compared to fiscal year 2020 was largely due to a net pension credit of \$37.4 million in fiscal year 2021 as compared to a net pension cost of \$13.8 million in fiscal year 2020, a decrease in other expense, net of \$1.4 million and a change in fair value of financial securities of \$11.0 million, partially offset by an increase of \$52.4 million in interest expense in fiscal year 2021. The increase of \$52.4 million in interest expense in fiscal year 2021 was the result of \$23.4 million of costs of bridge financing and debt pre-issuance hedges that were recognized in fiscal year 2021 and interest expense from new debt in fiscal year 2021. A more complete discussion of our liquidity is set forth below under the heading "Liquidity and Capital Resources."

Provision for Income Taxes

The effective tax rates on continuing operations were 26.1% and 21.2% for fiscal years 2021 and 2020, respectively. Certain of our subsidiaries have, at various times, been granted tax relief in their respective countries, resulting in lower income taxes than would otherwise be the case under statutory tax rates. A reconciliation of income tax expense at the U.S. federal statutory income tax rate to the recorded tax provision is as follows for the fiscal years ended:

	January 2, 2022		anuary 3, 2021
	 (In thousands)		
Tax at statutory rate	\$ 252,752	\$	168,015
Non-U.S. rate differential, net	(33,847)		(29,155)
U.S. taxation of multinational operations	7,964		11,468
State income taxes, net	36,832		13,249
Prior year tax matters	1,850		5,532
Effect of stock compensation	(2,187)		(8,148)
General business tax credits	(2,715)		(2,145)
Change in valuation allowance	(179)		(369)
Rate change on long term intangibles	14,031		
Effect of foreign operations	37,147		
Foreign consolidations			15,222
Other, net	2,498	_	(4,157)
Total	\$ 314,146	\$	169,512

The variation in our effective tax rate for fiscal year 2021 is primarily affected by the recognition of \$37.1 million in U.S. federal, U.S. state and non-U.S. taxes related to foreign earnings that we no longer considered indefinitely reinvested. We also recognized \$18.2 million in fiscal year 2021 and \$12.7 million in fiscal year 2020 of benefits derived from tax holidays in China and Singapore. The effect of these benefits, derived from tax holidays, on basic and diluted earnings per share for fiscal year 2021 was \$0.16 and \$0.16, respectively, and for fiscal year 2020 was \$0.11 and \$0.11, respectively.

Business Combinations

Acquisitions in fiscal year 2022

During fiscal year 2022, we completed the acquisition of two businesses for aggregate consideration of \$13.3 million. Identifiable definite-lived intangible assets, such as core technology, acquired as part of these acquisitions had a weighted average amortization period of 5 years.

Acquisitions in fiscal year 2021

Acquisition of BioLegend, Inc. In fiscal year 2021, we completed the acquisition of BioLegend, Inc. ("BioLegend") for an aggregate consideration of \$5.7 billion. BioLegend's revenue and net loss for the period from the acquisition date to January 2, 2022 were \$91.7 million and \$25.8 million, respectively.

Other acquisitions in 2021. During fiscal year 2021, we also completed the acquisition of seven other businesses for aggregate consideration of \$1.2 billion. The acquired businesses include Oxford Immunotec Global PLC for a total consideration of \$590.9 million and Nexcelom Bioscience Holdings, LLC for a total consideration of \$267.3 million, and five other businesses, which were acquired for a total consideration of \$318.6 million.

See Note 3, *Business Combinations*, in the Notes to Consolidated Financial Statements for a detailed discussion of our acquisitions.

Reporting Segment Results of Continuing Operations

Discovery & Analytical Solutions

Fiscal Year 2022 Compared to Fiscal Year 2021

Revenue for fiscal year 2022 was \$1,292.9 million, as compared to \$897.7 million for fiscal year 2021, an increase of \$395.2 million, or 44%, which includes an approximate 32% increase in revenue attributable to acquisitions and a 4% decrease in revenue attributable to unfavorable changes in foreign exchange rates. Revenue from our 2021 acquisitions contributed \$308.7 million to the Discovery & Analytical Solutions segment revenue during fiscal year 2022. The increase in revenue in our Discovery & Analytical Solutions segment was a result of an increase in revenue in our life sciences market, particularly in the pharmaceutical and biotechnology markets.

Segment operating income for fiscal year 2022 was \$503.2 million, as compared to \$281.6 million for fiscal year 2021, an increase of \$221.6 million, or 79%. Segment operating margin increased 750 basis points in fiscal year 2022, as compared to fiscal year 2021, primarily due to pricing actions, product mix and higher sales volume.

Fiscal Year 2021 Compared to Fiscal Year 2020

Revenue for fiscal year 2021 was \$897.7 million, as compared to \$596.6 million for fiscal year 2020, an increase of \$301.1 million, or 50%, which includes an approximate 33% increase in revenue attributable to acquisitions and a 1% increase in revenue attributable to favorable changes in foreign exchange rates. The increase in revenue in our Discovery & Analytical Solutions segment was a result of an increase in revenue in our life sciences market, particularly in the pharmaceutical and biotechnology markets.

Segment operating income for fiscal year 2021 was \$281.6 million, as compared to \$129.2 million for fiscal year 2020, an increase of \$152.4 million, or 118%. Segment operating margin increased 970 basis points in fiscal year 2021, as compared to fiscal year 2020, primarily due to higher sales volume, partially offset by investments in new product development and growth initiatives.

Diagnostics

Fiscal Year 2022 Compared to Fiscal Year 2021

Revenue for fiscal year 2022 was \$2,019.7 million, as compared to \$2,932.7 million for fiscal year 2021, a decrease of \$913.0 million, or 31%, which includes an approximate 2% increase in revenue attributable to acquisitions and a 4% decrease in revenue attributable to unfavorable changes in foreign exchange rates. Revenue from our 2021 acquisitions contributed \$58.1 million to our Diagnostics segment revenue during fiscal year 2022. The decrease in our Diagnostics segment revenue during fiscal year 2022 was primarily driven by decreased demand for our COVID-19 product offerings, partially offset by an increase in our core product offerings resulting in a decrease of \$689.0 million in our immunodiagnostics revenue, a decrease of \$225.8 million in our applied genomics revenue, and an increase of \$1.7 million in our reproductive health revenue.

Segment operating income from continuing operations for fiscal year 2022 was \$782.0 million, as compared to \$1,432.8 million for fiscal year 2021, a decrease of \$650.8 million, or 45%. Segment operating margin decreased 1,020 basis points in fiscal year 2022, as compared to fiscal year 2021, primarily due to lower sales volume and product mix, partially offset by cost controls.

Fiscal Year 2021 Compared to Fiscal Year 2020

Revenue for fiscal year 2021 was \$2,932.7 million, as compared to \$2,067.7 million for fiscal year 2020, an increase of \$865.0 million, or 42%, which includes an approximate 5% increase in revenue attributable to acquisitions and a 2% increase in revenue attributable to favorable changes in foreign exchange rates. The increase in our Diagnostics segment revenue during fiscal year 2021 was primarily driven by increased demand for our COVID-19 product offerings resulting in an increase of \$748.0 million in our immunodiagnostics revenue. Our Diagnostics segment revenue also increased during fiscal year 2021 due to growth in our core product offerings resulting in an increase of \$58.0 million in our reproductive health revenue and an increase of \$59.0 million in our applied genomics revenue.

Segment operating income for fiscal year 2021 was \$1,432.8 million, as compared to \$1,010.4 million for fiscal year 2020, an increase of \$422.4 million, or 42%. Segment operating margin was flat in fiscal year 2021, as compared to fiscal year 2020, primarily due to higher sales volume and favorable product mix, offset by increased investments in new product development and growth initiatives.

Discontinued Operations

In August 2022, we entered into a Master Purchase and Sale Agreement (the "Purchase Agreement") with Polaris Purchaser, L.P. (the "Purchaser"), a Delaware limited partnership owned by funds managed by affiliates of New Mountain Capital L.L.C. (the "Sponsor"), under which we agreed to sell to the Purchaser certain assets and the equity interests of certain entities constituting our Analytical, Food and Enterprise Services businesses (the "Business") (as further defined in the Purchase Agreement), for cash consideration of up to approximately \$2.45 billion and the Purchaser's assumption of certain liabilities relating to the Business (collectively, the "Transaction"). Approximately \$2.30 billion of the purchase price will be payable at closing, subject to certain customary adjustments, which includes \$75.0 million in deferred payments tied to the transfer of the PerkinElmer brand and related trademarks to the Purchaser (which may be completed within 24 months following the date of the closing at our election). The Purchase Agreement also provides for potential post-closing payments totaling up to \$150.0 million, which are contingent on the exit valuation the Sponsor and its affiliated funds receive on a sale or other capital events related to the Business. The Transaction is expected to close in the first quarter of fiscal year 2023, subject to regulatory approvals and other customary closing conditions.

The Business had been recorded in the Discovery & Analytical Solutions segment. The sale of the Business represents a strategic shift that will have a major effect on our operations and financial statements. Accordingly, we have classified the assets and liabilities related to the Business as assets and liabilities of discontinued operations in our consolidated balance sheets and its results of operations are classified as income from discontinued operations in our consolidated statements of operations. Financial information in this report relating to the fiscal years ended January 2, 2022 and January 3, 2021 has been retrospectively adjusted to reflect this discontinued operation.

The summary pre-tax operating results of the discontinued operations, were as follows:

	January 1, 2023			January 2, 2022		uary 3, 2021
			(I	n thousands)		
Revenue	\$	1,298,376	\$	1,239,361	\$	1,119,515
Cost of revenue		859,330		822,048		739,817
Selling, general and administrative expenses		306,032		268,760		209,442
Research and development expenses		64,605		74,632		58,948
Operating income		68,409		73,921		111,308
Other expense (income), net		(5,195)		(2,383)		5,016
Income from discontinued operations before income taxes	\$	73,604	\$	76,304	\$	106,292

During fiscal year 2022, we recognized \$69.4 million of divestiture-related costs in selling, general and administrative expenses in discontinued operations, as compared to \$7.5 million during fiscal year 2021, an increase of \$61.9 million. The increase in selling, general and administrative expenses was partially offset by decreased amortization expense and acquisition-related costs. During fiscal year 2022, we recognized \$8.2 million of amortization expense in selling, general and administrative expenses in discontinued operations, as compared to \$19.3 million during fiscal year 2021, a decrease of \$11.1 million, as we suspended the amortization of the intangible assets related to the Business during fiscal year 2022 when it was reclassified into discontinued operations. During fiscal year 2022, we recognized \$6.4 million of incentive award associated with one of the Company's acquisitions in discontinued operations, as compared to \$14.3 million during fiscal year 2021, a decrease of \$7.8 million.

During fiscal year 2021, divestiture-related costs in selling, general and administrative expenses in discontinued operations increased by \$7.5 million as compared to fiscal year 2020. In addition, payroll and employee benefits and acquisition-related costs pertaining to an incentive award associated with one of the Company's acquisitions increased by \$20.4 million and \$9.6 million, respectively, as compared to fiscal year 2020.

Liquidity and Capital Resources

We require cash to pay our operating expenses, make capital expenditures, make strategic acquisitions, service our debt and other long-term liabilities, repurchase shares of our common stock and pay dividends on our common stock. Our principal sources of funds are cash flows from our operations, borrowing capacity available under our senior unsecured credit facility and access to the debt markets. We anticipate that our internal operations will generate sufficient cash to fund our operating expenses, capital expenditures, smaller acquisitions, interest payments on our debt and dividends on our common stock. However, we expect to use external sources to satisfy the balance of our debt when due, any larger acquisitions and other long-term liabilities, such as contributions to our postretirement benefit plans. The proposed sale of the Business classified as discontinued operations is expected to close in the first quarter of fiscal year 2023, which we expect will generate approximately \$2.2 billion of proceeds to us. We expect to use these proceeds for funding upcoming debt maturities, opportunistic share repurchases and continued strategic and value-creating acquisitions.

We and our subsidiaries and affiliates may from time to time, in our sole discretion, purchase, repay, redeem or retire any of our outstanding debt securities (including any publicly issued debt securities), in privately negotiated or open market transactions, by tender offer or otherwise, or extend or refinance any of our outstanding indebtedness.

Principal factors that could affect the availability of our internally generated funds include:

- · changes in sales due to weakness in markets in which we sell our products and services, and
- changes in our working capital requirements.

Principal factors that could affect our ability to obtain cash from external sources include:

- financial covenants contained in the financial instruments controlling our borrowings that limit our total borrowing capacity,
- increases in interest rates applicable to our outstanding variable rate debt,
- a ratings downgrade that could limit the amount we can borrow under our senior unsecured revolving credit facility and our overall access to the corporate debt market,

- increases in interest rates or credit spreads, as well as limitations on the availability of credit, that affect our ability to borrow under future potential facilities on a secured or unsecured basis,
- a decrease in the market price for our common stock, and
- volatility in the public debt and equity markets.

Cash Flows

Fiscal Year 2022 Compared to Fiscal Year 2021

Operating Activities. Net cash provided by continuing operations was \$672.5 million for fiscal year 2022, as compared to \$1,330.2 million for fiscal year 2021, a decrease of \$657.7 million. The cash provided by operating activities for fiscal year 2022 was principally a result of income from continuing operations of \$512.7 million, adjustments for non-cash charges aggregating to \$422.8 million, including depreciation and amortization of \$427.0 million, and a net cash decrease in working capital of \$263.0 million. During fiscal year 2022, we contributed \$6.6 million, in the aggregate, to pension plans outside of the United States.

Investing Activities. Net cash used in the investing activities of our continuing operations was \$116.9 million for fiscal year 2022, as compared to \$4,089.8 million for fiscal year 2021, a decrease of \$3,972.9 million. For fiscal year 2022, we used \$7.5 million of net cash for acquisitions, as compared to \$3,982.2 million used in fiscal year 2021. Capital expenditures for fiscal year 2022 were \$85.6 million, primarily for manufacturing equipment and other capital equipment purchases, as compared to \$86.0 million for fiscal year 2021. During fiscal year 2022, we purchased investments amounting to \$47.2 million as compared to \$23.1 million in fiscal year 2021. These items were partially offset by \$14.5 million in proceeds from disposition of businesses and assets in fiscal year 2022, as compared to \$1.5 million in fiscal year 2021. In addition, proceeds from notes receivable were \$8.9 million in fiscal year 2022. Proceeds from surrender of life insurance policies were \$0.1 million in fiscal year 2021.

Financing Activities. Net cash used in the financing activities of our continuing operations was \$661.8 million for fiscal year 2022, as compared to net cash provided by the financing activities of our continuing operations of \$2,941.7 million for fiscal year 2021, an increase of \$3,603.5 million in net cash used in financing activities. The cash used in financing activities during fiscal year 2022 was primarily a result of payments of borrowings, repurchases of our common stock, payments of dividends and settlement of cash flow hedges. During fiscal year 2022, we made net payments on our borrowings of \$559.2 million, as compared to net proceeds from borrowings of \$3,043.0 million during fiscal year 2021. The changes reflect financing transactions in fiscal year 2021 to finance acquisitions and to refinance borrowings as compared to paying down debt in fiscal year 2022, which we expect to continue throughout fiscal year 2023. During fiscal year 2021, we repurchased shares of our common stock for a total cost of \$80.6 million, as compared to \$73.1 million in fiscal year 2021. During fiscal year 2022, we paid \$35.3 million in dividends as compared to \$32.4 million for fiscal year 2021. We paid \$0.8 million in settlement of hedges during fiscal year 2022 as compared to \$4.5 million for fiscal year 2021. In addition, we paid \$14.3 million for settlement of a swap and \$2.2 million for acquisition-related contingent consideration in fiscal year 2021. The cash used in financing activities during fiscal year 2022 was partially offset by proceeds from the issuance of common stock under our stock plans of \$14.1 million during fiscal year 2022, as compared to \$25.1 million for fiscal year 2021.

Fiscal Year 2021 Compared to Fiscal Year 2020

Operating Activities. Net cash provided by continuing operations was \$1,330.2 million for fiscal year 2021, as compared to \$704.7 million for fiscal year 2020, an increase of \$625.5 million. The cash provided by operating activities for fiscal year 2021 was principally a result of income from continuing operations of \$889.4 million, adjustments for non-cash charges aggregating to \$307.8 million, including depreciation and amortization of \$311.4 million, and a net cash increase in working capital of \$133.0 million. During fiscal year 2021, \$1.7 million of contingent consideration payments were included in operating activities. During fiscal year 2021, we contributed \$6.9 million, in the aggregate, to pension plans outside of the United States and \$20.0 million to our defined benefit pension plan in the United States.

Investing Activities. Net cash used in the investing activities of our continuing operations was \$4,089.8 million for fiscal year 2021, as compared to \$490.6 million for fiscal year 2020, an increase of \$3,599.2 million. For fiscal year 2021, we used \$3,982.2 million of net cash for acquisitions, as compared to \$411.5 million used in fiscal year 2020. Capital expenditures for fiscal year 2021 were \$86.0 million, primarily for manufacturing equipment and other capital equipment purchases, as compared to \$63.6 million for fiscal year 2020. During fiscal year 2021, we purchased investments amounting to \$23.1 million as compared to \$20.1 million in fiscal year 2020. These items were partially offset by \$1.5 million in proceeds from disposition of businesses and assets in fiscal year 2021, as compared to \$4.3 million in fiscal year 2020, and by proceeds from surrender of life insurance policies of \$0.1 million in fiscal year 2021, as compared to \$0.3 million in fiscal year 2020.

Financing Activities. Net cash provided by the financing activities of our continuing operations was \$2,941.7 million for fiscal year 2021, as compared to net cash used in the financing activities of our continuing operations of \$202.9 million for fiscal year 2020, an increase of \$3,144.5 million in net cash provided by financing activities. The cash provided by financing activities during fiscal year 2021 was primarily a result of net proceeds from borrowings and proceeds from the issuance of common stock under stock plans. During fiscal year 2021, we had net proceeds from borrowings of \$3,043.0 million, as compared to net payments on borrowings of \$187.5 million during fiscal year 2020. The changes reflect financing transactions in fiscal year 2021 to finance acquisitions and to refinance borrowings as compared to paying down debt in fiscal year 2020. Proceeds from the issuance of common stock under our stock plans were \$25.1 million during fiscal year 2021, as compared to \$37.7 million for fiscal year 2020. The cash provided by financing activities during fiscal year 2021 was partially offset by repurchases of our common stock, payments of dividends, settlement of swaps, settlement of cash flow hedges and payments for acquisition-related contingent consideration. During fiscal year 2021, we repurchased shares of common stock for a total cost of \$73.1 million, as compared to \$6.9 million in fiscal year 2020. During fiscal year 2021, we paid \$32.4 million in dividends as compared to \$31.2 million for fiscal year 2020. During fiscal year 2021, we paid \$14.3 million for settlement of a swap. We paid \$4.5 million in settlement of hedges during fiscal year 2021 as compared to \$4.6 million for fiscal year 2020. During fiscal year 2021, we paid \$2.2 million for acquisition-related contingent consideration as compared to \$10.4 million in fiscal year 2020.

Borrowing Arrangements

During fiscal year 2022, we repaid the full \$500.0 million principal amount of the term loan facility. Since the beginning of the third quarter of fiscal year 2022, we have repurchased \$32.9 million and \$78.8 million in aggregate principal amount of our 0.550% senior unsecured notes due in September 2023 (the "2023 Notes") and 0.850% senior unsecured notes due in September 2024 (the "2024 Notes"), respectively, in open market transactions. We expect to complete the repayment of the \$467.1 million in outstanding 2023 Notes in fiscal year 2023. We expect to continue repurchasing outstanding 2024 Notes from time to time, subject to market conditions. See Note 13, *Debt*, in the Notes to Consolidated Financial Statements for a detailed discussion of our borrowing arrangements.

Dividends

Our Board of Directors (our "Board") declared a regular quarterly cash dividend of \$0.07 per share in each quarter of fiscal years 2022, 2021 and 2020, resulting in an annual dividend rate of \$0.28 per share. At January 1, 2023, we had accrued \$8.8 million for a dividend declared in October 2022 for the fourth quarter of fiscal year 2022 that was paid in February 2023. On January 26, 2023, we announced that our Board had declared a quarterly dividend of \$0.07 per share for the first quarter of fiscal year 2023 that will be payable in May 2023. In the future, our Board may determine to reduce or eliminate our common stock dividend in order to fund investments for growth, repurchase shares or conserve capital resources.

Capital Expenditures

During fiscal year 2023, we expect to invest an amount for capital expenditures similar to that in fiscal year 2022, primarily to introduce new products, to improve our operating processes, to shift the production capacity to lower cost locations, and to develop information technology. We expect to use our available cash and internally generated funds to fund these expenditures.

Other Potential Liquidity Considerations

At January 1, 2023, we had cash and cash equivalents of \$454.4 million, of which \$385.4 million was held by our non-U.S. subsidiaries, and we had \$1.5 billion of additional borrowing capacity available under a senior unsecured revolving credit facility. We had no other liquid investments at January 1, 2023.

We utilize a variety of tax planning and financing strategies to ensure that our worldwide cash is available in the locations in which it is needed. We use our non-U.S. cash for needs outside of the United States including foreign operations, capital investments, acquisitions and repayment of debt. In addition, we transfer cash to the United States using nontaxable returns of capital, distributions of previously taxed income, as well as dividends, where the related income tax cost is managed efficiently. We have accrued tax expense on the unremitted earnings of foreign subsidiaries as required by the Tax Cuts and Jobs Act of 2017 (the "Tax Act") and where the foreign earnings are not considered permanently reinvested. In accordance with the Tax Act, we are making scheduled annual cash payments on our accrued transition tax.

As of January 1, 2023, we evaluated our undistributed foreign earnings and identified approximately \$879.0 million in earnings that we do not consider to be permanently reinvested. We have recorded a provision of approximately \$15.8 million for taxes that would fall due when such earnings are repatriated. We began repatriating foreign earnings to the United States in the first quarter of fiscal year 2022 and expect to continue the repatriation in fiscal year 2023. There are no other undistributed

foreign earnings and outside basis differences for which we have not provided for any taxes as these amounts continue to be indefinitely reinvested, and it is not practicable to estimate the amount of deferred tax liability that would be incurred.

On July 31, 2020, our Board authorized us to repurchase shares of common stock for an aggregate amount up to \$250.0 million under a stock repurchase program (the "Repurchase Program"). On July 22, 2022, the Repurchase Program was terminated by our Board and the Board authorized us to repurchase shares of common stock for an aggregate amount up to \$300.0 million under a new stock repurchase program (the "New Repurchase Program"). No shares remain available for repurchase under the Repurchase Program due to its termination. The New Repurchase Program will expire on July 22, 2024 unless terminated earlier by our Board and may be suspended or discontinued at any time. During fiscal year 2022, we repurchased 240,000 shares of common stock under the Repurchase Program for an aggregate cost of \$43.4 million. During fiscal year 2022, we repurchased 138,025 shares of common stock under the New Repurchase Program for an aggregate cost of \$41.1 million. As of January 1, 2023, \$280.9 million remained available for aggregate repurchases of shares under the New Repurchase Program.

In addition, our Board has authorized us to repurchase shares of common stock to satisfy minimum statutory tax withholding obligations in connection with the vesting of restricted stock awards and restricted stock unit awards granted pursuant to our equity incentive plans and to satisfy obligations related to the exercise of stock options made pursuant to our equity incentive plans. During fiscal year 2022, we repurchased 115,247 shares of common stock for this purpose at an aggregate cost of \$18.1 million. During fiscal year 2021, we repurchased 71,248 shares of common stock for this purpose at an aggregate cost of \$10.5 million.

The repurchased shares have been reflected as additional authorized but unissued shares, with the payments reflected in common stock and capital in excess of par value. Any repurchased shares will be available for use in connection with corporate programs. If we continue to repurchase shares, the New Repurchase Program will be funded using our existing financial resources, including cash and cash equivalents, and our existing senior unsecured revolving credit facility.

As of January 1, 2023, we may have to pay contingent consideration, related to acquisitions with open contingency periods, of up to \$106.2 million. As of January 1, 2023, we have recorded contingent consideration obligations of \$46.6 million, of which \$3.6 million was recorded in accrued expenses and other current liabilities, and \$43.0 million was recorded in long-term liabilities. The expected maximum earnout period for acquisitions with open contingency periods is 5.9 years from January 1, 2023, and the remaining weighted average expected earnout period at January 1, 2023 was 4.9 years.

Distressed global financial markets could adversely impact general economic conditions by reducing liquidity and credit availability, creating increased volatility in security prices, widening credit spreads and decreasing valuations of certain investments. The widening of credit spreads may create a less favorable environment for certain of our businesses and may affect the fair value of financial instruments that we issue or hold. Increases in credit spreads, as well as limitations on the availability of credit at rates we consider to be reasonable, could affect our ability to borrow under future potential facilities on a secured or unsecured basis, which may adversely affect our liquidity and results of operations. In difficult global financial markets, we may be forced to fund our operations at a higher cost, or we may be unable to raise as much funding as we need to support our business activities.

Our pension plans have not experienced a material impact on liquidity or counterparty exposure due to the volatility and uncertainty in the credit markets. With respect to plans outside of the United States, we expect to contribute \$6.8 million in the aggregate during fiscal year 2023. During fiscal year 2023, we contributed \$10.0 million to our defined benefit pension plan in the United States for the plan year 2022. During fiscal years 2022, 2021 and 2020, we contributed \$6.6 million, \$6.9 million and \$7.5 million in the aggregate, respectively, to pension plans outside of the United States. During fiscal year 2021, we contributed \$20.0 million to our defined benefit pension plan in the United States. We could potentially have to make additional funding payments in future periods for all pension plans. We expect to use existing cash and external sources to satisfy future contributions to our pension plans.

We are conducting a number of environmental investigations and remedial actions at our current and former locations, and are subject to various claims, legal proceedings and investigations covering a wide range of matters that arise in the ordinary course of our business activities. Although we have established accruals for potential losses that we believe are probable and reasonably estimable, in our opinion, based on our review of the information available at this time, the total cost of resolving these contingencies at January 1, 2023 should not have a material adverse effect on our consolidated financial statements included in this annual report on Form 10-K. However, each of these matters is subject to uncertainties, and it is possible that some of these matters may be resolved unfavorably to us. See "Business—Environmental Matters" above and Note 16, *Contingencies*, in the Notes to Consolidated Financial Statements for a discussion of these matters and proceedings.

Effects of Recently Issued and Adopted Accounting Pronouncements

See Note 1, *Nature of Operations and Accounting Policies*, in the Notes to Consolidated Financial Statements for a summary of recently issued accounting pronouncements. We did not adopt any new accounting pronouncements during the fiscal year 2022. We do not believe that any recently issued accounting pronouncements that have not yet been adopted will have a material impact on our consolidated financial statements.

Application of Critical Accounting Policies and Estimates

The preparation of consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates, including those related to accounting for business combinations, long-lived assets, including goodwill and other intangibles and employee compensation and benefits. We base our estimates on historical experience and on various other assumptions that we believe 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.

We believe the following critical accounting policies affect our more significant judgments and estimates used in preparation of our consolidated financial statements.

Business combinations. Business combinations are accounted for at fair value. Acquisition costs are expensed as incurred and recorded in selling, general and administrative expenses; restructuring costs associated with a business combination are expensed subsequent to the acquisition date; and changes in deferred tax asset valuation allowances and income tax uncertainties after the acquisition date affect income tax expense. Measurement period adjustments are made in the period in which the amounts are determined and the current period income effect of such adjustments will be calculated as if the adjustments had been completed as of the acquisition date. All changes that do not qualify as measurement period adjustments are also included in current period earnings. The accounting for business combinations requires estimates and judgment as to expectations for future cash flows of the acquired business, and the allocation of those cash flows to identifiable intangible assets, in determining the estimated fair value for assets acquired and liabilities assumed. The fair values assigned to tangible and intangible assets acquired and liabilities assumed, including contingent consideration, are based on management's estimates and assumptions, as well as other information compiled by management, including valuations that utilize customary valuation procedures and techniques. For intangible assets, we normally utilize the "income method" which incorporates the forecast of all the expected future net cash flows attributable to the subject intangible asset, adjusted to present value by applying an appropriate discount rate that reflects the risk factors associated with the cash flow streams. Depending on the asset valued, the key assumptions included one or more of the following: (1) future revenue growth rates, (2) future gross margin, (3) future selling, general and administrative expenses, (4) royalty rates, (5) customer attrition rates, and (6) discount rates. If the actual results differ from the estimates and judgments used in these estimates, the amounts recorded in the financial statements could result in a possible impairment of the intangible assets and goodwill, require acceleration of the amortization expense of finitelived intangible assets, or the recognition of additional consideration which would be expensed. The fair value of contingent consideration is remeasured each period based on relevant information and changes to the fair value are included in the operating results for the period.

Value of long-lived assets, including goodwill and other intangibles. We carry a variety of long-lived assets on our consolidated balance sheets including property and equipment, operating lease right of use assets, investments, identifiable intangible assets, and goodwill. We periodically review the carrying value of all of these assets based, in part, upon current estimates of fair values and our projections of anticipated future cash flows. We undertake this review (i) on an annual basis for assets such as goodwill and non-amortizing intangible assets and (ii) on a periodic basis for other long-lived assets when facts and circumstances suggest that cash flows related to those assets may be diminished. Any impairment charge that we record reduces our earnings.

For goodwill, the test consists of the comparison of the fair value to the carrying value of the reporting unit to determine if the carrying value exceeds the fair value. If the carrying value of the reporting unit exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of goodwill. We perform the annual impairment assessment on the later of January 1 or the first day of each fiscal year. This same impairment test will be performed at other times during the course of the year should an event occur which suggests that the recoverability of goodwill should be reconsidered. We completed the annual goodwill impairment test using a measurement date of January 3, 2022, and concluded that there was no goodwill impairment. At January 3, 2022, the fair value exceeded the carrying value by more than 20.0% for each reporting unit. The range of the long-term terminal growth rates for the reporting units was 2.0% to 5.0% for the fiscal year 2022 impairment analysis. The range for the discount rates for the reporting units was 7.0% to 11.5%. Keeping all other variables

constant, a 10.0% change in any one of these input assumptions for the various reporting units would still allow us to conclude that there was no impairment of goodwill.

In connection with the fiscal year 2023 impairment test performed as of January 2, 2023, the Tulip and EUROIMMUN reporting units, which had goodwill balances of \$74.4 million and \$572.0 million, respectively, at January 1, 2023, had fair values that exceeded their carrying values by less than 20%. These reporting units are at increased risk of an impairment charge given the higher discount rates, competition and, to some extent, the recent impacts of the COVID-19 pandemic. Despite the increased impairment risk associated with these reporting units, we do not believe there will be a significant change in the key estimates or assumptions driving the fair value of these reporting units that would lead to a material impairment charge.

We consistently employ the income approach to estimate the current fair value when testing for impairment of goodwill. A number of significant assumptions and estimates are involved in the application of the income approach to forecast operating cash flows, including markets and market share, sales volumes and prices, costs to produce, tax rates, capital spending, discount rates and working capital changes. Cash flow forecasts are based on approved business unit operating plans for the early years' cash flows and historical relationships in later years. The income approach is sensitive to changes in long-term terminal growth rates and the discount rates. The long-term terminal growth rates are consistent with our historical long-term terminal growth rates, as the current economic trends are not expected to affect our long-term terminal growth rates. We corroborate the income approach with a market approach. While we believe that our estimates of current value are reasonable, if actual results differ from the estimates and judgments used including such items as future cash flows and the volatility inherent in markets which we serve, impairment charges against the carrying value of those assets could be required in the future.

Employee compensation and benefits. We sponsor both funded and unfunded U.S. and non-U.S. defined benefit pension plans and other postretirement benefits. Retirement and postretirement benefit plans are a significant cost of doing business, and represent obligations that will be ultimately settled far in the future, and therefore are subject to estimation. Retirement and postretirement benefit plan expenses are allocated to cost of revenue, research and development, and selling, general and administrative expenses, in our consolidated statements of operations. We immediately recognize actuarial gains and losses in operating results in the year in which the gains and losses occur. Actuarial gains and losses are measured annually as of the calendar month-end that is closest to our fiscal year end and accordingly will be recorded in the fourth quarter, unless we are required to perform an interim remeasurement.

We recognized gains of \$28.3 million and \$30.9 million in fiscal years 2022 and 2021, respectively, for our retirement and postretirement benefit plans, which include the gains from the immediate recognition of the actuarial gains and losses for the benefit plans, which were recorded in the fourth quarter of each fiscal year. The loss or income related to the immediate recognition of the actuarial gains and losses on benefit plans were pre-tax gains of \$28.9 million and \$24.7 million fiscal years 2022 and 2021, respectively. We expect an expense of approximately \$13.3 million in fiscal year 2023 for our retirement and postretirement benefit plans, excluding any actuarial gains and losses. It is difficult to reliably calculate and predict the amount of any actuarial gains and losses in fiscal year 2023 as these gains and losses are primarily driven by events and circumstances beyond our control, including changes in interest rates, the performance of the financial markets and mortality assumptions. To the extent the discount rates decrease or the value of our pension and postretirement investments decrease, actuarial losses will impact our operating results. Conversely, to the extent the discount rates increase or the value of our pension and postretirement investments increase more than expected, actuarial gains will favorably impact our operating results. Pension accounting is intended to reflect the recognition of future benefit costs over the employee's approximate service period based on the terms of the plans and the investment and funding decisions made. We are required to make assumptions regarding such variables as the expected long-term rate of return on assets, the discount rate applied and mortality assumptions, to determine service cost and interest cost, in order to arrive at expected pension income or expense for the year. We use discount rates for each individual plan based upon the expected cash flows using the applicable spot rates derived from a yield curve over the projected cash flow period.

If any of our assumptions were to change as of January 1, 2023, our pension plan expenses would also change as follows:

		 Increase (D January	
	Percentage Point Change	Non-U.S.	 U.S.
Pension plans discount rate	+0.25	\$ (6,847)	\$ (4,763)
	-0.25	7,229	4,946

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Quantitative and Qualitative Disclosures about Market Risk

Financial Instruments

Financial instruments that potentially subject us to concentrations of credit risk consist principally of temporary cash investments, derivatives, marketable securities and accounts receivable. We believe we had no significant concentrations of credit risk as of January 1, 2023.

We use derivative instruments as part of our risk management strategy only, and includes derivatives utilized as economic hedges that are not designated as hedging instruments. By nature, all financial instruments involve market and credit risks. We enter into derivative instruments with major investment grade financial institutions and have policies to monitor the credit risk of those counterparties. We do not enter into derivative contracts for trading or other speculative purposes, nor do we use leveraged financial instruments.

In the ordinary course of business, we enter into foreign exchange contracts for periods consistent with its committed exposures to mitigate the effect of foreign currency movements on transactions denominated in foreign currencies. The intent of these economic hedges is to offset gains and losses that occur on the underlying exposures from these currencies, with gains and losses resulting from the forward currency contracts that hedge these exposures. Transactions covered by hedge contracts include intercompany and third-party receivables and payables. The contracts are primarily in European and Asian currencies, have maturities that do not exceed 12 months, have no cash requirements until maturity, and are recorded at fair value on our consolidated balance sheets. The unrealized gains and losses on these foreign currency contracts are recognized immediately in interest and other expense, net. The cash flows related to the settlement of these hedges are included in cash flows from operating activities within our consolidated statements of cash flows.

Principal hedged currencies include the Australian Dollar, British Pound, Euro, Indian Rupee, Singapore Dollar and Swedish Krona. We held forward foreign exchange contracts, designated as economic hedges, with U.S. dollar equivalent notional amounts totaling \$476.9 million at January 1, 2023, \$371.9 million at January 2, 2022, and \$808.0 million at January 3, 2021, and the fair value of these foreign currency derivative contracts was insignificant. The gains and losses realized on these foreign currency derivative contracts are not material. The duration of these contracts was generally 30 days or less during each of fiscal years 2022, 2021 and 2020.

In addition, in connection with certain intercompany loan agreements utilized to finance our acquisitions and stock repurchase program, we enter into forward foreign exchange contracts intended to hedge movements in foreign exchange rates prior to settlement of such intercompany loans denominated in foreign currencies. We record these hedges at fair value on our consolidated balance sheets. The unrealized gains and losses on these hedges, as well as the gains and losses associated with the remeasurement of the intercompany loans, are recognized immediately in interest and other expense, net. The cash flows related to the settlement of these hedges are included in cash flows from financing activities within our consolidated statements of cash flows.

The outstanding forward exchange contracts designated as economic hedges, which were intended to hedge movements in foreign exchange rates prior to the settlement of certain intercompany loan agreements, included combined U.S. Dollar notional amounts of \$360.2 million as of January 2, 2022. The net gains and losses on these derivatives, combined with the gains and losses on the remeasurement of the hedged intercompany loans were not material.

During fiscal year 2018, we designated a portion of the 2026 Notes to hedge our investments in certain foreign subsidiaries. Unrealized translation adjustments from a portion of the 2026 Notes were included in the foreign currency translation component of accumulated other comprehensive income ("AOCI"), which offsets translation adjustments on the underlying net assets of foreign subsidiaries. The cumulative translation gains or losses will remain in AOCI until the foreign subsidiaries are liquidated or sold. As of January 1, 2023, the total notional amount of the 2026 Notes that was designated to hedge investments in foreign subsidiaries was €497.2 million. The unrealized foreign exchange (gains) losses recorded in AOCI related to the net investment hedge were \$(34.5) million, \$33.2 million and \$49.6 million during the fiscal years 2022, 2021 and 2020, respectively.

We do not expect any material net pre-tax gains or losses to be reclassified from accumulated other comprehensive (loss) income into interest and other expense, net within the next twelve months.

See Note 19, *Derivatives and Hedging Activities*, in the Notes to Consolidated Financial Statements for a detailed discussion of our derivative instruments and hedging activities.

Market Risk

Market Risk. We are exposed to market risk, including changes in interest rates and currency exchange rates. To manage the volatility relating to these exposures, we enter into various derivative transactions pursuant to our policies to hedge against known or forecasted market exposures.

Foreign Exchange Risk. The potential change in foreign currency exchange rates offers a substantial risk to us, as approximately 55% of our business is conducted outside of the United States, generally in foreign currencies. Our risk management strategy currently uses forward contracts to mitigate certain balance sheet foreign currency transaction exposures. The intent of these economic hedges is to offset gains and losses that occur on the underlying exposures, with gains and losses resulting from the forward contracts that hedge these exposures. Moreover, we are able to partially mitigate the impact that fluctuations in currencies have on our net income as a result of our manufacturing facilities located in countries outside the United States, material sourcing and other spending which occur in countries outside the United States, resulting in natural hedges.

Although we attempt to manage our foreign currency exchange risk through the above activities, when the U.S. dollar weakens against other currencies in which we transact business, sales and net income will in general be positively but not proportionately impacted. Conversely, when the U.S. dollar strengthens against other currencies in which we transact business, sales and net income will in general be negatively but not proportionately impacted.

Foreign Currency Risk—Value-at-Risk Disclosure. We utilize a Value-at-Risk model to determine the potential earning/fair value exposures presented by our foreign currency related financial instruments. As discussed above, we seek to minimize this exposure through our hedging program. Our Value-at-Risk computation is based on the Monte Carlo simulation, utilizing a 95% confidence interval and a holding period of 30 days. As of January 1, 2023, this computation estimated that there is a 5% chance that the market value of the underlying exposures and the corresponding derivative instruments either increase or decrease due to foreign currency fluctuations by more than \$3.1 million. This Value-At-Risk measure is consistent with our financial statement disclosures relative to our foreign currency hedging program. Specifically, during each of the four quarters ended in fiscal year 2022, the Value-At-Risk ranged between \$1.3 million and \$3.1 million, with an average of approximately \$2.1 million.

Interest Rate Risk. As of January 1, 2023, we had no outstanding borrowings under our senior unsecured revolving credit facility. Amounts drawn under our senior unsecured revolving credit facility bear interest at variable rates; all of our other debt bear interest at fixed rates. Our cash and cash equivalents from continuing operations, for which we receive interest at variable rates, were \$454.4 million at January 1, 2023. Fluctuations in interest rates can therefore have a direct impact on both our short-term cash flows, as they relate to interest, and our earnings. To manage the volatility relating to these exposures, we periodically enter into various derivative transactions pursuant to our policies to hedge against known or forecasted interest rate exposures. However, no such instruments are outstanding at January 1, 2023.

Interest Rate Risk-Sensitivity. Our current earnings exposure for changes in interest rates can be summarized as follows:

(i) Changes in interest rates can cause our interest expense and cash flows to fluctuate to the extent we have borrowing outstanding on our revolving credit facility.

(ii) Changes in interest rates can cause our interest income and cash flows to fluctuate.

We believe that we do not have any material exposure of interest rate risk.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of PerkinElmer, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of PerkinElmer, Inc. and subsidiaries (the "Company") as of January 1, 2023 and January 2, 2022 and the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended January 1, 2023 and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of January 1, 2023 and January 2, 2022, and the results of its operations and its cash flows for each of the three years in the period ended January 2, 2022, and the results of its operations and its cash flows for each of the three years in the period ended January 1, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of January 1, 2023, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 1, 2023 expressed an unqualified opinion on the Company's internal control over financial reporting.

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 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. 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 critical audit matters 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.

Discontinued Operations - Refer to Notes 1 and 4 to the financial statements

Critical Audit Matter Description

In August 2022, the Company entered into a definitive agreement to sell certain assets and the equity interests of certain entities constituting the Analytical, Food and Enterprise Services businesses (the "Business"). At that time, management determined that the proposed sale met the criteria for the Business to be classified as held-for-sale and the results of operations and cashflows of the Business was presented as discontinued operations for all periods presented in accordance with Accounting Standard Codification 205-20, *Discontinued Operations* ("ASC 205-20").

The net assets of the Business were \$1.42 billion and \$1.40 billion as of January 1, 2023 and January 2, 2022, respectively.

Given the level of operational and financial integration between the Business and the continuing operations of the Company, auditing the segregation of assets and liabilities of the Business and the identification of the results of operation and cashflows of the Business required both extensive audit effort and a high degree of auditor judgment.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the identification and measurement of the net assets of the Business and the related results of operations and cashflows presented as discontinued operations included the following, among others:

- We tested the effectiveness of controls over the identification of the net assets, results of operations and cash flows included in the Company's discontinued operations presentation.
- We obtained and read the purchase and sale agreement for the proposed sale and compared the terms of that agreement to the identification of the assets and liabilities included in the disposal group.
- We assessed the Company's identification of assets and liabilities and the related operations and cash flows of the Business by testing the completeness and accuracy of the Company's accounting data and schedules that segregate the Business from the continuing operations of the Company.
- We assessed the presentation and disclosures related to the discontinued operations to ensure proper application of ASC 205-20.

/s / DELOITTE & TOUCHE LLP

Boston, Massachusetts March 1, 2023

We have served as the Company's auditor since 2002.

CONSOLIDATED STATEMENTS OF OPERATIONS

	January 1, 2023			January 2, 2022		January 3, 2021
	(In thousands, except per share dat				ata)	
Revenue						
Product revenue	\$	2,634,582	\$	2,735,068	\$	2,280,853
Service revenue		677,240		1,092,740		382,377
Total revenue		3,311,822		3,827,808		2,663,230
Cost of product revenue		1,150,402		1,129,223		794,405
Cost of service revenue		171,590		264,598		138,646
Selling, general and administrative expenses		1,025,514		975,193		716,465
Research and development expenses		221,617		200,337		146,441
Operating income from continuing operations		742,699		1,258,457		867,273
Interest and other expense, net		90,862		54,875		67,201
Income from continuing operations before income taxes		651,837		1,203,582		800,072
Provision for income taxes		139,161		314,146		169,512
Income from continuing operations		512,676		889,436		630,560
Income from discontinued operations before income taxes		73,604		76,304		106,292
Loss on disposition of discontinued operations before income taxes						(76)
Provision for income taxes on discontinued operations		17,101		22,583		8,889
Income from discontinued operations		56,503		53,721		97,327
Net income	\$	569,179	\$	943,157	\$	727,887
Basic earnings per share:			_			
Income from continuing operations	\$	4.06	\$	7.66	\$	5.65
Income from discontinued operations		0.45		0.46		0.87
Net income	\$	4.51	\$	8.12	\$	6.52
Diluted earnings per share:					_	
Income from continuing operations	\$	4.06	\$	7.62	\$	5.63
Income from discontinued operations		0.45		0.46		0.87
Net income	\$	4.50	\$	8.08	\$	6.49

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	January 1, 2023		January 2, 2022		January 3, 2021
		(I	n thousands)		
Net income	\$ 569,179	\$	943,157	\$	727,887
Other comprehensive (loss) income					
Foreign currency translation adjustments, net of tax	(284,854)		(130,873)		169,500
Unrecognized prior service credit (cost), net of tax	44		(95)		(1,799)
Unrealized gains (losses) on securities, net of tax	5		237		(16)
Other comprehensive (loss) income	 (284,805)		(130,731)		167,685
Comprehensive income	\$ 284,374	\$	812,426	\$	895,572

CONSOLIDATED BALANCE SHEETS

		January 1, 2023		January 2, 2022
		(In thousand and per s		
Current assets:				
Cash and cash equivalents	\$	454,358	\$	603,320
Accounts receivable, net		612,780		707,941
Inventories		405,462		425,890
Other current assets		122,254		148,255
Current assets of discontinued operations		1,693,704		555,374
Total current assets		3,288,558		2,440,780
Property, plant and equipment, net		482,950		485,531
Operating lease right-of-use assets		188,351		164,040
Intangible assets, net		3,377,174		3,821,847
Goodwill		6,481,768		6,627,119
Other assets, net		311,054		317,069
Long-term assets of discontinued operations		_		1,144,168
Total assets	\$	14,129,855	\$	15,000,554
Current liabilities:	_		_	
Current portion of long-term debt	\$	470,929	\$	4,240
Accounts payable		272,826		324,811
Accrued expenses and other current liabilities		527,863		679,099
Current liabilities of discontinued operations		272,865		205,594
Total current liabilities	_	1,544,483		1,213,744
Long-term debt		3,923,347		4,979,737
Deferred taxes and other long-term liabilities		1,109,181		1,426,731
Operating lease liabilities		169,968		147,395
Long-term liabilities of discontinued operations				91,702
Total liabilities		6,746,979		7,859,309
Commitments and contingencies (see Note 16)				, ,
Stockholders' equity:				
Preferred stock—\$1 par value per share, authorized 1,000,000 shares; none issued or outstanding				_
Common stock—\$1 par value per share, authorized 300,000,000 shares; issued and outstanding 126,300,000 and 126,241,000 shares at January 1, 2023 and January 2, 2022, respectively		126,300		126,241
Capital in excess of par value		2,753,055		2,760,522
Retained earnings		4,951,018		4,417,174
Accumulated other comprehensive loss		(447,497)		(162,692)
Total stockholders' equity		7,382,876		7,141,245
Total liabilities and stockholders' equity	\$	14,129,855	\$	15,000,554
indiance and seconditioners equity	Ψ	11,127,000	Ψ	10,000,001

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock Shares	Common Stock Amount	Capital in Excess of Par Value	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
Balance, December 30, 2019	111,140	\$ 111,140		thousands) \$ 2,811,973	\$ (199,646)	\$ 2,813,824
Impact of adopting ASU 2016-13	111,140	\$ 111,140	\$ 90,557	\$ 2,011,975	\$ (199,040)	\$ 2,015,024
impact of adopting ASO 2010-15	—			(1,328)	_	(1,328)
Net income	—			727,887		727,887
Other comprehensive income					167,685	167,685
Dividends	—		_	(31,270)		(31,270)
Exercise of employee stock options	764	764	36,907	_	_	37,671
Issuance of common stock for employee stock purchase plans	39	39	4,062	_	_	4,101
Purchases of common stock	(72)	(72)	(6,872)			(6,944)
Issuance of common stock for long-term incentive program	219	219	19,985	_		20,204
Stock-based compensation	_		3,662	_		3,662
Balance, January 3, 2021	112,090	\$ 112,090	\$ 148,101	\$ 3,507,262	\$ (31,961)	
Net income				943,157		943,157
Other comprehensive loss			_		(130,731)	(130,731)
Dividends				(33,245)		(33,245)
Issuance of common stock for business combination, net of issuance costs	14,067	14,067	2,624,077	_	_	2,638,144
Exercise of employee stock options	358	358	24,762		_	25,120
Issuance of common stock for employee benefit plans	21	21	3,607	_	_	3,628
Purchases of common stock	(504)	(504)	(72,568)	_		(73,072)
Issuance of common stock for long-term incentive program	209	209	26,292		_	26,501
Stock compensation			6,251			6,251
Balance, January 2, 2022	126,241	\$ 126,241	\$ 2,760,522	\$ 4,417,174	\$ (162,692)	\$ 7,141,245
Net income		_	_	569,179		569,179
Other comprehensive loss					(284,805)	(284,805)
Dividends	—	—	_	(35,335)	—	(35,335)
Exercise of employee stock options	195	195	13,919		_	14,114
Issuance of common stock for employee stock purchase plans	31	31	4,141			4,172
Purchases of common stock	(493)	(493)	(80,145)			(80,638)
Issuance of common stock for long-term incentive program	326	326	44,235			44,561
Stock-based compensation			10,383			10,383
Balance, January 1, 2023	126,300	\$ 126,300	\$ 2,753,055	\$ 4,951,018	\$ (447,497)	\$ 7,382,876

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Fiscal Years Ended

	January 1, 2023	January 2, 2022	January 3, 2021
		(In thousands)	
Operating activities:			
Net income	\$ 569,179	\$ 943,157	\$ 727,887
Income from discontinued operations	(56,503)	(53,721)	(97,327)
Income from continuing operations	512,676	889,436	630,560
Adjustments to reconcile income from continuing operations to net cash provided by continuing operations:			
Restructuring and other costs, net	13,580	14,358	7,661
Depreciation and amortization	427,000	311,443	201,648
Stock-based compensation	51,518	29,675	26,904
Pension and other post-retirement (income) expense	(23,104)	(28,509)	14,904
Change in fair value of contingent consideration	(1,377)	3,119	(8,827)
Deferred taxes	(105,923)	(55,328)	(35,338)
Contingencies and non-cash tax matters	(1,488)	1,924	4,518
Amortization of deferred debt issuance costs and accretion of discounts	7,310	4,962	3,391
(Gain) loss on disposition of businesses and assets, net	(2,887)	(1,970)	886
Amortization of acquired inventory revaluation	45,289	35,201	1,831
Asset impairment		3,868	7,937
Change in fair value of financial securities	15,754	(10,985)	(35)
Debt extinguishment gain	(2,880)		
Changes in assets and liabilities which provided (used) cash, excluding effects from companies acquired:			
Accounts receivable, net	66,093	165,590	(398,853)
Inventories	(48,634)	32,280	(127,357)
Accounts payable	(43,804)	(7,577)	63,231
Accrued expenses and other	(236,623)	(57,303)	311,659
Net cash provided by operating activities of continuing operations	672,500	1,330,184	704,720
Net cash provided by operating activities of discontinued operations	7,310	80,566	187,457
Net cash provided by operating activities	679,810	1,410,750	892,177
Investing activities:			
Capital expenditures	(85,632)	(86,020)	(63,634)
Purchases of investments	(47,181)	(23,130)	(20,059)
Proceeds from notes receivables	8,890		_
Proceeds from disposition of businesses and assets	14,505	1,460	4,280
Proceeds from surrender of life insurance policies	_	109	282
Cash paid for acquisitions, net of cash acquired	(7,518)	(3,982,216)	(411,495)
Net cash used in investing activities of continuing operations	(116,936)	(4,089,797)	(490,626)
Net cash used in investing activities of discontinued operations	(15,915)	(22,961)	(13,872)
Net cash used in investing activities	(132,851)	(4,112,758)	(504,498)
Financing activities:			
Payments on borrowings	(240,000)	(1,559,133)	(897,674)
Proceeds from borrowings	240,000	1,400,282	714,698
Proceeds from term loan		500,000	

	January 1, 2023	January 2, 2022	January 3, 2021
		(In thousands)	
Payments of term loan	(500,000)		
Payments of senior unsecured notes	(57,876)	(339,605)	
Proceeds from sale of senior unsecured notes		3,086,095	
Payments of debt financing and equity issuance costs		(30,983)	
Payments on other credit facilities	(1,292)	(13,670)	(4,494)
Settlement of cash flow hedges	(762)	(4,482)	(4,554)
Settlement of swaps		(14,314)	
Payments for acquisition-related contingent consideration	(5)	(2,208)	(10,363)
Proceeds from issuance of common stock under stock plans	14,114	25,120	37,671
Purchases of common stock	(80,638)	(73,072)	(6,944)
Dividends paid	(35,344)	(32,373)	(31,212)
Net cash (used in) provided by financing activities	(661,803)	2,941,657	(202,872)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(33,747)	(22,926)	25,913
Net (decrease) increase in cash, cash equivalents and restricted cash	(148,591)	216,723	210,720
Cash, cash equivalents and restricted cash at beginning of year	619,337	402,614	191,894
Cash, cash equivalents and restricted cash at end of year	\$ 470,746	\$ 619,337	\$ 402,614
Supplemental disclosures of cash flow information			
Reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets that sum to the total shown in the consolidated statements of cash flows:			
Cash and cash equivalents	\$ 454,358	\$ 603,320	\$ 387,054
Restricted cash included in other current assets	1,040	1,018	578
Restricted cash included in other assets	349		
Cash and cash equivalents included in current assets of discontinued	14,999	14,999	14,982
Total cash, cash equivalents and restricted cash shown in the consolidated statements of cash flows	\$ 470,746	\$ 619,337	\$ 402,614
Cash paid during the year for:			
Interest	\$ 97,934	\$ 54,120	\$ 42,142
Income taxes	323,077	364,565	162,454
Supplemental disclosures of non-cash investing and financing activities:			
Equity issued for business combination, net of issuance costs	\$ —	\$ 2,638,144	\$ —

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1: Nature of Operations and Accounting Policies

Nature of Operations: PerkinElmer, Inc. is a leading provider of products, services and solutions to the diagnostics and life sciences and applied markets. The Company has two operating segments: Discovery & Analytical Solutions and Diagnostics. The Company's Discovery & Analytical Solutions segment focuses on service and innovating for customers spanning the life sciences and applied markets. The Company's Diagnostics segment is targeted towards meeting the needs of clinically-oriented customers, especially within the growing areas of reproductive health, emerging market diagnostics and applied genomics.

The consolidated financial statements include the accounts of PerkinElmer, Inc. and its subsidiaries (the "Company"). All intercompany balances and transactions have been eliminated in consolidation. In August 2022, the Company announced the proposed sale of certain assets and the equity interests of certain entities constituting the Company's Analytical, Food and Enterprise Services businesses (the "Business"). The 2021 and 2020 consolidated financial statements presented herein have been retrospectively adjusted to present the Business as discontinued operations for all periods presented.

The Company's fiscal year ends on the Sunday nearest December 31. The Company reports fiscal years under a 52/53 week format and as a result, certain fiscal years will contain 53 weeks. Each of the fiscal years ended January 1, 2023 ("fiscal year 2022") and January 2, 2022 ("fiscal year 2021") included 52 weeks. The fiscal year ended January 3, 2021 ("fiscal year 2020") included 53 weeks. The fiscal year ending December 31, 2023 ("fiscal year 2023") will include 52 weeks.

Accounting Policies and Estimates: The preparation of consolidated financial statements in accordance with United States ("U.S.") Generally Accepted Accounting Principles ("GAAP") requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, the Company evaluates its estimates. The Company bases its estimates on historical 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.

Revenue Recognition: The Company enters into contracts that can include various combinations of products and services, which are generally capable of being distinct and accounted for as separate performance obligations. The Company recognizes revenue in an amount that reflects the consideration the Company expects to receive in exchange for the promised products or services when a performance obligation is satisfied by transferring control of those products or services to customers.

Taxes that are collected by the Company from a customer and assessed by a governmental authority, that are both imposed on and concurrent with a specific revenue-producing transaction, are excluded from revenue.

The Company reports shipping and handling revenue in revenue, to the extent it is billed to customers, and the associated costs in cost of product revenue.

Inventories: Inventories, which include material, labor and manufacturing overhead, are valued at the lower of cost or market. Inventories are accounted for using the first-in, first-out method of determining inventory costs. Inventory quantities on-hand are regularly reviewed, and where necessary, provisions for excess and obsolete inventory are recorded based primarily on the Company's estimated forecast of product demand and production requirements.

Income Taxes: The Company uses the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax bases. This method also requires the recognition of future tax benefits such as net operating loss carryforwards, to the extent that realization of such benefits is more likely than not. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the fiscal years in which those temporary differences are expected to be recovered or settled. A valuation allowance is established for any deferred tax asset for which realization is not more likely than not.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions and other issues. These reserves are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is more likely than not to be realized following resolution of any potential contingencies present related to the tax benefit. Potential interest and penalties associated with such uncertain tax positions is recorded as a component of income tax expense.

Property, Plant and Equipment: The Company depreciates property, plant and equipment using the straight-line method over its estimated useful lives, which generally fall within the following ranges: buildings- 10 to 40 years; leasehold improvements - estimated useful life or remaining term of lease, whichever is shorter; and machinery and equipment- 3 to 8 years. Certain tooling costs are capitalized and amortized over a 3-year life, while repairs and maintenance costs are expensed.

Pension and Other Postretirement Benefits: The Company sponsors both funded and unfunded U.S. and non-U.S. defined benefit pension plans and other postretirement benefits. The Company immediately recognizes actuarial gains and losses in operating results in the year in which the gains and losses occur. Actuarial gains and losses are measured annually as of the calendar month-end that is closest to the Company's fiscal year end and accordingly will be recorded in the fourth quarter, unless the Company is required to perform an interim remeasurement. The remaining components of pension expense, primarily service and interest costs and assumed return on plan assets, are recorded on a quarterly basis. The Company's funding policy provides that payments to the U.S. pension trusts shall at least be equal to the minimum funding requirements of the Employee Retirement Income Security Act of 1974. Non-U.S. plans are accrued for, but generally not fully funded, and benefits are paid from operating funds.

Translation of Foreign Currencies: For foreign operations, asset and liability accounts are translated at current exchange rates; income and expenses are translated using weighted average exchange rates for the reporting period. Resulting translation adjustments, as well as translation gains and losses from certain intercompany transactions considered permanent in nature, are reported in accumulated other comprehensive income ("AOCI"), a separate component of stockholders' equity. Gains and losses arising from transactions and translation of period-end balances denominated in currencies other than the functional currency are included in other expense, net.

Business Combinations: Business combinations are accounted for at fair value. Acquisition costs are expensed as incurred and recorded in selling, general and administrative expenses. Measurement period adjustments are made in the period in which the amounts are determined and the current period income effect of such adjustments will be calculated as if the adjustments had been completed as of the acquisition date. All changes that do not qualify as measurement period adjustments are also included in current period earnings. The accounting for business combinations requires estimates and judgment as to expectations for future cash flows of the acquired business, and the allocation of those cash flows to identifiable intangible assets, in determining the estimated fair value for assets acquired and liabilities assumed. The fair values assigned to tangible and intangible assets acquired and liabilities assumed, including contingent consideration, are based on management's estimates and assumptions, as well as other information compiled by management, including valuations that utilize customary valuation procedures and techniques. If the actual results differ from the estimates and judgments used in these estimates, the amounts recorded in the financial statements could result in a possible impairment of the intangible assets and goodwill, require acceleration of the amounts are possible intangible assets, or the recognition of additional consideration which would be expensed.

Goodwill and Other Intangible Assets: The Company's intangible assets consist of (i) goodwill, which is not being amortized; (ii) indefinite lived intangibles, which consist of a trade name that is not subject to amortization; and (iii) amortizing intangibles, which consist of patents, trade names and trademarks, licenses, customer relationships and purchased technologies, which are being amortized over their estimated useful lives.

The process of testing goodwill for impairment involves the determination of the fair value of the applicable reporting units. The test consists of the comparison of the fair value to the carrying value of the reporting unit to determine if the carrying value exceeds the fair value. If the carrying value of the reporting unit exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of goodwill. This annual impairment assessment is performed by the Company on the later of January 1 or the first day of each fiscal year. Indefinite-lived intangibles are also subject to an annual impairment test. The impairment test consists of a comparison of the fair value of the indefinite-lived intangible asset with its carrying amount. If the carrying amount of an indefinite-lived intangible asset exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of the amount of the amortizing intangible asset. Amortizing intangible assets are reviewed for impairment when indicators of impairment are present. When a potential impairment has been identified, forecasted undiscounted net cash flows of the operations to which the asset relates are compared to the current carrying value of the long-lived assets present in that operation. If such cash flows are less than such carrying amounts, long-lived assets, including such intangibles, are written down to their respective fair values.

Stock-Based Compensation: The Company accounts for stock-based compensation expense based on estimated grant date fair value, generally using the Black-Scholes option-pricing model. The fair value is recognized as expense in the consolidated financial statements over the requisite service period. The determination of fair value and the timing of expense using option pricing models such as the Black-Scholes model require the input of subjective assumptions, including the expected term and the expected price volatility of the underlying stock. The Company estimates the expected term assumption based on historical

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS ---- (Continued)

experience. In determining the Company's expected stock price volatility assumption, the Company reviews both the historical and implied volatility of the Company's common stock.

Marketable Securities and Investments: Investments in debt securities that are classified as available for sale are recorded at fair value with unrealized gains and losses included in AOCI until realized. Investments in equity securities are recorded at their fair values with unrealized holding gains and losses included in earnings. Investments in equity securities without a readily determinable fair value are carried at cost minus impairment, if any. When an observable price change in orderly transactions for the identical or a similar investment of the same issuer has occurred, the Company elects to carry those equity investments at fair value as of the date that the observable transaction occurred.

Cash and Cash Equivalents: The Company considers all highly liquid, unrestricted instruments with a purchased maturity of three months or less to be cash equivalents. The carrying amount of cash equivalents approximates fair value due to the short maturities of these instruments.

Environmental Matters: The Company accrues for costs associated with the remediation of environmental pollution when it is probable that a liability has been incurred and the Company's proportionate share of the amount can be reasonably estimated. The recorded liabilities have not been discounted.

Research and Development: Research and development costs are expensed as incurred. In-process research and development ("IPRD") costs acquired in a business combination are recorded at fair value as an intangible asset at the acquisition date and amortized once the product is ready for sale or expensed if abandoned.

Restructuring and Other Costs: Generally, costs associated with an exit or disposal activity are recognized when the liability is incurred. Prior to recording restructuring charges for employee separation agreements, the Company notifies all employees of termination. Costs related to employee separation arrangements requiring future service beyond a specified minimum retention period are recognized over the service period.

Comprehensive Income: Comprehensive income is defined as net income or loss and other changes in stockholders' equity from transactions and other events from sources other than stockholders. Comprehensive income is reflected in the consolidated statements of comprehensive income.

Derivative Instruments and Hedging: Derivatives are recorded on the consolidated balance sheets at fair value. Accounting for gains or losses resulting from changes in the values of those derivatives depends on the use of the derivative instrument and whether it qualifies for hedge accounting.

For a cash flow hedge, the effective portion of the derivative's gain or loss is initially reported as a component of other comprehensive income and subsequently amortized into net earnings when the hedged exposure affects net earnings. Cash flow hedges related to anticipated transactions are designated and documented at the inception of each hedge by matching the terms of the contract to the underlying transaction. The Company classifies the cash flows from hedging transactions in the same categories as the cash flows from the respective hedged items. Once established, cash flow hedges are generally recorded in other comprehensive income, unless an anticipated transaction is no longer likely to occur, and subsequently amortized into net earnings when the hedged exposure affects net earnings. Discontinued or dedesignated cash flow hedges are immediately settled with counterparties, and the related accumulated derivative gains or losses are recognized into net earnings on the consolidated financial statements. Settled cash flow hedges related to forecasted transactions that remain probable are recorded as a component of other comprehensive (loss) income and are subsequently amortized into net earnings when the hedged exposure affects net earnings. Forward contract effectiveness for cash flow hedges is calculated by comparing the fair value of the contract to the change in value of the anticipated transaction using forward rates on a monthly basis. The Company also has entered into other foreign currency forward contracts that are not designated as hedging instruments for accounting purposes. These contracts are recorded at fair value, with the changes in fair value recognized into interest and other expense, net on the consolidated financial statements.

The Company also uses foreign currency denominated debt to hedge its investments in certain foreign subsidiaries. Realized and unrealized translation adjustments from these hedges are included in the foreign currency translation component of AOCI, as well as the offset translation adjustments on the underlying net assets of foreign subsidiaries. The cumulative translation gains or losses will remain in AOCI until the foreign subsidiaries are liquidated or sold.

Leases: Operating leases are included in operating lease right-of-use ("ROU") assets, other current liabilities, and operating lease liabilities in the Company's consolidated balance sheet. ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities were recognized based on the present value of the remaining lease payments over the lease term. When the Company's lease did not provide an implicit rate, the Company used its incremental

borrowing rate in determining the present value of lease payments. The Company used the implicit rate when readily determinable. The operating lease ROU asset excludes lease incentives. The lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The Company has lease agreements with lease and non-lease components, which are generally accounted for separately. For certain equipment leases, such as cars, the Company accounts for the lease and non-lease components as a single lease component.

The Company has made an accounting policy election not to recognize ROU assets and lease liabilities that arise from short-term leases for facilities and equipment. Instead, the Company recognizes the lease payments in the consolidated statements of operations on a straight-line basis over the lease term and variable lease payments in the period in which the obligation for those payments is incurred.

As a lessor, the Company applies the practical expedient to not separate non-lease components from the associated lease component and instead accounts for those components as a single component if the non-lease components otherwise would be accounted for under Accounting Standards Codification 606, *Revenue From Contracts With Customers* ("ASC 606"), and both of the following criteria are met: 1) the timing and pattern of transfer of the non-lease component or components and associated lease component are the same; and 2) the lease component, if accounted for separately, would be classified as an operating lease. If the non-lease component or components associated with the lease component are the predominant component of the combined component, the Company accounts for the combined component in accordance with ASC 606. Otherwise, the Company accounts for the combined component as an operating lease in accordance with Accounting Standards Codification 842, *Leases* ("ASC 842").

Recently Issued Accounting Pronouncements: From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board (the "FASB") and are adopted by the Company as of the specified effective dates. Unless otherwise discussed, such pronouncements did not have or will not have a significant impact on the Company's consolidated financial position, results of operations and cash flows or do not apply to the Company's operations.

In October 2021, the FASB issued Accounting Standards Update 2021-08, Accounting for Contract Assets and Contract Liabilities From Contracts With Customers ("ASU 2021-08"). ASU 2021-08 amends Accounting Standards Codification 805, Business Combinations ("ASC 805"), to require acquiring entities to apply ASC 606 to recognize and measure contract assets and contract liabilities in a business combination. Under ASC 805, an acquirer generally recognizes such items at fair value on the acquisition date. The Company adopted the guidance beginning on January 2, 2023 and will apply the guidance on business combinations beginning in fiscal year 2023.

Note 2: Revenue

For arrangements with multiple performance obligations, the Company accounts for individual products and services separately if they are distinct - i.e., if a product or service is separately identifiable from other items in the bundled package and if a customer can benefit from it on its own or with other resources that are readily available to the customer. The consideration (including any discounts) is allocated between separate products and services in a bundle based on their stand-alone selling prices. The stand-alone selling prices are determined based on the prices at which the Company separately sells the products, extended warranties, and services. For items that are not sold separately, the Company estimates stand-alone selling prices by reference to the amount charged for similar items on a stand-alone basis.

The Company sells products and services predominantly through its direct sales force. As a result, the use of distributors is generally limited to geographic regions where the Company has no direct sales force. The Company does not offer product return or exchange rights (other than those relating to defective goods under warranty) or price protection allowances to its customers, including distributors. Payment terms granted to distributors are the same as those granted to end-customers and payments are not dependent upon the distributor's receipt of payment from their end-user customers.

In instances where the timing of revenue recognition differs from the timing of invoicing, the Company determined that the contracts generally do not include a significant financing component. The primary purpose of its invoicing terms is to provide customers with simplified and predictable ways of purchasing products and services, rather than to receive financing from the customers or to provide customers with financing. Examples include invoicing at the beginning of a subscription term with revenue recognized ratably over the contract period, and multi-year software licenses or software subscriptions that are invoiced annually with revenue recognized upfront. In limited circumstances where the Company provides the customer with a

significant benefit of financing, the Company uses the practical expedient and only adjusts the transaction price for the effects of the time value of money and only on contracts where the duration of financing is more than one year.

Nature of goods and services

The Discovery & Analytical Solutions segment of the Company principally generates revenue from sales of instruments, reagents, informatics, software, subscriptions, detection and imaging technologies, extended warranties, training and services in the life sciences market and instruments, consumables and services in the applied markets. The Diagnostics segment of the Company principally generates revenue from sales of instruments, solutions, consumables, reagents, extended warranties and services in the diagnostics market. Products and services may be sold separately or in bundled packages. The typical length of a contract for service is 12 to 36 months.

The revenue generated from the sale of instruments, consumables, reagents, and certain software is recognized at a point in time. The Company recognizes revenue in these arrangements at the point in time when control of the products has been transferred to customers, which is typically at delivery. Certain of the Company's products require specialized installation and configuration at the customer's site. Revenue for these products is deferred until installation is complete and customer acceptance has been received. When the Company places the instrument at the customer's site and sells the reagents to a customer, the instrument and reagents are accounted for together as one performance obligation. The Company does not charge a fee for the use of the instrument and retains ownership of the placed instrument. The Company has a right to remove the instrument and replace it with another instrument at the customer's site at any time throughout the contract term. The Company recognizes revenue upon delivery of reagents, which is the point in time where the Company has performed its obligation to provide a screening solution to the customer. Payment terms and conditions vary, although terms generally include a requirement of payment within 30 to 60 days.

The revenue generated from the sale of licenses for software as a service, cloud services, subscriptions, extended warranties, and laboratory services and training is recognized over time. Term licenses, subscriptions and cloud services, are generally recognized ratably over the contract period or based upon consumption. The Company sells its software subscriptions and cloud services with maintenance services and, in some cases, with consulting services. The Company recognizes revenue for the software commencing when the service is made available to the customer. For maintenance and consulting services, revenue is recognized ratably over the period in which the services are provided. Revenue for laboratory services is recognized over the contract period or time and materials. Payment terms and conditions vary, although terms generally include a requirement of payment within 30 to 60 days.

Product revenue is recognized at a point in time and all service revenue is recognized over time.

Disaggregation of revenue

In the following tables, revenue is disaggregated by primary geographical market, end-markets and timing of revenue recognition.

								Repor	table Segmer	its				
		For the fiscal year ended												
		J	anua	ary 1, 2023	_			J	anuary 2, 202	.2		January 3, 202	.1	
	A	iscovery & Analytical Solutions	Di	agnostics	Total		A	iscovery & nalytical olutions	Diagnostics	Total	Discovery & Analytical Solutions	Diagnostics	Total	
								(In	thousands)					
Primary geographic	al n	narkets												
Americas	\$	683,170	\$	979,473	\$1,662,64	43	\$	444,459	\$1,362,213	\$1,806,672	\$ 286,354	\$ 750,641	\$1,036,995	
Europe		297,468		534,343	831,81	11		234,334	982,476	1,216,810	157,277	864,687	1,021,964	
Asia		312,271		505,097	817,36	58		217,076	587,250	804,326	152,657	451,614	604,271	
	\$	1,292,909	\$ 2	2,018,913	\$3,311,82	22	\$	895,869	\$2,931,939	\$3,827,808	\$ 596,288	\$2,066,942	\$2,663,230	
Primary end-marke	ts													
Diagnostics	\$		\$ 2	2,018,913	\$2,018,91	13	\$	—	\$2,931,939	\$2,931,939	\$ —	\$2,066,942	\$2,066,942	
Life sciences		1,292,909		_	1,292,90)9		895,869		895,869	596,288	_	596,288	
	\$	1,292,909	\$ 2	2,018,913	\$3,311,82	22	\$	895,869	\$2,931,939	\$3,827,808	\$ 596,288	\$2,066,942	\$2,663,230	

Major Customer Concentration

Revenues from one customer in the Company's Diagnostics segment represent approximately \$330.7 million, \$638.6 million and \$97.8 million of the Company's total revenue during the fiscal years 2022, 2021 and 2020, respectively.

Contract Balances

Contract assets: The unbilled receivables (contract assets) primarily relate to the Company's right to consideration for work completed but not billed at the reporting date. The unbilled receivables are transferred to trade receivables when billed to customers. Contract assets are generally classified as current assets and are included in "Accounts receivable, net" in the consolidated balance sheets.

Contract liabilities: The contract liabilities primarily relate to the advance consideration received from customers for products and related services for which transfer of control has not occurred at the balance sheet date. Contract liabilities are classified as either current in "Accounts payable" or "Accrued expenses and other current liabilities" or as long-term in "Long-term liabilities" in the consolidated balance sheets based on the timing of when the Company expects to recognize revenue. The contract liability balances at the beginning of each period presented were generally fully recognized in the subsequent three month period.

Contract balances were as follows:

	J	anuary 1, 2023	J	anuary 2, 2022		
		(In thousands)				
Contract assets	\$	56,631	\$	61,999		
Contract liabilities	\$	(30,133)	\$	(184,897)		

Note 3: Business Combinations

Acquisitions in fiscal year 2022

During fiscal year 2022, the Company completed the acquisition of two businesses for aggregate consideration of \$13.3 million. Identifiable definite-lived intangible assets, such as core technology, acquired as part of these acquisitions had a weighted average amortization period of 5 years.

Acquisitions in fiscal year 2021

Acquisition of BioLegend, Inc. In fiscal year 2021, the Company completed the acquisition of BioLegend, Inc. ("BioLegend") and paid an aggregate consideration of \$5.7 billion, net of cash acquired of \$292.4 million, reflecting working capital and other adjustments (the "Aggregate Consideration"). The Aggregate Consideration was paid in a combination of \$3.3 billion in cash and shares of the Company's common stock having a fair value of approximately \$2.6 billion based on the \$187.56 per share closing price of the Company's common stock on the New York Stock Exchange on September 17, 2021 (the "Stock Consideration"). The Stock Consideration consisted of 14,066,799 shares of the Company's common stock. BioLegend is recognized as a leading, global provider of life science antibodies and reagents headquartered in San Diego, California, with approximately 700 employees. The operations for this acquisition is reported within the results of the Company's Discovery & Analytical Solutions segment from the acquisition date. The excess of the purchase price over the fair value of the acquired net assets represents cost and revenue synergies specific to the Company, as well as non-capitalizable intangible assets, such as the employee workforce acquired, and is not tax deductible. Identifiable definite-lived intangible assets, such as core technology, trade names, customer relationships and clone library, acquired as part of this acquisition had a weighted-average amortization period of 16.3 years.

BioLegend's revenue and net loss for the period from the acquisition date to January 2, 2022 were \$91.7 million and \$25.8 million, respectively. The net loss includes \$47.0 million of amortization of acquired intangible assets. The following unaudited pro forma information presents the combined financial results for the Company and BioLegend as if the acquisition of BioLegend had been completed at the beginning of fiscal year 2020:

		January 2, 2022		January 3, 2021	
	(In thousands, except per share d				
Pro Forma Statement of Operations Information:					
Revenue	\$	4,056,122	\$	2,905,116	
Income from continuing operations		947,387		454,034	
Basic earnings per share:					
Income from continuing operations	\$	7.27	\$	3.62	
Diluted earnings per share:					
Income from continuing operations	\$	7.25	\$	3.60	

The unaudited pro forma information for fiscal year 2021 has been calculated after applying the Company's accounting policies and the impact of acquisition date fair value adjustments. The fiscal year 2021 unaudited pro forma income from continuing operations was adjusted to exclude approximately \$43.2 million of acquisition-related transaction costs and \$23.3 million of costs of bridge financing and debt pre-issuance hedges that were recognized in expense during fiscal year 2021. The fiscal year 2020 unaudited pro forma income from continuing operations was adjusted to include these acquisition-related transaction costs and the nonrecurring expenses related to the bridge financing and debt pre-issuance hedging costs and fair value adjustments as if those expenses were incurred in fiscal year 2020. These pro forma condensed consolidated financial results have been prepared for comparative purposes only and include certain adjustments, such as fair value adjustment to inventory, increased interest expense on debt obtained to finance the transaction, and increased amortization for the fair value of acquired intangible assets.

The pro forma information does not reflect the effect of costs or synergies that would have been expected to result from the integration of the acquisition. The pro forma information does not purport to be indicative of the results of operations that actually would have resulted had the combination occurred at the beginning of each period presented, or of future results of the consolidated entities. The actual results of operations may differ significantly from the pro forma amounts reflected herein due to a variety of factors.

Other acquisitions in 2021. During fiscal year 2021, the Company also completed the acquisition of seven other businesses for aggregate consideration of \$1.2 billion. The acquired businesses include Oxford Immunotec Global PLC, a company based in Abingdon, UK with approximately 275 employees, for total consideration of \$590.9 million and Nexcelom Bioscience Holdings, LLC, a company based in Lawrence, Massachusetts with approximately 130 employees, for total consideration of \$267.3 million, and five other businesses, which were acquired for total consideration of \$318.6 million. The excess of the purchase prices over the fair values of the acquired businesses' net assets represents cost and revenue synergies specific to the Company, as well as non-capitalizable intangible assets, such as employee workforces acquired, and has been allocated to goodwill, which is not tax deductible. Identifiable definite-lived intangible assets, such as core technology, trade names, and customer relationships, acquired as part of these acquisitions had a weighted-average amortization period of 12.4 years.

The total purchase price for the acquisitions in fiscal year 2021 has been allocated to the estimated fair value of assets acquired and liabilities assumed as follows:

	Fi	nal
	BioLegend	Other
	(In tho	usands)
Fair value of business combinations:		
Cash payments	\$ 3,336,115	\$ 1,128,584
Common stock issued	2,638,369	
Other liability	6,857	2,910
Contingent consideration	_	45,031
Working capital and other adjustments	—	183
Less: cash acquired	(292,377)	(195,010)
Total	\$ 5,688,964	\$ 981,698
Identifiable assets acquired and liabilities assumed:		
Current assets	\$ 184,704	\$ 71,840
Property, plant and equipment	147,200	26,507
Other assets	9,330	15,527
Identifiable intangible assets:		
Core technology and clone library	782,400	290,089
Trade names and patents	38,000	39,476
Licenses	8,979	—
Customer relationships and backlog	1,714,800	141,670
Goodwill	3,509,931	545,262
Deferred taxes	(668,919)	(80,923)
Deferred revenue	_	(1,197)
Debt assumed		(4,628)
Liabilities assumed	(37,461)	(61,925)
Total	\$ 5,688,964	\$ 981,698

The Company does not consider the other acquisitions completed during fiscal year 2021 to be material to its consolidated results of operations; therefore, the Company is only presenting pro forma financial information of operations for the BioLegend acquisition. The aggregate revenue and results of operations for the other acquisitions completed during fiscal year 2021 for the period from their respective acquisition dates to January 2, 2022 were not material.

Acquisitions in fiscal year 2020

During fiscal year 2020, the Company completed the acquisition of four businesses for aggregate consideration of \$438.9 million. The acquired businesses were Horizon Discovery Group plc, a company based in Cambridge, UK with approximately 400 employees, which was acquired on December 23, 2020 for a total consideration of \$399.8 million (£296.0 million), and three other businesses which were acquired for a total consideration of \$39.1 million. The excess of the purchase prices over the fair values of the acquired businesses' net assets represents cost and revenue synergies specific to the Company, as well as non-capitalizable intangible assets, such as the employee workforces acquired, and has been allocated to goodwill, which is not tax deductible. Identifiable definite-lived intangible assets, such as core technology, trade names, customer relationships and in-process research and development, acquired as part of these acquisitions had a weighted average amortization period of 11 years.

The total purchase price for the acquisitions in fiscal year 2020 has been allocated to the estimated fair value of assets acquired and liabilities assumed as follows:

		Final
	(Ir	n thousands)
Fair value of business combinations:		
Cash payments	\$	437,661
Other liability		1,660
Working capital and other adjustments		(384)
Less: cash acquired		(26,840)
Total	\$	412,097
Identifiable assets acquired and liabilities assumed:		
Current assets	\$	35,532
Property, plant and equipment		20,302
Other assets		18,114
Identifiable intangible assets:		
Core technology		65,730
Trade names		5,580
Customer relationships and backlog		108,523
IPRD		10,700
Goodwill		221,751
Deferred taxes		(25,674)
Deferred revenue		(2,031)
Liabilities assumed		(46,430)
Total	\$	412,097

The Company does not consider the acquisitions completed during fiscal year 2020 to be material to its consolidated results of operations. The aggregate revenue and results of operations for the acquisitions completed during fiscal year 2020 for the period from their respective acquisition dates to January 3, 2021 were not material.

As of January 1, 2023, the allocations of purchase prices for all acquisitions completed in fiscal years 2021 and 2020 were considered final.

During fiscal year 2022, the Company obtained information relevant to determining the fair values of certain tangible and intangible assets acquired, and liabilities assumed, related to recent acquisitions and adjusted its purchase price allocations. The adjustments to the preliminary measurements were not material.

The accounting for business combinations requires estimates and judgments as to expectations for future cash flows of the acquired business, and the allocation of those cash flows to identifiable intangible assets, in determining the estimated fair values for assets acquired and liabilities assumed. The fair values assigned to tangible and intangible assets acquired and liabilities assumed, including contingent consideration, are based on management's estimates and assumptions, as well as other information compiled by management, including valuations that utilize customary valuation procedures and techniques. Contingent consideration is measured at fair value at the acquisition date, based on the probability that revenue thresholds or product development milestones will be achieved during the earnout period, with changes in the fair value after the acquisition date affecting earnings to the extent it is to be settled in cash. Increases or decreases in the fair value of contingent consideration liabilities primarily result from changes in the estimated probabilities of achieving revenue thresholds or product development milestones during the earnout period.

As of January 1, 2023, the Company may have to pay contingent consideration, related to acquisitions with open contingency periods, of up to \$106.2 million. As of January 1, 2023, the Company has recorded contingent consideration obligations of \$46.6 million, of which \$3.6 million was recorded in accrued expenses and other current liabilities, and \$43.0 million was recorded in long-term liabilities. As of January 2, 2022, the Company had recorded contingent consideration obligations with an estimated fair value of \$58.0 million, of which \$1.3 million was recorded in accrued expenses and other current liabilities, and \$56.7 million was recorded in long-term liabilities. The expected maximum earnout period for acquisitions with open contingency periods is 5.9 years from January 1, 2023, and the remaining weighted average expected

earnout period at January 1, 2023 was 4.9 years. If the actual results differ from the estimates and judgments used in these fair values, the amounts recorded in the consolidated financial statements could result in a possible impairment of the intangible assets and goodwill, require acceleration of the amortization expense of definite-lived intangible assets or the recognition of additional contingent consideration which would be recognized as a component of operating expenses from continuing operations.

Total acquisition and divestiture-related costs were \$39.8 million, \$80.8 million and \$4.9 million for fiscal years 2022, 2021 and 2020. These amounts included \$26.5 million and \$6.9 million of stock compensation expense related to awards given to BioLegend employees in fiscal years 2022 and 2021, respectively, \$5.4 million of net foreign exchange gain and \$23.4 million of costs of bridge financing and debt pre-issuance hedges related to the BioLegend acquisition in fiscal year 2021, and \$0.5 million of acquisition-related interest expenses in fiscal year 2020. These acquisition and divestiture-related costs were expensed as incurred and recorded in selling, general and administrative expenses and interest and other expense, net in the Company's consolidated statements of operations.

Note 4: Discontinued Operations

As part of the Company's continuing efforts to focus on higher growth opportunities, the Company has discontinued certain businesses. When the discontinued operations represented a strategic shift that will have a major effect on the Company's operations and financial statements, the Company has accounted for these businesses as discontinued operations and accordingly, has presented the results of operations and related cash flows as discontinued operations.

In August 2022, the Company entered into a Master Purchase and Sale Agreement (the "Purchase Agreement") with Polaris Purchaser, L.P. (the "Purchaser"), a Delaware limited partnership owned by funds managed by affiliates of New Mountain Capital L.L.C. (the "Sponsor"), under which the Company agreed to sell to the Purchaser certain assets and the equity interests of certain entities constituting the Company's Analytical, Food and Enterprise Services businesses (the "Business") (as further defined in the Purchase Agreement), for cash consideration of up to approximately \$2.45 billion and the Purchaser's assumption of certain liabilities relating to the Business (collectively, the "Transaction"). Approximately \$2.30 billion of the purchase price will be payable at closing, subject to certain customary adjustments, which includes \$75.0 million in deferred payments tied to the transfer of the PerkinElmer brand and related trademarks to the Purchaser (which may be completed within 24 months following the date of the closing at the Company's election). The Purchase Agreement also provides for potential post-closing payments totaling up to \$150.0 million, which are contingent on the exit valuation the Sponsor and its affiliated funds receive on a sale or other capital events related to the Business. The Transaction is expected to close in the first quarter of fiscal year 2023, subject to regulatory approvals and other customary closing conditions.

The Business had been recorded in the Discovery & Analytical Solutions segment. The sale of the Business represents a strategic shift that will have a major effect on the Company's operations and financial statements. Accordingly, the Company has classified the assets and liabilities related to the Business as assets and liabilities of discontinued operations in the Company's consolidated balance sheets and its results of operations are classified as income from discontinued operations in the Company's consolidated statements of operations. Financial information in this report relating to fiscal years 2021 and 2020 has been retrospectively adjusted to reflect this discontinued operation.

The summary pre-tax operating results of the discontinued operations, were as follows:

	Jar	uary 1, 2023	Jan	uary 2, 2022	Jan	uary 3, 2021
			(I	n thousands)		
Revenue	\$	1,298,376	\$	1,239,361	\$	1,119,515
Cost of revenue		859,330		822,048		739,817
Selling, general and administrative expenses		306,032		268,760		209,442
Research and development expenses		64,605		74,632		58,948
Operating income		68,409		73,921		111,308
Other (income) expense, net		(5,195)		(2,383)		5,016
Income from discontinued operations before income taxes	\$	73,604	\$	76,304	\$	106,292

The carrying amounts of the major classes of assets and liabilities included in discontinued operations related to the Business consisted of the following:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Jar	nuary 1, 2023	Jan	uary 2, 2022
		ls)		
Cash and cash equivalents	\$	14,999	\$	14,999
Accounts receivable		343,064		315,851
Inventories		210,367		198,824
Other current assets		32,063		25,700
Total current assets				555,374
Property, plant and equipment, net		60,983		60,074
Operating lease right-of-use assets		41,487		43,735
Intangible assets, net		202,850		241,257
Goodwill		772,812		789,465
Other assets, net		15,079		9,637
Total long-term assets				1,144,168
Total assets of discontinued operations	\$	1,693,704	\$	1,699,542
Accounts payable		29,912		30,647
Accrued expenses and other current liabilities		161,260		174,947
Total current liabilities				205,594
Deferred taxes and long-term liabilities		46,046		53,738
Operating lease liabilities		35,647		37,964
Total long-term liabilities				91,702
Total liabilities of discontinued operations	\$	272,865	\$	297,296

The following operating and investing non-cash items from discontinued operations were as follows for the fiscal years ended:

	J	January 1, 2023		January 2, 2022		January 3, 2021
		(In thousands)				
Depreciation	\$	8,011	\$	12,897	\$	13,299
Amortization		16,984		33,664		31,560
Capital expenditures		10,670		13,868		13,872

Note 5: Interest and Other Expense, Net

Interest and other expense, net, consisted of the following for the fiscal years ended:

	J	anuary 1, 2023	January 2, 2022		January 3, 2021
			(In	thousands)	
Interest income	\$	(3,589)	\$	(2,241)	\$ (1,010)
Interest expense including costs of bridge financing		103,955		102,128	49,712
Change in fair value of financial securities		15,754		(10,985)	(35)
Other components of net periodic pension (credit) cost		(33,158)		(37,385)	13,819
Other expense, net		7,900		3,358	4,715
Total interest and other expense, net	\$	90,862	\$	54,875	\$ 67,201

Note 6: Income Taxes

The components of income from continuing operations before income taxes were as follows for the fiscal years ended:

	January 1, 2023									
			(I)	n thousands)						
U.S.	\$	326,438	\$	547,705	\$	210,130				
Non-U.S.		325,399		655,877		589,942				
Total	\$	651,837	\$	1,203,582	\$	800,072				

The components of the provision for income taxes on continuing operations were as follows:

	Current Expense	Deferred Expense (Benefit)			Total
		(Ir	thousands)		
Fiscal year ended January 1, 2023					
Federal	\$ 115,436	\$	(45,246)	\$	70,190
State	27,757		(16,139)		11,618
Non-U.S.	101,891		(44,538)		57,353
Total	\$ 245,084	\$	(105,923)	\$	139,161
Fiscal year ended January 2, 2022					
Federal	\$ 154,905	\$	(37,858)	\$	117,047
State	53,961		3,602		57,563
Non-U.S.	160,608		(21,072)		139,536
Total	\$ 369,474	\$	(55,328)	\$	314,146
Fiscal year ended January 3, 2021	 				
Federal	\$ 39,878	\$	4,875	\$	44,753
State	15,469		(1,240)		14,229
Non-U.S.	149,503		(38,973)		110,530
Total	\$ 204,850	\$	(35,338)	\$	169,512

The total provision for income taxes included in the consolidated financial statements is as follows for the fiscal years ended:

	January 1, 2023									
			(In	thousands)						
Continuing operations	\$	139,161	\$	314,146	\$	169,512				
Discontinued operations		17,101		22,583		8,889				
Total	\$	156,262	\$	336,729	\$	178,401				

A reconciliation of income tax expense at the U.S. federal statutory income tax rate to the recorded tax provision is as follows for the fiscal years ended:

	January 1, 2023		January 2, 2022		January 3, 2021
			(In	thousands)	
Tax at statutory rate	\$	136,886	\$	252,752	\$ 168,015
Non-U.S. rate differential, net		(5,221)		(33,847)	(29,155)
U.S. taxation of multinational operations		22,102		7,964	11,468
State income taxes, net		7,820		36,832	13,249
Prior year tax matters		(10,160)		1,850	5,532
Effect of stock compensation		845		(2,187)	(8,148)
General business tax credits		(7,132)		(2,715)	(2,145)
Change in valuation allowance		4,964		(179)	(369)
Rate change on long term intangibles		—		14,031	
Effect of foreign repatriations		(4,940)		37,147	
Foreign consolidations		—			15,222
Other, net		(6,003)		2,498	(4,157)
Total	\$	139,161	\$	314,146	\$ 169,512

The variation in the Company's effective tax rate for fiscal year 2021 is primarily affected by the recognition of \$37.1 million in U.S. federal, U.S. state and non-U.S. taxes related to foreign earnings that the Company no longer considered indefinitely reinvested. During fiscal year 2022, the Company adjusted these estimates and recognized a net benefit of \$4.9 million relative to its position to permanently reinvest those foreign earnings.

The Company also recognized \$1.1 million of benefit in fiscal year 2022 derived from the tax holiday in Singapore. The Company recognized \$18.2 million in fiscal year 2021 and \$12.7 million in fiscal year 2020 of benefits derived from tax holidays in China and Singapore. The effect of these benefits, derived from tax holidays, on basic and diluted earnings per share for fiscal year 2022 was \$0.01 and \$0.01, respectively, for fiscal year 2021 was \$0.16 and \$0.16, respectively, and for fiscal year 2020 was \$0.11 and \$0.11, respectively. The tax holiday in China is renewed every three years. The Company expects to renew the tax holiday for one of the Company's subsidiaries in China that is set to expire in fiscal year 2023.

The Company regularly reviews its tax positions in each significant taxing jurisdiction in the process of evaluating its unrecognized tax benefits. The Company makes adjustments to its unrecognized tax benefits when: (i) facts and circumstances regarding a tax position change, causing a change in management's judgment regarding that tax position; (ii) a tax position is effectively settled with a tax authority at a differing amount; and/or (iii) the statute of limitations expires regarding a tax position.

The tabular reconciliation of the total amounts of unrecognized tax benefits is as follows for the fiscal years ended:

	nuary 1, 2023	January 2, 2022		Januar 202	
		(In thousands)		
Unrecognized tax benefits, beginning of year	\$ 61,658	\$ 38,77	3	\$ 3	5,547
Gross increases-tax positions in prior periods	1,489	2,87	7		4,974
Gross decreases-tax positions in prior periods	(2,519)	-	_	((2,471)
Gross increases—current-period tax positions	7,187	14	.9		151
Gross increases related to acquisitions		22,69	7		158
Settlements		(2,25	2)		
Lapse of statute of limitations	(8,625)	(56	3)		
Foreign currency translation adjustments	(1,242)	(2	3)		414
Unrecognized tax benefits, end of year	\$ 57,948	\$ 61,65	8	\$ 3	8,773

The Company classifies interest and penalties as a component of income tax expense. At January 1, 2023 and January 2, 2022, the Company had accrued interest and penalties of \$7.2 million and \$7.6 million, respectively. During fiscal years 2022, 2021 and 2020, the Company recognized a net (benefit) expense of \$(0.5) million, \$1.8 million and \$1.8 million, respectively,

for interest and penalties in its total tax provision. At January 1, 2023, substantially all of the unrecognized tax benefits, if recognized, would affect the effective tax rate.

The Company believes that it is reasonably possible that approximately \$17.8 million of its uncertain tax positions at January 1, 2023, including accrued interest and penalties, and net of tax benefits, may be resolved over the next twelve months as a result of lapses in applicable statutes of limitations and potential settlements. Various tax years after 2010 remain open to examination by certain jurisdictions in which the Company has significant business operations, such as China, Finland, Germany, Luxembourg, The Netherlands, Singapore, the United Kingdom and the United States. The tax years under examination vary by jurisdiction.

The tax effects of temporary differences and attributes that gave rise to deferred income tax assets and liabilities were as follows:

	January 1, 2023	January 2, 2022
	(In th	ousands)
Deferred tax assets:		
Inventory	\$ 17,920	
Reserves and accruals	70,912	53,403
Accrued compensation	23,868	29,960
Net operating loss and credit carryforwards	117,953	110,149
Accrued pension	11,653	23,714
Restructuring reserve	1,640	1,442
Deferred revenue	22,644	49,207
Capitalized research and development expenses	44,922	12,114
Operating lease liabilities	43,547	37,299
Unrealized foreign exchange loss	11,158	14,594
All other, net	841	583
Total deferred tax assets	367,058	334,853
Deferred tax liabilities:		
Postretirement health benefits	(4,379) (5,303)
Depreciation and amortization	(916,581) (1,021,487)
Operating lease right-of-use assets	(39,281) (33,607)
Prepaid expenses	(3,515) (3,265)
Deferred tax liability on foreign earnings	(15,782) (31,239)
Total deferred tax liabilities	(979,538) (1,094,901)
Valuation allowance	(96,681) (89,523)
Net deferred tax liabilities	\$ (709,161) \$ (849,571)

The components of net deferred tax liabilities were recognized in the consolidated balance sheets as follows:

	J	anuary 1, 2023		January 2, 2022
	(In thousands)			
Other assets, net	\$	18,527	\$	18,534
Deferred taxes and other long-term liabilities		(727,688)		(868,105)
Total	\$	(709,161)	\$	(849,571)

At January 1, 2023, for income tax return purposes, the Company had U.S. federal net operating loss carryforwards of \$67.5 million, state net operating loss carryforwards of \$4.9 million, foreign net operating loss carryforwards of \$458.0 million, state tax credit carryforwards of \$13.8 million and general business tax credit carryforwards of \$0.1 million. Certain net operating loss carryforwards and state credit carryforwards do not expire, while other losses begin to expire in 2023.

Valuation allowances take into consideration limitations imposed upon the use of the tax attributes and reduce the value of such items to the likely net realizable amount. The Company regularly evaluates positive and negative evidence available to

determine if valuation allowances are required or if existing valuation allowances are no longer required. Valuation allowances have been provided on state net operating loss and state tax credit carryforwards and on certain foreign tax attributes that the Company has determined are not more likely than not to be realized. The increase in the valuation allowance of \$7.2 million in fiscal year 2022 is primarily due to net operating losses incurred for which the benefit is not expected to be realized.

As of January 1, 2023, the Company evaluated its undistributed foreign earnings and identified approximately \$879.0 million in earnings that it does not consider to be permanently reinvested. The Company has recorded a provision of approximately \$15.8 million for the taxes that would fall due when such earnings are repatriated. The Company began repatriating such foreign earnings to the United States in the first quarter of fiscal year 2022 and expects to continue the repatriation in fiscal year 2023. There are other undistributed foreign earnings and outside basis differences for which the Company has not provided for any taxes as these amounts continue to be indefinitely reinvested, and it is not practicable to estimate the amount of deferred tax liability that would be incurred.

Note 7: Earnings Per Share

Basic earnings per share was computed by dividing net income by the weighted-average number of common shares outstanding during the period less restricted unvested shares. Diluted earnings per share was computed by dividing net income by the weighted-average number of common shares outstanding plus all potentially dilutive common stock equivalents, primarily shares issuable upon the exercise of stock options using the treasury stock method. The following table reconciles the number of shares utilized in the earnings per share calculations for the fiscal years ended:

	January 1, 2023	January 2, 2022	January 3, 2021
		(In thousands)	
Number of common shares—basic	126,155	116,165	111,514
Effect of dilutive securities:			
Stock options	249	391	466
Restricted stock awards	22	118	105
Number of common shares-diluted	126,426	116,674	112,085
Number of potentially dilutive securities excluded from calculation due to antidilutive impact	611	487	220

Antidilutive securities include outstanding stock options with exercise prices and average unrecognized compensation cost in excess of the average fair market value of common stock for the related period. Antidilutive options were excluded from the calculation of diluted net income per share and could become dilutive in the future.

Note 8: Accounts Receivable, Net

Accounts receivable, net consisted of the following:

		January 1, 2023		January 2, 2022
		(In the	ds)	
Accounts receivable, net	9	612,780	\$	707,941
Long-term accounts receivable, net, included in Other assets, net		34,040		29,958
Total accounts receivable, net	5	646,820	\$	737,899

Reserves for credit losses consisted of the following:

	lance at inning of Year]	Provisions		harges/ Write- offs	Other ⁽¹⁾	 Balance at End of Year
				(In t	housands)		
Year ended January 3, 2021	\$ 23,574	\$	10,294	\$	(1,895)	\$ 1,524	\$ 33,497
Year ended January 2, 2022	33,497		6,854		(2,198)	101	38,254
Year ended January 1, 2023	38,254		9,857		(9,672)	(896)	37,543

(1) Other amounts primarily relate to the impact of acquisitions, discontinued operations and foreign exchange movements.

Note 9: Inventories

Inventories consisted of the following:

	J	January 1, 2023		anuary 2, 2022	
		(In thousands)			
Raw materials	\$	190,640	\$	166,486	
Work in progress		68,206		63,580	
Finished goods		146,616		195,824	
Total inventories	\$	405,462	\$	425,890	

Note 10: Property, Plant and Equipment, Net

Property, plant and equipment consisted of the following:

	January 1, 2023		January 2, 2022		
	(In thousands)				
At cost:					
Land	\$ 28,340	\$	28,540		
Building and leasehold improvements	346,164		351,084		
Machinery and equipment	 482,639		464,856		
Total property, plant and equipment	857,143		844,480		
Accumulated depreciation	 (374,193)		(358,949)		
Total property, plant and equipment, net	\$ 482,950	\$	485,531		

Depreciation expense on property, plant and equipment for the fiscal years ended January 1, 2023, January 2, 2022 and January 3, 2021 was \$56.4 million, \$54.9 million and \$40.7 million, respectively.

Note 11: Marketable Securities and Investments

Investments, which are classified in Other assets, net, consisted of the following:

	J	anuary 1, 2023	J	anuary 2, 2022		
		(In thousands)				
Marketable securities	\$	11,083	\$	33,683		
Equity investments		54,503		33,801		
Investments in debt securities		42,500		13,500		
	\$	108,086	\$	80,984		

Marketable securities. Marketable securities include equity and fixed-income securities. The net unrealized holding gain and loss on marketable securities, net of deferred income taxes, reported as a component of other comprehensive income (loss) in the consolidated statements of stockholders' equity, was not material in fiscal years 2022 and 2021. The proceeds from the sales of securities and the related gains and losses are not material for any period presented.

Marketable securities classified as available for sale consisted of the following:

				Gro	Gross Unrealized Holding							
	Market Value			Cost	G	Gains	(I	losses)				
			(In thousands)									
January 1, 2023												
Equity securities	\$	6,775	\$	6,775	\$		\$					
Other		4,308		4,308								
	\$	11,083	\$	11,083	\$	_	\$					
January 2, 2022												
Equity securities	\$	29,768	\$	29,768	\$		\$					
Fixed-income securities		7		7								
Other		3,908		3,971				(63)				
	\$	33,683	\$	33,746	\$		\$	(63)				

Equity Investments. The Company has equity interests in privately-held entities over which the Company neither has significant influence nor control. Equity investments as of January 1, 2023 and January 2, 2022 consisted of the following:

	January 1 2023	۱,	J	anuary 2, 2022	
	 (In thousands)				
Equity investments, carried at cost minus impairment, if any	\$ 50,	654	\$	29,738	
Equity investments, carried at fair value	3,	849		4,063	
	\$ 54,	503	\$	33,801	

The amount of upward adjustments during fiscal years 2022 and 2021 were \$2.9 million and \$19.6 million, respectively. The cumulative amount of upward adjustments as of January 1, 2023 and January 2, 2022 was \$30.7 million and \$27.8 million, respectively. The amount of impairments and downward adjustments during fiscal year 2020 was \$4.9 million. The cumulative amount of impairments and downward adjustments as of each of January 1, 2023 and January 2, 2022 was \$5.0 million.

Investments in debt securities. The Company has investments in debt securities that are classified as available for sale. The amortized cost of these investments are not materially different to their fair value. Investments with total carrying value of \$25.5 million have contractual maturities of one year through five years. Investments with a carrying value of \$17.0 million are convertible into equity securities or are due and payable upon event of default (as defined in the applicable agreement).

Note 12: Goodwill and Intangible Assets, Net

The Company tests goodwill and indefinite-lived intangible assets at least annually for possible impairment. The Company completes the annual testing of impairment for goodwill and indefinite-lived intangible assets on the later of January 1 or the first day of each fiscal year. In addition to its annual test, the Company regularly evaluates whether events or circumstances have occurred that may indicate a potential impairment of goodwill or indefinite-lived intangible assets.

The process of testing goodwill for impairment involves the determination of the fair value of the applicable reporting units. The test consists of the comparison of the fair value to the carrying value of the reporting unit to determine if the carrying value exceeds the fair value. If the carrying value of the reporting unit exceeds its fair value, an impairment loss in an amount equal to that excess is recognized up to the amount of goodwill. The Company performed its annual impairment testing for its reporting units as of January 3, 2022, its annual impairment testing date for fiscal year 2022. There were no impairments measured in the periods presented. While the Company believes that its estimates of current value are reasonable, if actual results differ from the estimates and judgments used, including such items as future cash flows and the volatility inherent in markets which the Company serves, impairment charges against the carrying value of those assets could be required in the future.

The changes in the carrying amount of goodwill for fiscal years 2022 and 2021 are as follows:

	Discovery & Analytical Solutions			Diagnostics	C	onsolidated
			n thousands)			
Balance at January 3, 2021	\$	948,360	\$	1,691,227	\$	2,639,587
Foreign currency translation		(33,901)		(40,557)		(74,458)
Acquisitions, earnouts and measurement period adjustments		3,742,310		319,680		4,061,990
Balance at January 2, 2022		4,656,769		1,970,350		6,627,119
Foreign currency translation		(98,268)		(41,617)		(139,885)
Acquisitions, earnouts and measurement period adjustments		(6,926)		1,460		(5,466)
Balance at January 1, 2023	\$	4,551,575	\$	1,930,193	\$	6,481,768

Identifiable intangible asset balances at January 1, 2023 by category and segment were as follows:

	Discovery & Analytical Solutions	1	Diagnostics		Consolidated
		(Iı	n thousands)		
Patents	\$ 25,312	\$	2,708	\$	28,020
Less: Accumulated amortization	(25,099)		(956)		(26,055)
Net patents	213		1,752		1,965
Trade names and trademarks	76,521		72,932		149,453
Less: Accumulated amortization	 (36,945)		(26,645)		(63,590)
Net trade names and trademarks	39,576		46,287		85,863
Licenses	 54,478		8,136		62,614
Less: Accumulated amortization	 (49,582)		(4,672)		(54,254)
Net licenses	 4,896		3,464		8,360
Core technology	1,080,611		476,129		1,556,740
Less: Accumulated amortization	(209,247)		(240,442)		(449,689)
Net core technology	871,364		235,687		1,107,051
Customer relationships	 2,123,266		820,495		2,943,761
Less: Accumulated amortization	(358,402)		(416,702)		(775,104)
Net customer relationships	1,764,864		403,793		2,168,657
IPRD	5,278		_		5,278
Net amortizable intangible assets	\$ 2,686,191	\$	690,983	\$	3,377,174

Identifiable intangible asset balances at January 2, 2022 by category and segment were as follows:

	Discovery & Analytical Solutions	Diagnostics		(Consolidated
		(Ir	thousands)		
Patents	\$ 25,524	\$	2,709	\$	28,233
Less: Accumulated amortization	(25,161)		(732)		(25,893)
Net patents	363		1,977		2,340
Trade names and trademarks	77,181		79,683		156,864
Less: Accumulated amortization	 (32,005)		(21,969)		(53,974)
Net trade names and trademarks	45,176		57,714		102,890
Licenses	54,217		8,410		62,627
Less: Accumulated amortization	(48,670)		(3,968)		(52,638)
Net licenses	5,547		4,442		9,989
Core technology	1,072,700		519,864		1,592,564
Less: Accumulated amortization	 (126,374)		(208,833)		(335,207)
Net core technology	946,326		311,031		1,257,357
Customer relationships	2,149,765		884,105		3,033,870
Less: Accumulated amortization	(224,461)		(366,058)		(590,519)
Net customer relationships	1,925,304		518,047		2,443,351
IPRD	5,920				5,920
Net amortizable intangible assets	\$ 2,928,636	\$	893,211	\$	3,821,847

Total amortization expense related to definite-lived intangible assets was \$370.6 million in fiscal year 2022, \$256.6 million in fiscal year 2021 and \$161.0 million in fiscal year 2020. Estimated amortization expense related to definite-lived intangible assets for each of the next five years is \$363.8 million in fiscal year 2023, \$355.2 million in fiscal year 2024, \$334.0 million in fiscal year 2025, \$327.0 million in fiscal year 2026, and \$299.6 million in fiscal year 2027.

Note 13: Debt

The Company's debt consisted of the following:

		Janua 202			
	Outstanding Principal	Unamortized Debt Discount	Unamortized Debt Issuance Costs	ľ	Net Carrying Amount
		(In thou	isands)		
Long-Term Debt:					
Senior Unsecured Revolving Credit Facility	\$ 	\$	\$ (2,641)	\$	(2,641)
0.850% Senior Unsecured Notes due in 2024 ("2024 Notes")	771,659	(283)	(3,136)		768,240
€500,000 Principal 1.875% Senior Unsecured Notes due in 2026 ("2026 Notes")	533,950	(1,902)	(1,779)		530,269
1.900% Senior Unsecured Notes due in 2028 ("2028 Notes")	500,000	(301)	(3,631)		496,068
3.3% Senior Unsecured Notes due in 2029 ("2029 Notes")	850,000	(2,000)	(5,537)		842,463
2.55% Senior Unsecured Notes due in March 2031 ("March 2031 Notes")	400,000	(114)	(2,978)		396,908
2.250% Senior Unsecured Notes due in September 2031 ("September 2031 Notes")	500,000	(1,353)	(3,991)		494,656
3.625% Senior Unsecured Notes due in 2051 ("2051 Notes")	400,000	(4)	(4,260)		395,736
Other Debt Facilities, non-current	1,648	—	—		1,648
Total Long-Term Debt	 3,957,257	(5,957)	(27,953)		3,923,347
Current Portion of Long-term Debt:					
0.550% Senior Unsecured Notes due in 2023 ("2023 Notes")	467,138	(63)	(867)		466,208
Other Debt Facilities, current	4,721				4,721
Total Current Portion of Long-Term Debt	471,859	(63)	(867)		470,929
Total Debt	\$ 4,429,116	\$ (6,020)	\$ (28,820)	\$	4,394,276

	January 2, 2022											
		Outstanding Principal	-	Inamortized ebt Discount	Unamortized Debt Issuance Costs	Net Carrying Amount						
Long-Term Debt:												
Senior Unsecured Revolving Credit Facility	\$	—	\$	—	\$ (3,362)	\$ (3,362)						
Unsecured Term Loan Credit Facility		500,000		(14)	(658)	499,328						
2023 Notes		500,000		(152)	(2,093)	497,755						
2024 Notes		800,000		(447)	(4,945)	794,608						
2026 Notes		568,600		(2,538)	(2,280)	563,782						
2028 Notes		500,000		(348)	(4,200)	495,452						
2029 Notes		850,000		(2,252)	(6,234)	841,514						
March 2031 Notes		400,000		(126)	(3,294)	396,580						
September 2031 Notes		500,000		(1,485)	(4,380)	494,135						
2051 Notes		400,000		(4)	(4,335)	395,661						
Other Debt Facilities, non-current		4,284		—	—	4,284						
Total Long-Term Debt		5,022,884		(7,366)	(35,781)	4,979,737						
Current Portion of Long-term Debt:												
Other Debt Facilities, current		4,240			_	4,240						
Total Debt	\$	5,027,124	\$	(7,366)	\$ (35,781)	\$ 4,983,977						

Senior Unsecured Revolving Credit Facility. On August 24, 2021, the Company terminated its previous senior unsecured revolving credit facility and entered into a new senior unsecured revolving credit facility with a five-year term and a borrowing capacity of \$1.5 billion available through August 24, 2026. As of January 1, 2023, undrawn letters of credit in the aggregate amount of \$7.1 million were treated as issued and outstanding when calculating the borrowing availability under the facility. As of January 1, 2023, the Company had \$1.49 billion available for additional borrowing under the facility. Borrowings will bear interest, payable quarterly or, if earlier, at the end of any interest period, at the Company's option at either (a) the base rate (as defined in the credit agreement), or (b) the eurocurrency rate (a publicly published rate), in each case plus a percentage spread based on the credit rating of the Company's debt. The base rate is the highest of (a) the Federal Funds Rate (as defined in the credit agreement) plus 0.50%, (b) the rate of interest in effect for such day as publicly announced from time to time by Bank of America as its "prime rate", and (c) the Eurocurrency Rate plus 1.00%. The credit agreement for the new facility contains customary affirmative, negative and financial covenants and events of default. The financial covenants include a debt-to-capital ratio that remains applicable for so long as the Company's debt is rated as investment grade. In the event that the Company's debt is not rated as investment grade, the debt-to-capital ratio covenant is replaced with leverage ratio and interest coverage ratio covenants.

During the fiscal year 2022, the Company repurchased \$32.9 million and \$28.3 million in aggregate principal amount of the 2023 Notes and 2024 Notes, respectively, in open market transactions.

Subsequent to fiscal year 2022, the Company repurchased \$50.5 million in aggregate principal amount of the 2024 Notes in open market transactions.

The following table summarizes the maturities o	of the Company's indebtedness	as of January 1, 2023:

	_	2023	2024	 2025		2026		2028 and 2027 thereafter				u	Cotal before namortized iscount and debt issuance	disc	mortized count and ance cost		Total
Senior Unsecured							(In	thousa	and	s)							
Revolving Credit Facility	\$	_	\$ _	\$ _	\$		\$		\$		\$		\$	(2,641)	\$	(2,641)	
2023 Notes		467,138	—	—				—		_		467,138		(930)		466,208	
2024 Notes		_	771,659	—				—		_		771,659		(3,419)		768,240	
2026 Notes		—	—	—	533	8,950		—		_		533,950		(3,681)		530,269	
2028 Notes		_	_	—		_		—		500,000		500,000		(3,932)		496,068	
2029 Notes										850,000		850,000		(7,537)		842,463	
March 2031 Notes		_	—	_				_		400,000		400,000		(3,092)		396,908	
September 2031 Notes		_	_	_		_		_		500,000		500,000		(5,344)		494,656	
2051 Notes				_						400,000		400,000		(4,264)		395,736	
Other Debt Facilities		4,721	 1,200	 201		115		89	_	43		6,369		_		6,369	
Total	\$	471,859	\$ 772,859	\$ 201	\$ 534	1,065	\$	89	\$	2,650,043	\$	4,429,116	\$	(34,840)	\$4	,394,276	

Note 14: Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consisted of the following:

	J	anuary 1, 2023	J	January 2, 2022			
		(In thousands)					
Payroll and incentives	\$	52,331	\$	52,116			
Employee benefits		51,983		52,199			
Deferred revenue		135,531		138,052			
Federal, non-U.S. and state income taxes		45,625		88,285			
Operating lease liabilities		31,217		29,313			
Other accrued operating expenses		211,176		319,134			
Total accrued expenses and other current liabilities	\$	527,863	\$	679,099			

Note 15: Employee Benefit Plans

Savings Plan: The Company has a 401(k) Savings Plan for the benefit of all qualified U.S. employees, with such employees receiving matching contributions in the amount equal to 100.0% of the first 5.0% of eligible compensation up to applicable Internal Revenue Service limits. Savings plan expense was \$20.0 million in fiscal year 2022, \$16.5 million in fiscal year 2021, and \$14.1 million in fiscal year 2020.

Pension Plans: The Company has a defined benefit pension plan covering certain U.S. employees and non-U.S. pension plans for certain non-U.S. employees. The principal U.S. defined benefit pension plan is closed to new hires and plan benefits have been frozen. The plans provide benefits that are based on an employee's years of service and compensation near retirement.

Net periodic pension cost for U.S. and non-U.S. plans included the following components for fiscal years ended:

	J	anuary 1, 2023		January 2, 2022	 January 3, 2021
			(I	n thousands)	
Service and administrative costs	\$	6,331	\$	5,174	\$ 7,414
Interest cost		10,751		9,440	12,876
Expected return on plan assets		(22,056)		(24,417)	(21,786)
Actuarial (gain) loss		(23,706)		(19,514)	 20,291
Net periodic pension (credit) cost	\$	(28,680)	\$	(29,317)	\$ 18,795

The Company recognizes actuarial gains and losses, unless an interim remeasurement is required, in the fourth quarter of the year in which the gains and losses occur. Such adjustments for gains and losses are primarily driven by events and circumstances beyond the Company's control, including changes in interest rates, the performance of the financial markets and mortality assumptions. Actuarial gains and losses, including other components of periodic pension cost, are recognized in the line item "Interest and other expense, net" in the consolidated statements of operations.

The following table sets forth the changes in the funded status of the principal U.S. pension plan and the principal non-U.S. pension plans and the amounts recognized in the Company's consolidated balance sheets as of January 1, 2023 and January 2, 2022. The pension liability of the Business at the end of fiscal year 2022 that will transfer upon sale was reclassified to discontinued operations, while the prior year was not restated.

	January 1, 2023			Januar	y 2, 2	2, 2022	
		Non-U.S.	U.S.		Non-U.S.		U.S.
			(In the	usa	nds)		
Actuarial present value of benefit obligations:							
Accumulated benefit obligations	\$	207,503	\$ 231,492	\$	337,454	\$	299,826
Change in benefit obligations:							
Projected benefit obligations at beginning of year	\$	339,390	\$ 299,826	\$	395,339	\$	317,679
Service and administrative costs		4,956	1,375		4,924		250
Interest cost		3,671	7,080		2,632		6,808
Benefits paid and plan expenses		(14,978)	(19,870)		(15,299)		(18,693)
Benefit obligation classified in discontinued operations		(8,261)			_		_
Actuarial gains		(88,724)	(56,919)		(30,705)		(6,218)
Effect of exchange rate changes		(28,099)	 		(17,501)		
Projected benefit obligations at end of year	\$	207,955	\$ 231,492	\$	339,390	\$	299,826
Change in plan assets:							
Fair value of plan assets at beginning of year	\$	181,189	\$ 290,116	\$	204,744	\$	268,686
Actual return on plan assets		(46,383)	(53,498)		(13,115)		20,123
Benefits paid and plan expenses		(14,978)	(19,870)		(15,299)		(18,693)
Employer's contributions		6,572			6,851		20,000
Effect of exchange rate changes		(19,659)	_		(1,992)		—
Fair value of plan assets at end of year	\$	106,741	\$ 216,748	\$	181,189	\$	290,116
Net liabilities recognized in the consolidated balance sheets	\$	(101,214)	\$ (14,744)	\$	(158,201)	\$	(9,710)
<i>Net amounts recognized in the consolidated balance sheets consist of:</i>							
Other assets	\$	19,521	\$ 	\$	33,084	\$	—
Current liabilities		(6,568)			(6,966)		—
Long-term liabilities		(114,167)	(14,744)		(184,319)		(9,710)
Net liabilities recognized in the consolidated balance sheets	\$	(101,214)	\$ (14,744)	\$	(158,201)	\$	(9,710)
Actuarial assumptions as of the year-end measurement date:							
Discount rate		4.12 %	4.84 %		1.41 %		2.44 %
Rate of compensation increase		3.16 %	None		2.78 %		None

Actuarial assumptions used to determine net periodic pension cost during the year were as follows:

	January 1, 2023		3 January 2, 2022		January 3, 2021		
	Non-U.S.	U.S.	Non-U.S.	U.S.	Non-U.S.	U.S.	
Discount rate	1.41 %	2.44 %	0.92 %	2.21 %	1.34 %	3.01 %	
Rate of compensation increase	2.78 %	None	2.78 %	None	3.36 %	None	
Expected rate of return on assets	1.11 %	7.25 %	2.10 %	7.25 %	2.20 %	7.25 %	

The Company's expected rate of return on assets assumptions are derived from management's estimates, as well as other information compiled by management, including studies that utilize customary procedures and techniques. The studies include a review of anticipated future long-term performance of individual asset classes and consideration of the appropriate asset allocation strategy given the anticipated requirements of the plans to determine the average rate of earnings expected on the funds invested to provide for the pension plans benefits. While the study gives appropriate consideration to recent fund performance and historical returns, the assumption is primarily a long-term, prospective rate.

The Company's discount rate assumptions are derived from a range of factors, including a yield curve for certain plans, composed of the rates of return on high-quality fixed-income corporate bonds available at the measurement date and the related expected duration for the obligations, and a bond matching approach for certain plans.

The following table provides a breakdown of the non-U.S. benefit obligations and fair value of assets for pension plans that have benefit obligations in excess of plan assets:

		January 1, 2023	•	January 2, 2022
	_	(In thousands)		
Pension Plans with Projected Benefit Obligations in Excess of Plan Assets				
Projected benefit obligations	\$	120,736	\$	191,285
Fair value of plan assets		_		—
Pension Plans with Accumulated Benefit Obligations in Excess of Plan Assets				
Accumulated benefit obligations	\$	120,283	\$	189,349
Fair value of plan assets				

Assets of the defined benefit pension plans are primarily equity and debt securities. Asset allocations as of January 1, 2023 and January 2, 2022, and target asset allocations for fiscal year 2023 are as follows:

	Target Al	location	Percentage of Plan Assets at			
	December	January	1, 2023	January	2, 2022	
Asset Category	Non-U.S.	U.S.	Non-U.S.	U.S.	Non-U.S.	U.S.
Equity securities	0-5%	0-10%	— %	44 %	- %	46 %
Debt securities	0-5%	90-100%	%	56 %	%	54 %
Other	95-100%	0-10%	100 %	%	100 %	%
Total	100 %	100 %	100 %	100 %	100 %	100 %

The Company maintains target allocation percentages among various asset classes based on investment policies established for the pension plans which are designed to maximize the total rate of return (income and appreciation) after inflation within the limits of prudent risk taking, while providing for adequate near-term liquidity for benefit payments.

The target allocations for plan assets are listed in the above table. Equity securities primarily include investments in largecap and mid-cap companies located in the United States and abroad, and equity index funds. Debt securities include corporate bonds of companies from diversified industries, high-yield bonds, and U.S. government securities. Other types of investments include investments in non-U.S. government index linked bonds, multi-strategy hedge funds and venture capital funds that follow several different strategies.

The fair value of the Company's pension plan assets as of January 1, 2023 and January 2, 2022 by asset category, classified in the three levels of inputs described in Note 20 to the consolidated financial statements are as follows:

		 Fair Value Measurements at January 1, 2023 Using:				023 Using:
	tal Carrying Value at uary 1, 2023	oted Prices in ctive Markets (Level 1)	Obser	ficant Other vable Inputs Level 2)	τ	Significant Jnobservable Inputs (Level 3)
		(In tho	usands)			
Cash	\$ 14,483	\$ 14,483	\$		\$	
Equity securities:						
U.S. large-cap	61,680	61,680				—
International large-cap value	20,148	20,148				—
Emerging markets growth	9,902	9,902				—
Fixed income securities:						
Corporate and U.S. debt instruments	105,126	36,346		68,780		—
Short-term corporate bonds	17,088			17,088		_
Other types of investments:						
Foreign liability driven instrument	95,062					95,062
Total assets measured at fair value	\$ 323,489	\$ 142,559	\$	85,868	\$	95,062

			 Fair Value Measurements at January 2,				22 Using:
	V	l Carrying Value at ary 2, 2022	oted Prices in ctive Markets (Level 1)	Obser	ficant Other vable Inputs Level 2)		Significant nobservable Inputs (Level 3)
			(In tho	usands)			
Cash	\$	22,241	\$ 22,241	\$	—	\$	
Equity Securities:							
U.S. large-cap		91,601	91,601				—
International large-cap value		29,803	29,803		—		_
Emerging markets growth		12,603	12,603		—		—
Fixed income securities:							
Corporate and U.S. debt instruments		133,727	41,725		92,002		—
Corporate bonds		15,650	_		15,650		_
Other types of investments:							
Foreign liability driven instrument		165,680					165,680
Total assets measured at fair value	\$	471,305	\$ 197,973	\$	107,652	\$	165,680

Valuation Techniques: Valuation techniques utilized need to maximize the use of observable inputs and minimize the use of unobservable inputs. There have been no changes in the methodologies utilized at January 1, 2023 compared to January 2, 2022. The following is a description of the valuation techniques utilized to measure the fair value of the assets shown in the table above.

<u>Equity Securities</u>: Shares of registered investment companies that are publicly traded are categorized as Level 1 assets; they are valued at quoted market prices that represent the net asset value of the fund. These instruments have active markets.

Equity index funds are mutual funds that are not publicly traded and are comprised primarily of underlying equity securities that are publicly traded on exchanges. Price quotes for the assets held by these funds are readily observable and available. Equity index funds are categorized as Level 2 assets.

<u>Fixed Income Securities:</u> Fixed income mutual funds that are publicly traded are valued at quoted market prices that represent the net asset value of securities held by the fund and are categorized as Level 1 assets.

Fixed income index funds that are not publicly traded are stated at net asset value as determined by the issuer of the fund based on the fair value of the underlying investments and are categorized as Level 2 assets.

Individual fixed income bonds are categorized as Level 2 assets except where sufficient quoted prices exist in active markets, in which case such securities are categorized as Level 1 assets. These securities are valued using third-party pricing services. These services may use, for example, model-based pricing methods that utilize observable market data as inputs. Broker dealer bids or quotes of securities with similar characteristics may also be used.

<u>Other Types of Investments</u>: Hedge funds, private equity funds, foreign real estate funds and venture capital funds are valued at fair value by using the net asset values provided by the investment managers and are updated, if necessary, using analytical procedures, appraisals, public market data and/or inquiry of the investment managers. The net asset values are determined based upon the fair values of the underlying investments in the funds. These other investments invest primarily in readily available marketable securities and allocate gains, losses, and expense to the investor based on the ownership percentage as described in the fund agreements. They are categorized as Level 3 assets.

In September 2021, the Company's UK pension scheme executed a buy-in contract with Phoenix Life LTD ("Phoenix"), under which the Company made an upfront payment to Phoenix in exchange for Phoenix agreeing to make the benefit payments under the Company's UK pension scheme due to specified participants and their beneficiaries, thus transferring most of the investment and longevity risk associated with the covered participants and beneficiaries from the Company to Phoenix. This buy-in contract can be considered a liability-driven investment ("LDI") solution that hedges not only the investment risk but also the longevity risk under the Company's UK pension scheme. Like other LDI solutions, it does not eliminate ongoing administrative costs.

The Company's policy is to recognize significant transfers between levels at the actual date of the event.

A reconciliation of the beginning and ending Level 3 assets for fiscal years 2022, 2021 and 2020 is as follows:

		Significant Uno	surements Using bservable Inputs el 3):	
	Foreign liability driven investment	Foreign Real Estate Funds	Multi-strategy Hedge Funds	Total
		(In thou	isands)	
Balance at December 30, 2019	\$	\$ 22,688	\$ 1,721	\$ 24,409
Sales			(1,721)	(1,721)
Unrealized gains		571		571
Balance at January 3, 2021		23,259		23,259
Sales		(23,115)		(23,115)
Purchases	165,680			165,680
Realized losses		(226)		(226)
Realized gains		82		82
Balance at January 2, 2022	165,680			165,680
Pension benefits paid	(6,639)			(6,639)
Foreign exchange losses	(18,411)			(18,411)
Return on plan assets	(45,568)			(45,568)
Balance at January 1, 2023	\$ 95,062	\$	\$	\$ 95,062

With respect to plans outside of the United States, the Company expects to contribute \$6.8 million in the aggregate during fiscal year 2023. During fiscal year 2023, the Company contributed \$10.0 million to its defined benefit pension plan in the United States for the plan year 2022.

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid as follows:

	11	Non-U.S.		U.S.
		(In tho	usands)	
2023	\$	11,907	\$	19,311
2024		12,371		19,267
2025		12,442		19,218
2026		12,835		19,094
2027		12,450		18,906
2028-2032		64,237		87,807

The Company also sponsors a supplemental executive retirement plan to provide senior management with benefits in excess of normal pension benefits. Effective July 31, 2000, this plan was closed to new entrants. At January 1, 2023 and January 2, 2022, the projected benefit obligations were \$18.9 million and \$24.1 million, respectively. Assets with a fair value of \$0.9 million and \$1.6 million, segregated in a trust (which is included in marketable securities and investments on the consolidated balance sheets), were available to meet this obligation as of January 1, 2023 and January 2, 2022, respectively. Pension expenses and income for this plan netted to income of \$3.2 million in fiscal year 2022, expense of \$0.2 million in fiscal year 2020.

Postretirement Medical Plans: The Company provides healthcare benefits for eligible retired U.S. employees under a comprehensive major medical plan or under health maintenance organizations where available. Eligible U.S. employees qualify for retiree health benefits if they retire directly from the Company and have at least ten years of service. Generally, the major medical plan pays stated percentages of covered expenses after a deductible is met and takes into consideration payments by other group coverage and by Medicare. The plan requires retiree contributions under most circumstances and has provisions for cost-sharing charges. Effective January 1, 2000, this plan was closed to new hires. For employees retiring after 1991, the Company has capped its medical premium contribution based on employees' years of service. The Company funds the amount allowable under a 401(h) provision in the Company's defined benefit pension plan. Assets of the plan are primarily equity and debt securities and are available only to pay retiree health benefits. The costs of these plans are not material and the net assets in the plans totaled \$17.1 million and \$20.7 million at January 1, 2023 and January 2, 2022, respectively.

Note 16: Contingencies

The Company is conducting a number of environmental investigations and remedial actions at current and former locations of the Company and, along with other companies, has been named a potentially responsible party ("PRP") for certain waste disposal sites. The Company accrues for environmental issues in the accounting period that the Company's responsibility is established and when the cost can be reasonably estimated. The Company has accrued \$12.2 million and \$11.9 million as of January 1, 2023 and January 2, 2022, respectively, in accrued expenses and other current liabilities, which represents its management's estimate of the cost of the remediation of known environmental matters, and does not include any potential liability for related personal injury or property damage claims. The Company's environmental accrual is not discounted and does not reflect the recovery of any material amounts through insurance or indemnification arrangements. The cost estimates are subject to a number of variables, including the stage of the environmental investigations, the magnitude of the possible contamination, the nature of the potential remedies, possible joint and several liability, the time period over which remediation may occur, and the possible effects of changing laws and regulations. For sites where the Company has been named a PRP, management does not currently anticipate any additional liability to result from the inability of other significant named parties to contribute. The Company expects that the majority of such accrued amounts could be paid out over a period of up to ten years. As assessment and remediation activities progress at each individual site, these liabilities are reviewed and adjusted to reflect additional information as it becomes available. There have been no environmental problems to date that have had, or are expected to have, a material adverse effect on the Company's consolidated financial statements. While it is possible that a loss exceeding the amounts recorded in the consolidated financial statements may be incurred, the potential exposure is not expected to be materially different from those amounts recorded.

The Company is subject to various claims, legal proceedings and investigations covering a wide range of matters that arise in the ordinary course of its business activities. Although the Company has established accruals for potential losses that it believes are probable and reasonably estimable, in the opinion of the Company's management, based on its review of the information available at this time, the total cost of resolving these contingencies at January 1, 2023 should not have a material

adverse effect on the Company's consolidated financial statements. However, each of these matters is subject to uncertainties, and it is possible that some of these matters may be resolved unfavorably to the Company.

Note 17: Stock Plans

Stock-Based Compensation:

The Company's 2019 Incentive Plan (the "2019 Plan") authorizes the issuance of stock options, stock appreciation rights, restricted stock, restricted stock units, other stock-based awards and cash awards as part of the Company's compensation programs. The 2019 Plan replaced the Company's 2009 Incentive Plan (the "2009 Plan"). Upon shareholder approval of the 2019 Plan, 6.25 million shares of the Company's common stock, as well as shares of the Company's common stock previously granted under the 2009 Plan that expire, terminate or are otherwise surrendered, canceled, forfeited or repurchased by the Company at their original issuance price subject to a contractual repurchase right, became available for grant under the 2019 Plan. Awards granted under the 2009 Plan prior to its expiration remain outstanding. As part of the Company's compensation programs, the Company also offers shares of its common stock under its Employee Stock Purchase Plan.

The following table summarizes total pre-tax compensation expense recognized related to the Company's stock options, restricted stock, restricted stock units, performance restricted stock units, performance units and stock grants, included in the Company's consolidated statements of operations for fiscal years 2022, 2021 and 2020:

	January 1, 2023		January 2, 2022		January 1, January 2, 2023 2022		January 3, 2021
			(In	thousands)			
Cost of product and service revenue	\$	7,459	\$	3,193	\$ 1,106		
Research and development expenses		6,799		2,393	944		
Selling, general and administrative expenses		37,260		24,089	24,854		
Total stock-based compensation expense	\$	51,518	\$	29,675	\$ 26,904		

The total income tax benefit recognized in the consolidated statements of operations for stock-based compensation was \$12.8 million in fiscal year 2022, \$12.2 million in fiscal year 2021 and \$18.0 million in fiscal year 2020. Stock-based compensation costs capitalized as part of inventory were immaterial in all periods presented.

<u>Stock Options</u>: The Company has granted options to purchase common shares at prices equal to the market price of the common shares on the date the option is granted. Conditions of vesting are determined at the time of grant. Options are generally exercisable in equal annual installments over a period of three years, and will generally expire seven years after the date of grant. Options replaced in association with business combination transactions are generally issued with the same terms of the respective plans under which they were originally issued.

The fair value of each option grant is estimated using the Black-Scholes option pricing model. The fair value is then amortized on a straight-line basis over the requisite service periods of the awards, which is generally the vesting period. Use of a valuation model requires management to make certain assumptions with respect to selected model inputs. Expected volatility was calculated based on the historical and implied volatility of the Company's stock. The average expected life was based on the contractual term of the option and historic exercise experience. The risk-free interest rate is based on United States Treasury zero-coupon issues with a remaining term equal to the expected life assumed at the date of grant. The Company's weighted-average assumptions used in the Black-Scholes option pricing model were as follows for the fiscal years ended:

	January 1, 2023	January 2, 2022	January 3, 2021
Risk-free interest rate	2.3 %	0.9 %	0.9 %
Expected dividend yield	0.2 %	0.2 %	0.3 %
Expected lives	5 years	5 years	5 years
Expected stock volatility	28.5 %	27.3 %	23.8 %

The following table summarizes stock option activity for the fiscal year ended January 1, 2023:

	Number of Shares	1	/eighted- Average Exercise Price
	(Shares in	thou	sands)
Outstanding at beginning of year	1,192	\$	119.33
Granted	184		167.58
Exercised	(195)		72.41
Canceled	(4)		143.62
Forfeited	(129)		152.90
Outstanding at end of year	1,048	\$	132.32
Exercisable at end of year	461	\$	102.72

The aggregate intrinsic value for stock options outstanding at January 1, 2023 was \$24.4 million with a weightedaverage remaining contractual term of 4.7 years. The aggregate intrinsic value for stock options exercisable at January 1, 2023 was \$20.1 million with a weighted-average remaining contractual term of 3.6 years. At January 1, 2023, there were 0.6 million stock options that were expected to vest in the future, with an aggregate intrinsic value of \$4.3 million and a weighted-average remaining contractual term of 5.6 years.

The weighted-average grant-date fair value of options granted during fiscal years 2022, 2021 and 2020 was \$48.09, \$40.00, and \$18.98 per share, respectively. The total intrinsic value of options exercised during fiscal years 2022, 2021 and 2020 was \$13.9 million, \$32.4 million, and \$51.1 million, respectively. Cash received from option exercises for fiscal years 2022, 2021 and 2020 was \$14.1 million, \$25.1 million, and \$37.7 million, respectively. The total compensation expense recognized related to the Company's outstanding options was \$9.5 million in fiscal year 2022, \$5.6 million in fiscal year 2021 and \$3.1 million in fiscal year 2020.

There was \$15.3 million of total unrecognized compensation cost related to nonvested stock options granted as of January 1, 2023. This cost is expected to be recognized over a weighted-average period of 1.9 years.

<u>Restricted Stock Awards</u>: The Company has awarded shares of restricted stock and restricted stock units to certain employees and non-employee directors at no cost to them, which cannot be sold, assigned, transferred or pledged during the restriction period. The restricted stock and restricted stock units vest through the passage of time, assuming continued employment. The fair value of the award at the time of the grant is expensed on a straight line basis primarily in selling, general and administrative expenses over the vesting period, which is generally 3 years. Recipients of the restricted stock have the right to vote such shares and receive dividends.

The following table summarizes restricted stock award activity for the fiscal year ended January 1, 2023:

	Number of Shares	1	Veighted- Average Grant- Date Fair Value
	(Shares in	thou	sands)
Nonvested at beginning of year	637	\$	144.62
Granted	134		164.65
Vested	(238)		137.90
Forfeited	(80)		151.75
Nonvested at end of year	453	\$	152.79

The fair value of restricted stock awards vested during fiscal years 2022, 2021 and 2020 was \$32.8 million, \$11.6 million, and \$14.0 million, respectively. The total compensation expense recognized related to the restricted stock awards was \$34.2 million in fiscal year 2022, \$16.3 million in fiscal year 2021 and \$8.7 million in fiscal year 2020.

As of January 1, 2023, there was \$43.5 million of total unrecognized compensation cost, related to nonvested restricted stock awards. That cost is expected to be recognized over a weighted-average period of 1.3 years.

Employee Stock Purchase Plan:

In April 1999, the Company's shareholders approved the 1998 Employee Stock Purchase Plan. In April 2005, the Compensation and Benefits Committee of the Company's Board of Directors (the "Board") voted to amend the Employee Stock Purchase Plan, effective July 1, 2005, whereby participating employees have the right to purchase common stock at a price equal to 95% of the closing price on the last day of each six-month offering period. The number of shares which an employee may purchase, subject to certain aggregate limits, is determined by the employee's voluntary contribution, which may not exceed 10% of the employee's base compensation. During fiscal year 2022, the Company issued 30,818 shares of common stock under the Company's Employee Stock Purchase Plan at a weighted-average price of \$134.05 per share. During fiscal year 2021, the Company issued 21,578 shares under this plan at a weighted-average price of \$168.11 per share. During fiscal year 2020, the Company issued 38,727 shares under this plan at a weighted-average price of \$105.23 per share. At January 1, 2023 there remains available for sale to employees an aggregate of 0.7 million shares of the Company's common stock out of the 5.0 million shares authorized by shareholders for issuance under this plan.

Note 18: Stockholders' Equity

Comprehensive Income:

The components of accumulated other comprehensive (loss) income consisted of the following:

	Foreign Currency Translation Adjustment, net of tax		Unrecognized Prior Service Costs, net of tax			Unrealized (Losses) Gains on Securities, net of tax	Accumulated Other Comprehensive Income (Loss)		
				(In tho	usan	ds)			
Balance, December 30, 2019	\$	(200,437)	\$	1,052	\$	(261)	\$	(199,646)	
Current year change		169,500		(1,799)		(16)		167,685	
Balance, January 3, 2021		(30,937)		(747)		(277)		(31,961)	
Current year change		(130,873)		(95)		237		(130,731)	
Balance, January 2, 2022		(161,810)		(842)		(40)		(162,692)	
Current year change		(284,854)		44		5		(284,805)	
Balance, January 1, 2023	\$	(446,664)	\$	(798)	\$	(35)	\$	(447,497)	

Stock Repurchases:

On July 31, 2020, the Company's Board of Directors (the "Board") authorized the Company to repurchase shares of common stock for an aggregate amount up to \$250.0 million under a stock repurchase program (the "Repurchase Program"). On July 22, 2022, the Repurchase Program was terminated by the Board and the Board authorized the Company to repurchase shares of common stock for an aggregate amount up to \$300.0 million under a new stock repurchase program (the "New Repurchase Program"). No shares remain available for repurchase under the Repurchase Program due to its termination. The New Repurchase Program will expire on July 22, 2024 unless terminated earlier by the Board and may be suspended or discontinued at any time. During fiscal year 2022, the Company repurchased 240,000 shares of common stock under the Repurchase Program for an aggregate cost of \$43.4 million. During fiscal year 2022, the Company repurchased 138,025 shares of common stock under the New Repurchase Program for an aggregate repurchase of \$19.1 million. As of January 1, 2023, \$280.9 million remained available for aggregate repurchases of shares under the New Repurchase Program.

In addition, the Board has authorized the Company to repurchase shares of common stock to satisfy minimum statutory tax withholding obligations in connection with the vesting of restricted stock awards and restricted stock unit awards granted pursuant to the Company's equity incentive plans and to satisfy obligations related to the exercise of stock options made pursuant to the Company's equity incentive plans. During fiscal year 2022, the Company repurchased 115,247 shares of common stock for this purpose at an aggregate cost of \$18.1 million. During fiscal year 2021, the Company repurchased 71,248 shares of common stock for this purpose at an aggregate cost of \$10.5 million. During fiscal year 2020, the Company repurchased 72,251 shares of common stock for this purpose at an aggregate shares, with the payments reflected in common stock and capital in excess of par value.

Dividends:

The Board declared a regular quarterly cash dividend of \$0.07 per share in each quarter of fiscal years 2022, 2021 and 2020. At January 1, 2023, the Company had accrued \$8.8 million for a dividend declared in October 2022 for the fourth quarter of fiscal year 2022 that was paid in February 2023. On January 26, 2023, the Company announced that the Board had declared a quarterly dividend of \$0.07 per share for the first quarter of fiscal year 2023 that will be payable in May 2023. In the future, the Board may determine to reduce or eliminate the Company's common stock dividend in order to fund investments for growth, repurchase shares or conserve capital resources.

Note 19: Derivatives and Hedging Activities

The Company uses derivative instruments as part of its risk management strategy only, and includes derivatives utilized as economic hedges that are not designated as hedging instruments. By nature, all financial instruments involve market and credit risks. The Company enters into derivative instruments with major investment grade financial institutions and has policies to monitor the credit risk of those counterparties. The Company does not enter into derivative contracts for trading or other speculative purposes, nor does the Company use leveraged financial instruments. Approximately 55% of the Company's business is conducted outside of the United States, generally in foreign currencies. As a result, fluctuations in foreign currency exchange rates can increase the costs of financing, investing and operating the business.

In the ordinary course of business, the Company enters into foreign exchange contracts for periods consistent with its committed exposures to mitigate the effect of foreign currency movements on transactions denominated in foreign currencies. The intent of these economic hedges is to offset gains and losses that occur on the underlying exposures from these currencies, with gains and losses resulting from the forward currency contracts that hedge these exposures. Transactions covered by hedge contracts include intercompany and third-party receivables and payables. The contracts are primarily in European and Asian currencies, have maturities that do not exceed 12 months, have no cash requirements until maturity, and are recorded at fair value on the Company's consolidated balance sheets. The unrealized gains and losses on the Company's foreign currency contracts are recognized immediately in interest and other expense, net. The cash flows related to the settlement of these hedges are included in cash flows from operating activities within the Company's consolidated statements of cash flows.

Principal hedged currencies include the Australian Dollar, British Pound, Euro, Indian Rupee, Singapore Dollar and Swedish Krona. The Company held forward foreign exchange contracts, designated as economic hedges, with U.S. dollar equivalent notional amounts totaling \$476.9 million at January 1, 2023 \$371.9 million at January 2, 2022, and \$808.0 million at January 3, 2021, and the fair value of these foreign currency derivative contracts was insignificant. The gains and losses realized on these foreign currency derivative contracts are not material. The duration of these contracts was generally 30 days or less during each of fiscal years 2022, 2021 and 2020.

In addition, in connection with certain intercompany loan agreements utilized to finance its acquisitions and stock repurchase program, the Company enters into forward foreign exchange contracts intended to hedge movements in foreign exchange rates prior to settlement of such intercompany loans denominated in foreign currencies. The Company records these hedges at fair value on the Company's consolidated balance sheets. The unrealized gains and losses on these hedges, as well as the gains and losses associated with the remeasurement of the intercompany loans, are recognized immediately in interest and other expense, net. The cash flows related to the settlement of these hedges are included in cash flows from financing activities within the Company's consolidated statements of cash flows.

The outstanding forward exchange contracts designated as economic hedges, which were intended to hedge movements in foreign exchange rates prior to the settlement of certain intercompany loan agreements, included combined U.S. Dollar notional amounts of \$360.2 million as of January 2, 2022. The net gains and losses on these derivatives, combined with the gains and losses on the remeasurement of the hedged intercompany loans were not material.

During fiscal year 2018, the Company designated a portion of the 2026 Notes to hedge its investments in certain foreign subsidiaries. Unrealized translation adjustments from a portion of the 2026 Notes were included in the foreign currency translation component of AOCI, which offsets translation adjustments on the underlying net assets of foreign subsidiaries. The cumulative translation gains or losses will remain in AOCI until the foreign subsidiaries are liquidated or sold. As of January 1, 2023, the total notional amount of the 2026 Notes that was designated to hedge investments in foreign subsidiaries was ϵ 497.2 million. The unrealized foreign exchange (gains) losses recorded in AOCI related to the net investment hedge were \$(34.5) million, \$(33.2) million and \$49.6 million during the fiscal years 2022, 2021 and 2020, respectively.

The Company does not expect any material net pre-tax gains or losses to be reclassified from accumulated other comprehensive (loss) income into interest and other expense, net within the next twelve months.

Note 20: Fair Value Measurements

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash equivalents, derivatives, marketable securities and accounts receivable. The Company believes it had no significant concentrations of credit risk as of January 1, 2023.

The Company's financial assets and liabilities carried at fair value are primarily comprised of marketable securities, derivative contracts used to hedge the Company's currency risk, and acquisition related contingent consideration. The Company has not elected to measure any additional financial instruments or other items at fair value.

Valuation Hierarchy: The following summarizes the three levels of inputs required to measure fair value. For Level 1 inputs, the Company utilizes quoted market prices as these instruments have active markets. For Level 2 inputs, the Company utilizes quoted market prices in markets that are not active, broker or dealer quotations, or utilizes alternative pricing sources with reasonable levels of price transparency. For Level 3 inputs, the Company utilizes unobservable inputs based on the best information available, including estimates by management primarily based on information provided by third-party fund managers, independent brokerage firms and insurance companies. A financial asset's or liability's classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. In determining fair value, the Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible.

The following tables show the assets and liabilities carried at fair value measured on a recurring basis as of January 1, 2023 and January 2, 2022 classified in one of the three classifications described above:

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1 2022 11 1

			 Fair Value N	leasu	urements at Janua	ry 1,	2023 Using:
	Value	ll Carrying e at January 1, 2023	uoted Prices in Active Markets (Level 1)		ignificant Other bservable Inputs (Level 2)	Un	Significant observable Inputs (Level 3)
			(In	thou	sands)		
Marketable securities	\$	11,083	\$ 11,083	\$		\$	
Foreign exchange derivative assets		2,142			2,142		
Foreign exchange derivative liabilities		(1,549)			(1,549)		
Contingent consideration		(46,618)			_		(46,618)

			Fair Value M	ary 2, 2022 Using:	
	al Carrying e at January 2, 2022	Àc	oted Prices in tive Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
			(In t	housands)	
Marketable securities	\$ 33,683	\$	33,683	\$	\$
Foreign exchange derivative assets	3,765			3,765	_
Foreign exchange derivative liabilities	(3,463)			(3,463)	
Contingent consideration	(57,996)			_	(57,996)

Level 1 and Level 2 Valuation Techniques: The Company's Level 1 and Level 2 assets and liabilities are comprised of investments in equity and fixed-income securities as well as derivative contracts. For financial assets and liabilities that utilize Level 1 and Level 2 inputs, the Company utilizes both direct and indirect observable price quotes, including common stock price quotes, foreign exchange forward prices and bank price quotes. Below is a summary of valuation techniques for Level 1 and Level 2 financial assets and liabilities.

<u>Marketable securities</u>: Include equity and fixed-income securities measured at fair value using the quoted market prices in active markets at the reporting date.

Foreign exchange derivative assets and liabilities: Include foreign exchange derivative contracts that are valued using quoted forward foreign exchange prices at the reporting date. The Company's foreign exchange derivative contracts are subject to master netting arrangements that allow the Company and its counterparties to net settle amounts owed to each other. Derivative assets and liabilities that can be net settled under these arrangements have been presented in the Company's consolidated balance sheet on a net basis and are recorded in other assets. As of both January 1, 2023 and January 2, 2022, none of the master netting arrangements involved collateral.

Level 3 Valuation Techniques: The Company's Level 3 liabilities are comprised of contingent consideration related to acquisitions. For liabilities that utilize Level 3 inputs, the Company uses significant unobservable inputs. Below is a summary of valuation techniques for Level 3 liabilities.

<u>Contingent consideration</u>: Contingent consideration is measured at fair value at the acquisition date using projected milestone dates, discount rates, probabilities of success and projected revenues (for revenue-based considerations). Projected risk-adjusted contingent payments are discounted back to the current period using a discounted cash flow model.

The fair values of contingent consideration are calculated on a quarterly basis based on a collaborative effort of the Company's regulatory, research and development, operations, finance and accounting groups, as appropriate. Potential valuation adjustments are made as additional information becomes available, including the progress towards achieving proof of concept, regulatory approvals and revenue targets as compared to initial projections, the impact of market competition and market landscape shifts from non-invasive prenatal testing products, with the impact of such adjustments being recorded in the consolidated statements of operations.

As of January 1, 2023, the Company may have to pay contingent consideration, related to acquisitions with open contingency periods that are substantially all revenue-based consideration, of up to \$106.2 million. The expected maximum earnout period for acquisitions with open contingency period is 5.9 years from January 1, 2023, and the remaining weighted average expected earnout period at January 1, 2023 was 4.9 years.

A reconciliation of the beginning and ending Level 3 net liabilities for contingent consideration is as follows:

	(In	thousands)
Balance at December 29, 2019	\$	(35,481)
Amounts paid and foreign currency translation		23,701
Change in fair value (included within selling, general and administrative expenses)		8,827
Balance at January 3, 2021		(2,953)
Additions		(57,431)
Amounts paid and foreign currency translation		5,507
Change in fair value (included within selling, general and administrative expenses)		(3,119)
Balance at January 2, 2022		(57,996)
Additions		(4,961)
Amounts paid and foreign currency translation		2,562
Adjustments recognized in goodwill		12,400
Change in fair value (included within selling, general and administrative expenses)		1,377
Balance at January 1, 2023	\$	(46,618)

Assets and Liabilities Not Carried at Fair Value

The carrying amounts of cash and cash equivalents, accounts receivable, accounts payable and accrued expenses approximate fair value due to the short-term maturities of these assets and liabilities. If measured at fair value, cash and cash equivalents would be classified as Level 1.

The Company's outstanding senior unsecured notes had an aggregate fair value of \$3,812.3 million and aggregate carrying value of \$4,390.5 million as of January 1, 2023. The Company's outstanding senior unsecured notes had an aggregate fair value of \$4,612.8 million and aggregate carrying value of \$4,479.5 million as of January 2, 2022. The fair values of the outstanding senior unsecured notes were estimated using market quotes from brokers and were based on current rates offered for similar debt, which are Level 2 measurements.

The Company's other debt facilities, including the Company's senior revolving credit facility and term loan facility, had an aggregate carrying value of \$3.7 million and \$504.5 million as of January 1, 2023 and January 2, 2022, respectively. The carrying value approximates fair value and were classified as Level 2.

Note 21: Leases

Lessee Disclosures

The Company leases certain property and equipment under operating and finance leases. The Company's leases have remaining lease terms of less than 1 year to 30 years, some of which include options to extend the lease for up to 5 years, and some of which include options to terminate the lease within 1 year. Finance leases are not material to the Company.

The components of lease expense were as follows:

	January 1, 2023		January 2, 2022		January 3, 2021
			(In	thousands)	
Lease Cost:					
Operating lease cost		39,989	\$	39,516	37,613
Supplemental cash flow information related to leases was as follows:					
	January 1, 2023		, January 2, 2022		January 3, 2021
	(In thousands)				

	(In thousands)					
Cash paid for amounts included in the measurement of lease liabilities:						
Operating cash flows from operating leases	\$	37,488	\$	38,970	\$	34,373
Right-of-use assets obtained in exchange for new lease obligations:						
Operating leases	\$	55,016	\$	12,345	\$	2,605
Right-of-use assets obtained in exchange for new lease obligations:	\$				\$	

Supplemental balance sheet information related to leases was as follows:

	J	anuary 1, 2023		January 2, 2022		
	(In thousands, except lease term an discount rate)					
Operating Leases:						
Operating lease right-of-use assets	\$	188,351	\$	164,040		
Operating lease liabilities included in Accrued expenses and other current liabilities	\$	31,217	\$	29,313		
Operating lease liabilities		169,968		147,395		
Total operating lease liabilities	\$	201,185	\$	176,708		
Weighted Average Remaining Lease Term in Years						
Operating leases		6.1		5.8		
Weighted Average Remaining Discount Rate						
Operating leases		2.6%		1.8%		

Lease costs from finance leases, short-term leases, variable lease costs and sub-lease income are not material.

Future payments of operating lease liabilities as of January 1, 2023 were as follows:

	(In	thousands)
2023	\$	38,452
2024		35,361
2025		32,080
2026		27,064
2027		23,983
2028 and thereafter		65,308
Total lease payments		222,248
Less imputed interest		(21,063)
Total	\$	201,185

Note 22: Industry Segment and Geographic Area Information

The Company discloses information about its operating segments based on the way that management organizes the segments within the Company for making operating decisions and assessing financial performance. The Company evaluates the performance of its operating segments based on revenue and operating income. Intersegment revenue and transfers are not significant. The accounting policies of the operating segments are the same as those described in Note 1.

The principal products and services of the Company's two operating segments are:

- *Discovery & Analytical Solutions*. Provides products and services targeted towards the life sciences and applied markets.
- *Diagnostics*. Develops diagnostics, tools and applications focused on clinically-oriented customers, especially within the reproductive health, emerging market diagnostics and applied genomics markets. The Diagnostics segment serves the diagnostics market.

The Company has included the expenses for its corporate headquarters, such as legal, tax, audit, human resources, information technology, and other management and compliance costs, as well as the activity related to the mark-to-market adjustment on postretirement benefit plans, as "Corporate" below. The Company has a process to allocate and recharge expenses to the reportable segments when these costs are administered or paid by the corporate headquarters based on the extent to which the segment benefited from the expenses. These amounts have been calculated in a consistent manner and are included in the Company's calculations of segment results to internally plan and assess the performance of each segment for all purposes, including determining the compensation of the business leaders for each of the Company's operating segments.

The primary financial measure by which the Company evaluates the performance of its segments is adjusted operating income, which consists of operating income plus amortization of intangible assets, adjustments to operations arising from purchase accounting (primarily adjustments to the fair value of acquired inventory that are subsequently recognized), acquisition and divestiture-related costs, and other costs that are not expected to recur or are of a non-cash nature, including primarily restructuring actions.

Revenue and operating income (loss) from continuing operations by operating segment are shown in the table below for the fiscal years ended:

	January 1, 2023			January 2, 2022	January 3, 2021	
			II)	n thousands)		
Revenues						
Discovery & Analytical Solutions	\$	1,292,909	\$	897,718	\$ 596,585	
Diagnostics		2,019,727		2,932,738	2,067,728	
Revenue purchase accounting adjustments		(814)		(2,648)	 (1,083)	
Total revenues	\$	3,311,822	\$	3,827,808	\$ 2,663,230	
Segment Operating Income						
Discovery & Analytical Solutions	\$	503,243	\$	281,602	\$ 129,174	
Diagnostics		781,985		1,432,769	1,010,361	
Corporate		(73,431)		(77,364)	(73,854)	
Subtotal reportable segments		1,211,797		1,637,007	1,065,681	
Amortization of intangible assets		(370,638)		(256,569)	(160,991)	
Purchase accounting adjustments		(45,681)		(40,993)	(6,382)	
Acquisition and divestiture-related costs		(39,826)		(62,760)	(4,335)	
Restructuring and other		(12,953)		(18,228)	(26,700)	
Operating income from continuing operations	_	742,699		1,258,457	 867,273	
Interest and other expense, net		90,862		54,875	67,201	
Income from continuing operations before income taxes	\$	651,837	\$	1,203,582	\$ 800,072	

Additional information relating to the Company's reporting segments is as follows for the three fiscal years ended January 1, 2023:

		Depreciation and Amortization Expense				Capital Expenditures						
	e	January 1, 2023	J	anuary 2, 2022	J	anuary 3, 2021	J	anuary 1, 2023	Ja	anuary 2, 2022	Ja	anuary 3, 2021
			(In	thousands)					(In	thousands)		
Discovery & Analytical Solutions	\$	263,698	\$	94,700	\$	48,657	\$	41,532	\$	27,818	\$	6,345
Diagnostics		161,394		214,178		149,738		40,671		57,206		55,236
Corporate		1,908		2,565		3,253		3,429		996		2,053
Continuing operations	\$	427,000	\$	311,443	\$	201,648	\$	85,632	\$	86,020	\$	63,634

	Tota	l Assets
	January 1, 2023	January 2, 2022
	(In th	ousands)
Discovery & Analytical Solutions	\$ 8,330,045	\$ 8,478,292
Diagnostics	3,991,659	4,692,816
Corporate	114,447	129,904
Current and long-term assets of discontinued operations	1,693,704	1,699,542
Total assets	\$ 14,129,855	\$ 15,000,554

The following geographic area information for continuing operations includes revenue based on location of external customers for the three fiscal years ended January 1, 2023 and net long-lived assets based on physical location as of January 1, 2023 and January 2, 2022:

	Revenue						
		January 1, 2023		January 2, 2022	January 3, 2021		
			(I	n thousands)			
U.S.	\$	1,546,520	\$	1,682,294	\$	921,574	
International:							
China		476,366		449,588		305,660	
United Kingdom		136,017		357,911		323,837	
Other international		1,152,919		1,338,015		1,112,159	
Total international		1,765,302		2,145,514		1,741,656	
Total revenue	\$	3,311,822	\$	3,827,808	\$	2,663,230	

	Net Long	Net Long-Lived Assets ⁽¹⁾		
	January 1, 2023	January 2, 2022		
	(In the	(In thousands)		
U.S.	\$ 311,661	\$ 295,39		
International:				
Germany	147,766	5 146,63		
China	68,072	2 59,85		
Other international	216,235	5 222,19		
Total international	432,073	3 428,67		
Total net long-lived assets	\$ 743,734	4 \$ 724,07		

(1) Long-lived assets consist of property and equipment, net, operating lease right-of-use assets, rental equipment, software and other long-term assets.

Note 23: Quarterly Financial Information (Unaudited)

Selected quarterly financial information is as follows for the fiscal years ended:

	First Quarter	Second Quarter		Third Quarter		Fourth Quarter	Year
		(In thousa	ands,	except per s	shar	e data)	
January 1, 2023							
Revenue	\$ 963,163	\$ 895,642	\$	711,803	\$	741,214	\$ 3,311,822
Gross profit	594,740	551,717		407,044		436,329	1,989,830
Operating income from continuing operations	261,967	232,486		110,780		137,466	742,699
Income from continuing operations before income taxes	224,904	206,344		82,142		138,447	651,837
Income from continuing operations	184,070	161,601		69,508		97,497	512,676
(Loss) income from discontinued operations	(7,108)	17,611		15,839		30,161	56,503
Net income	176,962	179,212		85,347		127,658	569,179
Basic earnings per share:							
Income from continuing operations	\$ 1.46	\$ 1.28	\$	0.55	\$	0.77	\$ 4.06
(Loss) income from discontinued operations	(0.06)	0.14		0.13		0.24	0.45
Net income	1.40	1.42		0.68		1.01	4.51
Diluted earnings per share:							
Income from continuing operations	\$ 1.45	\$ 1.28	\$	0.55	\$	0.77	\$ 4.06
(Loss) income from discontinued operations	(0.06)	0.14		0.13		0.24	0.45
Net income	1.39	1.42		0.67		1.01	4.50
January 2, 2022							
Revenue	\$ 1,027,836	\$ 910,747	\$	861,315	\$	1,027,910	\$ 3,827,808
Gross profit	693,187	574,143		522,860		643,797	2,433,987
Operating income from continuing operations	455,010	307,999		195,554		299,894	1,258,457
Income from continuing operations before income taxes	467,537	301,329		135,012		299,704	1,203,582
Income from continuing operations	369,859	227,857		107,631		184,089	889,436
Income from discontinued operations	9,446	18,073		20,107		6,095	53,721
Net income	379,305	245,930		127,738		190,184	943,157
Basic earnings per share:							
Income from continuing operations	\$ 3.30	\$ 2.03	\$	0.94	\$	1.46	\$ 7.66
Income from discontinued operations	0.08	0.16		0.18		0.05	0.46
Net income	3.38	2.19		1.12		1.51	8.12
Diluted earnings per share:							
Income continuing operations	\$ 3.29	\$ 2.03	\$	0.94	\$	1.45	\$ 7.62
Income from discontinued operations	0.08	0.16		0.17		0.05	0.46
Net income	3.37	2.19		1.11		1.50	8.08

Item 9.

Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of January 1, 2023. The term "disclosure controls and procedures" as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), means controls and other procedures of a company that are designed to provide reasonable assurance that information required to be disclosed by the company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of January 1, 2023, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

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 Rule 13a-15(f) or 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, the 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 financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

- Pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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 or procedures may deteriorate.

Our management assessed the effectiveness of our internal control over financial reporting as of January 1, 2023. In making this assessment, our management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control-Integrated Framework (2013)*.

Based on this assessment, our management concluded that, as of January 1, 2023, our internal control over financial reporting was effective based on those criteria.

Our registered public accounting firm has issued an attestation report on our internal control over financial reporting. This report appears below.

Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the fiscal quarter ended January 1, 2023 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any material impact to our internal controls over financial reporting despite the fact that many of our employees are working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing the effect of the COVID-19 situation on our internal controls to minimize the impact on their design and operating effectiveness.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of PerkinElmer, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of PerkinElmer, Inc. and subsidiaries (the "Company") as of January 1, 2023, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of January 1, 2023, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of *Control—Integrated Framework (2013)* issued by the Committee of January 1, 2023, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended January 1, 2023 of the Company and our report dated March 1, 2023 expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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 policies or procedures may deteriorate.

/s / DELOITTE & TOUCHE LLP

Boston, Massachusetts March 1, 2023

Item 9B. *Other Information*

Not applicable.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required to be disclosed by this Item pursuant to Item 401 of Regulation S-K with respect to our executive officers is contained in Part I of this annual report on Form 10-K under the caption, "Information About Our Executive Officers". The remaining information required to be disclosed by the Item pursuant to Item 401 and Item 407 of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 25, 2023 under the captions "Proposal No. 1 Election of Directors" and "Information Relating to Our Board of Directors and Its Committees" and is incorporated in this annual report on Form 10-K by reference.

We have adopted a code of ethics, our Standards of Business Conduct, that applies to our principal executive officer, principal financial officer, principal accounting officer or controller, and persons performing similar functions. Our Standards of Business Conduct, as well as our corporate governance guidelines and the charters for the audit, compensation and benefits, nominating and corporate governance, executive and finance committees of our Board of Directors, are each accessible under the "Corporate Governance" heading of the "Investors" section of our website, http://www.perkinelmer.com. This information is also available in print to any stockholder who requests it, by writing to PerkinElmer, Inc., 940 Winter Street, Waltham, Massachusetts 02451, Attention: Investor Relations. We also intend to disclose in the same location on our website, any amendments to, or waivers from, our Standards of Business Conduct that are required to be disclosed pursuant to the disclosure requirements of Item 5.05 of Form 8-K.

Item 11. Executive Compensation

The information required to be disclosed by this Item pursuant to Item 402 and Item 407(e) of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 25, 2023 under the captions "Director Compensation," "Information Relating to Our Board of Directors and Its Committees—Compensation Committee Interlocks and Insider Participation," and "Executive Compensation," and is incorporated in this annual report on Form 10-K by reference.

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

The information required to be disclosed by this Item pursuant to Item 403 of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 25, 2023 under the caption "Beneficial Ownership of Common Stock," and is incorporated in this annual report on Form 10-K by reference.

The information required to be disclosed by this Item pursuant to Item 201(d) of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 25, 2023 under the caption "Executive Compensation—Equity Compensation Plan Information," and is incorporated in this annual report on Form 10-K by reference.

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

The information required to be disclosed by this Item pursuant to Item 404 of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 25, 2023 under the caption "Information Relating to Our Board of Directors and Its Committees—Certain Relationships and Policies on Related Party Transactions," and is incorporated in this annual report on Form 10-K by reference.

The information required to be disclosed by this Item pursuant to Item 407(a) of Regulation S-K is contained in the proxy statement for our annual meeting of stockholders to be held on April 25, 2023 under the caption "Information Relating to Our Board of Directors and Its Committees—Determination of Independence," and is incorporated in this annual report on Form 10-K by reference.

Item 14. Principal Accountant Fees and Services

The information required to be disclosed by this Item pursuant to Item 9(e) of Schedule 14A is contained in the proxy statement for our annual meeting of stockholders to be held on April 25, 2023 under the caption "Information Relating to Our Board of Directors and Its Committees—Independent Registered Public Accounting Firm Fees and Other Matters", and is incorporated in this annual report on Form 10-K by reference.

Item 15. Exhibits and Financial Statement Schedules

(a) DOCUMENTS FILED AS PART OF THIS REPORT:

1. FINANCIAL STATEMENTS

Included in Part II, Item 8:

Report of Independent Registered Public Accounting Firm

Consolidated Statements of Operations for Each of the Three Fiscal Years in the Period Ended January 1, 2023

Consolidated Statements of Comprehensive Income for Each of the Three Fiscal Years in the Period Ended January 1, 2023

Consolidated Balance Sheets as of January 1, 2023 and January 2, 2022

Consolidated Statements of Stockholders' Equity for Each of the Three Fiscal Years in the Period Ended January 1, 2023

Consolidated Statements of Cash Flows for Each of the Three Fiscal Years in the Period Ended January 1, 2023

Notes to Consolidated Financial Statements

2. FINANCIAL STATEMENT SCHEDULE

We have omitted financial statement schedules because of the absence of conditions under which they are required, or because the required information is given in the financial statements or notes thereto.

3. EXHIBITS

Exhibit No.	Exhibit Title
2.1 ⁽¹⁾	Agreement and Plan of Merger, dated as of July 25, 2021, by and among PerkinElmer, Inc., Burton Acquisition I, Inc., Burton Acquisition II, Inc., BioLegend, Inc. and Gene Lay, solely in his capacity as the Stockholder Representative, filed with the Commission on July 27, 2021 as Exhibit 2.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
2.2 ⁽¹⁾	Master Purchase and Sale Agreement, dated as of August 1, 2022, by and between PerkinElmer, Inc. and Polaris Purchaser, L.P., filed with the Commission on August 5, 2022 as Exhibit 2.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
3.1	PerkinElmer, Inc.'s Restated Articles of Organization, filed with the Commission on May 11, 2007 as Exhibit 3.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
3.2	PerkinElmer, Inc.'s Amended and Restated By-laws, filed with the Commission on December 13, 2018 as Exhibit 3.2 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
4.1	Specimen Certificate of PerkinElmer, Inc.'s Common Stock, \$1 par value, filed with the Commission on August 15, 2001 as Exhibit 4.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
4.2	Description of PerkinElmer, Inc.'s Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, filed with the Commission on March 3, 2022 as Exhibit 4.2 to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
4.3	Indenture dated as of October 25, 2011 between PerkinElmer, Inc. and U.S. Bank National Association, filed with the Commission on October 27, 2011 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
4.4	Third Supplemental Indenture, dated as of July 19, 2016, among PerkinElmer, Inc., U.S. Bank National Association, as trustee, and Elavon Financial Services DAC, UK Branch, as paying agent, filed with the Commission on July 19, 2016 as Exhibit 4.2 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.

Exhibit No.	Exhibit Title
4.5	Paying Agency Agreement, dated July 19, 2016, among PerkinElmer, Inc., U.S. Bank National Association, as trustee, Elavon Financial Services DAC, UK Branch, as paying agent, and Elavon Financial Services DAC, as transfer agent and registrar, filed with the Commission on July 19, 2016 as Exhibit 4.3 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
4.6	Fifth Supplemental Indenture, dated as of September 12, 2019, by and between PerkinElmer, Inc. and U.S. Bank National Association, as trustee (including the form of note contained therein) filed with the Commission on September 12, 2019 as Exhibit 4.2 to our current report on Form 8-K (File No. 001-05075)) and herein incorporated by reference.
4.7	Sixth Supplemental Indenture, dated as of March 8, 2021, by and between the Company and U.S. Bank National Association, as trustee (including the form of note contained therein) filed with the Commission on March 8, 2021 as Exhibit 4.2 to our current report on Form 8-K (File No. 001-05075)) and herein incorporated by reference.
4.8	Seventh Supplemental Indenture, dated as of September 10, 2021, by and between the Company and U.S. Bank National Association, as trustee (including the form of note contained therein) filed with the Commission on September 10, 2021 as Exhibit 4.2 to our current report on Form 8-K (file No. 001-05075)) and herein incorporated by reference.
10.1	<u>Credit Agreement, dated as of August 24, 2021, among PerkinElmer, Inc., PerkinElmer Health Sciences, Inc., PerkinElmer Life Sciences International Holdings, PerkinElmer Global Holdings S.à r.l. and PerkinElmer Health Sciences B.V. as Borrowers, Bank of America, N.A. as Administrative Agent, Swing Line Lender and an L/C Issuer, the Lenders party thereto and the other L/C Issuers party thereto, filed with the Commission on August 25, 2021 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.</u>
10.2*	Employment Contracts:
	(1) Amended and Restated Employment Agreement, dated as of August 21, 2019, between Dr. Prahlad R. Singh and PerkinElmer, Inc., filed with the Commission on August 21, 2019 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and incorporated herein by reference.
	(2) Employment Agreement between Joel S. Goldberg and PerkinElmer, Inc. dated as of July 21, 2008, filed with the Commission on August 8, 2008 as Exhibit 10.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference;
	(3) Form of Amendment between Joel S. Goldberg and PerkinElmer, Inc. dated as of December 3, 2010, filed with the Commission on March 1, 2011 as Exhibit 10.4(7) to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
	(4) Amended and Restated Employment Agreement between Andrew Okun and PerkinElmer, Inc. dated as of January 1, 2014, filed with the Commission on February 25, 2014 as Exhibit 10.2(10) to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
	(5) Employment Agreement between Daniel R. Tereau and PerkinElmer, Inc. dated as of February 1, 2016, filed with the Commission on March 1, 2016 as Exhibit 10.2(8) to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
	(6) Employment Agreement between Tajinder Vohra and PerkinElmer, Inc. dated as of January 29, 2018, filed with the Commission on May 8, 2018 as Exhibit 10.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
	(7) Employment Agreement between James Mock and PerkinElmer, Inc., dated as of April 10, 2018, filed with the Commission on April 13, 2018 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
	(8) Employment Agreement between Miriame Victor and PerkinElmer, Inc. dated as of January 1, 2022, filed with the Commission on March 3, 2022 as Exhibit 10.3(8) to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
	(9) Employment Agreement between Maxwell Krakowiak and PerkinElmer, Inc. dated as of August 16, 2022, filed with the Commission on August 17, 2022 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.3*	PerkinElmer, Inc.'s 2009 Incentive Plan, filed with the Commission on March 12, 2014 as Appendix A to our definitive proxy statement on Schedule 14A (File No. 001-05075) and herein incorporated by reference.
10.4*	PerkinElmer, Inc.'s 2008 Deferred Compensation Plan, filed with the Commission on December 12, 2008 as Exhibit 10.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.

Exhibit No.	Exhibit Title
10.5*	First Amendment to PerkinElmer, Inc.'s 2008 Deferred Compensation Plan, filed with the Commission on March 1, 2011 as Exhibit 10.9 to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
10.6*	Second Amendment to PerkinElmer, Inc.'s 2008 Deferred Compensation Plan, filed with the Commission on May 10, 2022 as Exhibit 10.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
10.7*	PerkinElmer, Inc. 1998 Employee Stock Purchase Plan as Amended and Restated on December 10, 2009, filed with the Commission on March 1, 2010 as Exhibit 10.15 to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
10.8*	Form of Stock Option Agreement given by PerkinElmer, Inc. to its executive officers for use under the 2009 Incentive Plan, filed with the Commission on April 28, 2009 as Exhibit 10.3 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.9*	PerkinElmer, Inc. Savings Plan Amended and Restated effective January 1, 2021, filed with the Commission on March 2, 2021 as Exhibit 10.16 to our annual report on Form 10-K (File No. 001-05075) and herein incorporated by reference.
10.10*	PerkinElmer, Inc. Employees Retirement Plan Amended and Restated effective January 1, 2012, as further amended, filed with the Commission on February 26, 2019 as Exhibit 10.26 to our annual report on Form 10-K (file No. 001-05075) and herein incorporated by reference.
10.11*	PerkinElmer, Inc. Amended and Restated Global Incentive Compensation Plan (Executive Officers) effective January 4, 2021, filed with the Commission on May 11, 2021 as Exhibit 10.5 to our quarterly report on Form 10- Q (file No. 001-05075) and herein incorporated by reference.
10.12*	PerkinElmer, Inc.'s 2019 Incentive Plan, filed with the Commission on March 13, 2019 as Appendix B to our definitive proxy statement on Schedule 14A (File No. 001-05075) and herein incorporated by reference.
10.13*	Form of Restricted Stock Unit Agreement for grants to non-employee directors under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.2 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.14*	Form of Restricted Stock Unit Agreement (Performance-based vesting) with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.3 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.15*	Form of Restricted Stock Unit Agreement (Performance-based vesting) with double-trigger vesting acceleration following a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.4 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.16*	Form of Stock Option Agreement with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.5 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.17*	Form of Stock Option Agreement with double-trigger vesting acceleration following a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.6 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.18*	Form of Restricted Stock Agreement with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.7 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.19*	Form of Restricted Stock Agreement with double-trigger vesting acceleration following a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 24, 2019 as Exhibit 99.8 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.20*	Form of Restricted Stock Unit Agreement (Time-based vesting) with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 1, 2020 as Exhibit 99.1 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.

Exhibit No.	Exhibit Title
10.21*	Form of Restricted Stock Unit Agreement (Time-based vesting) with double-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on April 1, 2020 as Exhibit 99.2 to our current report on Form 8-K (File No. 001-05075) and herein incorporated by reference.
10.22*	Form of Restricted Stock Unit Agreement (Performance-based vesting) with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on May 11, 2021 as Exhibit 10.1 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
10.23*	Form of Restricted Stock Unit Agreement (Performance-based vesting) with double-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on May 11, 2021 as Exhibit 10.2 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
10.24*	Form of Restricted Stock Agreement with single-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on May 11, 2021 as Exhibit 10.3 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
10.25*	Form of Restricted Stock Agreement with double-trigger vesting acceleration upon a change of control for grants to executive officers under the 2019 Incentive Plan, filed with the Commission on May 11, 2021 as Exhibit 10.4 to our quarterly report on Form 10-Q (File No. 001-05075) and herein incorporated by reference.
21	Subsidiaries of PerkinElmer, Inc., attached hereto as Exhibit 21.
23	Consent of Independent Registered Public Accounting Firm, attached hereto as Exhibit 23.
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, attached hereto as Exhibit 31.1.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, attached hereto as Exhibit 31.2.
32.1	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, attached hereto as Exhibit 32.1.
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.
101.CAL	Inline XBRL Calculation Linkbase Document.
101.DEF	Inline XBRL Definition Linkbase Document.
101.LAB	Inline XBRL Labels Linkbase Document.
101.PRE	Inline XBRL Presentation Linkbase Document.
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101).

Attached as Exhibit 101 to this report are the following formatted in XBRL (Extensible Business Reporting Language):

(i) Consolidated Statements of Operations for each of the three years in the period ended January 1, 2023,
(ii) Consolidated Balance Sheets as of January 1, 2023 and January 2, 2022, (iii) Consolidated Statements of Comprehensive Income for each of the three years in the period ended January 1, 2023, (iv) Consolidated Statements of Stockholders' Equity for each of the three years in the period ended January 1, 2023, (v) Consolidated Statements of Cash Flows for each of the three years in the period ended January 1, 2023, (v) Consolidated Statements of Cash Flows for each of the three years in the period ended January 1, 2023, (v) Consolidated Statements.

⁽¹⁾ The exhibits and schedules to this agreement have been omitted from this filing pursuant to Item 601(b)(2) of Regulation S-K. The registrant agrees to furnish copies of any of such exhibits or schedules to the SEC upon request.

^{*} Management contract or compensation plan or arrangement required to be filed as an exhibit pursuant to Item 15(b) of Form 10-K.

Item 16. Form 10-K Summary

Not applicable.

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.

_	Signature	PERKINELMER, INC. Title	Date
By:	/s/ PRAHLAD SINGH, PhD Prahlad Singh, PhD	President and Chief Executive Officer (Principal Executive Officer)	March 1, 2023
By:	/s/ MAXWELL KRAKOWIAK Maxwell Krakowiak	Sr. Vice President and Chief Financial Officer (Principal Financial Officer)	March 1, 2023
By:	/s/ ANDREW OKUN Andrew Okun	Vice President, Chief Accounting Officer and Treasurer (Principal Accounting Officer)	March 1, 2023

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of PerkinElmer, Inc., hereby severally constitute Prahlad Singh and Maxwell Krakowiak, and each of them singly, our true and lawful attorneys with full power to them, and each of them singly, to sign for us and in our names, in the capacities indicated below, this Annual Report on Form 10-K and any and all amendments to said Annual Report on Form 10-K, and generally to do all such things in our name and behalf in our capacities as officers and directors to enable PerkinElmer, Inc. to comply with the provisions of the Securities Exchange Act of 1934, and all requirements of the Securities and Exchange Commission, hereby rectifying and confirming signed by our said attorneys, and any and all amendments thereto.

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:

-	Signature	Title	Date
By:	/s/ PRAHLAD SINGH, PhD	President, Chief Executive Officer and	March 1, 2023
-	Prahlad Singh, PhD	Director (Principal Executive Officer)	
By:	/s/ MAXWELL KRAKOWIAK	Sr. Vice President and	March 1, 2023
-	Maxwell Krakowiak	Chief Financial Officer (Principal Financial Officer)	
By:	/s/ ANDREW OKUN	Vice President, Chief Accounting Officer	March 1, 2023
	Andrew Okun	and Treasurer (Principal Accounting Officer)	
By:	/s/ PETER BARRETT, PhD	Director	March 1, 2023
	Peter Barrett, PhD		
By:	/s/ SAMUEL R. CHAPIN	Director	March 1, 2023
	Samuel R. Chapin		
By:	/s/ SYLVIE GRÉGOIRE, PharmD	Director	March 1, 2023
	Sylvie Grégoire, PharmD		
By:	/s/MICHELLE MCMURRY-HEATH, MD	Director	March 1, 2023
	Michelle McMurry-Heath, MD PhD		
By:	/s/ ALEXIS P. MICHAS	Director	March 1, 2023
	Alexis P. Michas		
By:	/s MICHEL VOUNATSOS	Director	March 1, 2023
_	Michel Vounatsos		
By:	/s/ FRANK WITNEY, PhD	Director	March 1, 2023
-	Frank Witney, PhD		
By:	/s/ PASCALE WITZ	Director	March 1, 2023
-	Pascale Witz		

Subsidiaries of the Registrant

As of March 1, 2023, the following is a list of the parent (Registrant) and its active subsidiaries, together with their subsidiaries. Except as noted, all voting securities of the listed subsidiaries are 100% beneficially owned by the Registrant or a subsidiary thereof. The subsidiaries are arranged alphabetically by state and then country of incorporation or organization.

	Name of Company	State or Country of Incorporation or Organization	Name of Parent
1.	PerkinElmer, Inc.	Massachusetts	N/A
2.	2Cure, LLC	California	BioLegend, Inc.
3.	BioLegend CNS, Inc.	California	BioLegend, Inc.
4.	BioLegend Ventures, LLC	California	BioLegend, Inc.
5.	BioLegend, Inc.	California	PerkinElmer, Inc.
6.	Caliper Life Sciences, Inc.	Delaware	PerkinElmer Holdings, Inc.
7.	Cambridge Research & Instrumentation, Inc.	Delaware	Caliper Life Sciences, Inc.
8.	Dharmacon, Inc.	Delaware	PerkinElmer Holdings, Inc.
9.	Horizon Discovery, Inc.	Delaware	Horizon Discovery Limited
10.	Immunodiagnostic Systems Inc.	Delaware	PerkinElmer Holdings, Inc.
11.	Nexcelom Bioscience Holdings, LLC	Delaware	PerkinElmer Health Sciences, Inc.
12.	Oxford Immunotec USA, Inc.	Delaware	Oxford Immunotec Limited
13.	PerkinElmer Argentina Holdings, LLC	Delaware	PerkinElmer Holdings, Inc.
14.	PerkinElmer CV Holdings, LLC	Delaware	PerkinElmer Global Holdings S.à r.l.
15.	PerkinElmer Diagnostics Holdings, Inc.	Delaware	PerkinElmer Holdings, Inc.
16.	PerkinElmer Health Sciences, Inc.	Delaware	PerkinElmer Holdings, Inc.
17.	PerkinElmer Informatics, Inc.	Delaware	PerkinElmer Holdings, Inc.
18.	Qognit, Inc.	Delaware	BioLegend, Inc
19.	Sage Labs, LLC	Delaware	Dharmacon, Inc.
20.	SonoVol, Inc.	Delaware	PerkinElmer Holdings, Inc.
21.	ViaCord, LLC	Delaware	PerkinElmer Diagnostics Holdings, Inc.
22.	VisEn Medical Inc.	Delaware	PerkinElmer Health Sciences, Inc.
23.	Xenogen Corporation	Delaware	Caliper Life Sciences, Inc.
24.	Omni International, Inc.	Georgia	PerkinElmer Holdings, Inc.
25.	NovaScreen Biosciences Corporation	Maryland	Caliper Life Sciences, Inc.
26.	Immunetics, Inc.	Massachusetts	Oxford Immunotec USA, Inc.
27.	Nexcelom Bioscience, LLC	Massachusetts	Nexcelom Bioscience Holdings, LLC
28.	PerkinElmer Holdings, Inc.	Massachusetts	PerkinElmer, Inc.
29.	SIRION Biotech International, Inc.	Massachusetts	PerkinElmer Holdings, Inc.
30.	OZ Systems USA, LLC	Nevada	Optimization Zorn Corporation
31.	EUROIMMUN US, Inc.	New Jersey	PerkinElmer Diagnostics Holdings, Inc.
32.	EUROIMMUN US Real Estate LLC	New Jersey	EUROIMMUN US, Inc.
32. 33.	PerkinElmer Genetics, Inc.	Pennsylvania	PerkinElmer Diagnostics Holdings, Inc.
33. 34.	PerkinElmer Health Sciences Puerto Rico, LLC	Puerto Rico	PerkinElmer Holdings, Inc.
35.		Texas	
35. 36.	Bioo Scientific Corporation Optimization Zorn Corporation	Texas	PerkinElmer Holdings, Inc. PerkinElmer Diagnostics Holdings, Inc.
30. 37.	PerkinElmer Automotive Research, Inc.		
		Texas	PerkinElmer Holdings, Inc.
38.	Perkin-Elmer Argentina S.R.L.	Argentina	PerkinElmer Holdings, Inc. (98%)
39. 40	PerkinElmer Pty. Ltd.	Australia	PerkinElmer Holdings, Inc.
40.	Perten Instruments of Australia Pty Ltd.	Australia	Perten Instruments AB
41.	Horizon Genomics GmbH	Austria	Horizon Discovery Group Ltd.
42.	PerkinElmer VertriebsgmbH	Austria	Wellesley B.V.
43.	Immunodiagnostic Systems SA	Belgium	Immunodiagnostic Systems Holdings Limited
44.	PerkinElmer BV	Belgium	PerkinElmer Life Sciences International Holdings

PerkinElmer Health Sciences, Inc. owns 2%. PerkinElmer Holdings, Inc. owns a de minimus share. 1 2

	Name of Company	State or Country of Incorporation or Organization	Name of Parent
45.	EUROIMMUN Brasil Medicina Diagnostica Ltda.	Brazil	EUROIMMUN Medizinische Labordiagnostika AG ³
46.	IDS Brasil Diagnósticos Ltda.	Brazil	Immunodiagnostic Systems Limited (99%) ⁴
47.	PerkinElmer do Brasil Ltda.	Brazil	PerkinElmer Diagnostics Global Holdings S.à r.l. (99%) ⁵
48.	EUROIMMUN Medical Diagnostics Canada Inc.	Canada	EUROIMMUN Medizinische Labordiagnostika AG
49.	PerkinElmer Health Sciences Canada, Inc.	Canada	PerkinElmer Life Sciences International Holdings $(97\%)^{-6}$
50.	Perkin Elmer Chile Ltda.	Chile	PerkinElmer Health Sciences, Inc. (68%) ⁷
51.	Beijing Huaan Magnech Bio-Tech Co., Ltd.	China	Shandong Meizheng Bio-Tech Co., Ltd.
52.	Beijing Meizheng Bio-Tech Co., Ltd.	China	Shandong Meizheng Bio-Tech Co., Ltd.
53.	Beijing Meizheng Testing Lab Co., Ltd.	China	Shandong Meizheng Bio-Tech Co., Ltd.
54.	Beijing OUMENG Biotechnology Co., Ltd.	China	EUROIMMUN Medizinische Labordiagnostika AG
55.	BioLegend China (Beijing) Ltd.	China	BioLegend, Inc.
56.	BioLegend (Shenzhen) Ltd.	China	BioLegend China (Beijing) Ltd.
57.	Chengdu PerkinElmer Medical Laboratory Co., Ltd.	China	Suzhou PerkinElmer Medical Laboratory Co., Ltd.
58.	Cisbio China, Ltd.	China	Cisbio Asia Pacific Ltd
59.	EUROIMMUN (Hangzhou) Medical Laboratory Diagnostics Co., Ltd.	China	EUROIMMUN Medical Diagnostics (China) Co., Ltd.
60.	EUROIMMUN Medical Diagnostics (China) Co., Ltd.	China	EUROIMMUN Medizinische Labordiagnostika AG
61.	EUROIMMUN (Tianjin) Medical Diagnostic Technology Co., Ltd.	China	EUROIMMUN Medical Diagnostics (China) Co., Ltd.
62.	Guangzhou EUROIMMUN Medical Diagnostic Products Co., Ltd.	China	EUROIMMUN Medical Diagnostics (China) Co., Ltd.
63.	Hangzhou EUROIMMUN Medical Diagnostic Products Co., Ltd.	China	EUROIMMUN Medical Diagnostics (China) Co., Ltd.
64.	Jiangsu Meizheng Bio-Tech Co., Ltd.	China	Shandong Meizheng Bio-Tech Co., Ltd.
65.	Nexcelom Bioscience Instruments (Shanghai) Co. Ltd.	China	Nexcelom Bioscience, LLC
66.	Oxford Immunotec (Shanghai) Medical Device Co. Ltd.	China	Oxford Immunotec Asia Ltd.
67.	PerkinElmer Healthcare Diagnostics (Shanghai) Co., Ltd.	China	PerkinElmer IVD Pte Ltd.
68.	PerkinElmer Instruments (Suzhou) Co., Ltd.	China	Wellesley B.V.
69.	PerkinElmer Management (Chengdu) Co., Ltd.	China	PerkinElmer Management (Shanghai) Co., Ltd.
70.	PerkinElmer Management (Shanghai) Co., Ltd.	China	PerkinElmer Singapore Pte Ltd.
71.	PerkinElmer (Shanghai) Equity Investment Fund, L.P.	China	PerkinElmer Singapore Pte Ltd. (98%) ⁸
72.	PerkinElmer (Shanghai) Equity Investment Fund Management Co., Ltd.	China	PerkinElmer Singapore Pte Ltd.
73.	Shandong Meizheng Bio-Tech Co., Ltd.	China	PerkinElmer Health Sciences B.V.
74.	Shanghai Haoyuan Biotech Co., Ltd.	China	PerkinElmer Holding Luxembourg S.à r.l.
75.	Shanghai Spectrum Instruments Co., Ltd.	China	Wellesley B.V.
76.	Suzhou PerkinElmer Medical Laboratory Co., Ltd.	China	Suzhou Sym-Bio Lifescience Co., Ltd. (70%) 9
77.	Suzhou Sym-Bio Lifescience Co., Ltd.	China	PerkinElmer Healthcare Diagnostics (Shanghai) Co., Ltd. (75%) ¹⁰
78.	PerkinElmer Danmark A/S	Denmark	Wallac Oy
79.	PerkinElmer Finland Oy	Finland	Wallac Oy
80.	PerkinElmer Investments Ky	Finland	PerkinElmer Finance Luxembourg S.à r.l. 11
81.	PerkinElmer Oy	Finland	Wellesley B.V.
82.	Suomen Bioanalytiikka Oy	Finland	Immunodiagnostic Systems Limited
	Wallac Oy	Finland	PerkinElmer Oy
83.			

<sup>PerkinElmer Holdings, Inc. owns a de minimus share.
Immunodiagnostic Systems Holdings Limited owns a de minimus share.
PerkinElmer Holdings, Inc. owns 1%; PerkinElmer Health Sciences, Inc. owns a de minimus share.
PerkinElmer Holdings, Inc. owns 32%.
PerkinElmer (Shanghai) Equity Investment Fund Management Co., Ltd. owns 2%.
Shanghai Sai Ke Si Medical Technology L.P. owns 30%.
Wallac Oy owns 25%.
PerkinElmer Holding Luxembourg S.à r.l. owns a de minimus share.</sup>

	Name of Company	State or Country of Incorporation or Organization	Name of Parent
85.	BioLegend France SAS	France	BioLegend, Inc.
86.	Cisbio Bioassays SAS	France	PerkinElmer SAS
87.	EUROIMMUN France SAS	France	EUROIMMUN Medizinische Labordiagnostika AG
88.	Immunodiagnostic Systems France SAS	France	Immunodiagnostic Systems Holdings Limited
89.	PerkinElmer SAS	France	PerkinElmer Nederland B.V.
90.	SIRION Biotech SAS	France	SIRION Biotech GmbH
91.	ZeLab SAS	France	PerkinElmer SAS
92.	BioLegend GmbH	Germany	BioLegend, Inc.
93.	Boulder Diagnostics Europe GmbH	Germany	Oxford Immunotec Limited
94.	EUROIMMUN Medizinische Labordiagnostika AG	Germany	PerkinElmer Germany Diagnostics GmbH
95.	Immunodiagnostic Systems Deutschland GmbH	Germany	Immunodiagnostic Systems Limited
96.	PerkinElmer Cellular Technologies Germany GmbH	Germany	PerkinElmer LAS (Germany) GmbH
97.	PerkinElmer chemagen Technologie GmbH	Germany	PerkinElmer Cellular Technologies Germany GmbH
98.	PerkinElmer Germany Diagnostics GmbH	Germany	PerkinElmer Global Diagnostics S.C.A.
99.	PerkinElmer LAS (Germany) GmbH	Germany	PerkinElmer Germany Diagnostics GmbH
100.	Perten Instruments GmbH	Germany	Perten Instruments AB
101.	SIRION Biotech GmbH	Germany	PerkinElmer Germany Diagnostics GmbH
102.	Cisbio Asia Pacific Ltd.	Hong Kong	Cisbio Bioassays SAS
103.	Oxford Immunotec Asia Ltd.	Hong Kong	Oxford Immunotec Limited
104.	PerkinElmer (Hong Kong) Ltd.	Hong Kong	PerkinElmer Holdings, Inc.
105.	Biosense Technologies Pvt Ltd.	India	Tulip Diagnostics Pvt Ltd. ¹²
106.	Orchid Biomedical Systems Pvt Ltd.	India	Tulip Diagnostics Pvt Ltd.
107.	PerkinElmer Health Sciences Pvt Ltd.	India	PerkinElmer IVD Pte Ltd. (91%) ¹³
108.	PerkinElmer (India) Pvt Ltd.	India	PerkinElmer Singapore Pte Ltd. ¹⁴
109.	Prisms India Private Ltd.	India	Tulip Diagnostics Pvt Ltd. (97%) ¹⁵
110.	Tulip Diagnostics Pvt Ltd.	India	PerkinElmer Holding Luxembourg S.à r.l. (99%)
111.	PT Tulip Diagnostics Indonesia	Indonesia	Tulip Diagnostics Pvt Ltd.
112.	Oxford Immunotec (Ireland) Limited	Ireland	Oxford Immunotec Limited
113.	PerkinElmer (Ireland) Ltd.	Ireland	Wellesley B.V.
114.	PerkinElmer Scientific (Ireland) Ltd.	Ireland	Wellesley B.V.
115.	PerkinElmer Israel Ltd.	Israel	PerkinElmer Holding Luxembourg S.à r.l.
116.	DIA.Metra S.R.L.	Italy	Immunodiagnostic Systems Limited
117.	EUROIMMUN Italia Diagnostica Medica S.r.l.	Italy	EUROIMMUN Medizinische Labordiagnostika AG
118.	Perkin Elmer Italia SpA	Italy	Wellesley B.V.
119.	PerkinElmer Scientifica Italia S.r.l.	Italy	Perkin Elmer Italia SpA
120.	BioLegend Japan, KK	Japan	BioLegend, Inc.
121.	EUROIMMUN Japan Co. Ltd.	Japan	EUROIMMUN Medizinische Labordiagnostika AG
122.	Horizon Discovery KK	Japan	Horizon Discovery Group Ltd.
123.	Oxford Immunotec KK	Japan	Oxford Immunotec Limited
124.	PerkinElmer Japan Co. Ltd.	Japan	PerkinElmer Life Sciences International Holdings (97%) ¹⁷
125.	Perkin Elmer Yuhan Hoesa	Korea	PerkinElmer Diagnostics Global Holdings S.à r.l.
126.	PerkinElmer Diagnostics Global Holdings S.à r.l.	Luxembourg	PerkinElmer Global Holdings S.à r.l.
127.	PerkinElmer Finance Luxembourg S.à r.l.	Luxembourg	PerkinElmer Holding Luxembourg S.à r.l.
128.	PerkinElmer Global Diagnostics S.C.A.	Luxembourg	PerkinElmer Global Financing S.à r.l. ¹⁸
129.	PerkinElmer Global Financing S.à r.l.	Luxembourg	PerkinElmer Global Holdings S.à r.l.

¹⁸ PerkinElmer Global Holdings S.à r.l. owns 1%.

¹² Individual shareholder own 1%.
¹³ Surendra Genetic Laboratory & Research Centre Pvt Ltd. owns 9%.
¹⁴ Wellesley B.V. owns a de minimus share.
¹⁵ Individual shareholders own 1%.
¹⁶ Individual shareholders own 1%.
¹⁷ Wallac Oy owns 3%.
¹⁸ Determine Cher Heldinge S à classes 1%.

	Name of Company	State or Country of Incorporation or Organization	Name of Parent
130.	PerkinElmer Global Holdings S.à r.l.	Luxembourg	PerkinElmer Holdings, Inc.
131.	PerkinElmer Holding Luxembourg S.à r.l.	Luxembourg	PerkinElmer Diagnostics Global Holdings S.à r.l.
132.	Perkin Elmer Sdn. Bhd.	Malaysia	PerkinElmer Diagnostics Global Holdings S.à r.l.
133.	Inochem S.A. de C. V.	Mexico	Perkin Elmer de Mexico, S.A. ¹⁹
134.	Perkin-Elmer de Mexico, S.A.	Mexico	PerkinElmer Holdings, Inc. ²⁰
135.	BioLegend Europe B.V.	Netherlands	BioLegend, Inc.
136.	PerkinElmer Health Sciences B.V.	Netherlands	PerkinElmer Life Sciences International Holdings
137.	PerkinElmer International C.V.	Netherlands	PerkinElmer Global Holdings S.à r.l. ²¹
138.	PerkinElmer Nederland B.V.		Netherlands
139.	Wellesley B.V.	Netherlands	PerkinElmer Holding Luxembourg S.à r.l.
140.	PerkinElmer Norge AS	Norway	Wallac Oy
141.	Perkin Elmer Instruments (Philippines) Corporation	Philippines	PerkinElmer Holdings, Inc.
142.	EUROIMMUN Polska Sp. z o.o.	Poland	EUROIMMUN Medizinische Labordiagnostika AG
143.	PerkinElmer Polska Sp. z o.o.	Poland	Wellesley B.V.
143.	PerkinElmer Shared Services Sp. z o.o.	Poland	Wellesley B.V.
144.	EUROIMMUN Portugal, Unipessoal Lda.	Portugal	EUROIMMUN Medizinische Labordiagnostika AG
145.	EUROIMMUN (South East Asia) Pte Ltd.	Singapore	EUROIMMUN Medizinische Labordiagnostika AG
146.	PerkinElmer Holdings Singapore Pte Ltd.	Singapore	PerkinElmer Holdings, Inc,
147.	PerkinElmer IVD Pte Ltd.	Singapore	Wallac Oy
148.	PerkinElmer Life Sciences Singapore Pte. Ltd.	Singapore	PerkinElmer Holdings Singapore Pte Ltd.
149.	PerkinElmer Singapore Pte Ltd.	Singapore	PerkinElmer Diagnostics Global Holdings S.à r.l.
150.	Singapore Biosciences Pte Ltd.	Singapore	Tulip Diagnostics Pvt Ltd.
151.	EUROIMMUN Medical Laboratory Diagnostics South Africa (Pty) Ltd.	South Africa	EUROIMMUN Medizinische Labordiagnostika AG
152.	PerkinElmer South Africa (Pty) Ltd.	South Africa	Wellesley B.V.
153.	EUROIMMUN Diagnostics España, S.L.	Spain	EUROIMMUN Medizinische Labordiagnostika AG
154.	Integromics, S.L.	Spain	PerkinElmer España, S.L.
155.	PerkinElmer España, S.L.	Spain	Wellesley B.V.
156.	PerkinElmer Genomics Sweden AB	Sweden	Perten Instruments AB
157.	PerkinElmer Sverige AB	Sweden	Wallac Oy
158.	Perten Instruments AB	Sweden	PerkinElmer Holding Luxembourg S.à r.l. (73%)
159.	Vanadis Diagnostics AB	Sweden	Perten Instruments AB
160.	EUROIMMUN Schweiz AG	Switzerland	EUROIMMUN Medizinische Labordiagnostika AG
161.	OZ Systems International SARL	Switzerland	OZ Systems USA, LLC
162.	PerkinElmer (Schweiz) AG	Switzerland	Wellesley B.V.
163.	BioLegend Taiwan, Ltd.	Taiwan	BioLegend, Inc.
164.	PerkinElmer Taiwan Corporation	Taiwan	PerkinElmer Holding Luxembourg S.à r.l.
165.	PerkinElmer Limited	Thailand	PerkinElmer, Inc. ²³
166.	EUROIMMUN Turkey Tibbi Laboratuar Teşhisleri A.Ş.	Turkey	EUROIMMUN Medizinische Labordiagnostika AG ²⁴
167.	PerkinElmer Sağlık ve Çevre Bilimleri Ltd.	Turkey	PerkinElmer Holding Luxembourg S.à r.l.
168.	PerkinElmer Health Sciences FZ-LLC	United Arab Emirates	PerkinElmer Holding Luxembourg S.à r.1.
169.	BioLegend UK, Ltd.	United Kingdom	BioLegend, Inc.
170.	EUROIMMUN UK Ltd.	United Kingdom	EUROIMMUN Medizinische Labordiagnostika AG
171.	Horizon Diagnostics Limited	United Kingdom	Horizon Discovery Limited

¹⁹ EUROIMMUN Medizinische Labordiagnostika AG owns 1%.
²⁰ PerkinElmer, Inc. owns a de minimus share.
²¹ PerkinElmer CV Holdings, LLC owns 1%.
²² PerkinElmer Diagnostics Global Holdings S.à r.l. owns 27%.
²³ PerkinElmer Holdings, Inc. and PerkinElmer Health Sciences, Inc. each own a de minimus share.
²⁴ Individual shareholders own de minimus shares.

	Name of Company	State or Country of Incorporation or Organization	Name of Parent
172.	Horizon Discovery Biosciences Limited	United Kingdom	Horizon Discovery Limited
173.	Horizon Discovery Group Ltd.	United Kingdom	PerkinElmer (UK) Holdings Ltd.
174.	Horizon Discovery Limited	United Kingdom	Horizon Discovery Group Ltd.
175.	Immunodiagnostic Systems Holdings Limited	United Kingdom	PerkinElmer (UK) Holdings Ltd.
176.	Immunodiagnostic Systems Limited	United Kingdom	Immunodiagnostic Systems Holdings Limited
177.	Nexcelom Bioscience Ltd.	United Kingdom	Nexcelom Bioscience, LLC
178.	Oxford Diagnostic Laboratories (UK) Limited	United Kingdom	Oxford Immunotec Limited
179.	Oxford Immunotec Global Limited	United Kingdom	PerkinElmer (UK) Holdings Ltd.
180.	Oxford Immunotec Limited	United Kingdom	Oxford Immunotec Global Limited
181.	PerkinElmer LAS (UK) Ltd.	United Kingdom	PerkinElmer (UK) Holdings Ltd.
182.	PerkinElmer Life Sciences International Holdings	United Kingdom	PerkinElmer Health Sciences, Inc.
183.	PerkinElmer Ltd.	United Kingdom	PerkinElmer (UK) Holdings Ltd.
184.	PerkinElmer (UK) Holdings Ltd.	United Kingdom	Wellesley B.V.
185.	RayAl Ltd.	United Kingdom	Solus Scientific Solutions Ltd.
186.	Solus Scientific Solutions Ltd.	United Kingdom	PerkinElmer (UK) Holdings Ltd.
187.	Synthetx Limited	United Kingdom	Horizon Discovery Limited

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-61615, 333-92228, 333-158877, 333-231071 and 333-263860 on Form S-8 and Registration Statement No. 333-263859 on Form S-3 of our reports dated March 1, 2023, relating to the financial statements of PerkinElmer, Inc. and subsidiaries, and the effectiveness of PerkinElmer, Inc. and subsidiaries' internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended January 1, 2023.

/s/ DELOITTE & TOUCHE LLP

Boston, Massachusetts March 1, 2023

EXHIBIT 31.1

CERTIFICATION

I, Prahlad Singh, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of PerkinElmer, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting that are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2023

/S/ PRAHLAD SINGH, PhD

Prahlad Singh, PhD President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO SECTION 302

CERTIFICATION

I, Maxwell Krakowiak, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of PerkinElmer, Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting that are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2023

/s/ MAXWELL KRAKOWIAK

Maxwell Krakowiak Senior Vice President and Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of PerkinElmer, Inc. (the "Company") for the period ended January 1, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Prahlad Singh, President and Chief Executive Officer of the Company, and Maxwell Krakowiak, Senior Vice President and Chief Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) Based on my knowledge, the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) Based on my knowledge, the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 1, 2023

/S/ PRAHLAD SINGH, PhD

Prahlad Singh, PhD President and Chief Executive Officer

Date: March 1, 2023

/s/ MAXWELL KRAKOWIAK

Maxwell Krakowiak Senior Vice President and Chief Financial Officer

CORPORATE HEADQUARTERS

PerkinElmer, Inc. 940 Winter Street Waltham, MA 02451 USA Phone: (781) 663-6900 Fax: (781) 663-6052 www.perkinelmer.com

Information requests from security analysts and other members of the financial community can be directed to Investor Relations.

ANNUAL MEETING

The Annual Meeting of PerkinElmer, Inc. shareholders will be held at 8:00 A.M. on Tuesday, April 25, 2023, at the PerkinElmer Headquarters, 940 Winter Street, Waltham, Massachusetts and via live webcast at www.virtualshareholdermeeting.com/PKI2023. A formal meeting notice, an Annual Report, a Proxy Statement and a form of Proxy will be furnished to each shareholder as of the record date of February 27, 2023.

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM Deloitte & Touche LLP 200 Berkeley Street Boston, MA 02116

SHAREHOLDER SERVICES

PerkinElmer shareholder records are maintained by its transfer agent, Computershare. Inquiries relating to shareholder records, stock transfer, changes of ownership, changes of address, dividend payments, dividend reinvestment, direct deposit of quarterly dividends and consolidation of accounts should be addressed to:

Regular mailOvernigComputershare, Inc.ComputPO Box 43078150 RoyProvidence, RI 02940-3078Canton,www.computershare.comComput

Overnight delivery Computershare, Inc. 150 Royall Street, Suite 101 Canton, MA 02021

Shareholders may also call 1-877-711-4098 (U.S.) or 1-201-680-6578 (non-U.S.). For the hearing impaired (TTY/TDD), call 1-800-231-5469 (U.S.) or 1-201-680-6610 (non-U.S.).

STOCK EXCHANGE INFORMATION

PerkinElmer, Inc., common stock is listed and traded on the New York Stock Exchange. Ticker symbol: PKI

PERKINELMER STANDARDS OF BUSINESS CONDUCT

PerkinElmer is fully committed to conducting business with our customers, shareholders, and employees in accordance with high moral and ethical principles, and in compliance with applicable law. As part of this commitment, PerkinElmer provides Business Conduct training and its Standards of Business Conduct to all employees, who are expected to follow the spirit as well as the letter of the law. At PerkinElmer, we place a high priority on managing our business in an ethical manner in order to maintain our established reputation for integrity and dependability.

FACTORS AFFECTING FUTURE PERFORMANCE

This document contains "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any statements in this document that relate to prospective events or developments are deemed to be forward-looking statements. Words such as "believes," "intends," "anticipates," "plans," "expects," "projects," "forecasts," "will" and similar expressions, and references to guidance, are intended to identify forward-looking statements about the expected future business and financial performance of PerkinElmer.

Forward-looking statements are based on management's current expectations and assumptions, which are inherently subject to uncertainties, risks and changes in circumstances that are difficult to predict. Actual outcomes and results may differ materially from these expectations and assumptions due to changes in political, economic, business, financial, competitive, market, regulatory and other factors. Refer to our enclosed Annual Report on Form 10-K, under the caption "Item 1A. Risk Factors," for more information. We undertake no obligation to publicly update or review any forward-looking information, whether as a result of new information, future developments or otherwise.

FORM 10-K

This Annual Report to Shareholders includes a copy of our Annual Report on Form 10-K for the fiscal year ended January 1, 2023, excluding exhibits, as filed with the Securities and Exchange Commission and available through our Web site at www.perkinelmer.com. We will, upon written request and payment of an appropriate processing fee, provide our shareholders with copies of the exhibits to our Annual Report on Form 10-K. Please address your request to PerkinElmer, Inc., 940 Winter Street, Waltham, Massachusetts 02451, Attention: Investor Relations.

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www.perkinelmer.com





PerkinElmer

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